

# **Seventeenth century cello playing** *focussing mainly on bow technique*

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## Introduction

There has been a lot of discussion going on (and it is still happening) about the question what a violoncello is. Especially Mark Vanscheeuwijck and Steven Bonta have done a lot of research on the violoncello, mainly focusing on its many different appearances and terminology.

As a performer, I am very much interested in all of this. But I also think that it might be especially useful to find out more about the playing technique, instead of just looking at the 'right' equipment. If you think about the way string instruments produce sound - by using the bow - it might not be such a big issue whether you play a cello that is big or small, does or does not have frets, is tuned in fourths or fifths, is played *da spalla* or *da gamba*, etc. This is in accordance with Michael Praetorius' (1571-1621) opinion on this subject: '*how a player tunes his violin or viol is unimportant if his technique and intonation are in order*'.<sup>1</sup>

By many people, Italy is seen as the place where virtuosic instrumental music was 'invented' in the seventeenth century. This development led to an idiomatic way of composing. Repertoire written especially for the violoncello starts in the late 17<sup>th</sup> century, although a lot of this repertoire was still composed in the old style.

The first cello treatise was not written until 1741 (by Michel Corrette). In his '*Methode, théorique et pratique pour apprendre en peu de tems le violoncelle dans sa perfection*', Corrette is advocating a new way of playing, which served as a basis for many other French cello treatises, including the famous '*Essai sur le doigté du violoncelle, et sur la conduite de l'arche*' (1806) by Jean-Louis Duport.<sup>2</sup> Most baroque cellists, including me, probably have learnt a technique based on those treatises, which in a way is not so different from the technique we use on the modern cello.

The question is: what happened before? What bow techniques did they use, and is it possible to reproduce this bow-technique?

When it comes to the seventeenth century, we have no other sources than iconography. But there are treatises written for other string instruments: the viol and the viola da braccio ('violin'), already in the sixteenth century. Besides that, there are a lot of sources written for wind players which discuss the matter of articulation, and therefore could be an interesting source for bow technique as well.

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<sup>1</sup> Praetorius, Michael. *Syntagma Musicum II* (1614-1615). Translated and edited by: David Z. Crookes. Oxford University Press, 1991, p. 53

<sup>2</sup> Vanscheeuwijck, Marc. *Cello stories, the cello in the 17th & 18th centuries*. Outhere music, 2016, p. 34

# 1. The seventeenth century: the beginning of instrumental music

For centuries, the musical focus had leaned towards the voice and instrumental music was always secondary to vocal music. It was only in the early 17<sup>th</sup> century when instrumental music slowly started to manifest itself as a new genre. This was especially the case in Italy. Besides that, the 17<sup>th</sup> century was the age of exploration and discovery. Early modern thinkers were fascinated with instrumental technologies.

In her recent book, *'Curious & Modern inventions: instrumental music as discovery in Galileo's Italy'*, Rebecca Cypess argues that it is no coincidence that in this period the instrumental music was 'invented'. The possibilities of instruments changed drastically: they were not anymore just tools used to make an object. Instead, instruments were now seen as tools for 'open-ended inquiry; for exploration of the world that would lead to new knowledge.'<sup>3</sup>

It used to be a very common practice to write music in a functional way: a part could be played on different instruments. In the 17<sup>th</sup> century composers started to experiment more with the many possibilities of the musician and their instruments. A lot of music was now composed for a specific instrument. This resulted in idiomatic repertoire, and especially the violin developed an idiomatic technique in this period. Moreover, the new style required new (advanced) techniques, both for the left and the right arm.

Since musicians, composers and instrument makers are all influenced by each other, also the musical instrument market came to its rise in this period.<sup>4</sup> For example the Amati and Maggini workshops in Cremona and Brescia - already famous in the last decades of the sixteenth century - kept growing in popularity. They were experimenting with a variety of patterns for their instruments.

New musical genres, such as the 'sonate', were a very good medium for the musician to show off their technique. Very typical for those sonates are the constant changes in tempi and moods. This is also reflected in the other arts: they were trying to create the illusion of movement in a statue or painting. They were fascinated with movement, and to create movement with a machine or instrument was seen as a way to fabricate life.<sup>5</sup>

Vocal music kept being very important, since the human voice has - already for centuries - been seen as the most powerful medium to express emotions. In treatises, the human voice therefore is often set as an example for instrumentalists.

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<sup>3</sup> Cypess, Rebecca. *Curious & Modern inventions: instrumental music as discovery in Galileo's Italy*. The University of Chicago Press, 2016, p. 3

<sup>4</sup> Boyden calls this the organic relationship that exists between technique, music and instrument making. Boyden, David. *The history of violin playing from its origins to 1761 and its relationship to the violin and violin music*. Oxford University Press, 1965, p. 145

<sup>5</sup> This is what Cypess calls the 'paradox of instrumentality': the physical, static instrument which creates a sense of movement and temporality.

Interesting enough, there are also a few sources which put musical instruments above the human voice. For example, the scientist Galileo Galileo wrote the following in a letter to Lodovico Cardi da Cigoli (1612):

*“There is an imperfection, and a thing that greatly decreases the praise due to sculpture: for the further the medium of imitation is from the things being imitated, that much more is the imitation marvelous... Would we not admire a musician, who, through singing, represents the feelings and passions of a lover, and moves us to have compassion for him, much more than if he were to do so through weeping? And this is because singing is a means not only different from, but contrary to the expression of sadness, and tears and complaints are very similar to it. And would we not admire (the musician) much more if he did so without voice, with the instrument alone, with musical dissonances and pathos-filled sounds, since the inanimate strings are less able to awaken the secret affetti of the soul, than the voice is in telling of them?”*<sup>6</sup>

In Galilei's eyes, instrumental music was superior to vocal music and musical instruments were very powerful tools to express emotions 'because of their artifice'.

Besides that, composers also saw the technical advantages of musical instruments. Often for its greater agility and the bigger tessitura. Riccardo Rognoni for example writes that some *passagi* are not suitable for the voice because *“the voice cannot approach with such speed and so effortlessly the divisions of instruments”*.<sup>7</sup>

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<sup>6</sup> Translation by: Cypess, Rebecca. *Curious & Modern inventions: instrumental music as discovery in Galileo's Italy*. The University of Chicago Press, 2016, p. 18

<sup>7</sup> Rognoni, Riccardo. *Passaggi per potersi essercitare nel diminuire* (1592). Preface and translations by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 37

## 2. Terminology and the development of the violoncello

### 2.1 Terminology

Grove dictionary gives the following definition of a violoncello:

*“The bass instrument of the violin family. (...) The violoncello’s present name means, in Italian, a ‘small large viol’, as it employs both the superlative suffix -one, and a diminutive one, -ello.”*

Grove also writes that the name ‘violoncello’ already suggests that its early history is not straightforward. In terms of terminology this definitely seems to be true.

The term violoncello is as far as we know first mentioned by G.C. Arresti in 1665 in his sonate Opus 4 (Venice). This does not necessarily mean that there were no violoncello’s or instruments very similar to the violoncello around before 1665: iconographical sources show a lot of instruments which have a lot in common with the cello we know nowadays. Furthermore there is repertoire written for the instrument and besides that, there are still a lot of instruments from the seventeenth century around. Think of Amati and Rugeri, amongst many others (unfortunately almost all of them have been modernized by now).

Before 1665 the following terms are used: bas de violon (Jambe de Fer, 1556), basso di viola (Zacconi, 1592), bass viol de braccio (Praetorius, ii, 2/1619, Tabella universalis), basse de violon (Mersenne, 1637), bassetto, bassetto di viola, basso da braccio, basso viola da braccio, viola, viola da braccio, viola da braccio, violetta, violoncino, violone, violone basso, violone da braccio, violone piccolo.<sup>8</sup>

### 2.2 Development of the violoncello

As pointed out before, the development of instrumental music was closely related to new inventions. This seems to be the case for the development of the violoncello as well: the development of the wire-wound string at the end of the the seventeenth century is seen by many scholars as the beginning of the violoncello as a solo instrument. (figure 1, 2, 3)

Thanks to the wire-wound string, strings could be thinner and shorter. Therefore instruments could be smaller as well. Many instruments where cut down for that reason.

This made them more playable and enabled more virtuosic playing.

By the end of the seventeenth century, a violoncello could still mean a lot of different things. The definition of a violoncello therefore is very much related to place and period. In Mark Vanscheeuwijck’s opinion our definition of a violoncello, or maybe even our idea of a baroque cello, is way too restricted: it was only after the 1760s when under the influence of the new Conservatoire (cello) methods were written and cello schools emerged. He points out that the instrument existed in many different sizes (figure 6, 7) and tunings: it could be tuned in fourths or fifths or a combination and could have four or five strings (figure 1, 4). It could be played ‘da gamba’ (between the legs), ‘da spalla’ (on the

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<sup>8</sup> Bonta, Stephen. ‘Cello (Violoncello)’. In *Grove music online*. Accessed April 7, 2016. *Oxford Music Online*

right shoulder) (figure 5) or 'da braccia' (against the chest). It could be played with the bow held underhand or overhand. And the left hand technique used, could be diatonic or chromatic.<sup>9</sup>

Praetorius was the first one to organize instruments in his *Syntagma Musicum* and he did this based on their external features. He distinguished between the viol and violin family. (figure 8)

Unfortunately, or maybe interestingly, it is not that simple: a lot of instruments we see in paintings have features that could be part of the violin family but also have features that could make it belong to the viol family, those instruments are often called hybrid instruments.

Two important eighteenth century treatises confirm this as well. Johann Joachim Quantz for example advises cellists in his 'Versuch einer Anweisung die flute traversiere zu spielen' (1752) to have two different kinds of instruments:

*'Those who not only accompany on the violoncello, but also play solos on it, would do well to have two special instruments, one for solos, the other for ripieno parts in large ensembles. The latter must be larger, and must be equipped with thicker strings than the former. If a small instrument with thin strings were employed for both types of parts, the accompaniment in a large ensemble would have no effect whatsoever.'*<sup>10</sup>

And Leopold Mozart writes in his violin treatise (1756) that *'the seventh kind is called Bass-Viol, or, as Italians call it, the Violoncello. Formerly this had five strings, but now only four. It is customary to play the bass part on this instrument, and although some are larger, others smaller, they differ but little from each other excepting in the strength of their tone, according to the fashion of their stringing.'*

When talking about the viola da gamba he also writes that *'nowadays the violoncello, too, is held between the legs, and one can justly call it, also, a leg-fiddle.'*<sup>11</sup>

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<sup>9</sup> Vanscheeuwijck, Marc. 'Violoncello and Violone', chapter 13 in: *A performer's guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 233

<sup>10</sup> Quantz, Johann Joachim. *Versuch einer Anweisung die flute traversiere zu spielen* (1752). Translated and edited by Edward R Reilly. Northeastern University Press, 2001, p. 212

<sup>11</sup> Mozart, Leopold. *Versuch einer gründlichen Violinschule* (1756). Translation by Editha Knocker, Oxford University Press, 1951, p. 11

### 3. The bow

There is not so much known about the bow making in the seventeenth century because bows were not signed by the makers before the eighteenth century. Probably the bow was made by the luthier and supplied together with an instrument. Another possibility is that a luthier would have a specialized bow maker working in their workshop.<sup>12</sup>

Besides that, there are barely surviving bows from that period. Our main information about (early) seventeenth century bows therefore has to come mainly from iconography and treatises.

Also important to realize is the fact that a bow was just a bow. There was not such a thing as a cello bow or a viola da gamba bow. There are no indications that there was a difference between those two. Also, in many cases musicians played more than one instrument and probably used the same bow. Bows probably differentiated according to the wishes of the instrument and the musician.<sup>13</sup>

Bows were made from maplewood, fruitwood and snakewood. Snakewood is one of the heaviest and is known for its superb elasticity and flexibility.<sup>14</sup> This is a very important feature of snakewood, since the screw mechanism for moving the frog to increase or release tension was only invented some time after 1720.

The seventeenth century bow had a clip-in fixed frog and the bow stick was basically straight and was bent by the hair tension. Another possibility is that the stick was carved slightly outward, another way of doing this is to heat and bent the stick.

Very typical for seventeenth century bows is the tip: the so called 'pike' head. The hair was knotted and curled inside this 'pike' head.

In general one can say that a seventeenth century bow is somewhat convex, and that there is a gradually decreasing distance between the hair and the bow stick from nut to point.

That is also why the bow in its nature has the tendency to sound lighter in an up-bow.<sup>15</sup>

It is quite plausible to believe that cello or violone bows would have had black hair. Black hairs are firmer than white hairs and are therefore good for making thick gut strings speak. Quantz also makes a difference between orchestral and soloist playing and suggests that we should use "*coarser black hair on a heavier bow for orchestral use and white hair on a lighter bow for solo playing*".<sup>16</sup>

It is hard to say something about the length and weight of bows for bass instruments. For the violin we see both short and long bows, the long bow being explained as the 'sonate'

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<sup>12</sup> Otterstedt, Annette. *The Viol: history of an instrument*. Translated by Hans Reiners. Barenreiter, 2002. p. 252

<sup>13</sup> Tarling, Judy. *Baroque String Playing for ingenious learners*. Corda Music Publications, 2013 p. 241

<sup>14</sup> Otterstedt, Annette. *The Viol: history of an instrument*. Translated by Hans Reiners. Barenreiter, 2002. p. 253

<sup>15</sup> Garland, Peter. 'Bow'. In *Grove Music Online*. Accessed December 20, 2016. *Oxford Music Online*

<sup>16</sup> Quantz, Johann Joachim. *Versuch einer Anweisung die flute traversiere zu spielen* (1752). Translated and edited by Edward R Reilly. Northeastern University Press, 2001, p. 241



bow. Cello bows range from approximately 67 to 74 cm long and weigh from 65 to 86 grams.<sup>17</sup>

A few historical bows which could have been used as an cello/gamba bow:

1. 'Bologna' bow (before 1608) (figure 9)

This bow entered the collection of the Accademia Filarmonica di Bologna in 1608 where it is still kept. The bow is probably made from some fruit-wood or maple in northern Italy. The stick has surely been shortened (maybe 65 mm) and is still possible to see the old site of the frog. Now the bow is 69,7 cm long and the weight is 67,4 grams. The bow is still a property of the Accademia Filarmonica di Bologna.<sup>18</sup>

2. Anonymous bow from the Kunsthistorischer museum Wien (early 17th century) (figure 10)

A clip-on frog and a very clear 'pike' head tip. This bow is rather short compared to the first one: 62,5 cm. The weight is ca. 74 grams.<sup>19</sup>

There are more examples and I would like to refer to the work of Dr. Rudolf Hopfner, who has catalogued the collection of historical bows from the The Kunsthistorischer museum Wien.<sup>20</sup>

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<sup>17</sup> Wijsman, Susanne, "Cello (Violoncello)". In *Grove music online*. Accessed December 20, 2016. *Oxford Music Online*

<sup>18</sup> Measurements and pictures are by the Italian bow maker Antonino Airenti. Accessed December 22, 2016 <http://www.arenti.it/baroquebows/contenuti/violinbows.html#>

<sup>19</sup> Measurements and pictures are made by Rudolp Hopfner. Accessed December 22, 2016 <http://www.arenti.it/baroquebows/contenuti/violinbows.html#>

<sup>20</sup> Hopfner, Rudolf. *Streichbogen : Katalog*. Tutzing Hans Schneider, 1998

## 4. Bow hold

### 4.1 Bow hold following the treatises

Underhand bow hold seems to be the technique for a very long time throughout Europe. At least till the 1720s overhand bow hold is rare to be seen. I would like to refer to the work of Mark Smith for this, who has studied 259 iconographical sources and made a very detailed table showing the bow holds in different places and time.<sup>21</sup> The further we go, the more overhand bow hold we see. But even in the late eighteenth century, underhand bow hold was still in use.

The cellist and composer Antonio Vandini (Bologna, c. 1690 - c. 1773), who played a lot with the famous violinist Guiseppe Tartini, is depicted in a caricature by Ghezzi with underhand bow hold. Charles Burney wrote about Vandini that *'it is remarkable that Antonio (Vandini) and all the other violoncello players here (Padua) hold the bow in the old-fashioned way, with the hand under it'*. Besides he writes that Vandini *'plays and expresses "a pallare", that is in such a manner as to make his cello speak.'*<sup>22</sup> (figure 11)

Also Quantz writes in his treatise that *'some move the bow as is customary on the viola da gamba, that is, instead of a down-stroke from left to right for the principal notes, they make an up-stroke from right to left, beginning with the tip of the bow'*. But he continues and writes that *'others, however, proceed like violinists, and begin their strokes with the lowest part of the bow. This latter method is customary among the Italians, and produces a better effect, particularly in accompanying, but also in solo playing'*.<sup>23</sup>

Another famous cellist, Johann Georg Christoph Schetky (1737 - 1824), was praised for his *'accomplished control of the bow, with which he could balance such strength and flexibility. It was a marvel how he could produce equally well the finest sweetness and the greatest strength of tone, because his holding of the bow was different from all the violoncellists that I have ever heard, and about which other virtuosi who ventured to match him on this instrument (there were few of them) were amazed. Usually the bow is held with the thumb under, and with the four fingers directed over the stick, as with the violin, only that with the violoncello the arm hangs downwards, and the bow-strokes are directed downwards, whereas with the violin, the arm is bent, the hand is raised, and the bow must be directed upwards. With Schetky it was otherwise. The thumb lay on the frog of the bow, the index-finger was alone on the stick; and the three other fingers were down on the hairs. Through the pressure of the lower fingers, especially the little finger, he conspicuously increased or decreased the pressure of the bow, and brought forth by this means the greatest power of the depths,*

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<sup>21</sup> Smith, Mark. "The cello bow held the viol-way; once common, but now almost forgotten." VdGS Chelys, 24 (1995): 47-61. Accessed April 10, 2016. <http://www.vdgs.org.uk/files/chelys/24chelys1995.pdf>

<sup>22</sup> Burney, Charles. The present state of music in France and Italy. Accessed April 10, 2016 <https://books.google.co.uk/books?id=x0QJAAAAQAAJ&printsec=frontcover&dq=inauthor:%22Charles+Burney%22&hl=nl&sa=X&ved=0ahUKEwje4LOAp7LMAhWHDMAKHchTC8kQ6AEIKzAC#v=onepage&q&f=false>, p.142

<sup>23</sup> Quantz, Johann Joachim, *Versuch einer Anweisung die flute traversiere zu spielen* (1752). Translated and edited by Edward R. Reilly. Northeastern University Press, 2001, p. 241.

*or the sweetest oboe-tone in the upper regions. This method is right from mechanical and physical grounds.'*<sup>24</sup>

Going back to the seventeenth century, an important source is Georg Muffat's 'Florilegium Secundum' (1698). Both his *Florilegium Primum* and *Secundum* are an interesting source about national styles and performance practice. He writes:

*"Most Germans agree on the holding of the bow for the violins and violas; that is, pressing the thumb against the hair and laying the other fingers on the back of the bow. It is also generally held in this way for the bass by the Lullists; they differ from the Italian practice, which concerns the small violins, in which the hair is untouched, and from that of the bass gambists and others, in which the fingers lie between the wood and the hair."*<sup>25</sup>

Jean Baptiste Lully introduced equal bowing for all parts in the ensemble which meant that the 'cellists' had to match the violins and therefore used an overhand technique, like the violinists. As Muffat says, most Germans agreed on this but it was different from the Italian 'bass gambists and others' (who were obviously playing underhand). I think the violoncello is part of the 'others' since Muffat later calls the 'violoncino' his preferred instrument to play the bass part.<sup>26</sup>

## 4.2 Bow hold in iconography

Besides Muffat there are no other relevant seventeenth century written sources concerning bow hold. We do have a lot of iconographical sources though. I will mainly focus on Italian paintings, although the Dutch and Flemish paintings are a great source too, since they are painted so precise and accurate.

By studying those sources I came to the conclusion that there were four different ways of holding the bow:

1. Underhand: with the fingers around the frog and not touching the hair of the bow.
2. Underhand: with the fingers around the frog, but touching the hair of the bow.
3. Underhand: further on the bow, away from the frog.
4. Overhand

The first way of holding the bow is very similar to the german bow hold double bassists use today. The examples I could find are mainly for big bass instruments, but I also saw this bow hold with smaller instruments. (figure 12, 13, 14)

The second way of holding the bow can be seen already in some sixteenth century paintings. The difference between this bow hold and the first one is the contact with the

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<sup>24</sup> Anonymous source Leipzig 1799, translation by Smith, Mark. "The cello bow held the viol-way; once common, but now almost forgotten." *VdGS Chelys*, 24 (1995): 47-61. Accessed April 10, 2016. <http://www.vdgs.org.uk/files/chelys/24chelys1995.pdf>

<sup>25</sup> Muffat, Georg. *Florilegium Secundum* (1698). Translated and edited by David Wilson. Indiana University Press, 2001, p. 33

<sup>26</sup> Muffat, Georg. *Florilegium Secundum* (1698). Translated and edited by David Wilson. Indiana University Press, 2001, p. 46

hair: the middle finger is often curved around the hair. Besides that, the index finger is laid on the stick. (figure 3, 4, 6, 7, 15, 16, 17)

The third way is very similar to the second one, with the difference that the hand is placed further on the bow. In a lot of cases the thumb is still placed on the frog though. This bow hold can be seen a lot in viol iconography. Vasqualez from the Orpheon Foundation has made a collection of viol iconography which is worth to take a look at.<sup>27</sup>

An interesting example is the painting by Girolamo Martinelli (Concerto in casa Lazzari 1680) where the cellists has his fourth finger curved around the hair instead of the middle finger. (figure 2, 18, 19, 20)

Overhand bow hold is always the case when the instrument is played 'da spalla' (figure 5). This makes sense, because underhand bow hold would be physically very unnatural.

A few late seventeenth century paintings also show instruments played da gamba with overhand bow hold, especially in and near Napoli. A logic explanation for this could be that the cellists where also violinists (who play overhand of course), since people often played more than one instrument. Besides that, it was a common practice at the Neapolitan conservatories that violinists also taught the violoncello.<sup>28</sup> (Although the cellist Antonio Tonelli is depicted with underhand bow hold, and he also taught the violin<sup>29</sup>). (figure 21)

One of those cellists was Francesco Alborea (1691 - 1739), who was also known as 'Francischello'. He studied the violoncello with Gian Carlo Cailò (1659 - 1722), a composer and violinist who taught at the Conservatorio Santa Maria di Loreto in Naples. Alborea became first cellist at the Neapolitan court and later took a position at the Viennese court, following the footsteps of many other Italian musicians who were very popular abroad. It is plausible that he was the teacher of Martin Berteau and Jean-Baptiste Barrière as well, both influential eighteenth century cellists.<sup>30</sup> Alborea is also seen by many as the first cellist to make the cello popular in eastern Europe.<sup>31</sup> (It is also interesting that in the eighteenth century it were especially the Italian cellists, such as Giacobe Cervetto and Salvatore Lanzetti among many others, who made the cello a very popular instrument in England). Overhand bow hold can be seen in a lot of paintings with famous eighteenth century cellists, such as Lanzetti and Boccherini, and became almost standardized by the second half of the eighteenth century.<sup>32</sup> (figure 22, 23)

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<sup>27</sup> <http://www.orpheon.org/OldSite/Seiten/education/BowVdg.htm>

<sup>28</sup> Salines, Ines. "The Cello in Naples in the Early 18th Century: Teaching Methods and Performance Practise". Masters Research Paper Royal Conservatory The Hague, February 2015, p. 28

<sup>29</sup> Schnoebelen, Anne. 'Tonelli, Antonio'. In *Grove music online*. Accessed Februari 14, 2017. *Oxford Music Online*

<sup>30</sup> Ibid.

<sup>31</sup> Stowell, Robin. *The Cambridge Companion to the Cello*. Cambridge University Press, 1999, p. 52-53

<sup>32</sup> Vanscheeuwijck, Marc. *Cello stories, the cello in the 17th & 18th centuries*. Outhere music, 2016, p. 56

### 4.3 Experiments with different bow holds

In the process of this research I have experimented with the different bow-holds. Besides the fact that I definitely lack some technique with underhand bow-hold, the equipment was a bit of a problem. Nowadays most bow-makers make different bows for cello and gamba (so different bows for underhand or overhand bow hold). My cello bow is really made for playing overhand and the gamba bow I currently have is too light (especially when using unwounded gut strings for the lower strings). A violone bow is simply too heavy. The advantage of underhand bow hold is that you can control the tension of the hair with the fingers. Besides that it is much harder to get off the string.

There are a few cellists who play very well with underhand bow-hold. Often they use a technique which is very similar to the viola da gamba technique, so with the hand a bit further on the bow. (video 1, 2)

## 5. Bow technique

### 5.1 General information on bow technique

Following Bartolomeo Bismantova (before 1675 - after 1694), the art of playing the violin depends on how to manage the bow:

*"The entire art of playing the violin consists in knowing how to manage the bow well, to make good bowings, to make long bow strokes, and to play now loud, now soft, sweet, and cantabile."*<sup>33</sup>

Francesco Rognoni (? - 1626) mentions that the tone of the viola da braccio, especially the violin is rough *"if it is not tempered and sweetened by dulcet bowing."*<sup>34</sup>

Luckily the violin (family) had already a very successful example: the viol. The viol players had already expanded their technique in the middle of the sixteenth century. This advanced technique, and a way of thinking, could be easily adapted to the technique of the violin in the early seventeenth century.<sup>35</sup>

#### Ganassi

One of those very early viol sources is by Sylvestro Ganassi (1492 - middle of 16th century) who was a recorder and viol player at the San Marco. His *Regolo Rubertina* (1542-43) is the only really detailed treatise on string playing in the sixteenth century. It is remarkable how precise Ganassi is about fingerings, shifting and bowing for the viol.<sup>36</sup>

One other thing which I think is fascinating as well, is his attention to the physical aspects of playing an instrument, and in particular for the viol. He stretches the importance of having a good posture and position of the body to allow for free movement of the arm and the hand.<sup>37</sup> Besides that, he also links this to the appearance of the musician while performing, something he mentions already in the Prologue of the *Regolo Rubertina*:

*"The beauty conveyed by the musician is seen in the manner of holding his instrument with grace, with the carriage of his hand and in the movements of his body, executed with such symmetry as to inspire the audience to maintain silence. This appearance contributes to the quality of performance, which not only provides nourishments to the ear but also visual beauty."*<sup>38</sup>

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<sup>33</sup> Bismantova, Bartolomeo. *Compendio Musicale* (1677). Translation by Stewart Carter. *A performer's guide to seventeenth century music*. Indiana University Press, 2012, p. 199

<sup>34</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 41

<sup>35</sup> Boyden, David. *The history of violin playing from its origins to 1761 and its relationship to the violin and violin music*. Oxford University Press, 1965, p. 76

<sup>36</sup> Ibid, p. 77

<sup>37</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 3

<sup>38</sup> Ibid.

In chapter 2 he continues with the movement of the body. We have to move our body for two reasons he says: first of all, not to appear 'like a piece of stone' and second, 'for the reason that music is composed to words'.<sup>39</sup> With that he means that our motions should be according to the music and the text. Here he makes the connection with the bow:

*"With words and music in a happy vein or in a sad one, one must draw the bow either strongly or lightly, according to the mood; sometimes it should be drawn neither strongly nor lightly, but moderately, if that is what the word suggests. With sad music, the bow should be drawn lightly and at times, one even should make the bowing arm tremble and do the same thing on the fingerboard to achieve the necessary effect. The opposite can be done with the bow in music of a happy nature, but using pressure on the bow in proportion to the music. In this manner, you will see how to make the required motions and thereby give spirit to the instrument in proper proportion to every kind of music."*<sup>40</sup>

In chapter 3 he basically confirms this idea of having different bow strokes for different affects, but explaining this in a more technical way:

*"You know that the bow is to be held with three fingers, that is to say the thumb, the index and middle fingers. The thumb and middle finger ensure, in holding the bow, that it does not fall, and the index finger serves to strengthen and stabilize it, keeping it on the strings and exerting more or less pressure according to the need. One needs to draw the bow four finger widths, more or less, away from the bridge, depending upon the size of the instrument. The bow should be drawn steadily with a loose arm and with a graceful but firm hand, so that the sound is distinct and clean. If you were to bow too much in the direction of the fingerboard, you would produce neither a firm nor live sound. Likewise, if you were to bow too closely to the bridge, the sound would be rough. For this reason, you should follow a middle course, which is more or less four finger widths from the bridge, depending upon the size of the viol, as I said earlier. It is in fact true that you are free to bow close to the bridge at times, when there is a reason to produce a hard sound, according to the subject matter or bow towards the fingerboard for a quieter effect in music which is somber for example. Thus for melancholy music, you would play close to the bridge."*<sup>41</sup>

Again it is striking how detailed and how much attention he also gives to the physical aspects: *"with a loose arm and with a graceful but firm hand"*. His ideal sound is 'distinct and clean' and should not be rough. Besides that, it should be a firm and alive sound.

He continues with explaining the difference between an up and down bow ('forward and backward'), something I will write more about later in this chapter.

Basically, each note value receives its own bow stroke. Ganassi requires in his *Regula Rubertina* that the *longa*, *brevis*, *semi-breve*, *minim*, *semi-minimum*, *crome* and *semi-crome* receive their own strokes. Again he explains the movement of the body related to this. The arm must help the hand he writes. Besides that, he seems to ask for more

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<sup>39</sup> Ibid.

<sup>40</sup> Ibid, p. 4

<sup>41</sup> Ibid.

movement of the hand (wrist?) for fast notes, a principle every string player still learns today:

*"The arm must always help the hand achieve its effect whether on the fingerboard or on the bow. First, one has to know how the fingers are to be used in holding the bow, but the arm, as well as the hand, must be used properly to achieve the right effect with the bow. It is necessary to know how to play a longa, that is in one stroke of the bow, such that the arm produces the sound; similarly, it is necessary to know how to play the breve, the semibreve, the minim, the semi-minimum, the crome and the semi-crome, for when the arm is used properly it should produce a glorious sound. For the smaller note values like the semi-mimi, crome and semi-crome, the proper use of the hand is essential to produce a fine sound."*<sup>42</sup>

Ganassi also suggests to always practice in two different directions.<sup>43</sup>

He mentions the importance of practicing one more time, in a quote where he again points out the exigency of representing the mood in music and tells us to

*"[...] practice it until you have thoroughly mastered the method of holding the viol and the proper position of your body, together with the motions required for a beautiful tonal effect."*<sup>44</sup>

### **Luigi Zenobi**

The virtuoso cornett player Luigi Zenobi (1547 or 1548 - after 1602) wrote numerous letters during his lifetime. One of those letters is written to an unnamed prince and discusses the qualities every musician needs to have. String players need to have a perfect bowing he writes:

*"The players of a string instrument such as a viol, both viola da gamb and violin, must be judged by the perfection of their bowing (arcata) and the quality [of the] tone of the instrument and the variety of the strings, through the richness in the propriety and choiceness of diminutions and through the tremolo, through the striscio, and through the facility and assurance del lirare."*<sup>45</sup>

Zenobi uses the terms *arcata* and *lirare* for bow technique without defining them. *Arcata* is bowing and therefore the verb *lirare* must refer to something else. It could mean slurring of notes.

Like Ganassi, Zenobi also mentions the importance of 'grace' when holding and playing an instrument. He also says that playing an instrument should look 'easy'. We could also translate this as a relaxed (free) way of playing:

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<sup>42</sup> Ibid, p. 5

<sup>43</sup> Ibid, p. 6

<sup>44</sup> Ibid, p. 4

<sup>45</sup> Zenobi, Luigi. Letter on the perfect musician. Translation by Bonnie Blackburn and Edward Lowinsky. *Studi Musicale* 22, 1993, p. 103



*"(...)facility, and virtuosity of the hand, the finesse of the fingers, and of the tremolo, the quality of the imagination, the richness and variety of good passaggi, and fine grace of bearing and of holding the instrument, the choiceness of style, and the ready ease in the use of their instruments."*<sup>46</sup>

As a wind player himself, he does not give any other details about string playing. But he does warn both wind and string players for playing carelessly:

*"The same is true for the great concerts, which make a great din, and cause all the blunders, mistakes, the poor intonation, and the ignorance of players on wind or on string instruments to slip by unnoticed. But when one sings and plays with care and with one alone, a player's musical intelligence, or the lack of it, can be judged from the first few notes."*<sup>47</sup>

Zenobi also advises to know a piece in its simple form, and with that he means without any *passagio*.<sup>48</sup>

### **Francesco Rognoni**

Another important source is by Francesco Rognoni (second half of the 16th century – after 1626). In his *Selva de Varii Passaggi* (1620) he not only presents ornaments but he also has a chapter on vocal technique and on both wind and string instruments. He was the son of Ricardo Rognoni on who I will come back later.

Rognoni characterizes the viola da gamba as '*a sensitive instrument*'<sup>49</sup> and the violins as an instrument '*in itself crude and harsh*'.<sup>50</sup>

About both instruments he writes that is has to be played with gentle bowing, (a beautiful bowed articulation) and that the bow needs to be in good contact with the instrument, distinguishing the notes well.<sup>51</sup>

For the violins, he adds, that we have to make sure not to make more noise with the bow than making a good sound:

*"Hence, let this be a lesson to those players who have a certain crude way of playing without smoothly using the entire bow on the viola but who lift it with such force that they make more noise with the bow than a {musical} sound"*.<sup>52</sup>

Something Rognoni seems to be bothered by, is musicians who 'do nothing more than make passaggi':

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<sup>46</sup> Ibid, p. 105

<sup>47</sup> Ibid, p. 102-103

<sup>48</sup> Ibid, p. 101

<sup>49</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 40

<sup>50</sup> Ibid, p. 41

<sup>51</sup> Ibid, p. 40

<sup>52</sup> Ibid, p. 41

*"Many are seen nowadays who play either the cornetto or violin or other instrument who do nothing more than make passaggi, either good or bad, so long as they make passaggi, deafening the one who knows his business, ruining all the song, thinking they are doing well. For those it would be better that they should go play, as is said, out in the bushes, than in ensembles, since they don't know that it is worth knowing how to play a note with grace or bowed sweetly and gently than to make so many passaggi beyond what is proper."*<sup>53</sup>

I will come back on the matter of passaggi and ornaments in the next chapter, but it is worth to realize how important Rognoni thinks it is, to know very well how to play a note, and how to bow it well. This was also the case with Zenobi.

## 5.2 Bowing directions

One of the first things we learn when playing baroque music, is the rule of the 'strong down-bow and the weak up-bow'.

Depending on how the bow is held, overhand or underhand, the down-bow is the natural bow stroke for a strong (accented) note or respectively for a weak (unaccented) note. The up-bow is the natural way to play a weak (unaccented) note when holding the bow overhand. When playing underhand, the up-bow is the natural way for a strong (accented) note.

Riccardo Rognoni (ca. 1550 – before 20 April 1620) is the first one to mention this difference in bow directions between the viola da gamba and the violine da brazze:<sup>54</sup>

*"because it is understood that in making a long diminution the viola da gamba bow goes up-bow (pontar) on eighth-notes and sixteenth-notes and the violine da brazze [sic] down-bow (tirar) on eighth-notes and sixteenth-notes because the bow on all has to have [abide by] its rule."*<sup>55</sup>

Riccardo Rognoni uses the words tirare ('to pull') for the down-bow and pontare ('to push') for the up-bow.

Francesco Rognoni uses very similar terms: 'tirar in giù' for down-bow and 'pontar in sù' for up-bow. In the examples in *Selva de Varii Passaggi*, Rognoni uses the abbreviations 'P' and 'T'. Those abbreviations are also used by the violin teacher Gasparo Zanetti (after 1600 - 1660).<sup>56</sup>

Ganassi uses the following terms: *in giu* (or *in zoso*) for down-bow and *in su* (or *in suso*) for up-bow.

On the violin, the terms down-bow and up-bow make sense because the strokes are literally 'down' and 'up'. On instruments held *da gamba*, so the cello and the viola da

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<sup>53</sup> Ibid.

<sup>54</sup> Erig, Richard & Gutmann, Veronica. *Italian Diminutions: the pieces with more than one diminution from 1553 to 1638*. Amadeus Verlag, 1979, p. 51

<sup>55</sup> Rognoni, Riccardo. *Passaggi per potersi essercitare* (1594). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 37

<sup>56</sup> Il Scolaro (1645)

gamba, it would be far better to say out-bow (away from the player) and in-bow (towards the player).<sup>57</sup>

Both Francesco Rognoni's and Ganassi's description on bowings are a bit problematic: they seem to mean exactly the opposite.

Ganassi:

*"The first stroke in bowing should be always a down-bow (in giu), if you are playing a passage consisting of cromes or any other small note value. If you bow in this manner, you will get a good sound. When you begin the first stroke with a push-bow (in su), you proceed in a contrary motion."*<sup>58</sup>

Francesco Rognoni:

*"The way of bowing is: the bow is always drawn (tirar) down at the beginning of a piece and after any rest because thrusting (pontar) the other way is ugly to see, is not its natural way."*<sup>59</sup>

Ganassi's *Regola Rubertina* is basically a viol method, and Rognoni wrote this in his chapter about the viola da gamba. So according to our terminology it should be exactly the other way. Rognoni probably copied this from Ganassi.

In the case of Ganassi, Boyden gives some plausible explanations why this is the case.<sup>60</sup>

One of Boyden's arguments is related to the way the viola da gamba is held (diagonally to the left) on the title page of *Regola Rubertina*. This way, the bow arm needs to make an upwards motion to the right to meet the strings at a right angle. So to draw the bow 'out' (down-bow) one needs to draw the bow up. To draw the bow 'in' (up-bow), one needs to push the bow down.

The other argument comes from the way Ganassi explained plucking the strings for lutenists. He says that the thumb moves in a downward motion towards the instrument (*in zoso*) and the index finger moves upwards, away from the instrument (*in suso*). Besides that, he uses the same symbol to indicate a down-bow (following our terminology) as he does to indicate a downward motion for the thumb on the lute: a dot below the note (which was a common practice at that time).<sup>61</sup>

One more thing I would like to add to this comes from Ganassi's *Lettione Seconda* (1543), where he - very contra-dictionary - writes that the arm comes away from the instrument with the up-bow (*in suso*) and vice-versa.<sup>62</sup>

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<sup>57</sup> Garland, Peter. 'Bow'. In *Grove Music Online*. Accessed January 20, 2017. *Oxford Music Online*

<sup>58</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 6

<sup>59</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 40

<sup>60</sup> Boyden, David. *The history of violin playing from its origins to 1761 and its relationship to the violin and violin music*. Oxford University Press, 1965, p. 80

<sup>61</sup> Erig, Richard & Gutmann, Veronica. *Italian Diminutions: the pieces with more than one diminution from 1553 to 1638*. Amadeus Verlag, 1979, p. 52

<sup>62</sup> Ganassi, Sylvestro. *Lettione Seconda* (1543). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 53

### 5.3 Bowing patterns

Francesco Rognoni gives the following advice for bowing directions for the viola da braccio family: start down-bow after a whole rest, up-bow after a half or shorter rest and down-bow for sixteenth notes, up-bow if there is an eighth note before the sixteenth notes.

*“It is necessary to draw the bow down (tirar in giù), as regards half-rests or breaths (literally sighs, sospiri) to point the bow up (pontar in sù), the same as one finds the passaggio that goes immediately in sixteenth-notes or thirtysecond-notes to draw it down (tirar in giù), if [there is] an eighth-note before the passaggio one can use an upbos (pontar in sù), this is natural for it.”<sup>63</sup>*

As we can see, the principle of ‘strong down-bow and weak up-bow’ was started already by Ganassi, Francesco Rognoni and Richardo Rognioni.

This principle is explained in great detail by some later sources. Very famous is Muffat, who explains the difference in the French and the Italian (and German) bowing rules very precise.

Both Bismantova and Zanetti, two late Italian seventeenth century sources, give quite detailed examples of bowing patterns. I have to say that all the examples are quite logic and I did not find anything very different then we would do nowadays. Besides that, they are examples, and music will be often more complicated as those examples. In the end, it is always up to the performer.

#### Use of slurs

Both Ganassi and Riccardo Rognioni mention the slurring of two notes in a single bow stroke but nothing in great detail.

Diego Ortiz (1553) speaks of the possibility to slur two or three semi-minims in a row, but he leaves this to the performer:

*“When there are two or three quarter notes in a row, may only the first be marked, and the others pass without taking a new bow stroke, as I have said, and because this can be shown; but because it is theoretical I leave it to the good judgment of the musician, and I will treat the ways to vary, which are three.”<sup>64</sup>*

Francesco Rognoni discusses the matter of slurring in great detail in his *Selva de varii passaggi* (1620). The Italian term used for slurring is *lireggiare*. This term is also mentioned in connection with the lira da gamba, where Rognoni writes that ‘the lira loves long bows so that one can lireggiare better.’<sup>65</sup>

He gives two different possibilities. The first one he calls simply *lireggiare*, the second one he calls *il lireggiare affettuoso*:

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<sup>63</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 41

<sup>64</sup> Ortiz, Diego. *Tratado de Glosas* (1553). Translation by Peter Farrell. *Journal of the Viola da Gamba Society*, volume IV, 1967, p. 8

<sup>65</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 40

*“By slurring (lireggiare) we mean playing two, three, or more notes in a single bow stroke, as can be seen in the opposite examples; if there are two, then two down and two up; if there are three, the same; if four, then four up and four down; if there are eight or twelve, the same so that the bow stroke lasts to where the line below ends. It is also done with five or six notes. If you want (this bowing) to have a good effect, you must practice it slowly, giving pressure to the wrist of the bow hand. You should know that this (sign) T means to draw the bow downwards, and P means to thrust it upwards. This method of legato bowing will serve for all the stringed instruments. Legato bowing in the affettuoso manner, that is, with affetti, is the same as the kind described above, as far as the bow is concerned. However, it is necessary for the wrist of the bow hand, almost jumping, to beat each note, one at a time. This is difficult to do well, and thus much practice is needed to be able to do it with the beat, conforming to the note values, (whereby) you should be careful not to make more noise with the bow than with the sound.”<sup>66</sup>*

With *il lireggiare affettuoso* he seems to mean some kind of bow-vibrato (or we could also call this tremolo).

Related to the matter of bowing patterns is the discussion if bigger groups of musicians where aiming for an uniformity in bow strokes. In the case of the cello we might wonder if cellists, who played underhand, played in the same manner as viol-players did (so with the up-bow as their natural strong bow). But one can also imagine that when a cellist is playing together with one or more violinist, he/she could use the same ‘strong down-bow and weak up-bow’ principle as the violinists would do.

At the same time, we don’t know how much they cared about uniformity in bow strokes. If we believe Muffat, the Italians did not bother to much about that:

*“the Germans and the Italians do not agree with the Lullists, nor even to any great extent among themselves, in the matter of the rules for up- and down-bows. But it is well known that the Lullists, whom the English, Dutch, and many others are already imitating, all bow the most important notes of the musical meter, especially those which begin the measure and which end a cadence, and thus strongly show the motion of the dance, in the same way, even if a thousand of them were to play together.”<sup>67</sup>*

Muffat continues to write about the uniformity in sound in the French orchestras thanks to the strict bowing rules:

*“Thus when noble men returned to our lands from these places, and did not find this unanimity among our German violinists, who where otherwise excellent, they noticed the difference in the concord of sound and were amazed, and complaint not infrequently about the improper movement of the dances.”<sup>68</sup>*

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<sup>66</sup> Ibid, p. 42

<sup>67</sup> Muffat, Georg. *Florilegium Secundum* (1698). Translated and edited by David Wilson. Indiana University Press, 2001, p. 33

<sup>68</sup> Ibid.

It is interesting though that the bowing rules by Bismantova are quite similar to the ones mentioned by Muffat, who explains the difference in the French and the Italian (and German) bowing rules very precise.

Another thing to think about is the orchestra in Rome under the 'baton' of Corelli. It is known that Corelli liked the uniformity of bow motion in his orchestra. Following Marc Vanscheeuwijck this could also indicate that the cellists were playing with overhand bow technique.<sup>69</sup>

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<sup>69</sup> Vanscheeuwijck, Marc. *Cello stories, the cello in the 17th & 18th centuries*. Outhere music, 2016, p. 41

## 6. Ornamentation

I will only discuss the ornaments which are related to bow- technique or require a special bow-technique.

### 6.1 Ornaments

#### Passagi

All treatises mentioned before talk about *passagi*: (in English: diminution/division) an ornament where long notes are divided into smaller ones by playing around the written note. Most treatises explain *passagi* by giving examples using different intervals. The ability to improvise those diminutions was very important in the 16th and 17th century for both singers and instrumentalists. Making diminutions was a way to achieve continuity of movement in music.<sup>70</sup>

For singers, the term *gorgie* is often used. *Gorgie* means 'throat', referring to the technique singers need to use for singing diminutions.<sup>71</sup>

We can find a lot of complaints by both Ganassi and Riccardo and Francesco Rognoni, about musicians who don't play *passagi* well.

Both Ganassi and Riccardo Rognoni stretch the importance of playing a *passagi* skillfully:

Ganassi:

*"If beauty is perceived in the manner of holding the instrument and in motions which are harmonious, quality also will be perceived through the performer's knowledge of intervals and harmonies allowed by the musical structure, and with diminutions or passaggi played in such a manner as will not offend the art, that is to say played without committing forbidden errors or misunderstanding of counterpoint and composition."*<sup>72</sup>

Riccardo Rognoni:

*"As to the instruments, then, they have this in common, that they must be so skillfully played that their sound is not harsh and confused. This happens to those who ostentatiously try more to play great masses of difficult things than to delight with a few good ones."*<sup>73</sup>

Francesco Rognoni adds to this that musicians should not make diminutions all the time. In his chapter on singing he warns against making *passagi* on words that "*signify pain,*

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<sup>70</sup> Dickey, Bruce. 'Ornamentation in Early Seventeenth Century Italian Music', chapter 16 in: *A performer's guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 295

<sup>71</sup> 'to beat in the throat'. Used by Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 39

<sup>72</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p.3

<sup>73</sup> Rognoni, Riccardo. *Passaggi per potersi essercitare nel diminuire* (1594). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 37

*anguish, misery, torment, and similar things.*" He advises to use *graces, accenti* and *esclamazioni* instead.

In the chapter on the viola da gamba he writes that the bass part should not make many *passagi*:

*"(...) but those few which are made must be well placed and natural, because the bass is the fundament of the other parts. Let everyone be warned not to play as do many who play bass instruments who do nothing but make passagi, and passagi, what is more, that are not fit for the bass, ruining the entire ensemble."*<sup>74</sup>

Something similar is written by Zenobi for bass singers:

*"He who sings the bass, if he sings in company, is obliged to know how to keep his part firm, right, and secure: firm with regard to his singing, right with regard to pitch (voce), secure with regard to his judgement. And if he occasionally wants to improvise an embellishment (passaggiare), he must wait for the moment where the other three parts hold steady, and he must know the places where he can sing an embellishment."*<sup>75</sup>

In his chapter about the viole da braccio Francesco Rognoni he adds that all notes should be played clearly:

*"The passaggio must be made of equal notes and such that they can be heard note by note, not too fast or too slow, but following a middle road, extending the bow well above the viola. The eighths, sixteenths, and thirty-seconds must be well distributed both those on the downbeat and those on the upbeat because the most important thing for players of any instrument is to make the passagi in tempo."*<sup>76</sup>

All comments on bow directions are related to *passagi* (and *gropetti*), because they should sound natural (and not 'confused').

## Gropo

The *gropo* (means 'group' in Italian) is a cadential division. In its basic form it is a repeated alteration between the leading tone and the tonic, going down to a third on the final movement. The *gropo* is more often performed in double tempo, and there are also examples with thirty-second notes.<sup>77</sup>

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<sup>74</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 40

<sup>75</sup> Zenobi, Luigi. *Letter on the perfect musician*. Translation by Bonnie Blackburn and Edward Lowinsky. Studi Musicale 22, 1993, p. 99

<sup>76</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 41

<sup>77</sup> Dickey, Bruce. 'Ornamentation in Early Seventeenth Century Italian Music', chapter 16 in: *A performer's guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 302



Following Francesco Rognoni it is important to play / sing the final rising third with grace:

*“it is necessary to stop always on the penultimate note of every passaggio, and in particular on the trillo or gruppo, in order not to make the last note suddenly harsh because it would displease the listeners.”*<sup>78</sup>

A *groppo* is always played with separate bow strokes. Concerning the bow direction, the same rules apply as with *passagi*. (example 1)

### **Tremolo**

The definition of *tremolo* depends on the period. For string instruments in the 17<sup>th</sup> century it seems to mean bow-vibrato. Bow-vibrato should be played by varying the pressure during a bow stroke, and not by stopping the bow. For the voice and wind instruments, the *tremolo* is described as a smooth fluctuation of intensity.<sup>79</sup>

The first known use of the term for string players is by Zenobi.<sup>80</sup> Biago Marini uses the term in his opus 1 (1617). He writes ‘*tremolo con l’arco*’ above the string parts, and ‘*metto il tremolo*’ on the organ part. This is an indication that the string players should imitate the tremulant stop of the organ.

Carlo Farina’s (c. 1600 - 1639) *Capriccio Stravagante* (1627) gives a similar instruction: “*the tremulant is played with a pulsating bow hand, by way of imitating the tremulant of the organ*”.<sup>81</sup>

Following some descriptions, a *tremolo* can be an unmeasured ‘trembling’. Other descriptions give a more measured, rhythmical version of the *tremolo*.<sup>82</sup>

Same as with *passagi*, we should be careful not to make *tremolo* endlessly:

*“The tremolo is done often but with grace, and one must guard against doing it endlessly, as some do, who thus sound like goats.”*<sup>83</sup>

The explanation by Francesco Rognoni for the execution of a *tremolo* on the viola da braccio is hard to understand. He talks about an altering of the note, and not of a bow-technique:

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<sup>78</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 39

<sup>79</sup> Dickey, Bruce. ‘Ornamentation in Early Seventeenth Century Italian Music’, chapter 16 in: *A performer’s guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 311

<sup>80</sup> Cypess, Rebecca. *Curious & Modern inventions: instrumental music as discovery in Galileo’s Italy*. The University of Chicago Press, 2016, p. 242

<sup>81</sup> Ibid, p. 136

<sup>82</sup> Dickey Dickey, Bruce. ‘Ornamentation in Early Seventeenth Century Italian Music’, chapter 16 in: *A performer’s guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 311

<sup>83</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 38

“(...) the tremolo by its nature is a rising of the note and not a falling, and that because of this the tremolo is made with the finger above the one which makes the note.”<sup>84</sup>

This is especially interesting in comparison with the examples Rognoni gives for the voice. (example 2) As you can see, there is no altering of a note in this example.

Ganassi does mention something similar: he writes that for sad music we “*should make the bowing arm tremble and do the same thing on the fingerboard to achieve the necessary effect*”.<sup>85</sup>

This kind of trembling does suggest the use of finger-vibrato. A contemporary of Ganassi, Girolamo Cardano (1501 - 1576 ) calls this technique *Vox Tremula* in his treatise on music (*De Musica*, 1446). Cardano explains this *Vox Tremula* for the recorder as an technique where not only the breath needs to tremble/vibrate, but also the fingers need to thrill in order to vary the interval.<sup>86</sup>

### Trillo

The *trillo* is usually described as an articulated reiteration of a note and for the voice we could say that it is ‘beaten in the throat’.<sup>87</sup> This technique is also used for the execution of rapid *passagi* (gorgie).

In examples given by both Giovanni Luca Conforto (1560 - 1608)<sup>88</sup> and Giulio Caccini (1551 - 1618)<sup>89</sup>, we can see that there is a gradual increase of speed of the reiterated notes. (example 3)

Praetorius distinguishes two kinds of trills: ‘one is played unisono, on one line or in the space’. The other one ‘concerns various modes’. Praetorius used the following signs for these *trillo*: *t*, *tr*, *tri*.<sup>90</sup>

There are no explanations how to play a *trillo* on string instruments, but taking into account that a tremolo (unarticulated) is played on one bow stroke, we could say that a *trillo* (articulated) is played with separated bow strokes.

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<sup>84</sup> Ibid, p. 41

<sup>85</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 3-4

<sup>86</sup> Griscom, Richard & Lasocki, David. *The Recorder: A Research and Information Guide*. Taylor and Francis, 2012, p. 199

<sup>87</sup> Dickey Dickey Dickey, Bruce. ‘Ornamentation in Early Seventeenth Century Italian Music’, chapter 16 in: *A performer’s guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 311

<sup>88</sup> Giovanni Luca Conforto: *Breve et facile maniera* (1593)

<sup>89</sup> Giulio Caccini: *le nuove musiche* (1602)

<sup>90</sup> Engelke, Ulrike. *Music and language: interpretation of early baroque music according to traditional rules*. Zimmermann, Frankfurt/Main, 1990, p. 39

## Accenti

The definition of *accenti* is complicated because it appears in many different forms. I would like to refer to an article by Bruce Dickey on this topic for more information.<sup>91</sup>

In general we can say that an *accento* is made by adding a note above the written out note before it drops by a step.

Following Francesco Rognoni, the 'true *accento*' is done only in a descending line. But he writes that 'nowadays' it is also used in an ascending line. Besides that, he writes that the *accento* should be done '*somewhat late rather than otherwise*'.<sup>92</sup> (example 4)

## General thoughts on ornamentation

There are numerous variants and forms of the described ornaments. Often different ornaments are combined and become a new ornament.

Ornaments should have a function, and suit the music and the text.

Moreover, some ornaments function as a medium to go smoothly to the next ornament. For example Zacconi relates a *tremolo* with a *passagi*: "*the tremolo is the true door for entering into a the passagi and for mastering the gorgie, because a ship sails more easily when it is already moving than when it is first set into motion.*"

Caccini gives examples where he first uses a *groppo*, leading to a *trillo*.

A lot of variants of ornaments show unequal rhythms, a way to vary articulation. Sometimes this also has the effect of stressing the dissonant notes in a diminution.

Zenobi also uses the words 'syncopation' and 'discrimination', probably to suggest unequal handling of notes:

*"He {the perfect musician} must know how to improvise passagi in skips, in syncopation; he must know thoroughly which places demand them; he must start with discrimination and finish in time with those who sing or play with him."*<sup>93</sup>

In a lot of those unequal rhythms, we find dotted rhythms. Most string players will find this difficult in terms of bow technique: the dotted note takes too much bow, which makes it hard to come back and therefore there is often a tendency to make the dotted note too short. Both Ganassi and Francesco Rognoni do insist on sustaining the dotted note:

Ganassi:

*"Furthermore, you must not interrupt the sound of a dotted note, but sustain it with the bow, as one does in singing."*<sup>94</sup>

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<sup>91</sup> Dickey, Bruce. "L'Accento: in search of a forgotten ornament". Historic Brass Society Journal, 1991

<sup>92</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 38

<sup>93</sup> Zenobi, Luigi. Letter on the perfect musician. Translation by Bonnie Blackburn and Edward Lowinsky. *Studi Musicale* 22, 1993, p. 101

<sup>94</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 6

Francesco Rognoni:

*"In passing from one note to another, one must carry the voice well with grace, holding the dotted notes well."*<sup>95</sup>

## 6.2 Dynamic devises

Although treatises mention the use of *forte* and *piano* already in the 16th century, indications in music are quite rare. From the beginning of the early 17th century, we can find more indications in the score. Especially the so called *echo* effect is often notated.<sup>96</sup> This almost became a genre, there are many examples of sonates by for example Marini, Giovanni Gabrielli, Dario Castello and Picchi, which are based on the musical illusion of an echo. Marini even supplies specific staging instructions for the performers in his 'Sonate in ecco' for 3 violins and continuo: he writes that the part which plays 'loudly' should be seen, the two other parts (who play the echo) should not be seen.<sup>97</sup>

Domenico Mazzocchi (1592 - 1665) is one of the first to notate and explain the following abbreviations in his preface to his Madrigali (1638)<sup>98</sup>: F. P. E. T. (F for Forte, P for Piano, E for Echo and T for Trillo). It is interesting that he also writes that those abbreviations are commonly known. Besides that, he uses the letter V for crescendo (called by him *messa di voce*), and the letter C of a crescendo which is followed by a diminuendo (which is our current definition of a *messa di voce*). In the closing section of one of his madrigals we can find the indications *forte - piano - pianissimo*. This does suggest a diminuendo.<sup>99</sup>

For string instruments, Ganassi does mention how to produce a loud or a soft sound: close to the bridge for a loud sound, and close to the fingerboard for a soft sound.<sup>100</sup>

Other (later) sources confirm this. I have not been able to find anything concerning bow speed.

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<sup>95</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 39

<sup>96</sup> Boyden, David. *The history of violin playing from its origins to 1761 and its relationship to the violin and violin music*. Oxford University Press, 1965, p. 178

<sup>97</sup> Cypess, Rebecca. *Curious & Modern inventions: instrumental music as discovery in Galileo's Italy*. The University of Chicago Press, 2016, p. 124-124

<sup>98</sup> Madrigali a 5 voci in partitura (1638)

<sup>99</sup> Harvard dictionary of Music, 'Expression marks', Accessed March 2, 2017 <https://books.google.nl/books?id=TMdf1SioFk4C&pg=PA303&lpq=PA303&dq=Mazzocchi+madrigals+18+dynamic&source=bl&ots=1JwYtz1T2l&sig=oiQl6DUBp5npPhKy2hSM9pHIRkM&hl=nl&sa=X&ved=0ahUKEwi9iLOX6rjSAhVMXhoKHdojD84Q6AEIGjAA#v=onepage&q=Mazzocchi%20madrigals%2018%20dynamic&f=false>

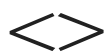
<sup>100</sup> Ganassi, Sylvestro. *Regolo Rubertina* (1542-43). Translated and edited by Richard Bodig. Artarmon, N.S.W. : Saraband Music, 2002, p. 4

Dynamical differences is seen by Zenobi as another requirement of the perfect musician:

*“He {the perfect musician} must use echo passages, now immediate, now separated; he must know how at times to begin loudly and then to let the voice die gradually; and at times to begin, or end, softly and then enliven it gradually.”*<sup>101</sup>

### **Messa di voce**

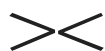
Although Mazzocchi explains the *messa di voce* as only an increasing of sound, we often define a *messa di voce* as the the increasing and decreasing of a note. Therefore it is always used on long(er) notes.<sup>102</sup>



messa di voce

### **Esclamazione**

The *esclamazione* can be seen as the opposite of the *messa di voce*: a strong beginning with an immediate decrescendo followed by a crescendo. The *esclamazione* is typically done on downward-moving dotted figures, for example a dotted half note with a falling quarter note.<sup>103</sup>



esclamazione

Caccini mentions two different kinds of *esclamazione*: the *exclamatio viva* and the *exclamatio languida*.<sup>104</sup> The *exclamatio viva* for a bigger interval and the other one for a scale-wise motion. This does suggest that a more passionate *esclamazione* is required.<sup>105</sup>

## **6.3 Other bow techniques**

### **Staccato**

The term *staccato* comes from *staccare*, which is a shortened form of *distaccare*, which means ‘to detach’.<sup>106</sup>

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<sup>101</sup> Zenobi, Luigi. Letter on the perfect musician. Translation by Bonnie Blackburn and Edward Lowinsky. Studi Musicale 22, 1993, p. 101

<sup>102</sup> Engelke, Ulrike. *Music and language: interpretation of early baroque music according to traditional rules*. Zimmermann, Frankfurt/Main, 1990, p. 72

<sup>103</sup> Dickey, Bruce. ‘Ornamentation in Early Seventeenth Century Italian Music’, chapter 16 in: *A performer’s guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 309

<sup>104</sup> Caccini, Luigi. *Le nuove musische* (1602). Translation by Sion M. Honea, accessed March 5, 2017 <http://sites.uco.edu/cfad/files/pdfs/historical-performance/Caccini.pdf>

<sup>105</sup> Dickey, Bruce. ‘Ornamentation in Early Seventeenth Century Italian Music’, chapter 16 in: *A performer’s guide to seventeenth century music*. Edited by Stewart Carter and Jeffery Kite-Powell. Indiana University Press, 2012, p. 309

<sup>106</sup> Garland, Peter. ‘Bow’. In *Grove Music Online*. Accessed March 3, 2017. *Oxford Music Online*

The shortening/separation of notes was only marked in scores toward the end of the 17th century. Often with dots or vertical slashes over noteheads but sometimes also by writing stacco, staccato, or spicco in the part.<sup>107</sup>

### Imitation

One of the best examples of 'imitation' is Carlo Farina's (c. 1600 - 1639) *Capriccio Stravagante* (1627). In this piece the 'violin consort' imitates other instruments and even animals. Interesting are the performance instructions by Farini. A lot of those pieces do require special bow-techniques, such as 'here one strikes the strings with the wood of the bow', and for the imitation of cats one needs to slide with the left hand and with the bow one must 'take care to run the bow, now above, now below the bridge as badly and as quickly as one can, in the way that cats ultimately do, as they bite each other and run away in chase'.<sup>108</sup>

In cello repertoire we don't find such extreme examples, but a very nice piece is 'Tromba a basso solo' by Guiseppe Colombi (1635 - 1694). Vigorous rhythms and the excessive use of intervals of a fifth or a fourth do recall the trumpet and its fanfares.<sup>109</sup> When there are a lot of repetitions of the same note, often that is very good place to imitate the tremulant stop of the organ (*tremulo*).

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<sup>107</sup> Barnett, Gregory. *Bolognese Instrumental Music, 1660-1710: Spiritual Comfort, Courtly Delight, and Commercial Triumph*. Ashgate Publishing, 2008, p. 130

<sup>108</sup> Cypess, Rebecca. *Curious & Modern inventions: instrumental music as discovery in Galileo's Italy*. The University of Chicago Press, 2016, p. 134-136

<sup>109</sup> Barnett, Gregory. *Bolognese Instrumental Music, 1660-1710: Spiritual Comfort, Courtly Delight, and Commercial Triumph*. Ashgate Publishing, 2008, p. 146

## 7. Other sources on articulation

Almost every sixteenth and seventeenth century treatise discusses both articulation and ornamentation. For the subject 'bow-technique', articulation is extremely important, because the bow is our medium to articulate.

The instructions concerning the practice of articulation are mainly written for wind instruments. Those instructions are very important for the the interpretation of this repertoire. Besides that, it is interesting to compare the instructions for wind and string instruments and to see if some 'rules' can be applied to both instrument families.

When we talk about articulation nowadays we seem to mean mainly the attack of a note (or the absence of an attack)

Groove gives the following definition of articulation:

*"The separation of successive notes from one another, singly or in groups, by a performer, and the manner in which this is done. (...) The term articulation refers primarily to the degree to which a performer detaches individual notes from one another in practice (e.g. in staccato and legato). (...) Techniques of articulation in most wind instruments include various patterns of tonguing: equivalent aspects of technique of instruments of the violin family involve the handling of the bow (and the occasional use of pizzicato)."*<sup>110</sup>

The comparison between tonguing and bowing is also mentioned by Francesco Rognoni:

*"If you play a madrigal or a motet or a canzona dimiuita or passeggiata by someone who does not understand the craft, there will always be passaggi distorted with the bow for a lack of understanding of the instrument. The same thing happens with other instruments, like the winds, lute, harp, and other similar ones. On wind instruments (this happens) because they do not know the terminations of the tongue."*<sup>111</sup>

Although Girolamo Dalla Casa (? - 1601) does not write anything specific about string instruments, he does write on the title page of his *'Il vero modo di diminuir'* (1584) that his examples also apply for string instruments.<sup>112</sup>

All instructions for wind instruments use syllables ('lingue') to explain the articulation. The different syllables cause different ways of attack. There has been written a great deal about this, since different sources often use different syllables.<sup>113</sup>

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<sup>110</sup> Chew, Geoffrey. 'Articulation and phrasing'. In *Grove Music Online*. Accessed March 3, 2017. *Oxford Music Online*

<sup>111</sup> Rognoni, Francesco. *Selva de Varii Passaggi* (1620). Translated by Bruce Dickey. Arnaldo Forni Editore, 2002, p. 41

<sup>112</sup> Tarr, Edward & Dickey, Bruce. *Articulation in Early Wind Music*. Amadeus Verlag, 2007, p. 53

<sup>113</sup> Erig, Richard & Gutmann, Veronica. *Italian Diminutions: the pieces with more than one diminution from 1553 to 1638*. Amadeus Verlag, 1979, p. 30

In general we can say that each note is articulated with a movement of the tongue. So this is the same as with the bow where in general every note receives its own stroke.

Long notes often start with the syllable *te* or *de*.

Ganassi, amongst others, distinguishes three ways (*tre lingue principale*) to tongue groups of faster note values:

1. *te che*
2. *te re*
3. *le re*

He writes that the first one “uses syllables with a hard, sharp effect, the third one uses pleasing, or smooth ones. The middle link is the second form: (...) one of its syllables belongs to the first basic form, the other one to the third. It is a combination of the two extremes, hardness and smoothness.”<sup>114</sup>

This also corresponds with Dalla Casa, who uses very similar syllables. He calls the first form ‘*piu crude*’, the second form ‘*mediocre*’ and the last one ‘*dolce*’.<sup>115</sup>

Besides that, Ganassi writes that “the quoted forms of articulation are based on perfect and imperfect attacks with the tongue.”<sup>116</sup>

This principle is very easy to translate to the bow: the down-bow as an ‘perfect’ attack, the up-bow as the ‘imperfect’ attack. But this is not necessary the answer: way more important is how to vary the bow strokes. In examples we never see that all fast notes are articulated *le re le re le re le re*. Dalla Casa for example gives the following sequence: *de re le re de re le re*.

Apart from this, we can say that repeated notes were generally tongued with single strokes (*te te te*). Scale-wise movement was generally tongued in the *lingua riversa* (*le re, de, re, te re*) manner.<sup>117</sup>

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<sup>114</sup> Engelke, Ulrike. *Music and language: interpretation of early baroque music according to traditional rules*. Zimmermann, Frankfurt/Main, 1990, p. 55

<sup>115</sup> Tarr, Edward & Dickey, Bruce. *Articulation in Early Wind Music*. Amadeus Verlag, 2007, p. 55-56

<sup>116</sup> Ibid, p. 55

<sup>117</sup> Dickey, Bruce. *Preface and translations on Riccardo and Francesco Rognoni's treatise*. Arnaldo Forni Editore, 2002, p. 30



## Conclusions

Iconography shows us that there are a lot of possibilities to play the cello. In terms of bow hold, underhand bow hold is seen the most, but also overhand bow hold can be seen towards the end of the 17<sup>th</sup> century. In general we can say that cellists held the bow relatively close to the frog, that is the case with both underhand and overhand bow technique. We can also say that they probably stayed on the strings as much as possible since with underhand bow hold it is harder to get off the string than with overhand bow hold. Besides that, for example Francesco Rognoni warns against lifting the bow ('because it makes more noise than a musical sound') and he also advises, like Ganassi, to sustain a dotted note with the bow as much as possible ('like one does in singing').

The treatises by Sylvestre Ganassi, Luigi Zenobi, and Riccardo and Francesco Rognoni give some very important 'rules' on string playing. The attention given to articulation and sound in general is striking. Besides that, they stretch the importance of having a good posture, not only for our appearance while playing, but also for the quality of sound. To practice very well seems very important for them too: they seem to be bothered by musicians who don't master their instrument (and music in general) well. I think this is very true for bow technique. In addition to this I also think it is very important to listen very well while practicing.

I have the feeling that (especially in historical performance practice) there is a tendency to listen with the eyes. Something can look very historically 'correct': the equipment and the way the instrument is played, but if it does not sound well, what is the point?

In the end, technique is just a tool, rather than a rule. Michael Praetorius (1571-1621) writes in the second book of his *Syntagma Musicum* that we should realize that

*"there are many matters of this kind where the impression can be given that there is only one right way of doing something. So, for instance, some keyboard players are held in contempt for not using some particular fingering or other. This is ridiculous, in my opinion. If a player can fly up and down the keyboard, using the tips, mid-joints, or the backs of his fingers - yes, using his very nose if that helps! - and either keeps or breaks every rule in existence, so what? If he plays well, and plays musically, it matters little by what means he does so."*<sup>118</sup>

The human voice is often set as an example for instrumentalists. Towards the end of the 17<sup>th</sup> century there was also a tendency to imitate other instruments and even animals. This shows that they were very inventive and looking for different ways to create different affects. They were not afraid to use quite advanced techniques for this.

The many treatises written for wind instruments are very detailed when it comes to articulation. I found those treatises very helpful as an addition to the treatises on string playing: they give more possibilities on how to vary articulation (bow strokes).

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<sup>118</sup> Praetorius, Michael. *Syntagma Musicum II* (1614-1615). Translated and edited by David Z. Crookes. Oxford University Press, 1991, p. 53

In the introduction I stated that a lot of the early cello repertoire was still composed in the older style, and therefore those treatises are still a very valuable. This repertoire seems to be built on the principles of articulation. In my opinion, those treatises are not only valuable for 17<sup>th</sup> century repertoire, but could be also a source of inspiration for any other repertoire.

This research did give me more tools to play this repertoire. I think I recognize more motives/figures which can give an indication how to play (and/or ornament) them. Learning other repertoire than the usual 'cello' repertoire was very helpful for me to understand this repertoire better as well. For example the diminution pieces by Giovanni Basanno, or the barely played canzona's for bass solo by Girolamo Frescobaldi. This repertoire only works when it is played with 'a beautiful bowed articulation' (F. Rognoni).

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