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(English translation by Andrea Martini)

# Mandolins of Carlo Guadagnini with six single strings between the end of the 18th and the beginning of the 19th century: a "Turin" mandolin?

*Extract from the proceedings of the conference "Il mandolino a Milano e in Lombardia nei secoli XVIII e XIX" - May 2022. (\*)*



*"Turin" mandolin, copy from Carlo Guadagnini - Lorenzo Lippi 2022*

(\*)The conference was held in Milan between the 12<sup>th</sup> and the 15<sup>th</sup> of May 2022 by Tiziano Rizzi and Ugo Orlandi.



The Milanese mandolin with six single strings is most commonly identified with the instrument popular in the second half of the 19th century. However, it is a less known fact that it was born at the end of the 18th century as an evolution of the baroque instrument with six double courses.

Years ago I happened to purchase a mandolin with six single strings, very battered, but which had a Carlo Guadagnini 19th century label that particularly intrigued me <sup>1</sup>.



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<sup>1</sup> I would like to thank my colleagues of [www.liuteriadiinsieme.it](http://www.liuteriadiinsieme.it) who have informed me about this instrument.

I later identified at least three other instruments that are currently preserved with very similar characteristics: the oldest one dates back to 1792, it's in a private collection and is the richest from a decorative point of view <sup>2</sup>.



<sup>2</sup> The image is taken from: Lorenzo FRIGNANI, Guitars and mandolins, Pieve di Cento, 1998.

Another one is kept in a private collection in Venice and is from 1794<sup>3</sup>.



There is another mandolin by Carlo Guadagnini in a private collection, dated 179? (the last digit looks like a zero, but it is not clear), very similar to these mandolins with six single strings. Although this mandolin is currently in the Cremonese/Bresciano setup with four single strings, this is a rather approximate modification, subsequent to the original six-string setup. The soundboard also appears to have been replaced and in general the instrument is in very poor condition. Nevertheless, the original case is interesting.



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<sup>3</sup> The image is taken from: [www.museodellamusica.com](http://www.museodellamusica.com) by Artemio Versari.

The last one, which is from 1809, is preserved in the Turin Conservatory museum and seems to have belonged to the Italian royal house: I was able to view this mandolin in detail, measure it and finally draw its plan.



I don't think it's a coincidence that Carlo Guadagnini is known as one of the most important luthiers who began making single string guitars, following the general trend to abandon double strings in favor of single ones which started towards the end of the 18th century (we most probably owe to this trend the fleeting popularity of the Cremonese or Bresciano mandolin). The fact that the spread of this single string mandolin can be attributed also to him (if anything by the fact that it is proven he had a constant and frequent production) is demonstrated by the well-known method for Cremonese or Bresciano mandolin with 4 single strings by Bartolomeo Bortolazzi of 1805 <sup>4</sup>, who writes: "There are also mandolins with 6, 8 and more strings (also called Mandola, Mandora). Those with 6 strings are Milanese and of Turin; those having 8 strings are Neapolitan". Therefore, if we would like to distinguish these instruments from the later better-known Milanese ones, we may dare to call them "Turin mandolins". What is striking is the surprising resemblance of these instruments to the models with six double orders built by Giuseppe Presbler in the same years <sup>5</sup>. Comparing the measurements of the body, they are extremely similar and the construction of these Guadagnini instruments is closely linked to the Baroque technique: they have a reduced thickness and a light structure with few supports, unlike the better-known instruments of the late 19th century, which are very structured.



<sup>4</sup> Bartolomeo BORTOLAZZI, *Anweisung die Mandoline*, Leipzig, Breitkopf & Härtel, ca. 1805.

<sup>5</sup> Several instruments by Giuseppe Presbler with the aforementioned characteristics are preserved in museums and private collections; As an example, here are images of the instrument preserved at the Metropolitan Museum of Art in New York (Accession Number: 1989.344.2).

Even at a superficial examination it is easy to see how the general dimensions and shape of the shell are very similar, as well as how both are equipped with a gooseneck pegbox (although of very different dimensions due to the number of pegs used obviously), how they carry multi-layered pear wood rosettes, and how even the shape of the bridge is very similar. Regarding the bridge, it is curious to note how in the oldest preserved instruments, although richer and oriented towards a "baroque" aesthetic, Guadagnini used a simpler shaped bridge similar to those used on some of his guitars, while subsequently adopting a "moustache" design very similar to that of Presbiter, almost as if to underline a continuity between those instruments with double orders and his ones with simple orders, even in aesthetics. However, except for some elements such as for example a "decorative pattern" at the bottom of the fingerboard which is identical in both my mandolin and the one from Venice, from a decorative point of view the preserved instruments are different from each other. One constant is the bone purfling of the outline of the soundboard. Even the profile of the soundboard appears slightly modified comparing the oldest examples and those already from the 19th century. To allow a reconstruction as faithful as possible, since my instrument had been heavily altered in some parts, I decided to compare it with the instrument preserved in Turin: this instrument was made only a few years later than mine but it is rather similar and in excellent condition and I was able to take its measures and draw it where possible. Being the rosette in place the measurement of the internal parts was not easy or even completely possible. However, through the use of an endoscope, a magnetic thickness gauge and a tuning fork to find the position of the braces, partial data was at least collected. My mandolin was in truly precarious conditions, especially the neck and the pegbox, having been "restored" in an approximate way to say the least: the bone bindings had been replaced with plastic ones nailed to the body, the fingerboard with pieces of spruce roughly glued and the entire neck almost totally filled with wall putty. In this context, also the soundboard didn't appear to be the original one, both to me and to renowned colleagues who were consulted, given the very poor quality of the spruce used (with very wide grain, not strictly quarter cut, with presence of large open knots or filled ones). The first hypothesis was therefore that the soundboard had been replaced while keeping the rosette and the bridge which certainly appeared original.





However, when I removed the soundboard to plan for a restoration of the instrument, it was surprising to notice that this was certainly the original one, given the very particular bracing corresponding to the information recovered on the Turin instrument and the excellent quality of the work.



It was therefore surprising to see how Guadagnini, an already renowned luthier at the time, had chosen such a poor quality soundboard in our opinion. However, this discovery was the decisive turning point in the reconstruction project <sup>6</sup> because in this way I was able to acquire precise and unmistakable information about the structure of the instrument. The shell is built with very thin maple ribs (thickness between 1.4 and 1.6mm-reaching a max of 1.8mm) and following ancient methods and criteria. The shell does not have kerfings, but small pillars on which the main braces rest.



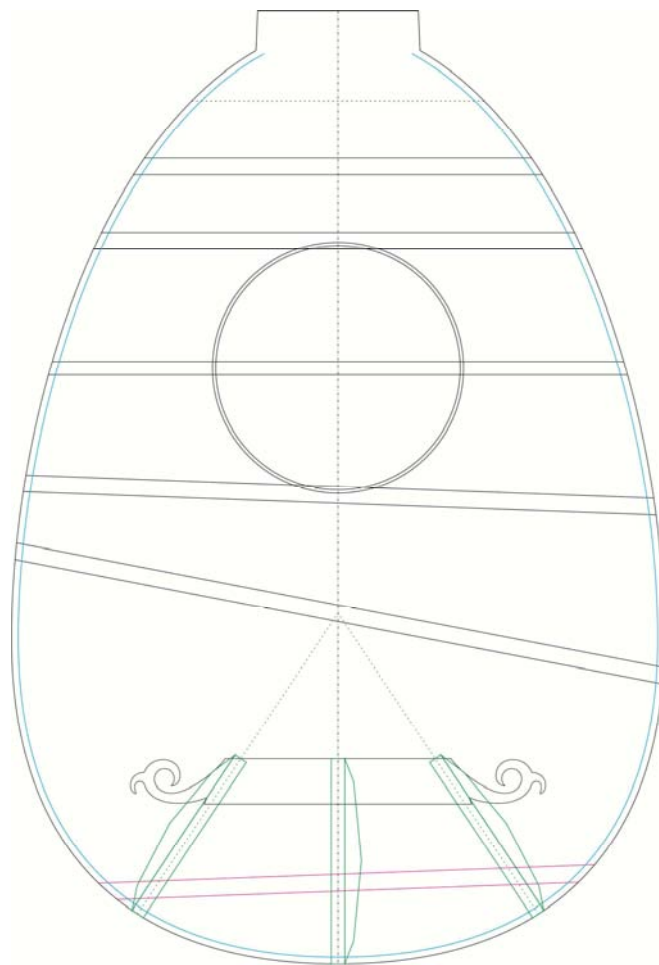
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<sup>6</sup> I was assisted in this reconstruction by one of my former students, now a young colleague from Biella, Carolina Venturin ([www.liuteriaminuta.com](http://www.liuteriaminuta.com)).

The soundboard too appears rather thin (around 1.5/1.8 mm) and the bracing is interesting. Even if the arrangement of the braces above the bridge is quite usual, the presence of a brace of rather significant dimensions between the bridge and the internal kerfing is striking. It's not therefore a "support under the bridge", which is rather frequent in plucked instruments in particular in the 19th-century ones (for both guitars and, sometimes, mandolins, for example the Carlo Bergonzi <sup>7</sup> one which I took as a model for my research on the Bresciano mandolin <sup>8</sup>), but a support which recalls somehow the "bass brace" present in lutes.

I must confess that I was a little taken aback by this discovery, or rather by this confirmation, because already in analyzing the Turin instrument as best I could, I had found something similar that I struggled to identify precisely.

In the reconstruction I have chosen to make two different instruments: one that has a bracing completely similar to the analyzed original instruments and another one, with three small "fan" braces replacing this last brace under the bridge, following a model I believe is more usual on Lombard instruments of this era.



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<sup>7</sup> Museo Nazionale degli Strumenti Musicali – Roma, N° inv.: carta 122, metallo 221.

<sup>8</sup> Lorenzo LIPPI, *Is the "colascioncino" the eighteenth-century ancestor of "Cremonese" or "Bresciano" mandolin? A new iconographic source, a new hypothesis of philological reconstruction*, [www.lippi.net](http://www.lippi.net), 2012.

However, I've given myself permission to make a small change compared to the original instruments: that is, to slightly lengthen the pegbox. This was done in order to have the first peg positioned slightly backward, as both the original instruments had this peg very close to the nut, which in my opinion is a reason for inconvenience when winding the string. Furthermore, this weakens the pegbox having a relatively large hole in a position with "little wood" (the one on my instrument is indeed mainly broken in that position).

The rosettes, in three layers of pear veneer, were made by Elena Dal Cortivo<sup>9</sup> and I chose to reproduce the one from Turin (also quite similar in style to those of Presbler), as the rosette of my instrument (probably a cheaper version, also given the quality of the soundboard) was really poor.



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<sup>9</sup> [www.parchmentroses.com](http://www.parchmentroses.com).



The color inside the pegbox is rather curious, a brick red which I find very elegant, unlike the more usual black. I chose to distinguish my two copies, in order to recognize which mandolin has the Guadagnini bracing and which one the bracing more common in the Lombard ones, by using pegs of different woods (ebony and boxwood) and by rotating the rosette of 180 degrees: apart from these things and the bracing, therefore in all the essential parts, they are perfectly similar.

As the tuning pegs of the original instruments are quite large, I believe that in the following copies I produce I will reduce the diameter slightly for two main reasons: first to facilitate tuning the instrument and, above all, to avoid weakening too much the pegbox which is really under a lot of stress having a rather thin structure, although a larger peg makes its movement more fluid and stable.

During my visit to Turin I found that the mandolin mounted apparently "strange" strings: as usual in these situations, I provided information to Mimmo Peruffo<sup>10</sup> and I then took some photographs with a digital microscope.



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<sup>10</sup> Mimmo Peruffo, as well as being the best known scholar of historical strings, is the owner of Aquila Corde ([aquilacorde.com](http://aquilacorde.com)).

Mimmo's opinion is that these are "demi filée" strings, which would be perfect for this stringing, and that moreover they could actually be relatively ancient strings. We will therefore visit again Turin with our friend Peruffo to also study this detail which could prove to be interesting. I chose to paint the neck black with a coating of shellac, which is more resistant, and I then covered it with an oil varnish, also used for the shell, but I still haven't been able to carry out definitive investigations to identify with certainty the paint covering my original instrument (which has also been heavily tampered with). However, I did carry out some UV investigations which gave ambiguous results, probably due to the overlapping of layers of paints, but which would seem to indicate the use of an oil varnish.

Furthermore, the way the varnish is applied and the fact that Carlo Guadagnini also built violins (although he didn't make many violins, this tradition was obviously very deep-rooted in his family), makes me think of an oil varnish also in the original instrument, at least for the shell. Moreover, although a similar varnish generally identified as oil<sup>11</sup> is also found on his guitars of the time, further in-depth investigations will be necessary. The soundboard is not varnished, as it was traditional in most plucked instruments of this period not to, and especially for mandolins: I have protected it with a thin layer of oil varnish spread with a cloth, just to keep it from dirt. Previously the wood of the board and the shell was treated with sodium nitrite and metallic salts for a light mordant. The instrument has attracted the interest of mandolin players attentive to a philological approach as it fills a void that until recently existed between baroque instruments and those of the late 19th century: both of them differ from this instrument in terms of playing technique and timbre, and this mandolin appears perfect for the performance of a certain early 19th century repertoire.

The tests that were carried out on this occasion by the musicians who played them seem to indicate an instrument that is comfortable to play, with great projection and with a type of sound and attack transient that could be compared to that of the Bresciano mandolin (despite the obvious differences). They are impressive instruments for their ability to make themselves well present even in ensembles with much greater sound power and even with orchestras. In this sense, single string instruments even seem to stand out more than double string ones.

What surprised me a little is that the two bracings, although so different, do not seem to have given particularly dissimilar sound results: the musicians' opinion (and, for what it's worth, mine) is that they are very similar instruments, without striking differences between them, and we all agreed to have a slight preference for the fan bracing which seems to give a slightly sweeter and more balanced sound...

It will be interesting to see if such a mandolin will find its space in the set of instruments of today's musicians, the ones more attentive to a philological approach that is, and whether this instrument will be able to provide us with original interpretative keys to that repertoire.

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<sup>11</sup> Lorenzo FRIGNANI – Anna RADICE – Tiziano RIZZI, *La chitarra in Italia. Tra la fine del Settecento e l'inizio dell'Ottocento*, Modena, LF Edizioni, 2015.

To complete my research I am now making a philological copy of a guitar by Carlo Guadagnini from 1813: it seemed almost inevitable to me to want to listen to a duo composed of instruments by the same author and perfectly complementary in the musical repertoire and, after all, Carlo Guadagnini is above all better known and appreciated for his guitars. I've had the opportunity to study them for this project and, despite their stylistic simplicity, I consider them to be the fruit of great ingenuity and full of truly innovative solutions for their time. Both for Guadagni's mandolins, whose stylistic evolution can be followed even with the few preserved examples we have, and guitars it is evident a continuous search for different solutions, sometimes even audacious <sup>12</sup>, which make the study of this author truly exciting and a source of continuous inspiration. A curiosity may arise from the fact that in a famous print representing Bortolazzi <sup>13</sup> are drawn two instruments clearly dear to the musician: a Cremonese / Bresciano mandolin and a guitar that appears very similar to those built by Carlo Guadagnini. This is almost as a confirmation that the quote present in his method of "Turin" instruments refers to his knowledge of the work of Carlo Guadagnini and leaves open the hypothesis that he played on an instrument by this author.



<sup>12</sup> Thanks to Lorenzo Frignani, I was able to study and analyze, for example, a guitar that has a soundboard with the grain not parallel to the axis of the instrument, but considerably inclined towards the side of the trebles (probably wanting to obtain a different rigidity between the side of the trebles and that of the bass). Similar solutions are also found in guitars by Torres, understandably acclaimed as the father of the modern guitar several decades later...

<sup>13</sup> Gottfried SCHEFFNER, *Portrait of Bortolazzi, after original artwork by Joseph Kaltner* (Paris, Bibliothèque Nationale, Richelieu, Musique magasin, Est Bortolazzi 001). Da: Rogerio BUDASZ, *Bartolomeo Bortolazzi (1772-1846): Mandolinist, Singer, and Presumed Carbonaro* in *Revista Portuguesa de Musicologia*, 2015.



*Guitar, copy from Carlo Guadagnini - Lorenzo Lippi 2023*

