

Cristofori's piano workshop and Giovanni Ferrini

Denzil Wraight

Abstract

This paper draws the following conclusions:

1. Michele Feroci might have been Cristofori's first assistant in Florence.
2. The Russell Collection's Italian harpsichord (cat. no. EUCHMI 4302) was rebuilt in around 1722.
3. Ferrini's 1746 piano action shows a development of the action which we do not find in Gottfried Silbermann's copy.
4. Cristofori pianos could be bought in Florence around 1730 without having to be commissioned.

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IL CEMBALO A MARTELLI
DA BARTOLOMEO CRISTOFORI A GIOVANNI FERRINI

ATTI DEL CONVEGNO INTERNAZIONALE DI ORGANOLOGIA
IN RICORDO DI
LUIGI FERDINANDO TAGLIAVINI

BOLOGNA 21-22 OTTOBRE 2017

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Denzil Wraight

CRISTOFORI'S PIANO WORKSHOP AND GIOVANNI FERRINI

My first meeting with Luigi Ferdinando Tagliavini was in Marburg in 1981, when, accompanied by Jack van der Meer, he came to examine an Italian organ acquired by Gerald Woehl. In a dimly lit outbuilding where the parts of the organ were stored, he examined the pipes one by one: at a glance Tagliavini could see whether they were of sixteenth, seventeenth, or eighteenth-century origin. It was an impressive demonstration of his knowledge of the Italian pipe makers' craft. Later we shared our discoveries on Italian string keyboard instruments. I was able to tell him of my finding that his unsigned harpsichord (cat. no. 2, later B3) came from the same workshop as two other harpsichords (now in Nuremberg and Treviso); subsequently he informed me he had identified this maker as Mattia di Gand.

Although I had examined Ferrini's 1746 instrument in 1992, it was not until 2017 that I turned my attention to the connection between the combination harpsichord-piano and whether this might yield any clue about Silbermann's copying of the Cristofori piano action. Nowhere had I seen a sufficiently detailed photo of the Ferrini 1746 intermediate lever, which transfers the motion of the hopper to the hammer butt. This led me to contact Professor Tagliavini early in 2017 to request a photo. His response was quick and, as ever, generous. Indeed, he supplied me with more photos than I asked for, which made it possible to see more deeply into this matter than I had envisaged. Since this was our last contact, I wish to make this topic of the Ferrini instrument a central part of my contribution in appreciation of him.

* * *

Bartolomeo Cristofori is one of the most remarkable musical instrument makers since he invented a new keyboard mechanism, and brought into existence what we now call the piano. He developed this invention in his lifetime to a practical, working instrument with a carefully-chosen tonal balance. His grasp of the practicalities of business were also solid so that

he was able to declare in his will that he owed no money to anyone, and never had. This is especially remarkable when we recall that Cristofori never received full payment for some of the work he performed for Ferdinando de' Medici.¹

Notwithstanding his skills, Cristofori acknowledged that he learned from others when he came to Florence from Padua. We know something of the earlier Florentine harpsichord-making tradition through the work of Stefano Bolcioni (d. 1688) and Antonio Migliai (fl. 1684–1702). However, when we survey instrument making after Cristofori, we see such a similarity to his work that it appears as if all the harpsichord makers in the *via dei Servi* were trying to imitate his work. Even the 1763 harpsichord by Giovanni Piero Migliai owes more to the Cristofori style than the seventeenth-century Antonio Migliai.²

Although Cristofori designed and built wonderful instruments, he did not work unaided. We are informed through a Tagliavini publication that Cristofori had two *scolari*, the better of whom was Giovanni Ferrini.³ He assisted Cristofori to the end of the inventor's life, but who was the first assistant?

In 1997 I published the suggestion that Agostino Feroci (fl. 1705) might have been the first assistant since a bentside spinet of his, dated 1705, is obviously close to Cristofori's style of work. At that time, it appeared to me that the anonymous Italian harpsichord in the Russell Collection might have been rebuilt by Feroci since his bentside spinet's bridge moulding is very close to that found on the harpsichord's nut.⁴ This spinet carries an inscription attributing it to an Agostino Feroci and describing Agostino as the son of Michele. We will meet this Michele again later.

Later examination of the moulding impressions revealed the existence

¹ Michael O'Brien, *Bartolomeo Cristofori at court in late Medici Florence*, PhD thesis, Catholic University of America, Washington D.C. 1994 (Proquest order no. 9424289), 85. O'Brien has observed that in 1720 Cristofori had still not been paid some 300 *scudi* owed him by Prince Ferdinando de' Medici, who had died in 1713, roughly equivalent to the price of two elaborate *spinette*.

² The 1763 Migliai is in the Peter Thresh Collection. It can be heard on a CD, Integral 221.241, played by Aline d'Ambricourt.

³ Luigi Ferdinando Tagliavini, 'Giovanni Ferrini and his harpsichord "a penne e marteletti"', *Early Music* 19, 1991, 398–408, here 399.

⁴ Russell Collection, Edinburgh, cat. no. EUCHMI 4302. See also: Darryl Martin, 'EUCHMI (4302): a case study of harpsichord identity', *The Galpin Society Journal* LXIII, 2010, 17–47.

of an identical cutter flaw on mouldings of the spinet and the harpsichord. Furthermore, the same cutter flaw is to be found on the nut and bridge of Cristofori's 1722 harpsichord. Since moulding cutters require sharpening, which would probably remove such a flaw, the rebuilding of the Edinburgh harpsichord must have been undertaken close to 1722 in Cristofori's workshop. This identification of course requires further examination of the relationship of Agostino Feroci to the Cristofori workshop, but that is a matter which cannot be considered here.

Nevertheless, the possibility of a Feroci being employed by Cristofori is strengthened by an interesting document found and cited by Michael O'Brien in which Michele Feroci is described as Bolcioni's assistant.⁵ Bolcioni was a tuner and maintainer of Ferdinando's keyboard instruments, but died a few weeks before Cristofori's arrival in Florence. No doubt Feroci would have been in need of employment after the death of Bolcioni and it would have been useful for Cristofori to have an assistant who knew not only the work involved, but also the harpsichord-making and other trades in Florence.

* * *

Turning to Giovanni Ferrini, we have the known assistant. María Virginia Rolfo's search of parish records discovered the date of Ferrini's birth as 10 December 1698.⁶ Thus, it is possible that he could have entered Cristofori's workshop as early as 1710, at the age of 12. Ferrini produced harpsichords and pianofortes on his own account after Cristofori's death in 1732.

One of the interesting puzzles has been to try and separate the work of Cristofori and Ferrini. Many surviving instruments are unsigned, so the 1746 harpsichord-pianoforte made by Ferrini (fig. 1) is a significant document in yielding points of comparison, both with harpsichords and pianos.

This combination instrument also contains the only original string gauge numbers on a Cristofori-style piano; the size of the strings can give some indication how the instrument was intended to sound. Thus, as David Sutherland has suggested to me, this instrument contains absolutely historical evidence which may be completely misleading: can the string gauge numbers Ferrini wrote on this combination piano-harpsichord reveal

⁵ O'Brien, *Bartolomeo Cristofori at court in late Medici Florence*, *op. cit.*, 46.

⁶ Personal communication and also: María Virginia Rolfo e Denzil Wraight, 'Ferrini, Giovanni', in: Laurence Libin (ed.), *The Grove dictionary of musical instruments*, 2nd ed., New York 2014, II, 269. See document 1 in Rolfo's article in this volume.



Figure 1. The 1746 *cembalo a penne e a martelletti* by Giovanni Ferrini, Tagliavini Collection, San Colombano, Bologna.

how he would have strung one of his pianos in 1746?⁷ The Ferrini instrument poses a significant question, but it goes beyond the scope of this paper to consider it.⁸

Another puzzle which has occupied me is whether we could define more closely the time at which Cristofori's invention of the piano action became known to Gottfried Silbermann and thereby transmitted to Germany. It appears he copied a Cristofori action of around 1726, but it has also been considered whether the action could have been made by Ferrini after Cristofori's death.⁹

⁷ Private communication.

⁸ For a discussion see: Denzil Wraight, 'Das Hammerklavier von Bartolomeo Cristofori – Das Vorbild für Gottfried Silbermann?' *Freiberger Studien zur Orgel* IX, 2006, 53–69.

⁹ David A. Sutherland, 'Silbermann, Bach, and the Florentine piano', *Early Keyboard Journal* XXI, 2003, 45–63, here 57.

As Stewart Pollens' pioneering documentation showed, Silbermann's action so closely follows the 1726 Cristofori version that we could probably even exchange hoppers between the two instruments.¹⁰

How was Silbermann's close reproduction possible? As is generally thought, it could only have been through an actual Cristofori-action piano being in Silbermann's workshop in Freiberg.

Kerstin Schwarz generously made her unpublished documentation with colour photos available to me, which was of great assistance in this enquiry. However, it required Tagliavini's photo (reproduced below) to explain how Ferrini made his piano action in 1746.

The intermediate levers of the 1722 and 1726 Cristofori pianos are slightly different. The 1722 levers are comprised of a relatively thin, but wide strip of wood, which stops short of the hammer rack. The 1726 levers achieve the necessary stiffness by being thicker but are not as wide.¹¹ As a result, the block glued under the 1726 lever (which contacts the hopper) is somewhat more complicated to make. The tip of the 1726 lever is securely guided in the hammer rack by a piece of leather glued to the tip. This guiding of the tip has a significant advantage for the reliability of the adjustment of the escapement over time. The 1722 lever is only held in the correct lateral position by the leather hinge, which will undoubtedly soften and lose some accuracy of guidance over time.

Ferrini's 1746 version is a combination of the two variants: it is the 1722 version, but with the 1726-type leathered tip extended into the rack. I estimate that his workshop would have found this version slightly quicker to make.

Does this mean that Ferrini had improved Cristofori's action by 1746? Of course, this might have been Ferrini's improvement after Cristofori's death in 1732, but it might equally have been a modification from shortly after 1726 when Cristofori was alive and still active in the workshop. In theory, the change to the final type of intermediate lever could have been at any time after 1726 up till 1746 (fig. 2). It might even have been a suggestion of Ferrini's while Cristofori was still alive. We cannot tell.

The reason for dwelling on this subject is that Silbermann's action so closely resembles the 1726 version. Obviously Silbermann had not copied

¹⁰ Stewart Pollens, 'Gottfried Silbermann's pianos', *The Organ Yearbook* XVII, 1986, 103–21, here 107–13.

¹¹ These are shown in fig. 6 of Kerstin Schwarz's article in this volume.



Figure 2. The intermediate levers from Ferrini's 1746 harpsichord-piano. Photo: Liuwe Tamminga.

the 1746 version so the instrument he saw must have been made before 1746. By 1746 Silbermann's Cristofori-based piano production was already well developed and one instrument carries this date. Thus, Ferrini's instrument does not provide us with the information we seek, and we have to turn to documents.

If Zedler's 1733 dictionary entry is correct about the delivery of a Silbermann piano then he has given us an important clue.¹² Allowing for the time required for editorial work, Christian Ahrens has refined Zedler's dating to conclude that Silbermann delivered the piano to August the Strong, the Elector of Saxony, no later than 1729.¹³

The decisive matter here is whether the piano action which Silbermann delivered was his earlier version, which Johann Sebastian Bach found unsatisfactory, or the later version, which is little more than a copy of Cristo-

¹² Johann Heinrich Zedler, *Grosses vollständiges Universal-Lexicon*, 64 vols., Halle and Leipzig 1732–1750, V (1733), 'Cembal d'Amour'.

¹³ Christian Ahrens, '... Ein Unvergleichliches Pian Et Forte... Gottfried Silbermanns Ruhm Als Instrumentenmacher', *Freiberger Studien zur Orgel IX*, 2006, 7–32, here 28.

fori's work. As far as I know, the documents do not clarify this matter. However, coordinating the two approaches, from documents and from the instruments, it seems likely that we can date the instrument Silbermann copied as having been made at the end of the 1720s. As will be shown later, it is possible that a Cristofori piano of 1726 was sent to Germany.

My next investigation is whether the Cristofori piano was in continuous production at the end of the 1720s or merely made on commission. David Sutherland has argued for a continuous production with as many as 3 instruments per year.¹⁴ I was initially sceptical about this number: it would require that a two-man workshop be able to produce a piano in about 1200 hours, or indeed less if other repair work also had to be carried out, such as re-building the Edinburgh harpsichord in 1722.

My scepticism about continuous production had arisen mostly from some correspondence in 1716 between Giovanni Giacomo Zamboni (1683–1753), a merchant and diplomat in London, and Persio Forzoni Accolti, a nobleman in Florence. Zamboni was interested in obtaining a *cimbalo* from Cristofori. Lowell Lindgren translated the letter as follows:

At your request I have spoken to Bortolo [...]. He replied he would need several summer months to build such an instrument. Because of his many obligations at court and elsewhere, Bortolo cannot finish current work or take on any new work for a year, which presumably means you would have to wait at least two years. The price will be at least 50 *doble* [...] a sum you must deposit in a Florentine bank before Bortolo begins working.¹⁵

It is not clear whether this *cimbalo* was one of Cristofori's pianos. The implication from other letters is that Zamboni was interested in buying a harpsichord. The price of 50 *doble*, that is double Florins, is about twice what a Zenti harpsichord (then about 60 years old) would have cost, but perhaps only half what Cristofori was paid for instruments delivered to King João of Portugal. In any event, this schedule of work suggested to me that the Cristofori workshop could not have manufactured three pianos per year.

¹⁴ David Sutherland, 'On the production of pianos in Florence, 1700–1750', *Early Keyboard Journal* XXVII-XXIX, 2012, 47–75.

¹⁵ Lowell Lindgren, 'Musicians and Librettists in the Correspondence of Gio. Giacomo Zamboni', *RMA Research Chronicle* XXIV, 1991, 13.

I doubt that every purchaser had to wait so long. As I have indicated elsewhere, Cristofori's elaborate 1726 harpsichord appears to have started out life as a piano case, which was then modified to a harpsichord, thereby accounting for the unusual shape.¹⁶ Thus, it appears that pianos were in frequent production and, if my interpretation is correct, that one had to be sacrificed, perhaps in order to meet a tight deadline for this extravagant and unusual instrument, fit for a titled owner.

The circumstances surrounding the sale of a Ferrini piano to Charles Jennens in London in 1732 indicate that these instruments could be seen, played, and bought in Florence; they did not have to be commissioned years in advance.

Shipping an instrument from Florence to London was not an obstacle, as Jennens' purchase shows. It was not even the first piano to be sent to London, another Cristofori piano having been sent there by 1728. This had escaped Charles Burney's attention and is for us new information.¹⁷ Although we must also take into account Cristofori's documented poor health around 1728-1729, which would have reduced the production capacity, it appears that around 1730 the Cristofori workshop was producing at least one piano each year for sale.¹⁸

This makes it clear that Cristofori pianos could be purchased at the end of the 1720s in Florence by visitors or their agents. One such purchaser may have been Christian von Watzdorf, who was on a diplomatic mission to Florence and returned to Dresden in August 1726. He might well have purchased the very piano which Silbermann copied, as Kerstin Schwarz (referring to Eva Badura-Skoda's research) has informed me, although this is not proven.¹⁹

¹⁶ Denzil Wraight, 'Recent approaches in understanding Cristofori's fortepiano', *Early Music* XXXIV, 2006, 635–44, here note 1.

¹⁷ I will explain the circumstances in a forthcoming publication: 'Cristofori, Jennens, and the first fortepiano in England', www.denzilwraight.com/CJFP.pdf

¹⁸ Cristofori's illness is documented in his wills. See: O'Brien, *Bartolomeo Cristofori at court in late Medici Florence*, *op. cit.*, Appendix VIII.

¹⁹ Since the Bologna conference in 2017 Eva Badura-Skoda's work has been published: *The eighteenth-century fortepiano grand and its patrons from Scarlatti to Beethoven*, Bloomington 2017, here 147 and note 37. Her assertion, citing Schneider, that von Watzdorf acquired a Cristofori piano is not correct. Luca Guglielmi kindly provided the bibliographical reference from which Badura-Skoda's information was drawn: Nicola Schneider, 'Christian Heinrich von Watzdorf als Musikmäzen. Neue Erkenntnisse über Albinoni und eine sächsische Notenbibliothek des 18. Jahrhunderts', *Die Musikforschung* 63, 2010, 20–35. From Schneider we learn that the maker of the piano was not named. It remained in Crostau until von Watzdorf's death in 1747, even though he was imprisoned from 1733 and died without leaving

The transport of a piano from Florence to Freiberg would have taken at least four weeks by horse-drawn cart and we can expect that the action was at least in need of adjustment, if not repair, when it arrived. Thus, the owner would have called upon an instrument maker to put it in order. This is exactly what happened with the two Cristofori pianos which were sent to London. In this way Silbermann could have been asked by von Watzdorf to overhaul the instrument, from which he was then able to copy the action.

Should we understand the availability of pianos for sale in the late 1720s as the indication of poorer times compared to 1716, when one had to wait two years for a Cristofori harpsichord? An alternative is to suppose that the new invention was being commercially exploited through continuous production. Thus, I am now inclined to think that Sutherland's view of the continuous production of pianos in this period is broadly correct. Not only was Cristofori's piano design refined in the late 1720s to what I consider a musically-balanced concept, it was also a saleable product on the market.

There are four previously unpublished conclusions I draw in this paper:

1. Michele Feroci might have been Cristofori's first assistant in Florence.
2. The Russell Collection's Italian harpsichord was rebuilt in around 1722.
3. Ferrini's 1746 piano action shows a development of the action which we do not find in Gottfried Silbermann's copy.
4. Cristofori pianos could be bought in Florence around 1730 without having to be commissioned.

Summing up, we see that Ferrini's combination instrument documents the last-known stage of development of the Cristofori action. Unfortunately, it cannot define the date of the instrument Silbermann used as the basis of his piano. The export of two pianos to England, in 1728 and 1732, shows us that these Cristofori instruments were readily available for sale in Florence. One such piano might have been examined by Silbermann at the end of the 1720s and formed the basis of his successful piano action, possibly that delivered to August the Strong, perhaps in 1729, but no later than 1732.

his prison. Clearly the piano must have been purchased before 1733. Kerstin Schwarz addressed this matter in a paper delivered in Geneva in 2014. See: www.animus-cristofori.com/files/vortraggeneve2014.pdf (accessed 9 November 2015). See also her article in this publication.