

Dedicato a Luigi Ferdinando Tagliavini

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Il cembalo a martelli: da Bartolomeo Cristofori a Giovanni Ferrini

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Denzil Wraight

Il cembalo-pianoforte di Giovanni Ferrini

ABSTRACT

Although Giovanni Ferrini is known to be the second and better of Cristofori's two *scolari*, the first may have been Michele Feroci. His son's spinet is linked with the Cristofori workshop in an as yet unknown way, but helps reveal that the rebuilding of the anonymous Italian harpsichord in the Russell Collection was undertaken in around 1722.

Giovanni Ferrini's harpsichord-piano is a valuable document yielding many points of comparison. It shows a development of the Cristofori action as regards the intermediate lever, which occurred some time between 1726 and 1746.

Gottfried Silbermann copied a Cristofori action of around 1726. Zedler's account of a piano being delivered to the Elector of Saxony is dated by Ahrens to no later than 1729. Thus, Silbermann's source was probably an instrument made in the Cristofori workshop in 1726-1728.

Through the sales of pianos in 1726, 1727, 1730 and 1732 it becomes clear that the Cristofori workshop was producing pianos continually in this period so that customers did not have to order an instrument in advance. Two instruments were even shipped to London. Sutherland's view of a series production of the Cristofori piano is thereby supported.

Cristofori's piano, its development, and the two assistants

Bartolomeo Cristofori is one of the most remarkable instrument makers since he invented a new keyboard mechanism and thereby brought into existence what we now call the piano. Moreover, he developed this invention in his lifetime to a practical, working instrument with a 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.

Notwithstanding his skills, he 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 Bolcioni and Migliai. 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 17th-century Antonio Migliai.

Although Cristofori designed and built wonderful instruments he did not do it alone. We are informed through a publication of Luigi Ferdinando Tagliavini that Cristofori had two *scolari*, the better of whom was Giovanni Ferrini.¹ He assisted Cristofori to the end of the inventor's life, but who was the first assistant?

In 1997 I published the suggestion that Feroci 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, which is one subject of Grant O'Brien's paper, might have been rebuilt by Feroci since the harpsichord's nut moulding is very close to that found on a bentside spinet. 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 of an identical cutter flaw on mouldings of the spinet and harpsichord. Furthermore, the same cutter flaw is to be found on the nut and bridge of Cristofori's 1722 harpsichord. Since moulding cutters require occasional sharpening, the rebuilding of the Edinburgh harpsichord must have been close to 1722 in Cristofori's workshop.

This identification of course now requires further examination of the relationship of Agostino Feroci to the Cristofori workshop, but that is a matter which cannot be considered further in this short paper.

Nevertheless the possibility of Feroci's employment 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.² Bolcioni was the tuner and maintainer of Ferdinando's 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, but until a year of birth is found (or calculated) it will not be possible to estimate when he entered Cristofori's workshop. Perhaps Maria Virginia Rolfo will be able to answer this question.

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 is a significant document in yielding points of comparison, both with harpsichords and pianos.

As David Sutherland has suggested to me, this instrument contains absolutely historical evidence...which may be completely misleading!³ For example, can the stringing gauge numbers of this piano-harpsichord combination instrument tell us how Ferrini would have strung one of his pianos in 1746? I have already addressed this matter so I will not repeat the arguments here.⁴

Another puzzle which has interested me is whether we could define more closely the time at which Cristofori's invention of the piano action became known to Gottfried Silbermann, who obviously copied Cristofori's 1726 action, or one close to this date.

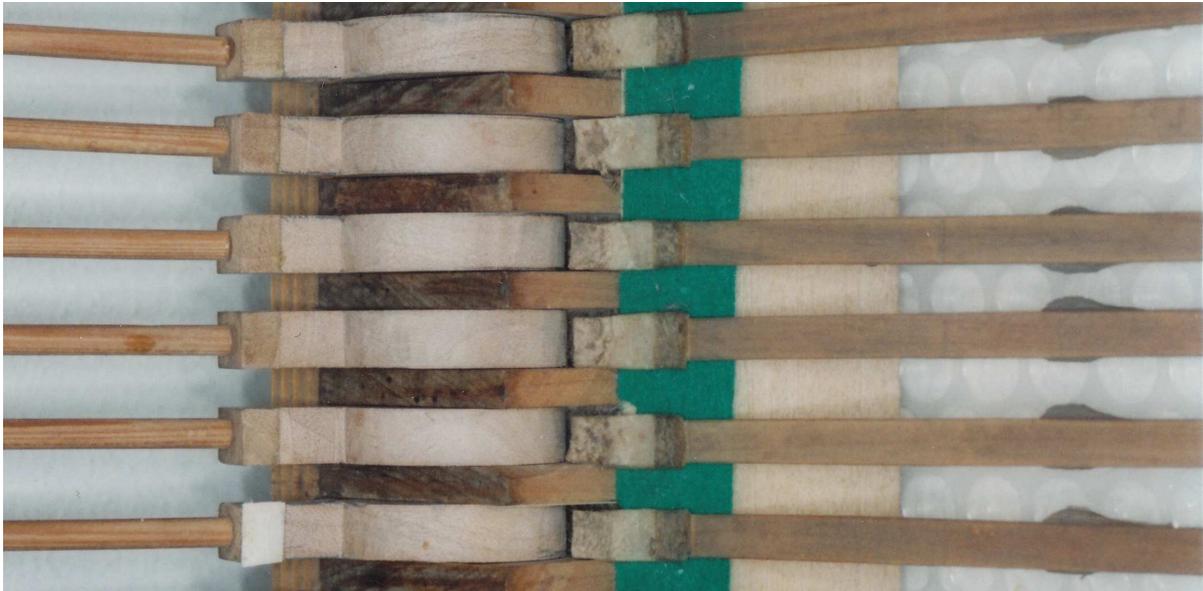
As Stewart Pollens' excellent documentation shows, Silbermann's action so closely follows the 1726 Cristofori version that we could probably exchange hoppers between the two instruments.

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. 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 Cristofori pianos which were sent to London; these will be discussed later.

Kerstin Schwarz has also generously made her unpublished documentation with colour photos available to me, which was of great assistance in this enquiry. However, 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 Signor Tagliavini earlier this year to obtain a photo. His response was, as ever, quick and generous. Indeed he supplied me with more photos than I expected, which made it possible to see more deeply into this matter. Since this was our last contact I wish to make this topic my central contribution in appreciation of him.

The intermediate levers of the 1722 and 1726 Cristofori pianos are slightly different. The 1722 have 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. As a result the block glued under the 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.



The tips of the 1726 intermediate levers. (photo D. Wraight)

This guiding of the tip has a significant advantage for the reliability of the action over time. The 1722 lever is only held in the correct lateral position by the leather hinge, which will undoubtedly soften and lose accuracy of guidance over time.

So what did Ferrini do in 1746? It is a combination of the two variants: it is the 1722 version, but with the 1726-type leathered tip extended into the rack. I suspect that his workshop would have found this version slightly easier to make.



The 1746 Ferrini intermediate levers (photo L.F.Tagliavini)

Does this mean that Ferrini had improved Cristofori's action by 1746? Here I recall Sutherland's warning. 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 still alive. In theory, the change to the final type of intermediate lever could have been at any time after 1726 up till 1746. It might even have been a suggestion of Ferrini's while Cristofori was still alive. We cannot tell. I am inclined to think that the final version of the intermediate lever would probably have occurred in Cristofori's lifetime since it is a relatively small change

The reason for dwelling on this subject is that Silbermann's action resembles closely the 1726 version. Obviously Silbermann had not copied 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 carries this date. Thus, Ferrini's instrument does not provide us with the information we would like to have and we have to turn again 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.⁵ Allowing for editorial work, Christian Ahrens has refined the dating from Zedler to conclude that Silbermann delivered the piano to August the Strong, the Elector of Saxony, no later than 1729.⁶

The decisive matter here is whether the piano action which Silbermann delivered was his earlier version, which J.S. Bach found unsatisfactory, or the later version, which is nothing more than a copy of Cristofori'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, what seems likely is that we can date the instrument Silbermann copied as from the end of the 1720s. As will be seen later, it is possible that a piano of 1726 was sent to Germany.

My next question is: Was the Cristofori piano in series production at the end of the 1720s or merely made on commission? David Sutherland has argued for a series production with as many as 3 instruments per year.⁷ I was sceptical about this number, but with her experience Kerstin Schwarz may be able to assess this estimate. 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 series production had mostly arisen from some correspondence between Zamboni in London and Accolti in Florence in 1716. Zamboni was interested in obtaining a *cimbalo* from Cristofori. Lowell Lindgren translates the letter as follows:⁸

"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."

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.

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.⁹ This accounts for the unusual shape. 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. Thus, it appears that around 1730 the Cristofori workshop was producing one, or perhaps two, pianos each year for sale.

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 fact had escaped Charles Burney's attention and is for us new information.¹⁰ 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, on a diplomatic mission to Florence, might have purchased the very piano in 1726 which Silbermann copied, as Kerstin Schwarz (referring to Eva Badura-Skoda's research) has informed me.¹¹

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? The 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 series 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 new conclusions I draw in this paper:

1. Michele Feroci might have been Cristofori's first assistant.
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 Silbermann's copy.
4. Cristofori pianos could be bought in Florence at the end of the 1720s without having to be commissioned.

Finally, we see that Ferrini's combination instrument shows us the last 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, by 1728 and in 1732, shows us that these Cristofori instruments were readily available. One such piano might have been examined by Silbermann at the end of the 1720s and formed the basis of his successful piano action, sold to August the Strong possibly in 1729, but no later than 1732.

www.denzilwraight.com/WTB.pdf

Version 1.2 (22.10.2017): Abstract included

Notes

¹ Luigi Ferdinando Tagliavini, 'Giovanni Ferrini and his harpsichord "a penne e marteletti"', *Early Music* 19 (Aug 1991), pp.398-408; see p.399.

² Michael O'Brien, *Bartolomeo Cristofori at court in late Medici Florence*, diss. The Catholic University of America, Washington, D.C., 1994 (UMI order number 9424289), p. 46.

³ Private communication.

⁴ Denzil Wraight, 'Das Hammerklavier von Bartolomeo Cristofori - Das Vorbild für Gottfried Silbermann?' *Freiberger Studien zur Orgel* 9 (2006), pp.53-69.

⁵ Johann Heinrich Zedler, *Grosses vollständiges Universal-Lexicon*, 64 volumes (Halle and Leipzig, 1732-1750), Vol. V (1733), 'Cembal d'Amour'.

⁶ Christian Ahrens, '...Ein Unvergleichliches Pian Et Forte... Gottfried Silbermanns Ruhm Als Instrumentenmacher', *Freiberger Studien zur Orgel*, Nr. 9, Gottfried-Silbermann-Gesellschaft, Freiberg (2006), pp.7-32; see p.28.

⁷ David Sutherland, 'On the Production of Pianos in Florence, 1700-1750', *Early Keyboard Journal* 27/28/29 (2012), pp. 47-75.

⁸ Lowell Lindgren, 'Musicians and Librettists in the Correspondence of Gio. Giacomo Zamboni', *RMA Research Chronicle* (London, 1991), p. 13. David Sutherland reminded me in 2004 about this article, which had been slumbering in my library for many years.

⁹ Denzil Wraight, 'Recent approaches in understanding Cristofori's fortepiano', *Early Music*, 34, no. 4 (2006), pp. 635-644; see note 1.

¹⁰ I will explain the circumstances in a forthcoming publication: 'Cristofori, Jennens, and the first pianoforte in England'. www.denzilwraight.com/CJFP.pdf

¹¹ Kerstin Schwarz attributed the information to Eva Badura-Skoda. Luca Guglielmi kindly provided the bibliographical reference from which the information was drawn: Nicola Schneider, 'Christian Heinrich von Watzdorf als Musikmäzen. Neue Erkenntnisse über Albinoni und eine sächsische Notenbibliothek des 18. Jahrhunderts', *Die Musikforschung*, vol. 63, issue 1 (2010), pp. 20-35. From Schneider we learn that the un-named piano remained in Crostau until von Watzdorf's death in 1747, even though he was imprisoned from 1733 and died without leaving his prison. Although it is not stated what sort of piano this was, clearly it must have been purchased before 1733. Von Watzdorf was on a diplomatic mission for Saxony at the courts of Parma and Florence from 1724, returning to Dresden in August 1726. Kerstin Schwarz, in a paper delivered in Geneva in 2014, suggested that "Gottfried Silbermann, by the end of the 1730ies or beginning of the 1740ies must have managed to buy the Cristofori piano of Count Watzdorf". Clearly the instrument she is considering cannot be the one which remained in Crostau until at least 1747. See <http://www.animus-cristofori.com/files/vortraggeneve2014.pdf> (accessed 9.11.2015).