

INTRODUCTION

Through the work of Paul Everett and Michael Cole it has been known for some time that Charles Jennens, Handel's librettist of "The Messiah", acquired a pianoforte from the Bartolomeo Cristofori workshop in Florence, and had it shipped to London in 1732¹. Only more recently, in a publication by Amanda Babington and Ilias Chrissochoidis have additional details been made more widely known from the Jennens-Holdsworth correspondence, which indicate that Jennens' instrument was not the first Cristofori pianoforte in England, Willoughby Bertie having bought a piano in 1727². Through the research of Brenda Sumner, and Ruth Smith's publication on Charles Jennens, we now know a little more of his instrument³. It may be possible to explain why Charles Burney was unaware of it in his summary of the early pianoforte in England. We further gain an insight into the activity of the Cristofori workshop in the last years of the inventor's life and during the transition at Cristofori's death in January 1732 when his assistant Giovanni Ferrini continued the piano building⁴. Some of the details of Jennens' purchase also indicate how Gottfried Silbermann might have been able to acquire knowledge of the Cristofori action, which he then incorporated with success in his own pianos.

The correspondence of Charles Jennens with his fellow student in Oxford, Edward Holdsworth, has survived from the Jennens' archives, albeit only in the letters received by Jennens from Holdsworth who was travelling in Italy, accompanying Mr James Herbert, the grandson of Sir James Hallet of Edgeware, on his Grand Tour. Those written by Jennens to Holdsworth appear not to have survived, thus the train of events can only be reconstructed through Holdsworth's letters. Jennens' letters to Italy took from three to six weeks to arrive⁵.

Jennens appears to have instigated the purchase of the instrument through a letter written in about July 1731 since Holdsworth replies:

24 August 1731, Holdsworth in Naples

... We propose to spend some time in Florence before we leave Italy, and then I will inform myself about Botro's Harpsicords, and of w^t value one of them may be. And if you insist upon my giving my opinion of the sweetness of his instruments, you shall have it.⁶

¹ Paul Everett, *The Manchester concerto partbooks*, New York (Garland), 1989. This was a revised version of Everett's PhD thesis, Liverpool University, 1984. Michael Cole, 'The Twelve Apostles? An Inquiry into the Origins of the English Pianoforte', *Early Keyboard Journal* 18 (2000), pp. 9-52. Cole, p. 20, note 15, cites chapter 1 of Everett's book as his source.

² Amanda Babington and Ilias Chrissochoidis, 'Musical References in the Jennens-Holdsworth Correspondence (1729-46)', *Royal Musical Association Research Chronicle*, 45:1 (2014), 76-129.

³ Ruth Smith, *Charles Jennens, The Man Behind Handel's Messiah*, (Handel House Trust, London 2012).

⁴ The dates given here for events in Florence are based on our modern calendar where the year begins in January. In Cristofori's time, and until 1750, the Florentine dates, sometimes indicated "ab Inc[arnatione]" (the Feast of Assumption) were based on the year beginning on 25 March. Cristofori's death in January 1732 in our modern calendar is sometimes given as 1731, which is the ab Inc. date, and may cause confusion.

⁵ Babington and Chrissochoidis, p. 76.

⁶ Babington and Chrissochoidis, p. 88.

"Botro" is undoubtedly a spelling error or misunderstanding of "Borto", a contraction of Bortolo, by which name Bartolomeo Cristofori was known⁷. By April 1732 Jennens had set a maximum price he was prepared to pay and communicated this to James Herbert, with whom he was apparently also in contact.

17 April 1732, Holdsworth in Rome

...We shall go from hence to Florence, and if my friend whom I have employ'd there has met wth a Harpsicord w^{ch} He can recommend, and not exceeding the price you fix in y^{rs} to Mr Herbert (w^{ch} He rec^{vd}. yesterday) I shall venture to purchase it for you.⁸

By August 1732 the instrument was approved and purchased. If freight charges and customs duties at this time could be discovered, then it would be possible to calculate the price that Jennens paid. The letter contains a number of practical details which show us that obtaining goods from abroad was a fairly routine matter, even if much slower than today. Safe delivery was encouraged since payment of shipping charges was to be made on receipt in London. Then, as now, careful handling of musical instruments was required.

9 August 1732, Holdsworth in Florence

Dear Sr

Inclos'd is the bill of loading for your Harpsichord,⁸³ w^{ch} as my Banker Mr Blackwell informs me was put into the Cabbin of the Ship y^t it might be less expos'd to damage, & was by him particularly recommended to the care of the Captain. Upon the receipt of this 'twill be necessary y^t you send the bill to some friend in London, who may be ready to take charge of y^e Harpsichord immediately upon y^e arrival of the ship, and pay the fifty shillings freight and customs. It will be proper y^t you give directions to have it carried to your own house from the Customhouse by Porters, & not jumbled in a Cart. I wish it may answer your expectation and that you may find a great deal of pleasure from it.

The following passage in the letter indicates that a Cristofori pianoforte had already been brought to London by Willoughby Bertie (3rd Earl of Abingdon in 1743), who had returned to England after his marriage in Florence in August 1727⁹. Thus, Cristofori's invention had reached England before 1732. Also interesting for us is that some "man", probably a London instrument maker, had attended the instrument, more likely to regulate it than simply to "tune" it, as we would now say.

Mr Willoughby Bertie took one of these instruments with him to England when He went from hence, and as I am inform'd has instructed a man to put it in tune when out of order. You may apply to y^e same person to tune yours, whenever there shall be occasion.

⁷ Scipione Maffei refers to him as "Bortolo" in his notes for the publication 'Nuova invenzione d'un gravecembalo col piano e forte', *Giornale de' Letterati d'Italia* vol. v (Gio. Gabbriello Ertz, Venice, 1711), pp. 144-159. Laura Och has transcribed the notes in 'Bartolomeo Cristofori, Scipione Maffei e la prima descrizione del "gravicembalo col piano e forte"', *Il Flauto Dolce* 14-15 (Apr/Oct 1986), pp. 16-23; see p. 22. An English translation (together with the Italian) is to be found in Stewart Pollens, *The Early Pianoforte* (Cambridge, 1995), Appendix 2, pp. 232-237 and also in his more recent *Bartolomeo Cristofori and the Invention of the Piano* (Cambridge, UK, 2017), pp. 350-355.

⁸ Babington and Chrissochoidis, p. 90, note 84.

⁹ Babington and Chrissochoidis, p. 90, note 84, give the following information: Willoughby Bertie (1692–1760) of Wytham Abbey, Berkshire. He attended Corpus Christi College, Oxford and became an MP in 1715. He spent the years 1722–7 in Italy (Florence, Rome and Naples), for health reasons. https://en.wikipedia.org/wiki/Willoughby_Bertie,_3rd_Earl_of_Abingdon records that the marriage to Anna Maria Collins took place in August 1727 in Florence, which indicates he returned to England after August 1727.

We may infer that the instrument was probably transported to England in 1727, since the expression is that he "took" an instrument with him suggests it travelled in his entourage, not that he had it sent at some later date. Even had the instrument been sent separately, it would establish 1727, or early 1728, as the earliest known date for the arrival of a Cristofori pianoforte in England, clearly well before Jennens' instrument. As will be seen below, this would have been one of the last pianos which Cristofori was able to work on since ill health left him bedridden in January 1729.

The source of the information is not stated, but the details written by Holdsworth in Italy of someone attending the instrument in England suggest that Mr Herbert was probably the informant since it seems less likely that the Cristofori workshop should have been apprised of such matters in London, although that is not impossible.

The next part of the letter has been quoted by several sources, but Everett was probably the first to have published this, commenting that "This volume was undoubtedly a copy of Ludovico Giustini's twelve Sonate da cimbalo di piano e forte detto volgarmente di martelletti"¹⁰.

I have bought for you a book of Sonatas compos'd here purposely for the Pianoforte, wth I shall send for England wth Mr Herbert's books when we leave this place.

It might be possible to trace one of the two copies now in English libraries to Jennens' ownership¹¹.

8 November 1732, Holdsworth in Turin

I hope the Piano-forte Harp[sic]hord is arriv'd safe. If you have any farther commands for me before I leave Italy I shall be very glad to receive them at Venice. You may direct for me to Mr Brown the English Consul.¹²

In the same letter we read how it was intended that Jennens receive the music books, including the sonatas.

If you send to Sr James Hallet he will let you have the musick books, having had notice from Mr Herbert that they belong to you.

In the following year:

13 February 1733, Holdsworth in Venice

I hope you have by this time found out Mr Bertie's tuner to put yr Harpsichord in order. I have wrote to Florence to acquaint the maker wth the ill state you found it in on it's arrival, and to complain of his sending it out of his hands in so bad a condition. I suppose he will deny it; and indeed I was very much surpris'd to hear your account of it, because Mr Meynell had it tried by a good maker few days before 'twas sent of, and the maker pack'd it up himself.

Clearly the instrument did not arrive in the condition Jennens had expected. This does not necessarily mean that the instrument was in bad condition or damaged. It can be expected that the escapement would have required adjustment after such a long journey by land and sea, which might have caused the hammers to block, i.e.

¹⁰ Everett, p.12.

¹¹ See Freeman, 'Lodovico Giustini and the emergence of the keyboard sonata in Italy', *Anuario Musical* 58 (2003), pp. 111-138; see p.116, note 18.

¹² Babington and Chrissochoidis, pp. 90-91.

contact the strings without the mechanism "escaping". This makes the instrument virtually unplayable, but is quickly adjusted. The distance travelled by the Cristofori hammers from rest to the string is 22-28 mm, but the action is adjusted to escape just a few mm under the string. However the point at which the hammers escape varies in normal operation by about 3 mm, depending on the humidity. In addition, dust or moisture might have caused some hammer butts to seize in the rack rendering several notes unplayable. In these respects, the new hammer action was more sensitive than the traditional harpsichord which Jennens would have known. Despite this sensitivity it should not be thought that Cristofori's invention was impractical or deficient; this is not the case, as several modern replicas have been able to demonstrate.

Meynell appears to have been Holdsworth's "friend" in Florence (letter of 17 April 1732), who assisted in the purchase of the instrument. Babington and Chrissochoidis inform us that this was probably Godfrey Meynell, a 'travelling Englishman' who gave a grand dinner in Rome on 23 November 1731¹³. It is interesting to note that the procedure was to engage another instrument maker to assess the product of the Cristofori workshop, no doubt in the hope that he would give an impartial opinion of the quality. In fact, Bartolomeo Cristofori was already deceased at the time of this purchase, having died on 27 January 1732. It was probably his assistant, and successor in piano production, Giovanni Ferrini, as will be shown below, who made the sale.

Jennens appears to have instigated the acquisition of a pianoforte in a letter to Holdsworth, when he was in Rome and before he had reached Florence, as we can only infer from Holdsworth's reply of 24 August 1731. It is not known how Jennens received news of the recently-invented instrument, but we can see from the inference drawn above that he might have had heard of Bertie's instrument in England or even played it. Bertie was Jennens' senior by eight years, and Jennens entered Balliol College Oxford in 1716, but Bertie went up to Corpus Christi in 1707 so it is unlikely they could have met in Oxford as students.

Obviously they later shared an interest in Italian culture, Jennens collecting Italian music manuscripts, Bertie living for some years in Italy. According to Smith, in the political question surrounding the Jacobite cause and the Hanoverian succession, Jennens as a non-juror "...steered an honourable course between subversion and passivity", but his sympathies were apparently with the Stuarts¹⁴. It could be supposed that Bertie, as a Tory, tended towards the Stuart succession, although as an MP he would presumably have to have taken an oath to the crown. From Smith's account, Jennens may never have been faced with the necessity to take oath, but Holdsworth resigned his fellowship at Magdalen rather than swear allegiance to the Hanover king¹⁵. The extent to which non-juring circles, an interest in Italian culture (necessarily Catholic), or outright Jacobite politics, might have provided a meeting ground for those who became acquainted with Cristofori's invention merits a deeper study, which Jane Clark has already initiated¹⁶.

¹³ Babington and Chrissochoidis, p. 91, note 95.

¹⁴ Smith, p. 15. A "non-juror" was one who would not swear allegiance to the Hanoverian king. I am obliged to Michael Latcham whose questions on this matter have brought about an improvement in the clarity of this paragraph.

¹⁵ Smith, p. 14.

¹⁶ Jane Clark, 'Farinelli As Queen Of The Night', *Eighteenth Century Music*, vol 2, issue 2 (2005), pp. 321-333.

Cristofori's reputation was however established even earlier in London, in 1716, albeit possibly only in the Italian community. Giovanni Giacomo Zamboni, an Italian merchant, diplomat, and amateur harpsichordist, enquired of Persio Forzoni Accolti in Florence how he might obtain a harpsichord from "Bortolo"¹⁷. It is conceivable that the "harpsichord" might have been a pianoforte, but the price discussed of 50 *double* seems too low¹⁸. Apparently, considering the subsequent exchanges on harpsichords and prices, he did not commission an instrument; whether the waiting period of two years was too long or the price too high we do not know.

So Bertie's piano preceded Jennens, but were there other Cristofori pianos in London at this period? James Harris was a friend of Jennens and a diary account from his younger brother Thomas reports Handel's playing "finely on the piano-forte" in 1740. Cole was understandably cautious about identifying this instrument with Jennens' piano and since other authors have not explained their identification, the matter deserves closer examination¹⁹. The entry starts as follows:

"I received your letter just as I was going to dine with Mr Jennens and Lord Guernsey..."

and ends

"Handel is soon going to Aix-la-Chapelle having found a weakness in his hand, but he was in good spirits yesterday and played finely on the piano-forte."²⁰

It is not explicitly stated whether the "yesterday" is the same day as "going to dine with Mr Jennens", but the juxtaposition is suggestive. The matter is however perfectly clear from George William Harris' 1756 entry, another brother of James Harris:²¹

"Dined at Mr Jennings, [sic.] Ormond Street. / The Master, Handel, Hetherington. / Handel quite blind but pretty chearfull & after dinner he played on Mr J's piano-forte."

¹⁷ Lowell Lindgren, 'Cembalari e compositori per clavicembalo nella corrispondenza di Giovanni Giacomo Zamboni', *Recercare* 1 (1989), pp. 211-223; see p. 218. This article reproduced the original Italian texts; in Lindgren's later article English translations were given: 'Musicians and Librettists in the Correspondence of Gio. Giacomo Zamboni', *RMA Research Chronicle* (London, 1991), pp.1-194; see p.13

¹⁸ Denzil Wraight, 'Cristofori's piano workshop and Giovanni Ferrini', *The Cembalo a Martelli from Bartolomeo Cristofori to Giovanni Ferrini. The proceedings of the international conference held in honour of the memory of Luigi Ferdinando Tagliavini, Bologna 21-22 October 2017*, ed. by Michael Latcham and Giovanni Paolo di Stefano (Pendragon, Bologna, 2019), pp. 107-115; see pp. 113-114. Copies are available from the author. This is the revised, book version of my paper 'Cristofori's piano, its development, and the two assistants', *Convegno internazionale di organologia dedicato a Luigi Ferdinando Tagliavini, Museo di San Colombano, 21-22 October 2017*, pp. 5-6. Published online: www.denzilwraight.com/WTB.pdf. See also note 33 below.

¹⁹ Michael Cole, *The Pianoforte In The Classical Era* (Oxford, Clarendon Press, 1998), p.22. Donald Burrows and Rosemary Dunhill, *Music and theatre in Handel's world: the family papers of James Harris 1732-1780* (Oxford, UK, 2002), p. 99, state that the instrument was owned by Jennens. Burrows, in another publication, 'Handel and the Pianoforte', *Göttinger Händel-Beiträge* 9 (2002), pp. 123-142, writes (p. 127) that "the two references from 1740 and 1756 are surely to one and the same instrument". Smith, op. cit p. 46, goes beyond the actual evidence in writing that it was "described as a pianoforte at Jennens' London house", which is only true of the 1756 entry.

²⁰ Burrows and Dunhill, pp. 98-99.

²¹ Burrows and Dunhill, p. 314.

Brenda Sumner's research has shown that Jennens' piano was not in London in 1750, but in the less accessible Gopsall, Jennens' country seat, at least when John Grundy saw it, as he recorded in his journal²².

According to Charles Burney writing c.1803 of the Florentine pianoforte:

"The first that was brought to England was made by an English monk at Rome, Fr. Wood, for an English fiend (the late Samuel Crisp...). Fulke Greville Esq., purchased this instrument of Mr Crisp for 100 guineas and it remained unique in this country for several years, till Plenius, the maker of the lychord,...made a pianoforte in imitation of Mr Greville's."²³

That the music historian Charles Burney should have known nothing of Bertie's and Jennens' instruments may seem surprising, although there may be an element of exaggerated expectations on our part as to the range of his knowledge. We should recall that Burney was born in 1726 and did not come to London until 1744 when he was apprenticed to Arne, but shortly thereafter Fulke Greville paid for Burney's release from this apprenticeship and employed him at Wilbury. In the 1750s Burney lived, for reasons of health in Lynn Regis.

Given these facts it is less surprising that Burney should not have known of the Bertie or Jennens pianos and credited Fulke Greville's instrument, bought in 1747, as being the first in England. Nevertheless, Cole's surprise that Fulke Greville should have known nothing of the other two Cristofori pianos in England is understandable²⁴. Presumably Greville, born in 1717, and so a generation younger, moved in different circles than those of Jennens and Bertie.

Sumner advanced a hypothesis that, instead of moving pianos up and down from London, there were two instruments, adding that Jennens could have afforded a second piano²⁵. The idea, although lacking any evidence, is far from incredible. Should we imagine that a man of Jennens' means with Gopsall Hall in 1750 and a substantial house in Great Ormond Street would make do without a harpsichord or piano in one of his residences? Thus, the pianos played in 1740 and 1756 might both have belonged to Jennens. They could indeed have been two different instruments, as Cole at one stage implied²⁶.

Which "man" put Bertie's piano in order is not stated, but there is an interesting hint in Grundy's journal: he reports seeing a harpsichord at Jennens' house in Gopsall made by a "Tabacer". This name is not identifiable, but one wonders if it might be a corruption of "Tabel"; at least the first syllables are identical²⁷. Hermann Tabel was

²² Brenda Sumner, 'Charles Jennens' Piano and Music Room', The Handel Institute Newsletter, vol. 22, no. 2 (Autumn 2011), pp. 1—3. I thank Brenda Sumner for a copy of this article.

²³ "Harpsichord" in A. Rees et al (ed.) The Cylopaedia; or Universal Directory of Arts, Sciences, and Literature. Reproduced in Cole, The Pianoforte, pp. 350-351.

²⁴ See Cole, The Pianoforte, p. 45.

²⁵ Sumner, p. 3.

²⁶ In his earlier publication, "The Twelve Apostles?...", p. 20, Cole counts the 1740 and 1756 reports as two instruments. On p. 46, and his in his later publication, The Pianoforte, p. 22, Cole considers that the two pianos were possibly the same instrument. The details of Holdsworth's correspondence were apparently not known to Cole at this time.

²⁷ Jennens was not at home when Grundy visited so the information must have come from the instrument itself or been related by a servant. Grundy was under the mistaken impression that Cristofori was a native of Venice. However, this is only slightly off the mark since Padua, where

still active as a harpsichord maker in London in the early 1730s. Had he supplied Jennens with a harpsichord, then it would have been natural for Jennens to have instructed him to adjust or repair the newly-arrived piano.

John Harris's British patent no. 512 of 22 October 1730 described

"A new invented Harpsichord, upon which (having only two Sets of Strings) may be performed either one or two Unisons and one Octave together or the Forts and Pianos, or Loud or Soft, and the contrary may be executed as quick as Thought..."²⁸

Playing "one octave together" was also possible in the harpsichord made in 1725 by Goccini, whereby levers under the normal keyboard transferred the keylever-motion an octave higher and lower²⁹. However, the "Forts and Pianos" suggests that the invention had a striking mechanism. This effect could also be produced by a tangent piano, where wooden jack-like strips strike the strings. Performance on one or two unisons is what was possible on Cristofori's piano from 1722 onwards, i.e. there was a true *una corda*, achieved by moving the keyboard a few millimeters so that only one string was struck. Interesting is also a further part of the description:

"...a great deal of time and Trouble will be saved in Quilling and Tuning the said harpsichord..."

Since Harris did not draw attention to the tone we might suppose that it was not greatly different from that of the harpsichord, which suggests that, if a striking mechanism was involved, plain wooden hammers (or jack-like strips) would have produced a suitably bright sound, similar to that known to harpsichordists. Might Harris have come to develop his invention after attending Bertie's Cristofori piano? In any event, among the four names listed of those supporting his new invention, was "Mr Handel"³⁰. We have seen Handel's connection with the piano above, albeit only documented from 1740, but this list suggests a circle sharing common interests.

In 1727 Cristofori was still alive, and although 77 years old, still actively making instruments. Indeed, his latest-surviving instrument was dated 1726 and thus is a valuable document for the state of development of his invention. It shows us that since 1722 the hammers had been further developed, yielding a subtle gradation of tone from treble to bass, with an essentially warm tone as a result of the relatively large size of hammer heads used. Cristofori died in January 1732, thus the production of instruments was carried on by his assistant Giovanni Ferrini, who was mentioned in Cristofori's will for his faithful service.

From Zamboni's correspondence we learn that in 1716 Cristofori had a waiting list of one year for his services³¹. Given the narrative of events supplied by the Jennens-Holdsworth correspondence we can infer that the piano Jennens purchased was

Cristofori was born in the Venetian republic and 40km from Venice. Since Cristofori never signed an instrument including the name Venice, I infer that Grundy was receiving information.

²⁸ Donald Boalch, *Makers of the Harpsichord and Clavichord 1440-1840*, ed. Charles Mould, (3rd ed. Oxford, 1995), p.80.

²⁹ Tagliavini Collection, Bologna. See Luigi F. Tagliavini and John H. van der Meer, *Collezione Tagliavini. Catalogo Degli Strumenti Musicali*, Bononia University Press (Bologna, 2008), pp. 203-215, esp. p. 207 for the action under the keyboard which achieves this effect.

³⁰ See Burrows, 'Handel and the Pianoforte', p.125.

³¹ Lindgren, *Musicians and Librettists*, *ibid.*

already finished and awaiting sale. Although this might seem to be an insignificant detail, it is one of the few indications we have from the Cristofori workshop which suggests that the production of pianos was continuous, regardless of whether orders had been received.

There is also a hint from another Cristofori instrument, in fact now a harpsichord dated 1726, but which on account of its unusual proportions probably started life as a pianoforte and was then turned into a harpsichord³². This might have taken place because the harpsichord was required quickly, which could only have been achieved by utilising a partially-constructed piano. There is documentary evidence from 1490 of a harpsichord maker in Modena being pressured to produce an instrument for Isabella d'Este in five weeks rather than the three months he offered³³. Nobility was apparently not inclined to wait for the fulfillment of wishes.

The Cristofori workshop was apparently confident enough of the sale of these new instruments, that it would commence work at its own expense, at least around 1732, when Jennens' instrument was purchased. Alternatively one might infer that the demand for Cristofori's services had declined and he was obliged to commence manufacture without a commission. In any event, this provides further support for the view of David Sutherland that Cristofori was engaged in the continuous manufacture of the new invention³⁴.

We now know that Silbermann's success with his piano in the 1740s depended on copying Cristofori's piano action and not on his own invention. In this way Silbermann benefitted from years of research and development, which Cristofori had undertaken in Florence. With hindsight it seems at first surprising that the unnamed London maker who put Mr Bertie's piano in working order did not take advantage of this giffhorse and go into production of the Florentine design. Presumably it required more than merely a technical innovation that pianos should come into being. As we learn from the subsequent history of the piano in England, it was partly the development of simpler and less expensive actions which made the instrument affordable and popular. Cristofori's action is complicated and time consuming to produce so that such instruments were only purchased by wealthy clients.

Zamboni would have to have paid 50 *doble* or 354g of gold for an unspecified Cristofori instrument (probably a harpsichord) in 1716, but the price of a piano might have been 675g of gold coins³⁵. This would have been the equivalent of 80 to 81 guineas (1 guinea = 21 shillings from 1717) in the English gold coins around 1732³⁶.

³² Musikinstrumenten-Museum, Leipzig, no. 85. I first reported this analysis in 'Recent approaches in understanding Cristofori's fortepiano', *Early Music*, 34, no. 4 (2006), pp. 635-644, note 1.

³³ William F. Prizer, 'Isabella d'Este and Lorenzo da Pavia, "master instrument maker"', *Early Music History* 2, ed. Fenlon, Ian, (Cambridge, 1982), pp. 87-127; see p.94.

³⁴ David Sutherland, 'On the Production of Pianos in Florence, 1700-1750', *Early Keyboard Journal* 27/28/29 (2012), pp. 47-75.

³⁵ I prefer to give the amount of gold involved in order to avoid the issue of how much this might have bought then or be worth now, which are two different matters. This calculation is based on the information from Susier's diary that King João of Portugal paid 200 Louis d'or for "instruments" made by Cristofori. See Stewart Pollens, *The Early Pianoforte* (Cambridge, 1995), p. 55. If two instruments (not necessarily both pianos) were involved then the price was 100 Louis d'or. The Louis d'or weighed 6.75g. From Zamboni's correspondence a price of 50 Florentine *doble* appears to refer to a harpsichord and would correspond to 50x 7.08g = 354g of gold.

³⁶ In George II's reign the guinea weighed 8.3-8.4g of gold with an average purity of 0.9140: [https://en.wikipedia.org/wiki/Guinea_\(coin\)#George_II](https://en.wikipedia.org/wiki/Guinea_(coin)#George_II) (accessed 12.05.2018).

By comparison, Cole records that Kirckman and Schudi were able to command the very high price of £70 (66 $\frac{2}{3}$ guineas; £1 = 20 shillings) for a double-manual harpsichord, but Falkener was prepared to supply such a harpsichord for half of this amount in 1772³⁷. Thus, without more detailed examination, and without allowing for inflation, we may conclude that Jennens probably paid a price for his piano considerably more than for a harpsichord.

Debenham and Cole have written of the Cristofori pianos that "... they had not yet become objects of general commerce"³⁸. We see, at least from Jennens' instrument, but probably also from Bertie's, which reached England that Cristofori pianos were to be had at short notice, and could even be ordered from England, so in this sense the pianos were commercially available, even if the instruments had to be viewed in Florence rather than being purchased from a catalogue. This evidence further supports Sutherland's argument, that the Cristofori piano was more widely known than the few surviving instruments could be interpreted as suggesting³⁹.

There is the record of the Italian violonist Giovanni Stefano Carbonelli's Florentine piano being offered for sale after his death in 1774 for 40 guineas⁴⁰. It is possible (but I think unlikely) that this was Bertie's instrument, since he died in 1760, and it might have been disposed of after his death. Less likely is that it was a Jennens' piano since he died in November 1773, eleven months after Carbonelli's death in February 1773. Thus, there is the distinct possibility that this was a third Cristofori, or Ferrini, piano imported to England.

Evidence of Cristofori pianos in England has also been inferred by Cole from Backers' piano, who wrote: "It is simply beyond dispute that Backers had seen the interior of a pianoforte that depended on the Florentine tradition"⁴¹. With the discovery of Bertie's piano of 1727, this article shows how further opportunity was provided for the initiation of Backers' piano and the English tradition in piano making.

Luigi Ferdinando Tagliavini has reported a musical dictionary entry found by Oscar Mischiati, which indicated that Ferrini was the better of Cristofori's two assistants⁴². The first assistant might have been Michele Feroci, who could have worked with Cristofori on his arrival in Florence in 1688⁴³.

It is not known whether Cristofori always maintained a workshop employing assistants. Kerstin Schwarz has observed that Cristofori's invoices show he could call upon the services of specialist workers in Florence and therefore might not have needed assistants⁴⁴. However, invoices Cristofori presented for payment to

³⁷ Cole, *The Pianoforte*, p. 312.

³⁸ Margaret Debenham and Michael Cole, 'Pioneer Piano Makers in London, 1737–74: Newly Discovered Documentary Sources', *Royal Musical Association Research Chronicle*, 44:1 (2013 online), pp. 55-86. See p.55.

³⁹ Sutherland, especially pp. 56-60.

⁴⁰ Michael Talbot, 'From Giovanni Stefano Carbonelli to John Stephen Carbonelli: A Violinist Turned Vintner in Handel's London', *Göttinger Händel-Beiträge*, 14, (2012), pp. 265-299; see p.280. Cole, *The Pianoforte*, p. 121, mentioned Carbonelli's instrument prior to Talbot, but gave no source for the information.

⁴¹ Cole, 'The Twelve Apostles?...', p. 45.

⁴² Luigi F. Tagliavini, 'Giovanni Ferrini and his harpsichord "a penne e marteletti"', *Early Music* 19 (Aug 1991), pp. 398-408; see p. 399.

⁴³ See Wraight, 'Cristofori's piano workshop and Giovanni Ferrini', pp. 108-109.

⁴⁴ Private communication, 2.11.2017.

Ferdinando's court include the cost of an assistant, and on one occasion an apprentice⁴⁵. This division of labour, assigning Cristofori the higher skilled work, is what we also find in allied trades, such as organ building. The waiting time for Cristofori's services, as indicated by the Zamboni correspondence, shows that Cristofori would have had sufficient reason to employ assistants.

As Virginia Rolfo's research has revealed, Giovanni Ferrini, Cristofori's second assistant, was born in 1698⁴⁶. Thus, he could have learned the craft at Cristofori's side, possibly from the age of about 12, but at least would have assisted during the period of the well-developed piano. Comparison of Ferrini's numbering on his 1746 piano-harpsichord with instruments signed by Cristofori in 1722-1726 suggests that Ferrini could have been numbering parts in the Cristofori workshop from at least 1722⁴⁷. If this is correct then he was Cristofori's assistant for at least ten years.

Cristofori's expression of gratitude to Ferrini in his first will of 24 January 1729 [ab Inc. 1728] testifies to a longstanding relationship, and he bequeathed all the tools for making instruments to Ferrini⁴⁸. In the second will of 23 March 1730 [ab Inc. 1729] the executors were instructed to pay Ferrini for the repair of any instruments that might be in Cristofori's care at the time of his death. This indicates an interesting legal nicety in that Cristofori was the head of the workshop; it was not Cristofori & Ferrini. Thus, we can infer that Cristofori had not ceased his activity as an instrument restorer and repairer in 1730, and despite owning land in Padua, possessing gold, jewels, and having money on account in a bank, apparently did not intend to stop working. He evidently imagined that Ferrini would be at his service into the foreseeable future.

On 14 February 1732 Ferrini invoiced the Florentine court in his own name for repairs to instruments and tuning, including work performed on 1 March 1731⁴⁹. This is *prima facie* evidence of Ferrini's independence as an instrument maker. Following this interpretation though it is strange that Ferrini should have waited nearly a year before submitting an invoice, However, coming 18 days after Cristofori's death, it seems more likely we should see this invoice as an indication that a provision in Cristofori's will was being implemented, that Ferrini be paid for repairs and that he was following up outstanding payments for which Cristofori (perhaps through continued poor health) had not billed. The apparently late invoice (for work on 1 March 1731) might also have been a ruse employed by the Cristofori workshop to exact payment from the court where it had previously ignored an invoice. O'Brien has observed that in 1720 Cristofori had still not been paid some 300 scudi owed him by Ferdinando de' Medici, who had died in 1713, roughly equivalent to two elaborate *spinete*⁵⁰.

⁴⁵ See Pollens, Bartolomeo Cristofori, pp. 55-63.

⁴⁶ I am obliged to Virginia Rolfo for this information, private communication, 25.10.2017. See *New Grove Dictionary of Musical Instruments*, second edition, ed. Laurence Libin (Oxford University Press, New York, 2014), p. 269.

⁴⁷ This is based on my unpublished examination of the numbering.

⁴⁸ Michael O'Brien, Bartolomeo Cristofori at court in late Medici Florence, diss. The Catholic University of America, Washington, D.C., 1994 (Proquest order number 9424289), appendix VIII, pp. 191-214 for transcriptions of the wills with an English translation. "...di corpo indisposto, e giacente in letto..." is the exact expression O'Brien gives, p. 193. The will is dated 23 March 1729 ab Inc[arnatione] so 1730 in our modern calendar; the ab Inc. abbreviation is appended above to make this clear. See also note 4.

⁴⁹ See Pierluigi Ferrari and Giuliana Montanari, 'Giovanni, Giuseppe e Filippo Ferrini: cembalari della corte del Granduca di Toscana: uno studio documentario' in *Musicus Perfectus: studi in onore di Luigi Ferdinando Tagliavini <<prattico e speculativo>> nella ricorrenza del LXV° compleanno, raccolti da Pio Pellizari* (Bologna Patron, 1995), p. 31.

⁵⁰ O'Brien, p. 85. In 1693 Cristofori's bill for a *spineta* amounted to 1185 Lire (17 = 169 scudi).

Cristofori's poor health is documented in his will of 24 January 1729 [ab Inc. 1728], where he is described as bedridden, the notary Christofano Nacchianti apparently having visited him at home. Just over a year later, by the time of his second will on 23 March 1730 [ab Inc. 1729], Cristofori's health had improved and he was able to sit on a chair at the notary's office. He was described as being "...sound of mind, sight, speech, and intellect, although infirm of body but not presently bedridden..."⁵¹. Ferrini must therefore have executed most of the work from about the end of 1728 until at least March 1730.

A piano signed by Ferrini in 1730 (later owned by Farinelli), and a bentside spinet in 1731, indicate some degree of independence from Cristofori, probably occasioned by Cristofori's poor health at this time. The change in Cristofori's second will, which left the tools of the workshop to the Del Mela sisters, who assisted him during his illness, has been seen by Pollens as "a virtual disinheritance" and it is indeed a strange event which requires investigation.

I had previously suggested that Ferrini fell out of favour with Cristofori, perhaps through making instruments on his own account⁵². In fact, Ferrini would probably not have signed the aforementioned piano at the time of making the second will since the Florentine year 1730 started on 25 March, so *this* instrument cannot give us an explanation that Cristofori was dissatisfied with him. However, Pollens' assessment that the bequest to the Del Mela sisters was made simply out of gratitude seems even more plausible when we recall that by March 1730 Cristofori had regained better health: he was no longer bedridden⁵³. We should not forget that it was more common at that time to give thanks for deliverance from illness. Furthermore, Cristofori clearly expected in his will (as noted above) that Ferrini would be available to complete the repair of instruments at his death, which does not speak for a falling out between the two, but a "collaborative relationship", as Pollens described it⁵⁴.

Instead of the workshop tools, Ferrini was granted "a perfunctory 5 scudi", as Pollens saw it, in the second will⁵⁵. We should not overlook the fact that Ferrini was never the main beneficiary of Cristofori's wills; it was his niece Laura. In addition there were dowries of 50 scudi to be given to four poor young women, as described in both wills. However, O'Brien records that 5 scudi was the monthly stipend received by a theorbo player at Ferdinando's court (c.1690), and he calculated that an artisan could expect

⁵¹ O'Brien's translation, p. 211.

⁵² See, Pollens, Bartolomeo Cristofori, p. 203. For Ferrini's fall from favour see Wraight, 'The stringing of Italian keyboard instruments c.1500 - c.1650', Ph.D. dissertation, Queen's University of Belfast, 1997 (Proquest order no. 9735109), Part 1, pp.107-108, where I failed to see the significance of the dates, probably from a confusion about the Florentine and modern calendars on the start of the year. See also Sutherland, 'On the Production...', p. 59. who also gives a similar line of argument, envisaging that Ferrini's signing of instruments indicated his "leaving the shop".

⁵³ Pollens, Bartolomeo Cristofori, p. 75, considers that Domenico Del Mela was perhaps related to the Del Mela sisters and that the tools of the workshop could have been useful for him. On p. 203 Pollens noted that he "would seem to have been well set up with regard to tools and workshop materials...", implying that he would not have needed the tools. Obviously, any new information on this subject would be enlightening.

⁵⁴ Pollens, *The Early Piano*, p. 97.

⁵⁵ Pollens, Bartolomeo Cristofori, p. 75. Five scudi is the figure O'Brien, p. 201, gives in the transcription of the will, but an error in the English translation (p. 212) raises this to 50 scudi, an error which Sutherland, 'On the Production...', p. 59, repeats.

to earn about 7 scudi in a month⁵⁶. Thus, Cristofori's bequest represented nearly a month's wages for Ferrini, a not inconsiderable sum.

Even if the workshop tools were bequeathed to the Del Mela sisters, this did not impede Ferrini from making Cristofori-style pianos, as the 1746 combination harpsichord-piano built by him testifies. In fact it appears that Ferrini later used some of Cristofori's moulding tools: the arcade from Ferrini's 1746 combination harpsichord-piano can hardly be distinguished from Cristofori's *spineta* made in 1693⁵⁷. Ferrini's 1746 instrument is also proof of his skill, which was in no respect inferior to the signed Cristofori instruments⁵⁸. In fact with its cypress veneers and mouldings on the inside of the instrument, it was more elaborate than Cristofori's pianos. Regardless of whether Ferrini obtained the workshop tools, it is clear that he knew the designs and the manufacturing techniques of the piano, thus, there appears to have been a seamless transition from Cristofori to Ferrini.

The balance of evidence clearly points to Ferrini as Cristofori's last assistant in a workshop that was active until Cristofori's death. It was, thus, probably Ferrini who sold the piano to Jennens' agent in Florence (April-August 1732), an instrument which might have been started while Cristofori was still alive, at the end of 1731.

As we have seen above, Cristofori probably made little after 1729, and died in 1732. Ferrini made the 1730 piano which was bequeathed by Maria Barbara to Farinelli. He was probably also the maker of another piano in Maria Barbara's collection, and possibly also a third⁵⁹. Ferrini died in 1758 and with him apparently the production of Cristofori's invention, although Ferrini had two sons who worked as instrument makers.

That large numbers of pianos were not sold may have more to do with the limited production capabilities of the Cristofori workshop. Sutherland has inferred a production rate of three pianos per year from 1720 onwards⁶⁰. I have suggested an output of at least one piano annually from 1722 onwards⁶¹. Further discussion of this topic lies outside the scope of this article.

The story of Jennens' piano purchase gives us an interesting insight into how Gottfried Silbermann, the Saxon organ builder, might have gained access to a Cristofori action which he was able to copy, or to speak with Jennens, "steal" from Cristofori⁶². Although copyright law was limited at this time, this does not mean that authors regarded their work as freely exploitable by others; quite the contrary: they merely lacked adequate means of protecting their work. Silbermann was canny enough, and sufficiently well connected, to obtain a 15-year privilege in 1723 from August the Strong as the sole producer of his "cembal d'amour", a type of clavichord. Harris in England hoped to protect his invention with the 1730 patent.

⁵⁶ O'Brien, p. 76 and p. 50 respectively.

⁵⁷ Wraight, *The Stringing*, Part 1, pp. 109-110. Cristofori's 1693 *spineta* is in the Musikinstrumenten-Museum, Leipzig, no. 53.

⁵⁸ Tagliavini Collection. See Tagliavini and Van der Meer, pp. 344-362.

⁵⁹ This matter is discussed in more detail in a forthcoming publication.

⁶⁰ Sutherland, pp. 58-60.

⁶¹ Wraight, 'Cristofori's piano workshop and Giovanni Ferrini', pp. 113-114.

⁶² See Smith, p. 44, who quotes a letter from Jennens to Holdsworth in 1743: "Handel has borrowed a dozen of the pieces [of music] & I daresay I shall catch him stealing from them, as I have formerly, both from Scarlatti & Vinci."

If the Cristofori pianos sent to England required the attention of an instrument maker to be made playable when they arrived, then it is obvious that a piano sent to Germany, transported by means of a wagon over at least four weeks, would probably have required the same service on arrival. Silbermann would not have needed to resort to subterfuge or even buy an instrument himself, but would even have been paid for the opportunity of pirating Cristofori's work! Eva Badura-Skoda has stated that a Cristofori piano was bought by Christian Heinrich von Watzdorf in 1726 during his stay in Florence on a diplomatic mission for the Saxon Court and sent back to Germany⁶³. The purchase of a Cristofori piano is not yet confirmed, but the circumstances suggest that it is likely⁶⁴.

If it were indeed von Watzdorf who bought the piano, then this would have gone to Dresden or perhaps to his residence in Crostau, some 70km east of Dresden. It was for the church in Crostau that Silbermann built an organ in 1732, paid for by von Watzdorf. Silbermann had his workshop in Freiberg, 40km south west of Dresden.

The date of 1726 for von Watzdorf's stay in Florence is significant since at least since Friedrich Ernst it has been realised that Silbermann must have copied a Cristofori action⁶⁵. This action only appeared in this form, as far as the evidence is known to us, from 1726 onwards. Pollens documents the close similarity of the hoppers of the Cristofori 1726 piano and the 1746 Silbermann instrument⁶⁶. Indeed, it even appears as if the Silbermann hopper would work in the Cristofori action. It has therefore been inferred by several authors that Silbermann must have had close access to a Cristofori action, such as would only be obtained by having an instrument in his workshop for an extended period. By 1746 Ferrini was using a slightly different intermediate lever in the action, which Silbermann did not follow, but it has not been possible for lack of other examples to determine the cut-off date for the 1726-style of action⁶⁷.

⁶³ Kerstin Schwarz kindly informed me of this hypothesis (private communication, April 2015) before Eva Badura-Skoda's publication, *The Eighteenth-Century Fortepiano Grand and Its Patrons From Scarlatti to Beethoven* (Indiana University Press, Bloomington, IN, 20 Nov. 2017), pp. 141-149.

⁶⁴ Badura-Skoda, p.142, note 37, incorrectly attributes the purchase of a Cristofori piano to 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. This text does not support Badura-Skoda's assertion, as Nicola Schneider has confirmed (private communication, 27.02.2018). From Schneider we learn that the un-named piano remained in Crostau (or Wiesa) until von Watzdorf's death in 1747, even though he was imprisoned from 1733 and died without leaving his prison. Christian Ahrens has kindly communicated a facsimile of the inventory which shows that we know only that it was a "Piano et forte" a style of description used by Silbermann on handwritten labels in his pianos. Although the inventory was made in 1747 after von Watzdorf's death, clearly it must have been purchased before his imprisonment in 1733. Kerstin Schwarz, 'The Pianos by Bartolomeo Cristofori und Gottfried Silbermann - Two different worlds of sound produced by the same hammer action', *Rencontres harmoniques Lausanne / Genève*, November 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 when an inventory of von Watzdorf's estate was made. See <http://www.animus-cristofori.com/files/vortraggeneve2014.pdf> (accessed 9.11.2015).

⁶⁵ Friedrich Ernst, 'Bach und das Pianoforte', *Bach-Jahrbuch* 48 (1961, Evangelische Verlagsanstalt, Berlin), 61-78, may have been the first to have made this observation. Stewart Pollens, 'Gottfried Silbermann's pianos', *The Organ Yearbook*, 17 (1986), pp.103-121; see especially pp. 107-113 where Pollens provided a closer analysis of the actions.

⁶⁶ See Pollens, Bartolomeo Cristofori, p. 134 and p. 298 for photos.

⁶⁷ See Wraight, 'Cristofori's piano workshop and Giovanni Ferrini', pp. 110-113.

The maintainance of the English pianos on their arrival indicates for us a plausible explanation how Silbermann could have gained access to a Cristofori piano action, but the entire narrative of the Jennens' correspondence reveals how little we have known until recently of the advent of the Cristofori piano in England. We could not exclude the possibility that other Cristofori-style pianos (i.e. including those made by Ferrini) preceded or succeeded Bertie's. Thus, Cristofori's invention was probably better known in Europe than we have hitherto imagined.