

BREAKING MOULDS: A SEVEN-OCTAVE CLEMENTI & CO PIANO FROM 1812

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ABSTRACT

The standardisation of the piano compass in seven octaves and three keys (88 keys) began in the last third of the 19th century. This growth, although unstoppable since Bartolomeo Cristofori's invention at the beginning of the 18th century, was both progressive and irregular. The experiments followed one after the other and piled up in dialogue with a society avid for musical consumption, with the demands of composers, and with competition and collaboration between the builders themselves, who were trying to make their way in an absolutely growing market. In the narrative of history, it is advisable to stop to observe and analyse the special cases that stand out or apart from the mainstream. By doing this one may explore other facts and not automatically give credence to a single oft-repeated assertion. In this article we discuss an upright piano from Clementi & Co which is found in Spain and which stands ahead of the usually accepted evolution of the keyboard compass in England.

KEYWORDS: piano keyboard compass, pianoforte evolution, Muzio Clementi, upright grand, period pianos, musical instrument construction, organology.

TRENCANT MOTLLES: UN PIANO CLEMENTI & CO DE SET OCTAVES DE 1812

RESUM

L'estandardització de l'extensió del teclat del piano a set octaves i tres tecles (88 tecles) comença l'últim terç del segle XIX. Aquest creixement, encara que imparable des de la invenció de Bartolomeo Cristofori a principis del segle XVIII, va ser alhora progressiu i irregular. Els experiments es van succeir i s'amuntegaven en diàleg amb una societat àvida de consum musical, amb les demandes dels compositors i amb la competència i col·laboració entre els mateixos constructors que intentaven obrir-se camí en un mercat absolutament creixent. En el relat de la història, convé aturar-se a observar i analitzar aquells casos singu-

lars que destaquen o s'allunyen de les línies generals. Amb això podem entendre diferents realitats i no acceptar com a bona una veritat única i repetida. En aquest article ens referirem a un exemplar de piano vertical de la firma Clementi & Co, trobat a Espanya, que s'avança a l'evolució habitualment acceptada dels límits del teclat a Anglaterra.

PARAULES CLAU: extensió del teclat del piano, evolució del *pianoforte*, Muzio Clementi, cua vertical, pianos d'època, construcció d'instruments musicals, organologia.

The transformation of the piano from its origin at the beginning of the 18th century to its standardisation in the second half of the 19th century was marked by innumerable modifications related to musical aesthetics, social changes and technological advances. As is generally known, the current piano standard is seven octaves and three notes (88 keys). Nevertheless, until the late 1780s the usual compass of the English piano was five octaves, from FF to f3. In 1790, John Broadwood (1732-1812) extended the range to five and a half octaves and by 1794 he was producing some six-octave pianos. That said, it should be noted that John Joseph Merlin (1735-1803), by as early as 1775, had already built a six-octave piano in his London workshop. Muzio Clementi (1752-1832) had worked in his establishment around those years as an instrument demonstrator, which may be one of the keys to understanding his later interest in and knowledge of piano construction technique.¹

During the first two decades of the 1800s, pianos of five and a half octaves and six octaves commonly coexisted, and it was not until 1824 that there was mention of a Liszt performance in Paris with a seven-octave Érard piano, which led to the attribution to this constructor of the keyboard extension which, as will be seen in this article, was not actually true. The instruments of six, six and a half, and seven octaves, with small variations in the ends, still existed until the middle of the 19th century. The appearance of a new model did not do away with the previous one.

AN UNUSUAL PIANO

In the Museum of Musical Instruments of the Joaquín Díaz Foundation in Urueña, Valladolid (Spain), there is a Clementi & Co. piano with very unique features (Figure 1). It is a large upright grand that deviates from the standards of the time in which it was built, since it has a keyboard compass of seven octaves. The engraved (368) and ink (10569) numbering as well as the label design indicate that the piano is from 1812 (Figures 2 & 3).

1. In her diary, Fanny Burney (1752-1840), the playwright and novelist daughter of Charles Burney, recounts that in February 1775 she met Clementi, who was demonstrating keyboard instruments in John Joseph Merlin's workshop. Quoted by Erin HELYARD, *Muzio Clementi, Difficult Music, and Cultural Ideology in Late Eighteenth-Century England*, 2011.



FIGURE 1. General view of the piano in its present state.
SOURCE: Joan Josep Gutiérrez.



FIGURES 2 & 3. Engraved number 368 and ink number 10569.
SOURCE: Joan Josep Gutiérrez.

Before describing the instrument, we should take a look at the types of pianos that were built during that period. Beginning with Bartolomeo Cristofori, the piano was born in a harpsichord around 1700, that is, in the shape of a grand piano. In 1739, also in Italy, Domenico Del Mela built the first upright, inspired by the clavicymbalum. The square piano design is certified in 1766 by the successful models of Johannes Zumpe in London, although it has various earlier attributions, of dubious authenticity, to Socher, Friederici and Silbermann in Germany. In the mid-1790s, Stodart² and Southwell started producing bookcase- or cabinet-type pianos. In 1798, Longman, Clementi & Co. built their first upright.³ Several upright models exist, the most common including the square upright, the upright grand, the upright small, and the cabinet models.

INSTRUMENT DESCRIPTION

EXPLORATION

On my visit to Urueña on March 5, 2022, I was warmly received by Joaquín Díaz, director of the foundation that bears his name and a great defender and researcher of popular and traditional music. The spectacular piano stands out in one of the rooms of the museum, which is full of popular instruments but also displays pianos, harmoniums, player pianos and other keyboards as well as wind, string and mechanical instruments. In this study I took note of measurements, materials and other exterior and interior details without actually accessing the interior of the mechanism, given the complexity of a quick disassembly. See the main features in Table 1.⁴

The first thing that catches one's eye, beyond its size, is the instrument's extremely luxurious appearance. The design is framed in the Empire style, featuring mahogany veneer wood with joinery, inlaid brass profiles, a front door with a single leaf framed by mouldings that simulate columns covered in gold leaf, and a large yellow curtain with trimmings. The upper part of the box is topped by a large cornice edged with gold mouldings. The keyboard cover is in the shape of

2. The upright grand piano is a form patented in 1795 by William Stodart, who called it an "An upright grand piano in the form of a bookcase". John R. WATSON, "The 1799 Organized Upright Grand Piano in Williamsburg: A Preliminary Report", *Journal of the American Musical Instrument Society*, vol. XL (2014), p. 18.

3. Leif SAHLQVIST, *Clementi & Co 1798-1830: Pianoforte Manufacture in London* (online), 2013, <<https://www.friendsofsquarepianos.co.uk/the-clementi-page/>> (retrieved: 30 November 2022).

4. To prepare the table, we followed the model designed for our study on the search for pianos in Catalonia published in the 2020 issue of *Revista Catalana de Musicologia*: Joan Josep GUTIÉRREZ YZQUIERDO, "Rescatant una font primària: el projecte de cerca i documentació de pianos anteriors a 1850 a Catalunya de l'Associació Muzio Clementi de Barcelona", *Revista Catalana de Musicologia*, vol. XIII (2020), pp. 191-211.

a quarter cylinder, with two metal knobs and a lock. When opened, its interior and the entire front of the keyboard may be seen to be veneered with lighter wood outlined with joinery.

The cabinet is divided into two sections. The upper one is the piano, properly displayed, giraffe-like, like a vertically positioned grand piano. The soundboard extends for the entire length of the strings (Figure 4). The tuning pins are located just above the keyboard and the mechanism is placed behind the wrest-plank. Hammers and dampers operate from behind. This structure is very similar to that of a grand piano. This whole part rests on the lower section, a platform with four legs on wheels, from which the lyre with three pedals also hangs.



FIGURE 4. Soundboard, bridge and strings.

SOURCE: Joan Josep Gutiérrez.

There are no bars or iron frame, just some metal supports that join the headstock to the soundboard. The wooden tailpiece follows the contour of the “tail” of the piano and the bridge is divided into two sections. The lowest string has an effective length of 1,655 mm (between bridge and nut). To get an idea, this is roughly equivalent to a modern $\frac{3}{4}$ grand piano.

The most surprising thing is the extension of the compass: from FFF to f4, seven octaves that go beyond the left end of the standard modern piano (Figure 5). Although the reason for this peculiar instrument is not known, it seems clear that gaining bass is a way of obtaining a broader harmonic spectrum and sounds close to those of the organ, an instrument on which, incidentally, Clementi began his musical career.

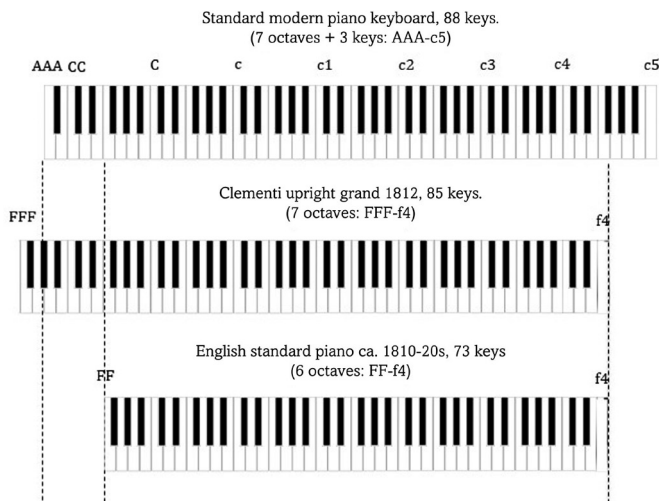


FIGURE 5. Comparison between the compass of the modern piano, the Clementi considered in this study, and the six-octave piano from the beginning of the 19th century.

SOURCE: Joan Josep Gutiérrez.

The stringing and its modifications are also interesting. Originally, from FFF to GG, the strings were double, and from GG to the highest note, f4, treble. A later intervention removed one string from the lowest seven notes FFF-BBB and from the first section of triple stringing, from GG-sharp to E. This is apparent from the carefully plugged peg holes which may still be seen and the abandoned pins in the fret and in the bridge at the upper end of the piano (Figure 6). One may imagine that the excessive sound of these low notes produced a disproportionate effect. It may also be that vibration amplitude of these strings, so long and close to each other and with a rather low tension, would cause them to collide with each other. In any case, this modification is well done, although there is no way to know when it was carried out.

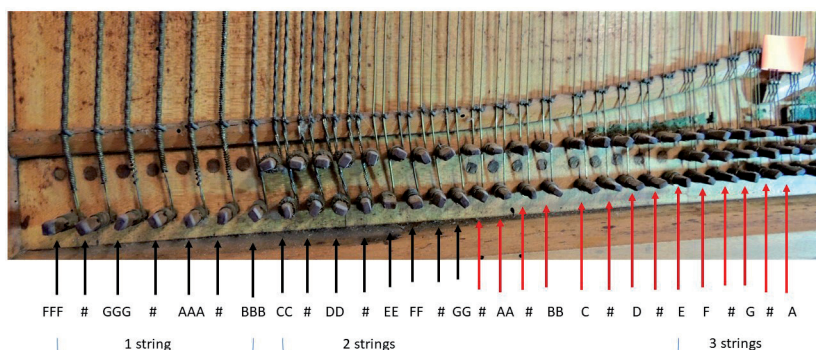


FIGURE 6. Removed bass tuning pegs.

SOURCE: Joan Josep Gutiérrez.

The right and centre pedals act on the dampers, dividing the resonance into two areas: the high one, from C# to c3, and the low one, from FFF to C. Both can be activated with one foot, together or separately. From c3 there are no dampers. The left pedal operates the moderator.

TABLE 1
Main technical features

Model	Upright grand
Compass	FFF-f4 (seven octaves)
Stringing	Treble & double
Bridge	Divided (FFF ² – G-sharp / A-f4)
Action	English (not analysed)
Hammers	Leather
Pedals	Three. Left: soft pedal; centre: FFF – C; right: C-sharp – c3
Keyboard	Ivory and ebony
Key measurements	140 × 22 mm 90 × 10 mm
Serial number	368 (engraved); 10569 (ink)
Date	1812
Place of manufacture	London
External measurements	273 × 58 × 133 cm
Bass string length	1,655 mm
Label	Clementi & Co / London

SOURCE: Prepared by the author.

PRESENT STATE OF THE INSTRUMENT

In an interview with its penultimate owner, Rafael Reig de Argüeso, carried out in the 1980s by Costa Noroeste Televisión in Sanlúcar de Barrameda (Cádiz Prov., Andalusia), the magnificent exterior condition of the cabinet may be observed. After the death of Mr. Reig, at the end of the 1990s, the piano ended up in a convent, where it was stored under poor conditions and began to deteriorate. Fortunately, in 2021 the instrument was donated by its last owner, Victoria Reig de Quesada, to the Joaquín Díaz Foundation, where it is carefully protected and its deterioration has been stopped.

— *Cabinet exterior*: The cornice mouldings have detached (although part of them have been saved) and part of the pedestal veneer is missing. The original curtain, which was completely torn, has recently been replaced by a copy. A knob is missing from the keyboard lid.



FIGURES 7 & 8. Keyboard and label.

SOURCE: Joan Josep Gutiérrez.

— *Sound block*: The soundboard is in good condition. There is only a small partial vertical crack, which is very slightly open, next to the bass, near the bridge. The bridge is in good condition. The fret on the bottom pins looks a bit worn but is still holding up. All the strings are preserved and look original. As previously stated, some of them were removed in a later transformation.

— *Mechanical block*: Some keys are stuck but most are responsive to action. The pedals are disabled because the lyre is off the hook. In any case, the pedals are working when they are operated directly by hand from the slides. The moderator must have lost its cloth. Most of the hammers and dampers are intact, with the expected aging due to the passing of time.

— *Keyboard*: The upper part of the first chromatic key (FFF-sharp) is missing. The rest of the exterior is in good condition.

— *Other aspects*: There are some xylophage holes. Textile materials also show the wear and tear of time.

BACKGROUND

There is no information on how the piano reached the Argüeso family, a line of vintners who began their business at the beginning of the 19th century. Neither is it known if they were the first owners, but its location in Cádiz makes sense since it was an important trading port with England at the time when the piano was made. The furthest we have been able to get in the line of ownership of the piano in this family is to a relative born in 1895, which is consequently quite far from the original acquisition. We have a knowledge of many English pianos in Andalusia as well as in the north of Spain, and commercial exchanges also reached Catalonia. The sea route of wine, oil and other goods extended around the Iberian Peninsula and, as is stated in an article by Marina Rodríguez Brià, another upright piano by Clementi (six octaves in this case) arrived arrived to Vilanova i la Geltrú in this way.⁵

CONCLUSION

Muzio Clementi's contribution to the world of pianos may be considered extraordinary in all respects. He was possibly one of the persons with the greatest understanding of all aspects of pianos. As a composer he was very pragmatic, adapting his works to the normal limits of his instruments, unlike Beethoven, who did not feel comfortable within those boundaries. However, some of his inventions, or those of his partner and friend Frederick William Collard, represent daring experiments that had acoustic-musical purposes, even if they were not finally incorporated into the standards of the modern piano.

5. Marina RODRÍGUEZ BRIÀ, "1820 Londres-Vilanova. Un piano Clementi en un vaixell d'aiguarents", in *La Masia d'en Cabanyes. Poesia, música i mites al romanticisme català*, 2020.

The matter of the expansion towards the lower region of the piano, exceeding the current limit (except for some models by Bösendorfer and by Petrof), suggests a search for the organistic concept of sound. Let it not be forgotten that Clementi, despite not having written organ music, was a professional organist in his early years in Rome. In addition, the extension to the lowest F note would also allow octaves to be doubled exactly below FF, the usual limit for the piano of that time. The question that we still cannot answer is why this is so in this unique specimen, which is precisely an upright one. The extremely sumptuous appearance of this model indicates that it was conceived for a person or an institution with a high purchasing power who was willing to display it publicly. Accordingly, we put forward the hypothesis that it was a unique commission to Clementi's company, one of the most prestigious of the time, offering a relative ease of commercial contact with Andalusia. A palace or a large mansion was perhaps its destination, or even a church. Indeed, a church could comfortably house an instrument of its characteristics, complementing or replacing the organ in one of its chapels. Does the idiom "altar piano" used in the interview by the instrument's penultimate owner, Rafael Reig de Argüeso, refer to its appearance or to its use? It is our hope that this study will be further extended to reveal the unknowns posed by this very interesting piano.

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