

Sound Interferences. Inquisition in the World of keyboard instruments from the eighteenth century

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Abstract: *We know that for all instruments, the Baroque era represented a period of transformation: some of them appeared in that era, while the Renaissance instruments underwent substantial changes, some of which were totally rebuilt. This true revolution, however, was slow, with the various instruments undergoing transformations in turn. In this epoch, the harpsichord, the clavichord and the pianoforte coexist. As early as the eighteenth century, we find a precipitation of change in the construction of keyboard instruments, with essential transformations taking place, the elements that have been added over time are now rethought and resized so as to meet new aesthetic requirements and musical practices increasingly diverse and complex. In the following, we will discuss the evolutionary course of the instruments and their diversity and importance.*

Keywords: *keyboard, harpsichord, clavichord, pianoforte, eighteenth century*

1. Introduction

We know that for all instruments, the Baroque era represented a period of transformation: some of them appeared in that era, while the Renaissance instruments underwent substantial changes, some of which were totally rebuilt. This true revolution, however, was slow, with the various instruments undergoing transformations in turn. Of this, apart from the time-honored instruments, we speak of three very important literary sources, two of them richly illustrated: *Syntagma musicum* by Praetorius, published in 1619 in Germany, *Harmonie universelle* by Marin Mersenne, dating from 1636-1637 - France and England, the Talbot manuscript compiled between 1680 and 1690. In the eighteenth century, keyboard instruments gain more and more an aesthetic value, given both by the painting of the cover (often with landscapes) and by the architectural elements in their construction (for example, the rosettes from the resonance plate), thus integrating as pieces of furniture into the interior aesthetics due to the decorative elements listed above. The directions in the evolution of keyboard instruments will

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be directly influenced by the way in which sound is produced, in establishing a classification according to this criterion, distinguishing on the one hand the keyboard instruments with pinched strings - a family to which belongs the Italian spine, the English virginal and the *harpsichord* - instruments with hit strings - a family of which the *clavichord* is part and from which the *fortepiano*, the hammer piano will evolve - and on the other hand the *organ* – a *polyphonic aerophone instrument with tubes*. In this epoch, the harpsichord, the clavichord and the pianoforte coexist. In the following, we will discuss the evolutionary course of the instruments and their diversity and importance.

2. The Harpsichord

In the instrumental and orchestral music of the eighteenth century (at the intersection of the Baroque and Classical epochs), the harpsichord (fr.clavecin, it. arpicordo, clavicembalo, germ. Kielfugel, Klavizymbal, engl. Harpsichord) played an extremely important role, his sound qualities, the brightness, the precision, the clarity being preferred both as a solo instrument and as an instrument of accompaniment in the creation of a pleiade of great composers such as Domenico Scarlatti, Benedetto Marcello, Henri Purcell, Johann Sebastian Bach, Georg Friedrich Handel, Francois Couperin, Jean-Philippe Rameau and others. The first testimonies of the harpsichord and clavichord date back to the years 1404 and 1405, the first being mentioned in the 14th century in Italy. (Ionescu, 2011, 80). We will distinguish according to characteristics different types of harpsichord: Italian, French, German, English, Flemish. The coexistence of these different types will continue throughout the century, with sonorities varying from one instrument to the other, which the interpreters of today who want to recreate faithfully the music of the 18th century should be aware of and take into account. Let's not forget that Bach's music was written for Hass and Silbermann's harpsichords, that of Couperin for Taskin and Couchet's ones, and Hundel's music for Shudi's harpsichord. Here's Christian Schubart's note about the harpsichord: "First of all, a very pure execution is to be learned, or, in other words, the hand must be exercised for the very correct drawing of the musical drawing, as a slight shaking of the hand can deform the contour of the piece" (Schubart 1983, 252). "However, we must not linger too much on the harpsichord, since this instrument is more suitable for allegro than for adagio, in other words, for virtuosity rather than interpretations of expressive pieces" (Schubart 1983, 253).

Widening the ambitus to 5 octaves has a major effect on the development of instrumental technique and hence of interpretative art. Also, the exquisite style and atmosphere of the rococo inspired by the artistic practices unfolded in the welcoming atmosphere of the salons, are implemented, due to the special metallic timbre of this instrument. In this context, in the eighteenth century, the great

instrumentalists and composers François Couperin le Grand, Jean-Philippe Rameau and Domenico Scarlatti assert themselves and shine. The tremendous contribution of the three great harpsichordists mentioned above far exceeds the boundaries of their era, the interpretative aspects highlighted by them being basic principles even for today's pianists. Thus, as we know, Couperin is the author of the Treaty entitled *L'art de toucher le clavecin*, a work that makes notable contributions claiming that the perfection of instrumental technique is not an end in itself, but the very means of expressing music, bringing to the foreground the suggestive, plastic side of the music and not the purely theoretical side of it. Also concerned about the interpretative art and the obtaining of the most pleasant and qualitative sound from the point of view of the musical-artistic expression, Rameau writes in 1724 the *Mechanique des doigts sur le clavecin*. In addition to the large harpsichords with one or two manuals, we also come across a range of small-scale instruments, especially used as home and study tools. Of these, the most widespread, especially in England, is the virginal, which owes its name to the angelic sweetness of its sound. There were two virginal forms, one with a darker sound, and the other with a silver sound. The first one has the keyboard from the middle to the right, the strings being pinched at a greater distance from the mentum, while the second, rarely encountered, has the keyboard to the left, the pinching of the strings being close to the mentum. Other common and used types are spinet, trapezoidal, single register and the claviciterium, with vertical strings, the precursor of the later upright piano.

3. The Clavichord

The clavichord (fr. clavicorde, it. Clavicordio, lat. clavicordium) is mentioned in a poem belonging to Eberhard von Cersne and entitled *Der Minne Regal* (Ionescu, 2011, 80). It is the instrument that will be used to the same extent as the harpsichord and the pianoforte until the end of the 18th century. Due to its dynamic properties and the ability to produce a vibrato by moving the finger, this instrument becomes in the middle of the century the preferred instrument of sensitive expression serving the new expressive musical taste. "This solitary, melancholic, overwhelmingly sweet instrument has some virtues that raise it above the harpsichord and the piano, of course if it is built by a master. By pressing your fingers, by vibrating the strings, by the stronger or lighter hand can be achieved not only the local musical colorus, but also the intermediate shades, amplifying and extinguishing the sounds, the trilling excitement of the fingers as well as the portamento - in a word, all components of sentiment can be defined on this instrument. The one who does not want to be loud or unleashed, the one who often prefers to flood one's heart often with sweet feelings, goes past the harpsichord and the fortepiano and chooses a clavichord built by Frick, Spath or

Stein. That's why there are so many harpsichordists and pianists, while very few are the ones who play the clavichord. Today, clavichords have reached their peak. They have a range of five to six octaves, are tied or unbound, whether or not they are provided with lute registers. Thus, the sensitive interpreter might not want any improvement of this instrument" (Schubart 1983, 254-255). The clavichord was used as a home and educational instrument, being preferred as a study instrument by organists, for whom there is a pedal clavichord. This instrument appreciated even by Mozart finds in Carl Philipp Emmanuel Bach the most devoted and loving supporter, the composer dedicating it numerous pieces including the famous *Adieu à mon Clavier Silbermann* in 1781. At the end of the 18th century, through the insertion of the hammer mechanism into the square body of the clavichord, it is transformed into *Tafelklavier* (square piano), the new instrument gradually replacing the clavichord in the amateurs' circle.

4. Pianoforte or Fortepiano

It is the youngest 18th-century keyboard instrument, the inventor of this new instrument being considered to be Bartolomeo Cristofori or Cristofali, who began his experiments at the beginning of the century in Florence. "Alfredo Casella attributes to Cristofori the construction of a first pianoforte instrument already in 1702, even though the most frequently quoted by literature remains the instrument dating from 1709, that *Gravicembalo col piano e forte*" which in rough translation means "harpsichord with hammers, with a soft and powerful sound "(the higher level on which this instrument is placed from the dynamic point of view is apparent without any doubt from its name)" (Popa, 1994, 52). The newly created keyboard instrument appears first described by Scipione Maffi in *Il Giornale dei Letterati*. The new instrument will then appear in other European centers, being built in Germany by Christoph Gottlieb Schröter, and in France by Jean Marius. In the construction of the new keyboard instrument with hammer strings, Cristofori was probably influenced by Pantaleon Haberstreit's pantaleon. In the history of the piano, linked to the moment of creating this indispensable instrument of our day, there are recorded instruments built on the same principle in the Germanic area (a hammerklavier - a piano with hammers – linked to the name of the famous organ builder Gottfried Silbermann (1683-1753), who took over and perfected a model invented by the German organist Christoph Gottlieb Schröter (1699-1782), as well as in the French one (a notable contribution in applying the hammer mechanism to some clavier models with the French manufacturer Jean Marius, whose studies in the field are filed at the Academy of Sciences in Paris" (Ionescu 2011,103). The pianoforte initially took over the registry system as dynamic and imitative functions for modulation of sounds. These registers cease to be used when the piano

becomes able to imitate the timbre of different instruments and benefit from much greater dynamic differences. The new instruments generally had the size of the big harpsichords, so that, as it was improved, the keyboard included the musical scale of the whole orchestra. We know that, in the beginning, the pianoforte, due to its low weight (it still did not have a metal plate) and the small size could be transported by the composer interpreters. The innovative force of the instrument builders, always attentive to the requirements of the era, was instantly felt in building small, easily transportable pianofortes. The substitution of the harpsichord by the piano has been slowly developing and perfecting the youngest keyboard instrument continuing throughout the eighteenth century. The bold instrument, which has slowly undermined the supremacy era of the harpsichord as a solo instrument, was not easily accepted (Bach himself was reluctant to use it), because "Cristofori's pianoforte will obviously mark the removal of the harpsichord only after 1760 when the mastery of the constructors made recognition of its musical predominance and supremacy" (Radulescu 2003, 19). The way the hammer was placed in the mechanism generated two directions in the construction of the instrument. The first - *the German or Viennese mechanics* - called *Prellzungenmechanik* or *Prellmechanik* and developed in the line of the instrument of Gottfried Silbermann by his disciples Johann Georg Andreas Stein (1728-1792) – on whose pianos composed and played the Viennese classics Haydn, Mozart and Beethoven - Christian Ernst Friederici (1709-1780) - the creator of the vertical piano, called Pyramid and Johann Zumpe. The second - *English mechanics* (pushing), of Christophorian origin, named *Stossmechanik* or *Stosszungenmechanik* -, which was taken over and developed by Robert Stodart, A. Bakers and John Broadwood. Of all these innovators in the field, Stein and his instruments were preferred. In fact, the major change in composition and interpretative art occurred around 1776-1777, marking the end of the glory age of the harpsichord and the beginning of the impressive affirmation of the pianoforte. The end of the eighteenth century, however, opens the gates to the new instrument in a brilliant manner through the creation of the great classical composers: Haydn embraces the new Steinez instrument in 1766 at the Esterházy court; Mozart himself, in his mature composition in 1777, finds the ideal instrument in Stein's pianos.

5. Conclusions

We observe how the development of each of the instruments presented focuses on major conquests in the field, each component element undergoing transformations according to the musical-aesthetic requirements of the moment. What we should not forget in the evolutionary course of the instruments is the inter-determination and the stratified perfection of different but related, correlated directions, the

attainment of performance in its construction with its high fidelity mirror in stage performance and the increasingly acute contouring of the need to impose systematization in the interpretative practice. Thus, we conclude by highlighting the main directions opened by all conquests in the field:

1. Completing the interpretative art and opening up new horizons of instrumental technique, virtuosity and expressiveness, thanks to the beneficial interaction between composers-performers and builders, mentioning here Domenico Scarlatti, Georg Friedrich Handel, Johann Sebastian Bach, Jean-Philippe Rameau, François Couperin le Grand, Wolfgang Amadeus Mozart, Ludwig van Beethoven, etc.
2. The development of the pedagogical side and the methodology of the instrument: the emergence of specialized treatises, focused on the theoretical interpretation of the interpretative practice (the treaties written by Rameau and Couperin - being some of the most representative examples in this sense).
3. The instrumental creation reflected from the perspective of the solo instrument in two directions:
 - a. the momentum of chamber music and the development of specific instrumental forms: sonata for solo instrument (Domenico Scarlatti, Padre Soler, Joseph Haydn, Wolfgang Amadeus Mozart, Ludwig van Beethoven etc.).
 - b. the solo concert for one, two, three instruments with keyboard and orchestra (Johann Sebastian Bach, Wolfgang Amadeus Mozart, Ludwig van Beethoven, etc.). As early as the eighteenth century, we find a precipitation of change in the construction of keyboard instruments, with essential transformations taking place, the elements that have been added over time are now rethought and resized so as to meet new aesthetic requirements and musical practices increasingly diverse and complex.

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