

# Harpsichord & *fortepiano*

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# The Clavecin Roïal and the first copy in modern times

Kerstin Schwarz



Illus.1: Copy of the Clavecin roïal made by Kerstin Schwarz in 2019 (photo: Simon Chinnery).

The Clavecin Roïal (or Clavecin Royal) is a large five-octave German square piano (illus.1) that allows quick changes of timbre while playing. The name was given by the Dresden builder Johann Gottlob Wagner (1741–1789), who worked together with his younger brother Christian Salomon (1754–c.1800), who continued the business after Johann Gottlob's death. The Clavecin Roïal was built in large numbers until at least 1797, and the last dated existing original by Christian Salomon Wagner was numbered 805. It was not only known in Germany but also widespread in the then-German towns on the Baltic Sea coast from Danzig (Gdańsk/Poland), Königsberg (Kaliningrad/ Russia), Riga (Latvia) to Reval (Tallin/Estonia), as well as in some Scandinavian cities.<sup>1</sup>

The instrument has an escapement action of the *Stoßmechanik* type, but it works differently from the better known English hammer action (illus.2).<sup>2</sup> The sound is generated by bare wooden hammer heads,

triangular in cross-section. The strings are only damped when using a knee lever to engage the dampers. These dampers operate from under the strings and they are mounted in a separate rail. With a second knee lever a so-called 'harp' register (a frame with cloth fringes on its front site which can be lowered down to the strings, illus.3) can be engaged. With a third knee lever small pieces of leather can be moved between the strings and the hammer; this register is called the moderator. There is also a swell, an internal cover made of cardboard covered with silk which sits above the soundboard and opens to give a crescendo effect or sudden *fortissimo*.<sup>3</sup>

The surviving examples (not more than around 15 in the whole world) are all of extremely good workmanship. Most of them have unusual veneers with beautiful inlay work (illus.4), the surface polished and decorated with smart brass hinges. Almost none of them is in playing condition.

Celebrated musicians from Dresden, Hamburg, Berlin, Copenhagen and the Baltic German cities such as C. D. Stegmann, Joseph Schuster, Peter Abraham Schulz, Johann Gottlieb Naumann and Carl Anton Reichel played the Clavecin roïal. Moreover, C. P. E. Bach owned a Clavecin roïal. His last Fantasias were improvised, composed and played on this instrument.<sup>4</sup> In his *Versuch über die wahre Art das Clavier zu spielen*, published in 1762, C. P. E. Bach had praised the undamped stop of the Fortepiano as most agreeable and beautiful for improvising.<sup>5</sup> His Fantasia in C major (Wq.61/6) has the handwritten timbre changes 'Clavecin' and 'Pianoforte' marked in the score.<sup>6</sup>



Illus.2: Action model of the Clavecin roïal made by Kerstin Schwarz (photo: Simon Chinnery)

Wagner announced the new instrument in 1774, according to his report reprinted by Forkel in his *Musikalische-kritische Bibliothek* of 1779 (illus.5). Wagner writes in his description: 'The sounds of the various stops or registers, of which there are six in all, are produced by wooden hammers instead of quills or brass tangents. The soundboard has a light cover of taffeta lined underneath with thin pasteboard. [...] there are three pedals, No.1, 2 and 3, and on the right there is another such pedal, No.4. These pedals enable all the changes of stops to be effected with the greatest speed in the middle of playing without the artist having to remove a hand from the keyboard; indeed he can even make each individual sound loud or soft'.<sup>7</sup>

According to Wagner, the Clavecin roïal was able to imitate the harpsichord, the harp, the lute, the Pantalon and the pianoforte. The description of the six stops reads as follows:

I. 'If the musician plays the instrument just by itself, as it is, without using one of the above pedals, then it has the full strength of a *Flügel* or *Clavecin*, with the difference that the bass notes keep on sounding far longer. [...] Just through a strong or a weak touch at the keyboard he has at

his command the Gradation of *pianissimo*, *piano*, *forte*, and, if he presses the pedal No.4 with his right foot, the *fortissimo*. This pedal lifts the lightweight cover above the soundboard, less or more according to the wishes of the player'.<sup>8</sup>

II. 'When the middle pedal, No.2, is depressed and held down, the instrument is then the same as a *Flügel* or *Clavecin*, just as strong in sound, and can be used to good effect with a complete music and for the accompaniment of the recitative'. Pedal No.2 was the one which engaged the damper mechanism.

III. 'If the left foot depresses pedal No.1, then I have the sound of a harp, completely rich and natural, [...] The harpist himself, if he were to hear this instrument without seeing it, [...], could be deceived. He would hear sounds and harmonies that cannot be produced on his instrument at all, [...]'. Pedal No.1 lowers down a frame with cloth fringes until they sit on the strings.

IV. 'By keeping the left foot down on pedal No.1 and taking with it pedal No.3 the sound of a lute is created'. Pedal No.3 is the one which moves small pieces of leather between the strings and the hammers, with other words the moderator. This combination is thus of the harp stop and the moderator but still with the dampers not engaged. Wagner mentions that the player can alternate between the harp and the lute by taking off and putting back pedal No.3 'in a way pleasant to the ear, without taking the hand from the keyboard. Here too, through touch, the forte and piano remain in his power'.

V. 'Pedal No.3, on its own, depressed by the right foot, creates the sound of the *Pantolon*. These days, this instrument has almost completely fallen into disuse because of its many problems. But those to whom the *Pantolon* is not entirely unknown would agree that the sound is very similar'. Wagner must therefore have had the *Pantolon* (the hammered dulcimer) in mind played with wool-covered hammers, rather than bare wooden beaters.

VI. 'At last, if I have pedal No.3 depressed and take pedal No.2 as well, using both feet to keep them down, the so-called *Piano forte* comes into being, a sound produced just by a weaker and stronger touch. Until now so many of these instruments have appeared, differing in size, construction and



sound, that it is almost impossible to give all of them a single fitting description'. In other words, with the moderator and the damper stop engaged, the instrument imitates the piano sound.



Illus.3: Clavecin roïal by J. G. Wagner, 1788 (Musikinstrumenten-Museum Berlin), showing the bare wooden hammer heads, the under-dampers, the moderator and the harp (photo: Kerstin Schwarz).

Although Wagner claims to be the inventor of the instrument, this is by no means certain. From C. P. E. Bach's inventory we know that he owned a Clavecin Roïal from the famous maker Christian Ernst Friederici from Gera, by whom unfortunately no such instrument has survived. In the museum of Schloss Pillnitz near Dresden, a Clavecin Roïal made by Johann Gottlob Horn in 1786 has survived, and in the Museum Viadrina in Frankfurt/Oder is a 1787 Clavecin Roïal made by Johann Gottfried Zabel. In Cramer's *Magazin der Musik* (1783) a Clavecin Roïal made by Johann Christian Jürgensen is described.<sup>9</sup> A few undated and unsigned instruments exist as well.

For the first time in modern times, a copy of a Clavecin Roïal has been built by Kerstin Schwarz.



Illus.4: Inlay work above the keyboard, Clavecin roïal by J. G. Wagner, 1788 (Bachhaus, Eisenach) (photo: Kerstin Schwarz).

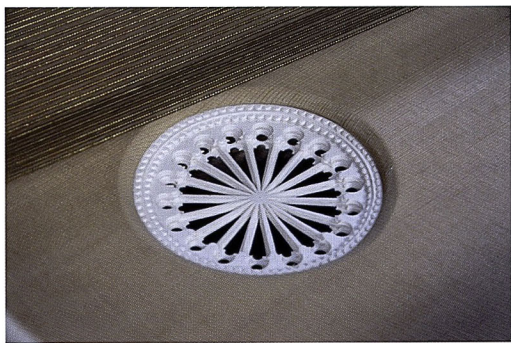
Since none of the surviving Clavecin Roïals are in completely original condition, research on various instruments was necessary. In the *Musikinstrumenten-Museum* in Berlin, it was possible to dismantle, to photograph and to measure the very complex hammer mechanism.<sup>10</sup> The instrument in Berlin (Clavecin Roïal made by Johann Gottlob Wagner in 1788) is also one of the very few with historic gauge numbers, which gave important information about the string thicknesses (they range from 0000 at FF in the bass to 6½ at f3, f#3 and g3 in the treble). Clavecin Roïals have a long iron scaling (the c2 of the Clavecin Roïal in Berlin is 330mm). They have no opening in the belly rail, and the inner construction was reconstructed thanks to photos of the restorations carried out in 1974 in Berlin and in 1984 in the Bach-Haus museum in Eisenach. For the soundboard thicknesses and the ribbing, measurements from the very damaged (and in 1984, replaced) soundboard of the Clavecin Roïal in Eisenach were used for the copy. The two soundboard rosettes were made of cardboard, like the originals (illus.6); this kind of rosette can also be found in Saxon clavichords as well as in Horn's Clavecin Roïal.

### Neue Erfindungen.

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Dieses Clavecin Roïal ist, dem äußerlichen Ansehen nach, nichts anders, als ein ordinaires aus 5. completen Octaven von F bis f bestehendes Clavier, eben so begabt, mit nicht mehr und nicht weniger Drahtsaiten, 3. Ellen lang, 23. Zoll breit, 10. Zoll hoch. Statt der Riele und meßigtenen Tangenten werden die Töne der verschiedenen Rüge oder Kegler, deren sechs in allem sind, durch hölzerne Hämmerchen hervorgebracht; bei Resonanzboden hat eine leichte Decke von Laff mit dünner Pappe unterlegt, so wie auch der übrige obere Theil des Instruments, auf welcher Decke ein Pult dergestalt angebracht ist, daß nicht der mindeste Staub hinein dringen kann. Es steht auf einem Gestelle, an welchem sich unten linker Hand drei Pedaltritte, No. 1, 2. und 3. befinden, rechter Hand aber noch ein dergleichen Tritt No. 4. angebracht ist. Vermittelst dieser Pedaltritte, welche durch Abstracte oben in das Maschinenwerk eingreifen, werden alle Veränderungen in der größten Geschwindigkeit, mitten im Spielen bewirkt, ohne daß der Künstler eine Hand von dem Manual wegrühren darf, ja er kann sogar, jeden einzeln Ton, stark oder schwach, angeben.

Illus.5: Excerpt from Wagner's advertisement in Johann Nicolaus Forkel, *Musikalisch-kritische Bibliothek*, vol.III (Gotha, 1779), p.323.



Illus.6: Soundboard rosettes in the copy of the Clavecin roial (photo: Kerstin Schwarz).

Almost all surviving Clavecin Roïals have veneered cases with beautiful inlay work, except for one, the instrument made by Johann Gottlob Wagner in 1788 in the *Bach-Haus* in Eisenach. It is built in the more traditional clavichord style, with an oak case and visible dovetail joints. This style, Wagner's basic model, as we know from his publication, has been chosen for the copy (illus.1). The four legs, which are not original in

Eisenach, have been copied from the Horn instrument in the museum in Pillnitz. Three of the four registers plus the knee levers survived in original condition in the Clavecin Roïal in the Berlin museum. The swell mechanism, as well as the music desk, have been copied from the Clavecin Roïal made by Wagner in 1783 in the *Stadtmuseum* in Lübeck.

The initiator of the Clavecin Roïal project was Pablo Gómez Ábalos, a Spanish pianist and musicologist living near Valencia. In 2017 he won the Leonardo Grant<sup>11</sup> for the project, and in 2019 has produced an audio CD.<sup>12</sup> For music samples, short videos and more photos about the project see the website: <https://www.animus-cristofori.com/en/instrument-copies/kopie-eines-clavecin-royal-von-gottlob-wagner.html>.

*Kerstin Schwarz trained as a musical instrument restorer at the Händel-Haus in Halle, and made her first instrument, a Cristofori piano, in 1996. She worked with Tony Chinnery in Vicchio near Florence for 17 years, then in 2008 founded her own firm, Animus Cristophori, making fortepianos, clavecin roïals, clavichords, harpsichords and spinets, as well as restoring historic originals. <https://www.animus-cristofori.com/en>.*

## Notes

- <sup>1</sup> Pablo Gómez Abalos, 'Clavecin Roïal Project: Timbres and Fantasy of the Sublime', in Alfonso Benetti, Francisco Monteiro and Jorge Salgado Correia (eds), *Proceedings of Research Hands on PIANO – International Conference on Music Performance* (Aveiro, 2019), pp.110-126 at p.114.
- <sup>2</sup> For a video with a functioning model of the action see <https://youtu.be/NKA7XrgRFV0>.
- <sup>3</sup> For a video with the registers in action see <https://youtu.be/SFbUNHquvY8>.
- <sup>4</sup> Pablo Gómez Abalos, 'Hidden stories of sound effects and timbre changes in the early piano history. A case study: the Clavecin roïal and the art of sound mutations for the musical sublime', in Helena Marinho et al. (eds), *Hidden Archives, Hidden Practices: Debates about Music-Making* (Aveiro, 2020), pp.195-217 at p.210.
- <sup>5</sup> Michael Latcham, 'The Clavecin Roial of Johann Gottlob Wagner in its eighteenth century context', *Michaelsteiner Konferenzberichte* Band 68 (Geschichte und Bauweise des Tafelklaviers) (Augsburg/Michaelstein, 2006), p.131.
- <sup>6</sup> Peter Wollny, 'Carl Philipp Emanuel Bachs Rezeption neuer Entwicklungen im Klavierbau. Eine unbekannte Quelle zur Fantasie in C-Dur Wq 61/6', *Bach-Jahrbuch* (2014), p.176.
- <sup>7</sup> Johann Nicolaus Forkel, *Musikalisch-kritische Bibliothek*, vol.III (1779), pp.322-328, English translation by Michael Latcham, in Latcham (2006), Appendix 1, p.179.
- <sup>8</sup> For quotations, see Latcham (2006), pp.175-180.
- <sup>9</sup> *Magazin der Musik*, i/2 (1783), pp.661-662. Transcription in Peter Wollny, *Carl Philipp Emanuel Bachs Rezeption neuer Entwicklungen im Klavierbau*, pp.177-178.
- <sup>10</sup> The detailed investigation of the instrument was possible thanks to the support of the director Conny Restle and the restorer Sabine Hoffmann.
- <sup>11</sup> Leonardo Grant for Researchers and Cultural Creators of the BBVA Foundation (Spain).
- <sup>12</sup> <https://sublimeclavecinroyal.hearnow.com>.