

THE HARPSICHORD: NATIONAL DIFFERENCES



Harpsichord by Johann Christoph Fleischer, Hamburg, 1710, cat. no. 5083 © MIM, photo: Jürgen Liepe

The harpsichord is one of the »quill pianos«. This term is now common to designate instruments which are shaped like a piano – i.e. harpsichords – and smaller shapes lying crosswise in front of the players forms, such as spinet and virginal. The designations »spinet« and »virginal« were formerly defined differently, as is the case today. Here it will suffice to know that »virginal« is often used for the typical Flemish instrument while »spinet« is used for the typical Italian instruments. Moreover, a quill piano is any musical instrument where the player snaps the strings with »quills«, i.e. elongated pieces of the crow quill shaft (also other material), by depressing keys.

The harpsichord as the largest instrument of the family also offers the most musical possibilities. Based on this, but also based on the inner structure and the exterior of the harpsichords, one can distinguish several types, which can be associated with different regions of Europe.

Although Italian harpsichords form no uniform picture, they differ from the instruments that have been built north of the Alps. This is particularly true for the harpsichords made by the famous Ruckers family that are relatively similar to each other. They were created in Antwerp some time between 1570 and 1670. Our museum has four of these instruments. Italian harpsichords have comparatively thin walls (ribs). The dimensions are usually between 3 and 6 mm, at the Ruckers by contrast 14 and 16 mm. Many of the sensitive Italian instruments were kept in a box. Until the beginning of the 17th century they were taken out for playing and put on a table. The boxes could be unadorned or painted simply, however, the instruments had decorative features: When playing music, not only listening was important, but also the pleasure that one felt while looking at a beautiful object. A harpsichord built by Vito Trasuntino in Venedig in 1560 (cat. no. 806) bears the slogan: *Rendo Lieti in vn Tempo gli Occhi el Core* (I delight both the eyes



and the heart). From the beginning of the 17th century, the box was often painted more spectacularly than before. In addition, a table no longer served as a base; rather, three feet were used that were not rigidly connected to the box.

It was said about the Italians that they design their harpsichords rather in the spirit of the sculptor than the painter; what is meant by that is on the one hand the slim shape, the profile strips, walls running in curves on the side of the keyboard, the carvings and marquetry, the arcades in the face edges of the natural keys, the ornamental nails of ivory, on the other hand the absence of paint (except for the box) in favour of the mentioned inlays: the use of natural materials instead of paint was also relatively expensive; the outfit of the Italian quill pianos was more precious than that of the Flemish. Our Italian gravecembalo (this was probably the name of the longer instruments) dating from about 1700 lost a part of its decoration in the second world war; carved, angel-like water spirits once rested on the edges on both sides of the keyboard. In Antwerp, especially from the 17th century onwards, the use of decorative materials was sometimes faked by painting: Thus the ribs offer the sight of red-brown marble or you can see other large, precious stones. The right-angled walls of the keyboard – simpler than those made by the Italians – are only the extensions of the ribs. In the area of the keyboard, the inside of the walls and the inside of the lid are partly covered with printed paper (wallpaper). On the inside of the lid, you can also often find the imitated grain of expensive wood (but not its colour!). There were also the Latin inscriptions from the theological humanist spiritual world; our harpsichord that was built by the elder Andreas Ruckers (cat. no. 2224) in 1618 bears the slogan *Soli Deo Gloria* (honour is due to God alone). A harpsichord of our museum (cat. no. 2232) with built-in virginal (octave virginal) sounding one octave higher, which was made by Joannes Ruckers (1578–1643), is provided with the inscription *Omnis spiritus laudet Dominum* (Let every spirit praise the Lord). The rich painting on the soundboard represents in many Flemish instruments in a sense a garden, with flowers, fruit, birds, butterflies and other animals. In the Ruckers' quill pianos, the sound hole is usually a lead rose with the initials of the builder and an angel playing harp.

The lids are often provided inside with paintings instead of wallpaper, although the question always arises whether it is the original decoration. An example is the just mentioned harpsichord with built-in octave virginal by J. Ruckers. Such double instruments are documented since the late 16th century; they were deemed to be custom-made for customers who were aware of the importance of prestige; the equipment with a relatively precious painting would meet this expectation.

The cover painting of our instrument represents the conversion of Saul and is probably related to a template made by Francesco Salviati (1510–1563). However, it is questionable whether it was specifically made for this quill piano; it could still have been made for its first owner.

A musically relevant feature is the so called scale length, i.e., the length of the vibrating part of a string or all of these string lengths. A longer string, as we know, leads to a deeper tone than a shorter one under otherwise equal conditions. However, as other factors such as the thickness and tension of the string also affect the pitch, there are very different scale lengths. The length of the string for the note *c*² in the Ruckers' quill pianos was usually about 360 mm, while it strongly fluctuated in Italian instruments, but was on average much shorter than in the Netherlands. In the Ruckers' harpsichords there is even a string length of around 480 mm for *c*²: They built harpsichords with two manuals (keyboards), whose tuning was a fourth apart. The *f* key of the lower manual is located below the *c* key of the upper manual. Because the keys located in the same position snap the same strings, e.g. the *f*¹ key of the lower key produce the same tone as the *c*¹ key of the upper manual. Thus, *c*² of the lower manual has the said string length of 480 mm. Such a double instrument in our museum was built by Andreas Ruckers in around 1620 (cat. no. 2230).

Also in more recent times the »concert pitch« is not the same in all cities. In the old days, the differences were even larger, and different moods were common at the same place. Michael Praetorius (*De organographia*, 1618, p. 44) says, for example, that the English, when they play music with the pure viola da gamba ensemble, chose a pitch shifted by a fourth or even a fifth. It is disputed whether he has meant here a raise or a lowering. What is interesting is his observation that the shifted pitch produces »much more graceful / brilliant and glorious harmony than if you stay in the right pitch«. Such widely spaced attunements appear to have been common also in Italy; However, they have not been combined in the same instrument. The differences in the scale length – the string length of *c*² is in many instruments about 270 mm, in others about 320 – may indicate different pitches. As the Italian scales were overall shorter than the Flemish ones, the string tension could be lower because, even with lower tension conditioned by the shortness of the string, and probably by its smaller thickness, the same pitch can be reached as in Flemish harpsichords. The low string tension is characterised by the above-mentioned thin walls.

The original sound that depends on these and many other factors may be reconstructed only to a limited extent – not least because of the gap in our knowledge of the stringing. In the Italian instruments with long scale it tended to be mellower, in the Flemish instruments fuller and when used with both stops

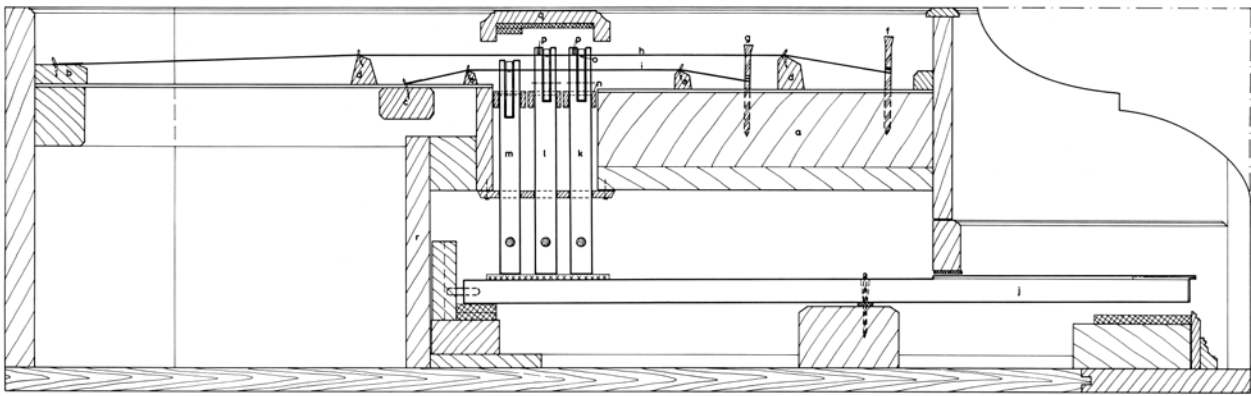


Fig. 1: Model of a quill piano mechanism using the example of the harpsichord by Johann Christoph Fleischer, Hamburg, 1710, cat. no. 5083
© MIM, drawing: Horst Rase

more brilliant: Italian harpsichords often have only so-called eight-foot stop (abbreviated: 8' stop), i.e. only tones in the normal pitch, which are obtained when the C whistle in the organ is eight feet long. The four-foot stop that can be found in most Flemish instruments sounds one octave higher; in conjunction with the eight foot it makes the sound clearer.

A »stop« of the harpsichord mostly refers to the various individual sound possibilities. Types, number and connection possibilities of the stop are called »compilation of stops« of the instrument. To better understand these subtleties of the sound, the following should be noted with respect to the mechanical system of the harpsichord (Fig. 1): On the back of the keys there are vertically positioned jacks, which are also provided with a vertical reed moving around an axis. Quills are mounted inside of them in an approximately horizontal position (Fig. 2). The jack is raised by the finger pressure of the player, the horizontal string is snapped by the quill. When the key is released, the quill reaches the string from above again and passes sideways because it is installed in a movable reed. Thus it resumes its initial position without producing a further sound; at the same time, the damping strip lowers onto the string and stops the sound.

A register generally consists of a jack row and a corresponding set of strings. As mentioned above, there are mainly eight-foot and four-foot stops; the six-foot, which makes an octave sound deeper, is rare, and the two-foot is very rare. However, two jack guides arranged one behind the other can be allocated to the same set of strings – normally the eight foot; this case is shown in Fig. 1. The same string is then snapped in different places; the closer to the web the snapping point is, the more nasal and clear will be the sound. Of course, a sound difference due to different snapping points is also observed if each of two eight-foot stops has an own set of strings: The jacks are arranged one behind the other, while the two strings for the same sound are located on the same webs. In many areas of harpsichord construction, the contrast and connection possibilities of the eight-foot stops are of greater importance than the stops of other pitch-

es. – The individual stops can be switched off by the lateral displacement of the whole jack row, so that the quills pass the string. – Another important way to change the sound is the lute stop: This is a sliding bar, which is used to press the piece of leather or felt affixed thereto to the strings of a stop. Thus the sound is strongly damped.

The German harpsichord construction is still comparatively little known; there have obviously been strong, regionally-related differences that were exacerbated by the change of epochs. Many German harpsichord builders were also open to any suggestions from abroad.

Our harpsichord with cat. no. 316, whose initialling has probably been lost, was most likely made by Johann Heinrich Harrass from Großbreitenbach/Thuringia in about 1710. It has two so-called contrast manual, which differ, in contrast to the aforementioned transposing manuals, by the sound rather than the pitch. The stop of the upper manual (8' with lute, 4'), after inserting this manual, can also be played from the lower manual (16', 8'). This instrument can later be changed; anyway we know that Harrass used the six-foot stop.

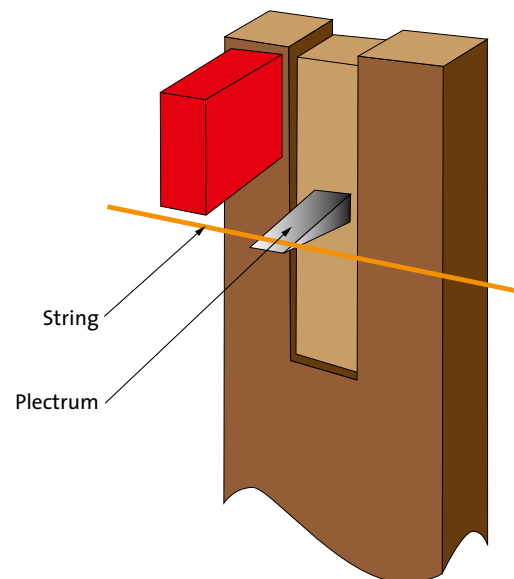


Abb. 2



Bach harpsichord (replica by Horst Rase and Thomas Lerch), 1995, cat. no. 5614 © MIM, photo: Jürgen Liepe

– By the way, during the 17th century, the transposing manuals of the above mentioned harpsichords made by Andreas Ruckers have been converted to contrast manuals. Here, the four-foot stop can be played using long, step-like jacks of the two manuals; each jack is located on two key levers that produce the same tone in the lower and the upper manual.

Our harpsichord (cat. no. 5), which was probably built around the middle of the 18th century in the workshop of Gottfried Silbermann, was also provided with this device: Thus the eight-foot stop of the upper manual could also be played from the lower manual equipped with a second eight-foot and four-foot stop. Today, this harpsichord is provided with a push-pull coupler as that made by Harrass for the same purpose. To switch the stops by the feet instead of by the hands, which are needed for playing, a pedal was used, espe-

cially in the English harpsichord construction, in the second half of the 18th century (harpsichord by Jacob Kirckman, London 1761).

After the harpsichord was no longer used in around 1800, probably the first three reconstructions were exhibited at the world exhibition in Paris in 1889. They are now in our Museum. The harpsichord built by Pleyel Wolff Lyon & Cie (Paris 1889) established that trend in the modern harpsichord construction, which is far away from the historical models. This is reflected in the sturdy design, installation of all stop levers in a pedal box, the damping by independent links. The instruments built by Louis Tomasini and Erard in the same year are more history-focused, which can be observed in the recent trends of harpsichord construction again. As a special feature, Tomasini's harpsichord has a stop referred to as »Pianissimo«: The jack row of the upper manual is laterally slightly displaced so that the quills touch the strings just very gently. The instrument from Erard has a lute stop in both manuals. – The Renaissance of the harpsichord began in Germany later than in France. The instruments built by Johann George Steingraeber (Berlin 1930) and Hans Neupert (Bamberg 1931) are based on the originals of our museum. Both of them have the compilation of stops of a harpsichord; as regards the outer shape, Neupert used our instrument, which was built by Silbermann, as a basis. By their sturdy design, the use of leather for the »quills« and many other details, both harpsichords remind of the 20th century.