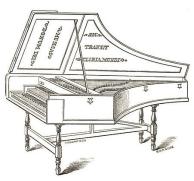


## Welcome to the World of Early Keyboard Instruments

It brings valuable insight and inspiration to hear and play the music of each era on the instruments loved during its time!

**The Harpsichord** - The harpsichord was developed toward the end of the 14th century and produced until about 1800. The instrument was still played alongside the newer fortepiano through the Classical era, but forgotten during the Romantic era, and then revived in the mid-20th century. The harpsichord was used for solo playing and accompaniment, and favored by Renaissance and Baroque composers such as Bach, Byrd, Couperin, D'Anglebert, Frescobaldi, Froberger, Handel, Rameau, and Scarlatti.





Harpsichords may have two keyboards (above) and several sets of strings with different tone colors, allowing the player to create tonal variety by using various combinations of strings. The term *harpsichord* is often used for all plucked-string keyboards including pentagonal *spinets* (left), rectangular *virginals* (right), and upright *clavicytheria* (not shown). The *lautenwerk* or *lute-harpsichord* has gut rather than metal strings and does sound like the lute. Harpsichord



appearance, construction, and tone color varies by both time period and geographic region.

The harpsichord has a plucking action. A *quill*, which is wedged into a wooden *jack*, plucks the metal string when the key is depressed. A felt damper stops the sound when the key is released. Like the organ, harpsichord action does not produce louder or softer dynamics via finger pressure, but a player can create the impression of dynamics with nuanced use of both timing and of articulation and overlapping between notes.



**The Clavichord** - The clavichord originated early in the 15th century and was popular through the 18th. When



a key is depressed, a small metal *tangent* at the end of the key strikes the string. The resulting sound is very quiet compared to both the harpsichord and fortepiano, but its action can produce a range of dynamics, color, and vibrato. Clavichords may be *fretted* meaning that more than one key/tangent may share the same string. Since the tangents strike that string at different points, different pitches are produced. A clavichord

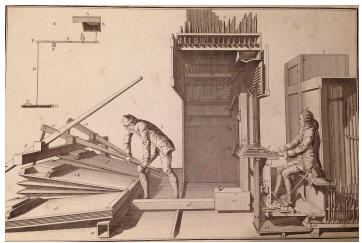
in which each string is struck by only one key/tangent is called *unfretted*. The clavichord was used for keyboard practice, composing, and performance in small spaces, and was prized for its dynamic range and expressiveness, especially by 18th century composers including JS Bach, CPE Bach, Haydn, and Mozart.

**The Fortepiano** - The first fortepiano action, in which strings are struck by hammers, was invented by Bartolomeo Cristofori around 1700, and fitted into a harpsichord case. He called the instrument, *Gravicembalo col piano e forte*, a "harpsichord with soft and loud," achieved via finger pressure. The young instruments became popular after about 1750. The sound of the early fortepiano is lighter and more transparent than that of the

modern piano, and appropriate for late Baroque as well as Classical music. Over time, the instrument gained new qualities of tone, volume, size, weight, and range in response to changes in musical style, and was later called *pianoforte*. Two types of action were common: the lighter Viennese action with a brighter tone (preferred by Haydn, Mozart, Beethoven, and Schubert); and the heavier English action (based on Cristofori's) with a more mellow, deep tone. The latter persisted in the modern piano which had evolved by about 1880, complete with heavy construction, metal frame, and wound strings under great pressure. The earlier fortepiano models fell out of use; they are now reconstructed by modern builders, as are the harpsichord and clavichord.



The Tracker Action Pipe Organ - The pipe organ is a wind instrument which creates sound by driving pressurized air through pipes of metal or wood. The earliest known pipe organ was the *hydraulis* of ancient Greece which used the weight of water to create pressurized air. European organs of the Renaissance through the Baroque eras (1450-1800) vary widely in size, from the *portative* (played while held in the arms) to the large cathedral instruments, the most complex machines known at the time. In addition to pipes, organs include a *bellows* to create the pressurized air, a *windchest* to hold the air and direct it into the pipes, at least one *manual* (keyboard), and often, *pedals* played by the feet. The *action* is mechanical, using *trackers* (strips of wood) to open and admit air from the windchest into pipes when keys/pedals are depressed and close when keys/pedals are released. The bellows was pumped manually.



Pipes vary in tone color depending on the pipe shape, size and material used. Most organs have several *ranks* (sets) of pipes, each with its own tone color, and each rank being turned on or off via *stops*. The metal *flue*, *diapason*, or *principle* pipes are the foundation of the organ and create its characteristic tone. There may also be *flute* pipes with a fluty tone and *reed* pipes with a pungent tone created by a vibrating metal tongue. Some ranks sound at the same pitch as the piano (called *8-foot* pitch), some may sound 1 or 2 octaves lower, adding depth, and some may sound 1 or 2 octaves higher, adding

luster. Ranks called *mixtures* sound at other high intervals above the main pitch, creating brilliance.

During the Romantic era, pipe organs increased in size and volume, were designed to sound like the symphonic orchestra, and used *pneumatic* and *electro-pneumatic* key actions. In the 20<sup>th</sup> century, some organ builders revived the construction and sound of the Renaissance and Baroque organs, including tracker action, which gives the player more nuanced control. JS Bach is a preeminent organ composer.