

# Evolution of the Piano

The pianoforte, more commonly called the piano, became, by the last quarter of the eighteenth century, a leading instrument of Western art music, for both professionals and amateurs. Its origins come from the first known stringed keyboard instrument known – the clavichord. The clavichord led to the development of the harpsichord. Unlike the modern piano, the strings of a harpsichord were plucked by a device known as a plectrum through the motions of a *jack and quill* action. Although much louder than the clavichord, harpsichords had to employ *terraced dynamics*. If one wanted to change the dynamics, the lid of the resonating chamber had to be either opened or closed. The action of the levers (no matter how hard they were struck) generally resulted in the same volume when the strings were plucked.

## Cristofori and the First Pianofortes

The quiet nature of the piano's birth around 1700, therefore, comes as something of a surprise. The first true piano was invented almost entirely by one man—Bartolomeo Cristofori (1655–1731) of Padua, who had been appointed in 1688 to the Florentine court of Grand Prince Ferdinando de' Medici to care for its harpsichords and eventually for its entire collection of musical instruments. A 1700 inventory of Medici instruments mentions an "arpicimbalo," i.e., an instrument resembling a harpsichord, "newly invented by Bartolomeo Cristofori" with hammers and dampers, two keyboards, and a range of four octaves, C–c". The poet and journalist Scipione Maffei, in his enthusiastic 1711 description, named Cristofori's instrument a "gravicembalo col piano, e forte" (harpsichord with soft and loud), the first time it was called by its eventual name, pianoforte. A contemporary inscription by a Florentine court musician, Federigo Meccoli, notes that the "arpi cimbalò del piano e' forte" was first made by Cristofori in 1700, giving us a precise birthdate for the piano.

Cristofori was an artful inventor, creating such a sophisticated action for his pianos that, at the instrument's inception, he solved many of the technical problems that continued to puzzle other piano designers for the next seventy-five years of its evolution. His action was highly complex and thus expensive, causing many of its features to be dropped by subsequent eighteenth-century makers, and then gradually reinvented and reincorporated in later decades. Cristofori's ingenious innovations included an "escapement" mechanism that enabled the hammer to fall away from the string instantly after striking it, so as not to dampen the string, and allowing the string to be struck harder than on a clavichord; a "check" that kept the fast-moving hammer from bouncing back to re-hit the string; a dampening mechanism on a jack to silence the string when not in use; isolating the soundboard from the tension-bearing parts of the case, so that it could vibrate more freely; and employing thicker strings at higher tensions than on a harpsichord.

## Importance of the Piano

The modern piano is a highly versatile instrument capable of playing almost anything an orchestra can play. It can sustain pitches in a lyrical fashion, creating all musical styles and moods, with enough volume to be heard through almost any musical ensemble. Broadly defined as a stringed keyboard instrument with a hammer action (as opposed to the jack and quill action of the harpsichord) capable of gradations of soft and loud, the piano became the central instrument of music pedagogy and amateur study. By the end of the nineteenth century, no middle-class household of any stature in Europe or North America was without one. Almost every major Western composer from Mozart onward has played it, many as virtuosi, and the piano repertory—whether solo, chamber, or with orchestra—is at the heart of Western classical professional performance.



Clavichord



Harpsichord



Modern Piano (Baby Grand)



Modern Console Piano