

Short History of the Piano

Gravicembalo col piano e forte: Bartolomeo Cristofori thus named the instrument he perfected in Florence, Italy, in the early 18th century. Better known today as *piano forte*, it could be played with a soft sound, *piano*, or with greater intensity, *forte*, depending on the force used to strike the keys.

The origins of the *piano forte* are to be found in the Middle-Ages. Back then people played the timpanon¹, a trapezoidal case across which strings were stretched and struck thanks to two small beaters. As for the organ, it was fitted with a keyboard. From the combination of keyboard and strings stemmed two distinct instrument families mentioned as early as the 14th century. The first includes keyboard and plucked stringed instruments such as the harpsichord or the virginal; the second includes keyboard and struck stringed instruments such as the clavichord.

The Baroque Period

The clavichord is generally considered the true ancestor of the piano since it was the first instrument with both a keyboard and struck strings. However, its timbre, loudness and range were poor. No great future seemed to be lying in store for the clavichord until Bartolomeo Cristofori further developed the concept.

As for the harpsichord, benefiting from long experience in instrument making, it was the all-around instrument throughout the 17th century. It accompanied most instrumental ensembles and vocal works, except in church.

Composers devoted a virtuoso solo repertoire to it, in the footsteps of Jan Pieterszoon Sweelinck, Girolamo Frescobaldi or Johann Jakob Froberger.

A most appreciated genre was then the Suite (of dances), all in the same key, according to traditional writing for the lute. Usually, after a very free introduction called the prelude, the Suite alternated fast and slow movements of contrasting character. The organization into “Allemande - Courante - Sarabande - Gigue”² constituted the core of the Suite with other dances revolving around it.

Most pieces forming the Suite are made up of two sections, each being played twice. Some sections can be followed by “doubles”, embellished repeats of the original dances.

However, other pieces avoid this type of structure. The prelude presents a more improvisational aspect. The toccata, in a free form, is intended to highlight the performer’s technical skill. Much liked in France, the rondeau plays with the idea of alternating a refrain with different verses. The chaconne and the passacaglia³ proceed following the principle of variations on a repeated bass line. Originally a rural Portuguese dance, the folia or “follia” in Italy, although in a different vein, also takes up the same process.

¹ Hammered dulcimer

² Allemanda - Corrente - Saraband - Jig

³ Passacaglia

On the Italian Peninsula

Italian piano technique, famous for being sparkling and expressive, favours the melodic line and willingly yields to fantasy and virtuosity. It is characterized by various elements such as the struck chords, scales and regular quaver or semiquaver arpeggios of the accompaniment as well as the frequent use of harmonic sequences.

In the 17th century, the cantata, a sung piece, differed from the merely instrumental sonata, a piece made to “sound”. The latter may take the form of the chamber sonata or *sonata da camera* to be played at the Court, the equivalent of the dance suite, and the church sonata or *sonata da chiesa*. Both generally feature one or several solo instruments moving about over a continuo bass. Arcangelo Corelli stood among the composers who could express themselves best in both genres.

As opposed to the *sonata da camera*, the *sonata da chiesa* – generally with fewer movements – avoided explicit reference to dances. Only certain tempo indications such as Adagio or Allegro, appeared at the top of the pieces it was composed of. It is probably at the root of the classical sonata with Domenico Scarlatti as one of its precursors in the first half of the 18th century. His sonatas for keyboard in a single movement explored new means of composition and were the harbingers of a new way of writing music.

In France

In 1670, Jacques Champion de Chambonnières published a set of *Pièces de clavecin*⁴, the first known printed collection in France devoted to the instrument. The irregular quaver and semiquaver technique, the numerous ornaments, the special “touch” of the harpsichord chords in arpeggios, inherited from lute music texture, are reminiscent of a French aesthetic. The style is then described as “broken style” or “lute style”⁵.

In the 17th century the works of Jean Henri d’Anglebert or Louis Couperin evince the quality of this French school whose dynamism was to remain steady for most of the following century.

François Couperin, possibly the most illustrious composer of the French school, wrote for the instrument all his life and named his dance suites “*Ordres*”. The pieces to be found in it often bore descriptive titles. With *The Libertine* and *The Graceful* he seemingly wished to depict characters. *The Bees* and *The Reeds* are reminiscent of nature. Other French composers such as Jean-François d’Andrieu, Louis-Claude d’Aquin and Michel Corrette were to write also *The Fife*, *The Cuckoo* or *The Taking of Jericho*. Jean-Philippe Rameau, who died in 1764, was to become another major representative of the French school.

In Germanic countries

In the Germanic countries the term *Klavier* has long been used to describe either the organ or the harpsichord and later the *piano forte*, not to mention the clavichord, a greatly valued instrument that was built until the dawn of the 19th century. A great many pieces of a more intimate nature seem to have been openly devoted to this instrument, especially those written under Froberger’s quill in the 17th century.

⁴ Harpsichord Pieces

⁵ Style brisé or style luthé

Johann Sebastian Bach also cherished the expressive and nuanced technique of the clavichord. Thus in 1726, when circumstances brought him a *piano forte* to test, he did not show any particular enthusiasm for the instrument introduced by the builder Gottfried Silbermann. He was critical in particular of some weaknesses of the *piano forte* regarding touch and tone.

Even though the *piano forte* was not warmly welcomed at first, its making rapidly evolved and in 1732, Lodovico Giustini published the first works especially devoted to it. In his twelve *Sonate da cimballo di piano forte dette volgarmente di martelletti*, he added dynamic markings: soft or loud. Among the new ways of playing devised in those days of intense innovation, two of them – one by Cristofori, the other one by Silbermann – were to obtain lasting success. They became the *una corda*⁶ and *forte*⁷ pedals of today's grand pianos. The first one by slightly shifting the hammers sideways allowed only one string or two to be struck and caused the sound to be softer, while the second one by lifting all the dampers sustained all the notes played.

In 1722 Johann Sebastian Bach began the writing of a series of preludes and fugues in the 24 major and minor keys that he intended for the “well-tempered clavier”. Twenty years after he published the first collection, a second volume followed, based on the same pattern. Until a proper temperament was adopted, a keyboard could hardly stray away from the key to which it had first been tuned, according to the laws of acoustics, without sounding out of tune. Some keyboard prototypes had even been devised with more than 12 keys per octave to enable performers to play in several keys, which failed to arouse their enthusiasm. The notion of arbitrarily dividing the octave into twelve equal semitones is called “equal temperament”. It is a compromise to play “in tune” in any circumstances and it still prevails today.

By 1747, times had changed. Invited once to the Court of Frederick II of Prussia, Johann Sebastian Bach improvised on a *piano forte* designed by the very same Silbermann Company whose model he had tested a few years earlier. He noted technical improvements. The *piano forte*, of better craftsmanship, then spread across the whole of Europe and rivalled the harpsichord.

After the passing of Johann Sebastian Bach, Domenico Scarlatti, Georg Friedrich Händel and Jean-Philippe Rameau, and even if Bach's sons, Domenico Cimarosa or even Wolfgang Amadeus Mozart and Joseph Haydn still devoted a large part of their output to it, the harpsichord gradually became outdated. In France it was still favoured until the Revolution when numerous harpsichords were unfortunately burnt since in many people's minds they still embodied the old regime.

Around the middle of the 18th century the continuo bass was gradually abandoned as a means of writing and tastes evolved, henceforth heralding a new way of writing music, asserted at the turn of the century in what was from then on commonly called *classicism*. It was in Vienna, Austria, that it would finally blossom.

Classicism

From then on the *piano forte*, initially shaped like the harpsichord, also came in the forms of the vertical piano, sometimes called the “giraffe piano”, the ancestor of the upright piano, and the “square” piano, devised after the horizontal structure of the clavichord and whose strings ran parallel to the keyboard. It was with such a square

⁶ Soft pedal

⁷ Sustain pedal

piano made by Johann Zumpe that Johann Christian Bach gave the first major concert devoted to this instrument in 1768.

As for the builder Sébastien Erard, the first piano to come out of his workshop dated back to 1777. Thanks to his ingenuity and to the spirit of emulation that pervaded all the builders, the *piano forte* kept improving in expressivity and better matched the musicians' expectations. In the last quarter of that century, it indisputably reigned over music for keyboard instruments.

Some dances that had been known for over a century lasted. More recent ones like the waltz became more and more popular... Musical structures evolved and the advent of the "sonata form" allowed more significant thematic developments.

Thematic exposition (often with a repeat)	Thematic development	Recapitulation	Coda
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Pattern of a "sonata form" movement

The virtuoso repertoire for soloists developed within the concerto and the sonata. Joseph Haydn and Muzio Clementi each composed dozens of sonatas for the piano, and Mozart produced eighteen, not to mention the numerous and varied miscellaneous works – among them fantasias, variations and concertos for one, two or even three pianos – that one or the other of them bequeathed to posterity.

In the second half of the 18th century a literary movement, named *Sturm and Drang* ("Storm and Stress") was born in Germanic countries. Under its influence, refinement and melodic elegance tended to be replaced by a greater search for expressiveness. A wind of change foreshadowing *romanticism* was arising within musical creation in Europe.

Starting in the late years of the century and already perceptible in some of Mozart's works, this passionate outburst pervaded the creative work of Ludwig van Beethoven. Among others, "Grave", the introduction to the 1799 Piano Sonata No 8 in c minor, Op. 13, commonly known as Sonata "Pathétique" bore witness to the overpowering feelings that piano music embraced...

Romanticism

In the early 19th century, the concert instrument composers enjoyed confiding in was called the *Hammerflügel*. With its leather-covered hammers its timbre was much more ethereal than in today's pianos, especially in the lower registers. Very fashionable until 1840, not only was the piano used by Beethoven but also by Anton Diabelli and Karl Czerny. At the same time the upright piano quickly spread. Less expensive, less cumbersome, it entered a growing number of homes where it would later replace the "square piano".

Even if established genres, such as the sonata or the concerto, were still well represented, increasingly numerous autonomous pieces were born. Franz Schubert thus bequeathed to us his *Impromptus* and *Moments musicaux*. As for Robert Schumann, he dedicated his early years of composition to composition for the piano. With *Papillons*⁸, *Carnaval*⁹, or *Symphonic Studies*, he composed some of the most beautiful pages of piano literature ever written.

⁸ Butterflies

⁹ Carnival

In the early 19th century, the collaboration between builders and musicians intensified and innovations came by the cartload.

In 1822 Sébastien Erard invented the double escapement action, a technical improvement facilitating the rapid playing of repeated notes and favouring the flow of the performance. The double escapement action can still be found in obviously more refined versions of today's pianos. The strings, thicker and more numerous (since the keyboard range would cover up to seven octaves), were made of steel. The wooden frame had been replaced by a more stable metal frame. The instrument soon became powerful enough to be played in larger concert halls before a much wider audience. As of 1826, gradually, hammers were wrapped in compressed felt following the builder Henri Pape's invention which favoured an increasingly subtle technique.

Sharing a common energy the pianists tested new models, gave their advice and lent their names and fame to the craftsmen who in return offered the very best of their production. So much so that Franz Liszt, for instance, would be tied up with the Erard firm.

On his arrival in Paris in 1831, Frédéric Chopin had in his bags the first of his *Douze études*¹⁰ for the piano op. 10 and a promising future was laid out before him. Renewing the melodic material, sprinkling it with memories of Poland, his native country, he dedicated almost all his works to the instrument, particularly to the solo piano. His waltzes, polonaises and mazurkas still delight today's music lovers, not to mention his preludes, nocturnes, ballads and other pieces, evincing a very personal sensitivity. For his part, he would remain linked to the piano maker Pleyel.

Born in 1811, Franz Liszt who died in 1886 was a key figure in the history of the 19th century piano. He performed on stage all over Europe, published numerous transcriptions for the piano including symphonies by Beethoven and operas by Wagner or Verdi. He composed countless pieces for the solo piano, among them *Études d'exécution transcendante*, *Années de pèlerinage*¹¹, *Rhapsodies hongroises*¹² and his well-known Piano Sonata in B minor.

The virtuosos appealed more and more to audiences, and contests between the pianists were organized. The aim was then more often than not a matter of exploit and demonstration rather than with any real artistic concern. The showdown opposing Thalberg to Liszt in 1837 remains noteworthy in the history of music.

The piano to which Johannes Brahms, Gabriel Fauré, Camille Saint-Saëns, Modest Moussorgsky, Sergei Rachmaninoff or Isaac Albéniz entrusted their inspiration was back then dubbed *the modern piano*. It already looked very much like the piano we know today. The keyboard covered a range of 7¼ octaves, or even more, as Henri Pape endowed some instruments with extra notes in the bass register to reach 8 octaves around the middle of the century.

In addition, Steinway and Sons, the American piano maker, started building their first cross-strung pianos in 1859. As time went by, their concert model would include a third pedal, placed between the two others, called "sostenuto pedal". It allowed some notes to be sustained while other notes were unaffected. Other firms soon followed suit.

On the threshold of the 20th century the multiplicity of inspirational sources composers resorted to foreshadowed a renewal of the forms and the language of piano music. Such was the case for Claude Debussy when he wrote *Pagodes* (1903) or *Le petit nègre* (1909) calling to mind oriental images or American sounds. His works are also

¹⁰ Twelve Studies

¹¹ Years of Pilgrimage

¹² Hungarian Rhapsodies

steeped in poetic symbolism. The titles he submitted to the performers often borrowed from imagination or led to daydreaming, like *La Cathédrale Engloutie*¹³, *Ce que dit le vent d'ouest*¹⁴, *Voiles*¹⁵.

At the turn of the century, Erik Satie and Maurice Ravel also stood among the innovators who ensured the renewal of French piano writing, albeit each in his own style and with occasional humour.

The Early 20th Century

The early 20th century was the golden age of the player piano. Indeed, it appears in westerns and comic books as a distinctive feature of the American saloon, but while it was indeed invented in the middle of the 19th century, the pneumatic mechanism with perforated paper only really developed after 1900. The player piano was deemed interesting enough for Igor Stravinsky to consider including it in his initial *Noces* project and in the twenties, for Paul Hindemith to devote a few pieces of recorded music to it. Debussy, Ravel, Rachmaninoff, Arthur Rubinstein, Vladimir Horowitz all recorded works on mechanical pianos. Blüthner, Gaveau, Pleyel and Steinway were some of the firms that invested in their production.

North American Music Styles

Ragtime originated in Missouri in the late 19th century. It influenced a great many composers of the old continent and was the musical result of a complex mix blending African echoes and military marches, drawing on cakewalk and probably Caribbean rhythms as well. In its heyday the genre was above all meant for the solo piano, before being transposed to the banjo or the orchestra and trickling down into improvised music such as *jazz* in the 1910s.

When he wrote *Golliwogg's Cake-walk* in 1908 Debussy directly drew his inspiration from the genre that would develop until 1917 when its most emblematic representative – African-American composer and pianist Scott Joplin – passed away. The influence of ragtime was to be felt well into the thirties with the “novelty” style as well as with that of the stride piano in which Art Tatum’s technique proved to be exceptional.

Blues is quite difficult to define. It is sometimes considered a state of mind. Some think of it as a musical form. Others are interested in it as a sociological or political phenomenon. But beyond the squabbling over definitions, it has had an impact on the entire history of popular music from the 20th century to today.

The blues came into being at the end of the 19th century in the African-American community of the Southern states of the US, at the crossroads of Louisiana, Arkansas, Tennessee, Mississippi and Alabama. The blues, like ragtime music, blends all kinds of ancestral music. It is undoubtedly deeply rooted in African culture. To be sure, Negro spirituals and religious songs, work songs, folk and country ballads had influenced it. But it was able to develop its own techniques and codes that some call the “idiom” of the blues. Following its own independent way, it nurtured and inspired musicians, from hot jazz, through the famous orchestras of the swing era such as the ones conducted by Duke Ellington and Count Basie, to bebop and beyond. The famous boogie-woogie, first

¹³ The Submerged Cathedral

¹⁴ What the West Wind Has Seen

¹⁵ Veils (or Sails)

played on the piano before being orchestrated for larger bands, rhythm and blues, later called soul music, rock 'n' roll as well as rock music owe much to the blues.

This array of North American popular music styles left behind a long line of pianists such as Fats Waller, Thelonius Monk, Erroll Garner, Bud Powell, Cecil Taylor, Ray Charles or Chick Corea, to name just a few, all of whom left their marks on the history of the piano.

New Aesthetic Horizons for Art Music

Art music in turn began exploring new aesthetic horizons. The work of Arnold Schönberg, Alban Berg and Anton Webern leading to serialism (twelve-tone music) within the Second Viennese School, naturally found grounds for experimenting through pianistic music. Indeed, in 1909 it was to the piano that Schönberg devoted some of his first works breaking free from tonality with his *Piano Pieces* Op. 31. The twelve-tone series, *die Reihe* in German, is an ordered arrangement of the twelve notes of the chromatic scale covering the twelve semitones of equal temperament. In keeping with its specific properties, it is determined by the composer prior to the actual writing of the piece. The rules of this compositional technique stipulate that a note may be repeated only after all the other notes of the series have been played. The series can be played in four different forms: the initial form (the “original” ordering is the basis of the piece), the retrograde, the inversion and the retrograde inversion forms. In addition it may be transposed. Schönberg’s Opus 23 for solo piano from 1923 includes the first serial composition, *Walzer*.

At the beginning of the 20th century, Béla Bartók and Zoltán Kodály, for their part, took an interest in the essence of folk music. Enthralled by their work, they travelled across Europe, starting with Hungary, their native country, and extended their field investigation all the way to Turkey and North Africa in order to collect authentic “folk” sources of inspiration.

Like Stravinsky in *Noces (The Wedding)* and in his transcription of *Petrushka*, both Hungarian musicians willingly cast the piano as a percussion instrument, thus broadening its potential for expressiveness. From this field research in musicology and this percussive use of the instrument, piano music was enriched with a repertoire in which popular music and art music combined their flavours. Obviously, Bartók's *Romanian Folk Dances*, *Allegro Barbaro* or the six volumes of *Mikrokosmos* found a prominent place in that repertoire.

From the 1950s until Today

In the era of the harpsichord and then in the days of the piano, keyboard instruments were equipped with any number of “toys” in order to obtain a wide range of timbres. For instance the bassoon pedal consisted of a rolled-up scroll of paper being lowered onto the strings to produce a nasal sound.

20th century composers soon discovered how to make the most of anything that could produce a sound on a piano, i.e. they did so in their works by planning to pluck the strings directly or to rub or strike the soundboard. In the thirties John Cage also followed this path of research in timbre. In order to create new sounds he placed objects between the strings of the piano and altered its natural sound. He became a pioneer of the “prepared piano”. Composed between 1946 and 1948 his *Sonatas and Interludes* are the results of these experiments. Similarly, tone clusters and harmonics – produced by the sympathetic string resonance of certain strings – enable

the pianist to play differently. Sometimes these new ways of playing the piano led to reconsider the notation of music scores. With their deep understanding of music, Olivier Messiaen, Maurice Ohana, Karlheinz Stockhausen, Pierre Boulez and many others have contributed to the renewal of pianistic notation.

More recently, some composers, perhaps reacting against these experiments, have gone back to traditional and more conventional styles of writing, composing a few works for solo piano. They were unadorned but appealing in their apparent simplicity as in *Für Alina*, written in 1976 by Arvo Pärt, an Estonian composer, or some pieces signed by Philip Glass, an American composer of minimal music.

Even if the first experiments on an electric harpsichord were described as early as 1761 by Jean-Baptiste Delaborde, it was not until the 20th century that technological evolution would enable keyboard instruments to fully take over new spaces of creation. In 1928 Maurice Martenot introduced to the public one of the first electronic keyboard instruments to draw the attention of composers, called ondes Martenot. Numerous inventions followed but the real technological revolution had started in the 60s with Robert Moog's first analogical synthesizers. It spread in the 80s with the famous DX7, a digital synthesizer manufactured by the Japanese firm Yamaha.

Today, technology makes it easy for anyone to purchase a digital piano at a reasonable price. This piano may include many features, among them a dynamic keyboard, built-in pedals that are very similar to those on an acoustic piano, a MIDI recording setup, often with quite remarkable sampling quality.

While numerous musicians moving within the sphere of so-called popular or folk music have succeeded in making the most of technological advances, their counterparts in art music have not lagged behind even if their creations go beyond the framework of piano music. André Jolivet, Olivier Messiaen, Steve Reich, Jean-Claude Risset have thus produced works including ondes Martenot, electric organs or synthesizers.

Some current manufacturers offer hybrid systems combining traditional and digital or electronic devices. On some instruments, the mechanism is indeed that of an upright or a grand piano while the actual sounds come from sampling. Performers can enjoy the touch of a real piano and at the same time benefit from the many possibilities offered by new technologies.

Simultaneously, since the 1950s, research on the piano timbre has found new grounds for sound emancipation in the framework of electroacoustic types of music and of music calling for real-time sound processing. Used as actual sound material to build and structure the work, the *samples* can be modified by being fragmented, edited or processed before being fused or mixed. It is another means for having the piano express itself in unprecedented languages. Using these techniques as early as 1952 Stockhausen presented a *Study* of musique concrète¹⁶ composed from piano sounds.

Today, and day after day, acoustic pianos, digital pianos and virtual pianos add their own stories to a fascinating history of the piano that started many centuries ago.

¹⁶ "Concrete music" is a form of electroacoustic music