

Enzo Beacco

The Piano Galaxy: A History of Composers, Interpreters and Makers



The conviction that the piano is an instrument of another time with little future is widespread, and yet, in our era, it remains at the centre of musical life, public and private, in the East and the West, with repertoires that reinvent themselves and amplify themselves and with markets that develop and adapt to the external changes of technology and society. Enzo Beacco reinterprets the history of the most well-known instrument, from the harpsichord and the fortepiano to the object that it is today, as a marvelous intersection of technical, artistic, and commercial invention, showing us how its twilight is further away than ever. It has changed structure, materials, environments: its “fluidity” – which adapts to the sensitivity of the interpreter and who listens to it – transforms

it from mechanical object to biological organism capable of transformation and adaptation. While we meet piano makers, authors, and interpreters, we realise that most likely the piano is immortal.

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Telescope

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Long Life

The belief that the piano is an instrument from a bygone era, and one with little future ahead of it, is relatively widespread. Among the many contributions that claim as much, it is worth mentioning Beniamino Dal Fabbro's splendid *Il crepuscolo del pianoforte* (The Twilight of the Piano), originally published some seventy years ago and recently reprinted in Italy. A few decades later, Piero Rattalino's excellent *Storia del pianoforte* (A History of the Piano) set the endpoint for the development of this instrument in the early twentieth century, with Debussy marking the conclusion of creative experimentation with it. Their arguments are strong, and it is hard to disagree with them. Yet, to this day, the piano remains at the heart of musical life, both public and private, both in the West and the East, with repertoires constantly renewed and broadened and new markets emerging.

To understand this discrepancy, it might be helpful to reassess the history of the piano not only as that of a classical musical instrument but instead as a marvellous interweaving of technological, artistic, and commercial inventiveness, much like is being done for other everyday objects: having found themselves at the mercy of markets, these objects are now having their past reconsidered in order to better understand their present and plan their future, even if that might mean straying away from well-trodden paths and customary definitions in order to find enlightening analogies in distant fields.

A Durable Consumer Good

Among all musical instruments, the piano is the only one that can (and must) be regarded as a veritable industrial product belonging to the segment of durable mass consumer goods. By volumes and values, it is much more so than violins, guitars, accordions, trumpets, and drums can ever be. Moreover, the piano has always been part of a broader economic and social context that once only concerned the Western sphere of influence but is now global. Indeed, there have been significant developments over the last few decades, and new markets have emerged in Asia, with China leading the way. Its enjoyment by professional or amateur performers and by demanding, versatile, or distracted audiences keeps changing all over the world. In the meantime, the piano itself continues to evolve and adapt as an object.

Throughout its long life, which already spans a quarter of a millennium, the piano has undergone and influenced endless changes in taste, culture, and technology. It has changed shape, application, operating system, and reference market. It has developed models suitable for a wide range of consumers at all levels of sophistication. It has adopted various materials such as wood, cast iron, steel, ivory, and plastic. It has adapted to especially drastic environmental changes: now that the time of eighteenth-century aristocratic salons and nineteenth-century middle-class drawing rooms is no longer, it is left to contend with the great concert halls of the twentieth century and the tiny apartments of today. Even its consumption has evolved: from a means of collective entertainment, it is now a vehicle of individual pleasure often enjoyed in the intimacy of one's headset.

Like a Computer

Since Bartolomeo Cristofori's invention at the end of the seventeenth century, the evolution – or, rather, metamorphosis – of the instrument “with the piano and the forte” has been quite dramatic. In many ways, the reach of this metamorphosis within the social and industrial history of the last century is comparable to that of the computer, with all its professional and personal models encompassing both the virtually infinite repository of universal archives and the minuscule units of storage used by individual memories. In the case of the computer, too, slow, rudimentary, convoluted, cumbersome objects that were quite hard to house and handle have been replaced, over a very short interval of time, by nimble, multifunctional, incredibly powerful, pocket-size miniatures that offer infinite potential.

But the analogy does not stop here. To work, both instruments, whether musical or computational, need to be interacted with in a strong, educated manner – that is, they require a language (software) that allows their user to leverage the many resources made available by the machine (hardware). This language must be learned with effort and requires constant updating, given that it must adapt to the frantic speed with which the machine changes. Finally, the piano and the computer both employ a keyboard to link the process of thinking to the machine itself. However, there are some crucial differences. A computer keyboard is more similar to that of the harpsichord or, going further back, the organ: it transmits the signal regardless of the strength with which the keys are pressed. On a piano, instead, the strength applied to the key (the “touch”) creates different, commensurate effects that include not only the “piano” and the “forte” but also the timbre – that is, the colour of the sound. Because of this, learning how to adjust the touch calls for a precise physical training that, on the other hand, is not required to play the harpsichord or use a computer (to the point that modern personal computers increasingly use voice commands).

Score-as-Hardware, Interpreter-as-Software

These two instruments, the piano and the computer, share another characteristic that makes the analogy more interesting. In the case of the piano, two distinct objects (hardware) exist: as well as the instrument itself, there is also a written text (that is, the musical score) that illustrates how the instrument should be used. However, the score cannot be considered as software. On the contrary, scores are more akin to databases: they are repositories of signs marked on paper by their authors in a way that allows the markings themselves to be transformed into actual sounds at the right time, when assembled and interpreted by competent performers.

Those sheets and those signs convey, of course, many pieces of information. However, this information can never be complete. Unlike software, scores are not simply mathematical formulas with unchanging results. Their creators and interpreters deal with many orders of uncertainty, as we shall see in the second part of this volume. Nonetheless, there remains a structural problem. The materials and mechanics of the few pianos that still exist from the times when the authors composed their pieces have aged, just as computers too become obsolete. The authors themselves are now dead and can no longer adapt their instructions for current use. Moreover, modern pianos are very different in their manufacture and sound. Yet, those signs, as marked by their late authors, continue to be the pillars of the repertoire for pianists worldwide, more so than the signs that represent music written over the last century.

And so, in order to be played on the most recent versions of modern pianos, the manuals, textbooks, and scores from the past must be adapted to a present that, in turn, keeps changing, at times even radically. Therefore, there is a need for people who know how to read and understand both their own time as well as the past. There is a need, that is, for interpreters who can push past the contingent, given that the database (the second hardware – that is, the score) cannot be changed based on updates to the first hardware (the

piano) with which they must work. Faithfully following all the original instructions is not enough: doing so, in fact, would create a merely mechanical performance that distorts the merits of the piece and the intentions of its author, both fluid notions subject to the evolution of taste. This issue is not merely contemporary. In the early nineteenth century, when the piano was leaving its infancy, many documents show how publishers, editors, and performers would integrate the scant clues left by earlier composers. These integrations dealing with dynamics, loudness, expression, and phrasing change from one printed edition to the next, adapted, once again, to the spirit of the time and the place.

Life Cycle

From the very beginning, the inventor, the maker, the interpreter, and the listener of the piano are distinct figures. However, each depends on the other. It is an infinite interweaving. The literature on this issue is virtually endless. However, the focus is usually on individual aspects: mostly, on the author's text (the score-as-hardware), often on the interpreter (understood as software), much less on the other hardware, that is, the instrument itself. Because of this, looking for a logic that might keep track of so many variables might seem like a hopeless task. It is better, then, to rely on numerology as used by the ancient Mesopotamians to set order to chaos: twelve constellations in the sky to organise the cycle of the months, four seasons on the earth to organise the cycle of the years.

By modern convention, four are also the first phases describing the evolution of both biological organisms and industrial products: conception, development, growth, and maturity; the fifth and last phase, decline, will not be accounted for in this volume. Following on from this, it would be ideal if a shadow line splitting this lifetime in half could be found – a fault line separating two tectonic plates that are homogeneous yet encompass many synchronisms and diachronisms of characters, events, and objects. Within the life cycle of the piano, that fault line can be found in the early twentieth century. Before then, in fact, the piano was an object that determined its use, application, and market with its evolution. But from the early twentieth century onwards, the roles are reversed: the piano (and the keyboard that commands it) must adapt to countless changes in technology and society and, therefore, to new markets. Thus, the need for pure invention decreases, whilst the requirement for interpretation and diversification becomes dominant.

The Order of Integers

By using numbers to find their bearings, travel, and count in the chaotic galaxy of the real world, the ancient Mesopotamians and the Pythagoreans invented fixed stars and the twelve constellations of the zodiac. Those integers ($2 \times 2 = 4$, $4 \times 3 = 12$, $12 \times 2 = 24$, $24 \times 2 = 48$) also play a magical role in the galaxy of music in general, and of the piano in particular. Therefore, the standard four phases of the life cycle of the piano can be articulated over two books of twenty-four units each – that is, two times twelve discrete fractions, as many as the notes in Western musical language. Each fraction focuses on a character chosen amongst the hardware experts: those who invented the early hardware and its respective databases (the instruments and the scores), and those tasked with interpreting them. The twenty-four characters in the first book are all great classical authors who followed the technological evolution of the piano and wrote music tailored for the object upon which they themselves were forcing change, save for the fact that they almost always pushed past physical contingencies to escape into the abstraction of the ideal instrument. The twenty-four characters of the second book include some authors of new music. Still, they are mostly interpreters of the immutable scores from the past who are faced with further changes, and not only within the piano itself but also in the technology and the society of the surrounding world. In many ways, makers go back to playing a

key role at this time, inventing new technologies and new markets. Yet, their place is, at best, in the background, forever obscured by the laws of the market.

So, this double journey, which has been divided into two stages of twenty-four stops each, aims to offer an artificial but reassuring grid into which some of the countless events that marked the history of this instrument over the last few centuries can be placed, and perhaps even ordered. The operation (that is, $2 \times 3 \times 4 \times 2$) and its total (48) are, of course, meant to be a homage to Johann Sebastian Bach's *The Well-Tempered Clavier*. Numerology is thus used to establish an order, much like with twentieth-century dodecaphony, where the twelve identical notes of the tempered scale are reassessed as a whole (trope) made of six emblematic figures arranged in a casual order amongst themselves and yet in a symmetric, complementary relationship with adjacent tropes analogous in nature. The result is a veritable organised chaos that is crucial in getting closer to the truth, despite the unavoidable redundancies and frictions that individual cases bring to the general framework.

The Well-Tempered Piano

These numbers are at the very root of the piano's DNA and, with their unforeseeable mutations, guarantee its existence and, perhaps, even its immortality. Keyboard instruments are the most artificial (that is to say, unnatural) among all instruments: their consecutive series of seven white keys and five black keys repeat seven times that artifice by which the interval between the frequency of a note and its double (octave) is divided into twelve equal steps (tempered semitones). This is a purely mathematical operation that, in Europe, was only universally accepted at the end of the seventeenth century. The "equal temperament" first theorised by Andreas Werckmeister and then revised by Bach was later challenged further as ever wider keyboards and louder acoustics caused inevitable dissonant frictions due to the overlapping of the harmonic frequencies of the lower notes with the higher. It is well-known that each note on a given instrument has its own (unique) frequency package that determines its timbre, that is, its "colour." These natural, complex frequencies cannot be compressed into mathematical units or algorithms with unequivocal results. Therefore, the customisation of the industrial product for its end user – that is, its tuning and pitch – becomes increasingly critical.

Indeed, even Bach's *Well-Tempered Clavier* should not be understood to be "tempered," that is, mechanically or digitally levelled. Bach's notion of "well-temperedness" should be understood as being "suited" to the sensitivity of the interpreter and listener. This fluid understanding of the piano transforms it from a mechanical object to a biological organism capable of evolving and adapting, much like humans themselves, whose end cannot be foretold. As time passes, this biological encoding increasingly connects and distinguishes every character mentioned in the volume, and in the second book much more so than the first.

PS. The Piano Galaxy

A certain metaphor has guided the writing of these pages and might prove helpful in their reading, too. The individual chapters have been conceived as part of a universe made up of two parallel galaxies, connected but distinct, and formed of four orbitals (three-dimensional orbits) that each contain six planets. Each planet conforms to the nature of the inhabitants after which it is named and can include relatives, friends, neighbours, strangers, service engineers, and nosy passers-by. Inhabitants and visitors occupy a shared interval of time and, often, space, and are distributed chronologically. Thus, there are forty-eight titular planets, mostly named after authors (first galaxy) and interpreters (second galaxy), around whom it is

possible to retrace the many lives of an artistic mass consumer good that is durable and perhaps even immortal.

Detailed timelines and genealogical trees are provided to mitigate the inevitably fragmentary nature of this operation. Contiguity generates familiarity and friction between generations, whether close or far apart, and creates overlaps and redundancies of style and behaviour, as is expected with every cohabitation.

The titular characters for the planets have been chosen among those who were more in the limelight at their time, as well as in ours, and therefore more conspicuous to the public and the reference market. They are authors, interpreters, and teachers. Though in the background, some space has been reserved for makers and impresarios. Sometimes, on that very same background, even engineers, tuners, and coaches make an appearance – the veritable, humble custodians of the unique, magical sound of each extraordinary piano, a sound that can be as adaptable as an F1 car with its many pilots, chassises, tyres, brands, sponsors, and (even more importantly) all the members of the pit team whose faces and names do not make the news.

Note

The footnotes suggest a more in-depth exploration of certain characters and issues.

The reading and watching recommendations at the end of each chapter are meant to help the reader better place the respective characters and objects. The brief bibliography at the end of the volume is provided as a general, preliminary guide.

Only the most recent resources and those easiest to consult have been provided. When available, preference has been given to sources in Italian, whether in the original or in translation.

At any rate, the Internet offers ample opportunity for individual research and study.

Finally, the many musical platforms available online can be used to listen to the music by the authors and interpreters mentioned here.

[...]

First Orbital

From the Harpsichord to the Fortepiano

The transition from the harpsichord to the fortepiano happened over a century. It is beyond doubt that the first “gravicembalo col piano e forte” (harpsichord with the piano and the forte) was built in Florence between 1697 and 1700 by the Paduan artisan Bartolomeo Cristofori. It is also beyond doubt that, in 1816, Beethoven was the first to officially mandate the exclusive use of the “Hammerklavier” for his Sonata Op. 101 and, later, for his monumental Op. 106.

Between these two fixed points in time, ambiguity reigns over everything. German terminology is essential, since it was in Germany that the production and sale of pianos first developed. The German word “Klavier,” which is still commonly used, literally translates to “keyboard.” However, it was also used synecdochically to refer to any instrument with a keyboard. Only the organ was designated with its own name, “Orgel.” In Germany, the harpsichord was known as “Cembalo,” thus acknowledging the Italian parentage of its invention.

For a long time, the terms “clavicembalo” or “gravicembalo” were used together with hard-to-define attributes and adjectives coined by many different makers, printers, and authors. The term “fortepiano” became common in the late eighteenth century, when it first spread in southern Germany. However, it was around 1727 that the German organ maker Gottfried Silbermann, who lived in the north of the country, named the instruments he built following the example of the Italian Cristofori “PianoFort”. Virtually countless are the many imaginative names in German with which various other makers christened their creations.

This is the source of a terminological confusion that lasted at least a century. The issue also existed in romance languages, where the words “cembalo” in Italy and “clavecin” in France were only abandoned in the early nineteenth century. Instruments with dual technology (plucked and struck strings) continued to be produced and advertised throughout the eighteenth century: within these instruments, the hammers were considered as a mere additional register to the many available in the traditional harpsichord. Finally, the distinction between large and small instruments, their respective intermediate versions, their different mechanics, and their prices was also relatively hazy.

The general confusion was exacerbated by valid commercial reasons. The new instrument struggled to establish itself due to the widespread popularity of the harpsichord. Though fairly limited as an instrument, the harpsichord was ubiquitous in the salons of the aristocracy and the new middle class, including as a piece of furniture. Throughout the eighteenth century, price continued to be a significant obstacle to the spread of the piano. The mechanism invented by Cristofori by which hammers struck the strings was much more complex than the one used to pluck the strings in a harpsichord, and consequently much more expensive. Indeed, the first buyers of pianos were monarchs, princes, and prelates.

The small sales volumes did not allow for economies of scale and limited any investment in improving the production process. Moreover, there were issues with the loudness, the tuning, and the seal of the soundboard. Therefore, at the beginning of the eighteenth century, it became necessary to improve on technologies that were still relatively unknown, especially in Italy. Johann Gottfried Silbermann was the first to understand, revisit, and advance Cristofori’s invention. He initiated a genuine Germanic school that thrived in Austria and England. The English school, in turn, later expanded into post-revolutionary France. Spanish contributions were more modest, even though the presence of Domenico Scarlatti in Madrid during the eighteenth century set some artisans to work. Other countries merely imported or copied from abroad,

including Italy and Russia, despite the former having initiated the revolution and the latter being fairly musical by temperament.

The main issue was friction between the mechanisms that transfer the movement of the key to the hammer and the damper muffling its vibrations. This friction had an impact on the strength necessary to activate the key and on the noise generated by the movement itself, which caused evident difficulties. Firstly, performers who were used to the light touch required by the harpsichord's keyboard now had to apply much more pressure to the keys, which was tantamount to mastering a new technique. Moreover, audiences also needed to deal with the background noise that came with each note. Finally, the notes themselves still sounded quite feeble and muffled compared to the clean, powerful notes of the harpsichord.

Nonetheless, great authors and true visionaries immediately understood the immense opportunity: finally, the dream of making a keyboard sing was within grasp. Suppose the notes are no longer plucked (and, therefore, disconnected in a staccato) but are instead connected in a legato and modulated in volume. The resulting melodies are much more expressive. On the harpsichord's keyboard, it is impossible to go from piano to forte because its strings are plucked cleanly, unlike vocal cords, which vibrate and are controlled by the breathing of the person singing. And unlike violin strings and all other bowed instruments, which are brushed by the bow and directly controlled by the fingers. If carefully dosed, the hammer of a piano can strike as lightly as a caress. It can go from a scream to a whisper through every intermediate nuance. There is no longer any need for the harpsichord's second keyboard or the organ's third keyboard, together with the pedalboard and all its additional registers. All one needs are fingers trained to draw the infinite nuances finally made possible by the analogue (classical) technology of the fortepiano/pianoforte, unlike the old harpsichord's digital (quantum) technology.

Domenico Scarlatti, Johann Sebastian Bach and his son Carl Philipp Emanuel, Muzio Clementi, and Wolfgang Amadeus Mozart were among the great authors who jumped on the opportunity. Except Clementi, they were all pure composers who focused more on imagining music than on performing it. Generally speaking, they also tended to be quite settled in a given place or community. And they were closely linked to local makers and the quick evolution of their creations.

Finally, I should mention at least one other character who contributed with his work (and time) to the establishment of audiences and end users to whom the new product could be offered and sold. This is the Bohemian Jan Ladislav Dussek, who was the first modern piano concert artist and travelled to every major European city to showcase his bravura, recruit students, and sell them the new instruments, thus turning a potential market into a reality.

[...]

Frédéric Chopin (1810-1849)

A basically self-taught, reluctant concert artist and fashionable teacher. Paris at the time of Louis Philippe I. Kalkbrenner and Liszt. The variable touch. The Pleyel sound. An uncertain, faraway legacy.

Unlike Schumann (a difference among many others), Chopin was never outside his time as a pianist. His music was immediately beloved by performers and, even more so, by audiences. It was exalted and never corrupted by the passing of time and the changing fashions. Nature had gifted him resources quite suitable to the keyboard, that is, darting hands with long, thin, nimble, well-mannered fingers. If anything, it was as a man that Chopin felt ill at ease in a society enthralled by the muscular posturing of keyboard wizards. He was exceedingly slender (weighing 41 kilos at 157 centimetres) and had a weak constitution. He was also reserved in public and reluctant to perform in large concert halls in front of unknown audiences. He preferred small groups of friends, whom he knew how to entertain with subtle irony, parlour games, and enchanting improvisations.

Chopin never became rich in the high society of Louis Philippe I's Paris. His earnings went towards his expensive lifestyle and were never enough to accumulate, to the point that a few friends eventually clubbed together to pay for the rent of his last apartment in the central Place Vendôme, as well as the cost of his grand funeral. Yet, his works sold like hot cakes, especially those more accessible to decent amateurs, such as waltzes, mazurkas, and some nocturnes. He had plenty of publishers, but his economic gains were always somewhat uncertain. At the time, there was no unified regulation on royalties. Moreover, there were bonds in place, as well as state and commercial prohibitions and privileges, that forbade circulation abroad. Because of this, every new work could only be sold once to the various publishers in different countries at prices negotiated depending on the author's fame and a potential market marred by the parallel import-export of bootlegged editions.

Nonetheless, Chopin earned fairly well teaching hand position on the keyboard. He not only accepted advanced students but also absolute beginners still dealing with the first five-finger exercises, scales, and essential arpeggios, as long as they paid well. He started teaching in September 1831, only a few months after arriving in Paris. He only needed to give a public concert and a few private performances, and students immediately started flocking to his house. Mostly, his students were young or not-so-young women from noble families or the upper middle class who could afford the high fees commanded by Paris's most fashionable piano teacher of the 1830s and 1840s. An hour-long lesson with him cost almost double what was charged by his closest competitor, the famous Kalkbrenner, and three or four times more than other teachers of average worth and lesser fame. He taught all day, every day, and kept a full, regular calendar of lessons over the autumn, winter, and spring months. In summer, both teacher and students left the city and went on holiday, be it productive or restful. Despite occasional interruptions due to short visits to Germany, Spain, and England, Chopin continued his teaching routine until his last months.

As a teacher, he never actually achieved particularly outstanding results. None of his students ever became a concert artist, let alone a decent composer. It must be said that Chopin himself never had exceptional teachers. He grew up in Warsaw, quite far away from the schools of Vienna, Paris, and Germany. He received his first lessons from his mother. Then he studied from 1816 to 1821 with the accomplished but little-known Bohemian musician Wojciech Żywny, who in turn had been a student of the Prague organist Jan Křtitel Kuchař, a good friend and collaborator of his Masonic brother Mozart. Since the very beginning, Chopin's chief textbook was Bach's *The Well-Tempered Clavier*. Chopin carried on his composition studies at the Warsaw Conservatory under the capable tutelage of Józef Elsner, a Prussian by birth and a Bohemian by

education. Chopin started performing in public at seven, and in 1825 he played for Alexander I of Russia, who was visiting Warsaw at the time. For all intents and purposes, he was a child prodigy gifted with an utterly natural approach to the keyboard. However, he still had a few putative teachers: he was introduced to Mendelssohn and befriended him during a trip to Berlin, the performances of the pianist Hummel and the violinist Paganini in Warsaw excited his youthful quest for virtuosity, and the ample availability of printed music in his home city guaranteed that he was entirely up to date with the current trends. Another influence that should be mentioned is the work by John Field, the Irishman left in Saint Petersburg by his teacher Clementi to garrison the Russian market, who had invented the hyper-romantic genre of the nocturne for piano.

So, it is unsurprising that, at the age of twenty and emboldened by his excellent dexterity, Chopin became a touring concert artist. He quickly composed two concerts in the style of Hummel and in 1830 achieved a certain renown in Vienna. Flattered by his early success, he returned to the imperial capital for three months in 1831. However, he did not achieve the success he had been hoping for. So, he decided to go looking for it in London. But then Paris, which was only meant to be a stopover, became his permanent residence. This was when Chopin realised that, due to his delicate constitution and shyness, he could not compete with the concert artists of his time. So he declined the offer to further his studies under Kalkbrenner. Aside from teaching, he immediately slipped into an authorial role. He composed during the limited free time he could carve out between the hours he devoted to his students in the day and Paris's lively intellectual salons at night. However, he wrote his music mostly during the summer months, which he often spent at the countryside residence of his ebullient lover, George Sand, which was near Nohant, a town in central France about 270 kilometres south of Paris.

He wrote for his own fingers, and certainly not for those of his inexperienced students. After all, none of his works were straightforward to play. Moreover, they were quite far removed from the manual skills imparted by the teachers of the time. They did not require the systematic hammering of one's fingers on the keys, analogous to the action of the hammers on the strings. On the contrary, it was crucial to have a variable touch that was functional to the asymmetrical distribution of the keys – lower (white) and upper (black), seven and five, respectively. Infinite examples are possible. The most famous is Étude Op. 10, No. 5, played exclusively on the black keys. Similarly, the dizzying speeds intended for Prelude No. 16 and the final part of the Sonata Op. 58 can only be achieved with careful fingering. The art of touch, together with the special placing of the hands that followed it and the crucial release of the arm movements, was then further enhanced by the innovative use of the feet on the pedals. Forget about Kalkbrenner's chiroplasts and hand guides, which only focused on the nimbleness of the fingers!

It is said that Chopin excelled in the use of the damper pedal, which stops all the dampers and lets the strings vibrate sympathetically after the fingers have left the individual keys, thus creating that marvellous halo that produces different timbres at every note, phrase, and chord. In his hands, the keyboard's black and white became a multi-coloured palette, and timbre came to have a structural role on the piano. This allowed Chopin to overcome the forms of the past and invent new architectures. Beethoven's dialectic of the sonata and even Schumann's narrative were no longer needed. Pure poetical invention won over everything else. Time flowed because the colours continued to change, blending in a whole where singable melody and dissonant harmony coalesced and thickened without ever turning into a mess because the magic of the writing kept the sound levels differentiated. This was the case for all of Chopin's major works, such as the Ballade No. 1 from his early years in Paris, the intermediate era of his Scherzo No. 2, and especially his late period, that of the Ballade No. 4, *Barcarolle*, and the Polonaise-Fantaisie.

Of course, we have no recordings of Chopin using the damper pedal, and the instructions printed on his scores offer vague clues that can only be interpreted according to our understanding of the acoustics achievable on the pianos of the time. So we have to trust the words of his friends and critics, who, at any

rate, all agreed in saying that the sound invented by Chopin was unmistakable – very suitable for smaller rooms and much more challenging to achieve in larger spaces. Chopin himself was aware of it, to the point that he limited his public performances as much as possible (he played no more than some thirty concerts throughout his life) and gave up the encumbrance of the orchestra in his youth.

Naturally, Chopin paid great attention to the quality of the sound and, therefore, to the instrument's mechanics. During his early concerts, he praised the performance of Graf pianos, the heirs of the Stein-Streicher tradition, which he chose for his Vienna début in 1830. During his last tournée in England, he played on the stiffer mechanics of the British Broadwood. In Paris, instead, he always preferred Pleyel pianos, which had only appeared on the market in 1807 but had already proven themselves to be worthy competitors of the better-established Érard. The firm was founded by Ignace Pleyel, a cosmopolitan immigrant from Lower Austria born Martin Pleyl. He was a student and collaborator of Haydn in Eszterháza and Vienna, an opera composer for King Ferdinand IV in Naples, and the Kapellmeister of the Strasbourg Cathedral (where he gallicised his name to Ignace Pleyel). Eventually, he found his fortune in London, where he directed his own symphonies with an orchestra in direct competition with Salomon's (and, therefore, with Haydn himself). Then, he went back to Strasbourg only to be tried multiple times as a counter-revolutionary. However, he was eventually acquitted and honoured as the author of Jacobin and ultra-republican music.

After the Revolution, Pleyel settled in Paris as a publisher. He immediately issued the complete edition of Haydn's quartets and many works by Beethoven, Clementi, Mozart, and Dussek. His last enterprise was indeed the foundation of a new piano factory. Later, his son and heir, Camille, an excellent pianist in his own right, consolidated his father's success. He produced instruments of every size, but his primary focus was home ownership of upright pianos in the English style (1815). In 1834, his factory employed 350 workers and produced about a thousand pianos a year. However, Pleyel did not simply copy the mechanics of the Broadwood, which had already been brought to Paris from England by Érard. Indeed, Pleyel was among the first to reinforce the wooden frame with iron bars. Moreover, unlike Érard, he focused on sound quality rather than on loudness. Because of this, he garnered Chopin's favour and his friendship. Indeed, Chopin always honoured Pleyel with the few public concerts he gave in Paris, from his first (on 6 February 1832) to his last (on 16 February 1848), which took place in the Salle Pleyel, a venue inaugurated by the maker in 1839 to showcase his products.

The special bond between Chopin and Pleyel became evident during the sad winter of 1838-39, which Chopin spent with George Sand and her family in Mallorca, in the Valldemossa Charterhouse. Pleyel's essential piano was late to arrive, delayed by customs issues at the port and the difficult task of hauling it by cart to their remote residence. Having become accustomed to composing with a piano at hand to test the sound of every single note, a quite nervous Chopin felt utterly stuck for weeks and could not finish his 24 Preludes Op. 28 on the small piano of local production he had available. Tradition has it that the world-famous Prelude No. 15, *Raindrop*, was first composed in those circumstances. That small piano was then left in Valldemossa and later ended up in the home of Wanda Landowska, only to disappear during the Second World War, when the Nazis confiscated it.

Today, we can only guess at the quality of sound pursued by Chopin. Nonetheless, we know that it was not the sound the teachers of his time taught their students. His sound was not meant to be percussive, let alone mawkish, but rather strong and caressing. Though Chopin did not leave any explicit instructions to this end, the very writing of his works dictates a different way of teaching the piano and placing the hands on the keyboard.

However, his message did not seem to reach the teachers (and the composers and interpreters) who came after him, who were instead dazzled by the technical challenges of his ornamental figures and the expressive challenges of his singable passages. Indeed, it was not by chance that, since the very beginning, transcriptions of Chopin's most famous melodies were made for the most varied ensembles: guitar solos,

duets with violin and flute or similar, pieces with added voice and lyrics, and all the way to the full orchestra. The record must be with the “Funeral March” from Sonata No. 2, of which today exist no fewer than four hundred transcriptions, including a symphonic version that was indeed played at Chopin’s own funeral. The ballet *Les Sylphides* (1907), to piano music by Chopin and orchestrated by Aleksandr Glazunov, is often staged to this day. Igor Stravinsky’s amusing parody of Waltz Op. 34, No. 3, in *L’Histoire du soldat* (1917) should also be mentioned.

For the middle of the twentieth century, it is worth citing the introduction of harmonies from the Mazurka Op. 17, No. 4, in Henryk Górecki’s Symphony No. 3 (1977). At any rate, there have been heaps of amateur pastiches and professional affectations over the years, and more keep coming.

Yet, some prominent composers have returned to Chopin’s favourite techniques and genres for the piano and developed them further. Not so much ballades, scherzos, impromptus, polonaises, and waltzes, but rather mazurkas, which have successfully entered Karol Szymanowski’s catalogue with his 20 Mazurkas Op. 50 (1924-26). And, of course, Chopin’s *Études* Op. 10 and Op. 25 considerably influenced the last versions of Liszt’s *Transcendental Études*, whilst the octaves of the Polonaise Op. 43, *Heroic*, are explicitly referenced in *Funerailles*, again by Liszt. At the end of the nineteenth century, the Russians Balakirev, Lyadov, Scriabin, and Rachmaninoff (and especially the last two) became the most successful followers of Chopin’s piano style. However, it should be said that the first true heir of Chopin came as late as the early twentieth century, and his name was Debussy. After that, there were important homages by Poulenc, Honegger, Tansman (*Mazurka à la Chopin*, 1923), together with the American George Crumb, who, in his cycle *Makrokosmos* for amplified piano, joined together fragments from the *Fantaisie-Impromptu* under the title *Dream Images: Love Death Music* (1972).

Though Chopin’s creative legacy seems to be quite precarious in the nineteenth century and fragmentary in the twentieth, the history of the interpretation of his works (hardware) is quite different: having been hazy at his time, it is well documented in the twentieth and twenty-first century thanks to LP, tape, CD, and on-demand recordings. This will become a common thread for many chapters in the second part of this volume, where it will be noted how broadly the by-then-remote works left by Chopin were elaborated by later interpreters, including the lion-like Paderewski, the elegant Hofmann, Pachmann the raconteur, the impeccable Backhaus, Horowitz the colourist, the aristocratic Rubinstein, Richter the visionary, the structural Pollini, Pogorelić the iconoclast, and many more – all key players who have given a long life to documents (scores, textbooks, hardware) that the technological progress of this durable mass consumer good might have archived just as easily.