GENIUS OF THE PIANO

A journey through Chopin's Études
in the context of his life, the history of the piano,
and the Romantic movement in music

ALAN KOGOSOWSKI

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FREDERIC CHOPIN AND THE ART OF THE PIANO

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Cover design by Gerald Szubin

"Genius for the pianoforte should be - like genius in general - a gift which takes a new road and accomplishes unprecedented things: things which it takes others a little time to learn.

'Such pianoforte geniuses were Beethoven, Chopin, and Liszt; they perceived new means, solved the problems of new effects, created 'improbable difficulties' and wrote a literature of their own.

'It can be asserted confidently that in this sense nothing has been added since. It is indeed a very astonishing fact that other people have the power to do that which only one could do formerly. But he who stands alone when he appears in public and is only imitated later on by others, who compels pianoforte builders to consider new principles and who creates a new literature in which experienced pianists do not find their way at once, has a lawful right to the title 'genius of the pianoforte'."

- Ferruccio Busoni,

Allgemeine Musik-Zeitung, Berlin, March 1912

"Never displace the natural position of the hand"

- Jan Ladislas Dussek

Instructions on the Art of Playing the Pianoforte or Harpsichord, 1799

GENIUS OF THE PIANO

CHOPIN AND THE ART OF THE PIANO

Companion to MASTERING THE ETUDES

Frederic Chopin stands at the heart of the history of the piano, its development, its cultural significance, and the way it is played. Furthermore, his *Etudes* – central to his approach to the piano and its technique – were composed at a crucial moment in the development of the modern era.

The series was begun when Chopin was was nineteen, a student in one of the far reaches of the old Napoleonic Empire, a country under the domination of Russia. Soon he would travel to Vienna, which for fifty years had been the centre of the musical world, there to continue his work while meeting some of the participants who remained from a great era which had just passed. In the midst of revolution, he would continue his journey and settle finally in Paris in 1831, just at the moment the city of light suddenly was becoming the world centre for the young Romantic generation of artists, writers, composers and musicians. Chopin was to be the jewel in the crown of this generation.

Continuing steadily throughout this journey was the creation of the *Etudes*, culminating in 1837, at which point Chopin became linked with one of the celebrities of the age in a liaison which captured the imagination of the world. *Genius of the Piano* traces the influences which surrounded Chopin during the significant historical period in which he lived and in which composed his *Etudes*, an epoch of unparalleled vibrancy in European cultural history.

When the lives of great artists are approached biographically, the reader is occasionally left wondering why a particular artist's personal story is worth telling more than that of someone else. The essential ingredient – the talent, the genius, the contribution to civilization – is often treated as a separate subject from the artist's life story. *Genius of the Piano* examines the biography of Frederic Chopin from the inside out – from the motivations and resulting creations of the composer, biography emerging naturally from an exploration of the artist's inner life, which, after all, is the *true* life of an artist.

As the story and nature of Chopin himself is revealed through an exploration of his *Etudes*, the many interesting personalities both intimately and tangentially involved with the story come alive through an appreciation of their creations. Liszt, Schumann, Mendelssohn and Berlioz; Paganini, Bellini, Rossini and Meyerbeer; Balzac, Sand, Hugo, Heine and Delacroix; and of course Bach, Mozart and Beethoven; great pianists and singers, as well as relevant political figures, emerge vividly through their works, their talents and abilities, their personalities thus revealed and illuminated.

Chopin and Liszt. Chopin and George Sand. Iconic relationships. Names which are inextricably linked in the collective imagination of our culture. Without disturbing the mystique which surrounds these celebrated relationships, *Genius of the Piano* looks at the facts behind the legend.

What did Liszt actually learn from Frederic Chopin? How strong was the bond between Chopin and George Sand? The truth is no less glamorous than the myth, but of course it's more complicated, more human and rather more interesting.

In that momentous year of 1831, Robert Schumann, like Chopin only twenty-one at the time, not yet having heard of this new composer, wrote a delighted and imaginative newspaper article – the first of hundreds of perspicacious reviews, of most of the composers and performers of the era – which began with the words "*Hats off, gentlemen, a genius!*" Although he was very perceptive, acquiring his enthusiastic impression of Chopin simply from looking at a score by an unknown composer, Schumann was only saying what the world would soon discover, and what it has thought ever since with undiminished certainty.

We take this as our starting point – the year in which Chopin had just completed his first two *Etudes*, landmarks in the history of piano playing, though both together require no more than four minutes to play. Chopin had only recently departed from his home and family with those two *Etudes* in his luggage, carefully copied out by his elder sister Louise and dated November 2nd, 1830 – the most significant date in the composer's life, for on that day, Frederic Chopin set off from Warsaw to conquer the world, not realizing he would never again see his beloved homeland, which coloured so much of his personality and thinking.

Without Frederic Chopin there would have been no 'pianism' – refined and cultivated piano playing. The *art* of piano playing was created virtually from whole cloth by Chopin during his early twenties. For a pianist, the works of Chopin are as the plays of Shakespeare are to an actor – indispensable, informing everything else we do, and self-contained as an *oeuvre*, sufficient as a body of work on its own to occupy an entire performing career if a pianist so chooses. He is the only such composer for the piano, and one of only a ti ny handful of such composers at all – such as Verdi or Wagner for singers.

None of the great pianists would have been possible without Frederic Chopin. None of their expertise, none of their craft, none of their aura, none of their 'sound'. Even Franz Liszt, who created the image we have of a concert pianist, and who was the first pianist to give concerts entirely by himself; Liszt, who established the concept of the artist musician as hero performer, and who taught and inspired generations of great pianist, would not have developed as a pianist in the way he did without his friend Frederic Chopin.

All of the great pianists – even if they were, or are, primarily specialists in the music of Bach or Mozart, Beethoven or Brahms, Liszt or Rachmaninoff – have studied and played the works of Chopin as an integral part of their repertoire. Just to name the most famous – Liszt, Anton Rubinstein, Paderewski, Rachmaninoff, Josef Lhévinne, Vladimir Horowitz, Artur Rubinstein, Sviatoslav Richter, and, perhaps closest of all to the style and ethos of Chopin, Dinu Lipatti.

The most original and inspired master of the piano, as well as one of the truly immortal composers, Chopin's influence is as fresh and strong today as it was when he first enraptured the world in the 1830s. His music is as powerful as ever, because of the timelessness of what it tells us about ourselves. It is quintessentially Romantic music, but it is at the same time completely universal. As Arthur Rubinstein said, Chopin's music arouses the same delight in audiences in Japan and China as in Europe and America.

Alan Kogosowski's stature as an articulate communicator as well as a pianist of rare ability has been acknowledged on both sides of the Atlantic. '*Chopin in the Hands of a Master*' declared the *Chicago Sun-Times*. His performances have created the same excitement among his audiences as did those of his illustrious predecessors Ignaz Paderewski and Artur Rubinstein. Kogosowski was invited to perform on numerous occasions for members of the Royal Family – for Queen Elizabeth the Queen Mother, for Prince Charles and Princess Diana, for the Duke and Duchess of Kent, and for Princess Alexandra.

In the *Schubertiade* concert series at *Sotheby's* in London, which he created and hosted for ten years, Kogosowski presented musicians and singers from around the world, whom he introduced, accompanied and together with whom he performed. It was at these musical evenings in London that Kogosowski developed his own style of welcoming an audience into the world of the musician, and of making his listeners feel as if they were his partners in the journey of musical exploration, an involved and essential part of the musical and artistic experience.

As a throwback to the multi-leveled activities of pianists of the past, Alan Kogosowski has introduced two major works to the concert repertoire. He orchestrated the *Trio Elégiaque in D minor* by Rachmaninoff, a work the composer thought about in orchestral terms but didn't orchestrated himself – thereby creating a new concerto, the *Concerto Elégiaque in D minor*. This work was premiered by Kogosowski as soloist with the Detroit Symphony Orchestra under the baton of its chief conductor Maestro Neeme Järvi. The recording of this work became a best-seller, going 'straight to the top of our list", said the *American Record Guide*, which considered the work worthy of being regarded as Rachmaninoff's '*Fifth*' Piano Concerto.

The success of this Rachmaninoff orchestration led to a reconstruction and orchestration of Chopin's unfinished *Third Concerto*, a work which the composer tried to settle down to completing for ten years, during the period in which he was writing the *Etudes*. Chopin eventually published the first movement as a piano solo, and the other two movements as incomplete solos. This realisation was also premiered by the Detroit Symphony Orchestra, to mark the 150th anniversary of Chopin's death.

Several television films have been made of Alan Kogosowski playing the music of Chopin. *Kogosowski plays Chopin at the Guildhall* captured a recreation of the last public performance given by Frederic Chopin himself, which took place in 1848 at the Guildhall in the City of London. Kogosowski also created a series of six programmes devoted to Chopin's life and music, filmed live in London, with introductions to all the music, as well as superimpositions of evocative imagery. *Frédéric Chopin, A Life to Remember*, described by *The New York Times* as an '*Outstanding Documentary*', is available on DVD from www.kogosowski.com.

The distinction between 'musical' and 'technical' has been a commonplace since the time of Mozart and Clementi, and while some pianists may be more tasteful, refined, emotional or passionate than others, the distinction is misleading. Not only is musicality serviced by technique, the two are so closely intertwined as to be virtually inseparable. Technique is the means by which we produce the sounds we wish to hear. Kogosowski's teacher, Michel Block, said "fifty per cent of technique is in the ear," by which he meant that half of any given technical question consists of accurately defining *exactly* what sounds one wishes to produce – on a note-by-note basis.

The same applies to the ethos of the music: if we don't know where it came from, what circumstances and ideas gave it birth, and what it was intended to express, then a major element is lost on us – though great music does have an intrinsic universality. It is the need for listeners to understand *both* elements that inspired the writing of this companion to *Mastering the Etudes*, '*Genius of the Piano*'.

Genius of the Piano

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Chapter One

"HATS OFF, GENTLEMEN, A GENIUS!"

The twenty-seven *Etudes* by Frederic Chopin constitute one of the major cornerstones of the pianist's repertoire. Although much shorter, and certainly less complex, the set follows Bach's forty-eight *Preludes and Fugues* and Beethoven's thirty-two piano sonatas as a yardstick against which all other music written for the piano is measured. Each *Etude* deals with a specific question of 'technique', and the set as a whole addresses everything a pianist could ever be called upon to do. The *Etudes* cover all aspects of performance – technical, musical, and stylistic – which are not only inseparable, but in the first and last analysis one and the same.

This investigation is relevant not only to pianists, however, but to everyone, musicians and non-musicians alike, for the simple reason that we all use our hands constantly. If they are not used properly, debilitating problems can and will develop – *Repetitive Strain Injury, Tendinitis* and *Carpal Tunnel Syndrome*, serious problems of rapidly growing concern to a large number of people, due to the constant use of computer keyboards, which engage exactly the same hand and finger muscles as do the piano keyboard. The *Etudes* therefore make not only a fascinating, but highly useful, area of investigation.

Everyone is vulnerable to the problems of strain arising from hand usage. The computer keyboard requires sustained use of the fingers, hands and arms, just like playing the piano. Pianists have always had to be aware of the potential danger of strain that lurks at all times beneath the music. Frederic Chopin highlighted these problems in his *Etudes*, enveloping the exercise in the most wondrous music. But what he showed us has relevance to everyone using the computer keyboard as well as the piano keyboard.

Tendinitis and *Carpal Tunnel Syndrome* are crippling conditions of the arm, wrist and hand caused *not by over-use*, as most people imagine, but by *incorrect* – and consequently *unnecessarily strained* – hand movements, as well as incorrect posture of the arms and hands.

These conditions have been a constant threat to pianists for years – one against which they have learned through experience to be constantly vigilant – as well as violinists, guitarists, and all people who work steadily with their hands, such as carpenters, tailors, gardeners, and many others. Today, everyone who uses a computer keyboard or mouse regularly is at risk of developing these problems.

The word ‘technique’ comes from the Greek, and the word for technique in Greek is the same as that for ‘art’. In German, the word ‘Kunst’ means both technique *and* art. (The word ‘art’ in German, however, means *style*). The distinction between art and technique in English has led to misunderstandings and even to heated opposition between factions on both sides of this art-ificially contrived divide. It is perhaps parallelled by the distinction made in English between ‘amateur’ and ‘professional’ – amateur never originally carrying the connotation of any lack of skill, but simply meaning a ‘lover’ – *amant* – of a certain discipline. Art and Technique, if arguably not necessarily one and the same, are so closely bound up with each other as to be inseparable. Where one goes, the other follows, what one conceives, the other does, and the two do, in reality, become as one.

A basic understanding of the anatomy of the hand and forearm, and how the muscles and nerves act and react, is essential to anyone aspiring to play the piano really well. That knowledge is what ‘technique’ is all about. It’s not about “practising” in the sense of repeating pieces over and over again until one gets them right. It’s about knowing exactly how to use the hands and fingers in each and every situation which arises, in every passage: how to play every individual note, with which finger muscles, and with the hand in exactly which position, and then being able to transmit this information automatically to our finger-tips.

The *art* of playing the piano was virtually invented by Frederic Chopin, produced almost from whole cloth, though he had, of course, antecedents, whom we will encounter in our travels. In our exploration of the *Etudes*, we’ll see just how he created this art and in what circumstances it happened. Chopin’s *Etudes* also give us an opportunity to examine the history and culture of the piano and the development of music itself, as well as the life of one of the greatest of all composers. We’ll go on a journey through this rich landscape, and discover not only everything one needs to know in order to play the piano in a virtuoso way, but also become acquainted with the people and the history surrounding the composition of the *Etudes*.

As almost everyone knows, Chopin wrote nearly all his music for the piano – for the *solo* piano. He is to a great extent responsible for the way we think a piano should sound. Chopin transformed the basic concept of a piano from that of a percussive instrument that was irredeemably mechanical – in contrast to all non-keyboard musical instruments – to that of a magical instrument capable of speaking, singing and creating dream-like tone poems in which one could completely forget that wooden hammers were striking upon strings.

The piano hadn’t been in existence very long – hardly more than a generation – and it still bore little resemblance to the modern Steinway grand. It was much smaller, much more fragile, made almost entirely of wood, and decidely flat-sounding to our ears. It had none of the ringing quality in the treble which we have come to expect from a ‘concert grand’. But the piano was to the 19th century what radio and television would be for the 20th. It was a necessary part of a well-to-do home, and not so well-off also. After the dinner table, it was the focal point around which a family could gather.

At the time he was composing his *Etudes* – the first half of the 1830s, Chopin’s life was touched by people and events of historic significance. The series was begun when he was twenty, a student in one of the provinces of the recent Napoleonic Empire – the Duchy of Warsaw, at that time under the domination of Russia.

He would soon travel to Vienna, which for half a century had been the centre of the musical world, but was now suddenly in eclipse. In a politically volatile atmosphere, Chopin continued his journey and soon found his home in Paris, arriving there just as the very moment it was becoming the focal point of the Romantic movement in music and art, and the leader in modern social and political aspirations. In Paris, Chopin befriended many of the artists, writers, composers and pianists who were responsible for making the city the world centre of this dynamic movement – Liszt, Berlioz, Balzac, Sand, Heine, Mickiewicz, Delacroix, to name just a few. Frederic Chopin was to be the jewel in the crown of this exciting and unique era.

Through this tumultuous time, Chopin steadily continued the composition of his *Etudes*, completing them in 1836, at which point he became associated with one of the leading celebrities of the age in a liaison which captured the imagination of the world, then and for ever after. We will explore all the influences which surrounded Chopin during the period in which he wrote his *Etudes*, and through them we will come to know, and understand a little better, an unparalleled epoch in European cultural history.

When he first encountered Chopin's music, in the momentous year of 1831, Robert Schumann, like Chopin just twenty-one years old, having not yet heard of this new composer with the French name, wrote his very first newspaper review, which appeared in the prestigious *Allgemeine Musikalische Zeitung* on December 7th of that year, two months after Chopin had settled in Paris – a delightful, literate and amusing essay entitled "*An 'Opus 2'*, "opening with the exclamation, "*Hats off, gentlemen – a Genius!*" This became the first of hundreds of very readable and perspicacious reviews of virtually every composer and musical performer of the age. Schumann would eventually meet Chopin and become a devoted admirer, and he would write about him at intervals – but not too often: he felt that writing about Chopin was like giving opinions upon Bach, Mozart or Beethoven – a little presumptuous. Hardly a single one of those articles about Chopin is without the word "genius". Schumann wasn't alone – his attitude reflected what the whole world has unquestioningly thought ever since, across wildly fluctuating political and social eras, through changing tastes and styles.

When Schumann picked the subject for his first review, Chopin had completed the first two *Etudes*, seminal masterpieces in the history of the piano and how it is played, though together they require not quite four minutes in time. He had just set off from his beloved home and family in Warsaw with those two *Etudes* meticulously copied out by his elder sister, Louise. They were dated November 2nd, 1830 – a significant date, for on that day Frederic Chopin, who was to become the eternal symbol of Poland, which he loved with all his heart, set off from Warsaw to conquer the world, not realizing he would never return.

Schumann's article was a review of Chopin's first internationally published composition, a set of variations for piano, with orchestral accompaniment, on the famous theme *'Là ci darem la mano'* from Mozart's opera *The Marriage of Figaro*. Chopin's variations had appeared the year before, published by the leading Viennese publisher Tobias Haslinger, Beethoven's friend, to whom Chopin had come in the summer of 1829 with a letter of introduction from his teacher in Warsaw, the much respected German-Polish composer Joseph Elsner. Haslinger didn't pay the nineteen year-old newcomer anything, but he brought out the composition beautifully, on the condition that Chopin perform it in public, which he indeed did several times, in Vienna and elsewhere.

Schumann stood firmly behind his critique, and encouraged Clara, the brilliant twelve year-old daughter of his piano teacher, Friederich Wieck, in whose house he lodged, to learn the variations by the unknown composer and include the work in her repertoire, which she did, giving the first performance of the piece in Germany at a concert in Leipzig in July 1832. Clara visited Paris around this time and heard Chopin but did not meet him until 1835, when he came to see her and Schumann at her father's house in Leipzig. Clara was instrumental in introducing Chopin's works to audiences throughout Germany during the 1830s. In 1840, as soon as she was able to do so – when she turned twenty-one – Clara Wieck became Clara Schumann, over the bitter opposition of her father, who had groomed her to be a full-time performer.

A set of variations like Chopin's first published opus, with a slow, portentous introduction, brilliant variations, rousing interconnecting links, and a flashy finale, was a standard format at that time for dashing pieces designed to show off a pianist's abilities. Chopin would very soon drop all standardized forms and techniques, and pursue his own course, original in every respect. In no time at all, he created a series of musical forms which eminently suited the Romantic style of music, but which at the same time were uniquely tailored to his own individual style. He called them by various names, not of his own invention, but most of them – certainly in the context of piano music – for ever after associated above all with him – *Etudes*, *Preludes*, *Mazurkas*, *Polonaises*, *Ballades*, *Scherzos*, *Fantasies*, *Nocturnes* and *Waltzes* – '*Chopin* Waltzes'.

It's interesting to see how each of these *genres* reflects the composer's own life and genius, and the impact they had on the history of music. But in this study, our attention will be focused on Chopin's primary gift to the world – the revelation of what can be done with a grand piano, and the know-how we need to go about it – the technique, or *art*, of playing the piano. Therefore we're going to look in detail at the twenty-seven *Etudes*, a series of short piano pieces which Chopin composed specifically for this purpose. As with all the forms he created, this *genre* would become in Chopin's hands something special and quite different from all the other *Etudes* which had been written by various composers.

The French word '*Étude*' means 'Study', and many editions of Chopin's *Etudes* simply call them *Studies*. Literally thousands of *études* were written for the piano during the first half of the nineteenth century, and these were very much 'studies' – pieces written expressly for the improvement of students' abilities and capacities. They were short and demanding, and, despite occasional bright spots, largely a drudge for young pianists.

There were four outstanding personalities in the field – Muzio Clementi, the father of modern piano playing, Italian-born but very happily settled in England since the age of fourteen, a vigorous and exciting pianist, much admired as a composer by Beethoven; his pupil John Baptist Cramer, known as "Glorious John" and "Handsome John", German by birth but English from the age of one, brought to London by his violinist father Wilhelm, concertmaster from Mannheim, and beloved by the English, as well as admired on the Continent, an unusually cultivated pianist with great ease and evenness of playing; Johann Nepomuk Hummel, a highly skilled and enormously admired musician, classed by his contemporaries with Mozart and Beethoven, if not necessarily as their equal, a man who was alarmingly *un*-handsome, in contrast to the elegance of his playing and composition; and finally, Hummel's pupil, Carl Czerny – conscientious, industrious, a one-man industry of piano teaching and *étude* production.

These four men were all virtuoso performers and accomplished composers in various forms, but they left their mark on posterity chiefly for their pedagogical contributions to the art of piano playing.

"Studies… ," wrote Schumann, "are studies: that is to say, one should learn from them something one did not know before. The unsurpassable Bach, who knew a million times more than all the rest of us put together even suppose, was the first who undertook to write for learners; but he did it in so gigantic a manner, that only after many years was he enthroned before the world as the founder of a strong, thoroughly healthy school… Bach's son Emmanuel inherited fine talent. He filed, refined… but as a creative musician he remained very far behind his father… Clementi and Cramer followed. The former, on account of his contrapuntal, often cold, art, could find no acceptance with young minds. Cramer was preferred on account of the transparent clearness of his *étude* music. Other writers distinguished themselves by some excellences, yet no school was preferred to Cramer's as a general cultivation of hand and head.

"But now something was required which would also cultivate the feelings. People found out that all these *études* were unsatisfactory because of their intellectual monotony; they also discovered that it was not necessary to learn one after another in order to improve. The subtle Moscheles then thought out his interesting character-pieces… Then came Hummel… his studies came a few years too late… Who will deny that most of his studies are put together and finished in a scholarly manner – that a fixed form is displayed in each of them, that all are perfected with the mastery that is the result of a long exercise of ability? But that which charms youth so greatly that the beauty of a work causes the fatigue of mastering it to be forgotten – imagination – is wanting.

"The name to which we have so often pointed, as to a rare star at a late hour of the night, must not be wanting in our Museum. Where its course may lead, how long may last its sparkling light, who can tell? But it can always be distinguished whenever it shows itself, even by a child, for it always displays the same core of flame, the same deeply dark glow, the same brilliancy – Chopin…"

'Study' is much too bland a word to convey the significance, importance, and sheer beauty of what Chopin was to produce under the title *Etude*. Chopin's *Etudes* form a blueprint for all of virtuoso piano technique, the foundation upon which the great Romantic piano repertoire is constructed – the works of Schumann, Liszt, Brahms, Rachmaninoff, Debussy, Ravel, and the great concertos by Rachmaninoff and Tchaikovsky.

In his *Etudes*, Chopin gave the world the understanding that piano playing is not just a skill but an art. Through them, he demonstrated how the skill itself could be perfected – what we do, in fact, for want of a better word, call the *technique* for playing the piano – but in such a way that the skill itself becomes an art, inseparable from the musical aims of the piece. Chopin wrote his series of *Etudes*, or *Studies*, in order to give us a user's manual for driving the wonderful vehicle we call a grand piano through the rich terrain of human thought and imagination which we all share. When we consider that he wrote his *Etudes* between the ages of nineteen and twenty-six, and that he came from a provincial place, far away from anything 'cutting edge', we can only conclude that Chopin was indeed a born genius.

Chopin at the piano, by Elise Radziwill, showing the ideal straight-backed, slightly forward posture, right leg forward, left leg back balancing the body, arms horizontal, not high, with the hands gently curved and the thumbs hanging away loosely – all there in the 16 year-old

When we realize that the piano upon which Chopin was playing and composing, that for which he conceived his ground-breaking *Etudes*, was barely out of the 'forte-piano' stage of development – which is to say, still a long way from the grand piano we know today – we see another reflection of his genius. The grand piano didn't yet exist in anything like its final form when Chopin was writing, with nowhere near the volume or range of sound, clarity or accuracy of mechanism of a modern piano. Yet never would there be more sophisticated music written for *any* piano.

As Schumann said, "Studies are studies: that is to say, one should learn from them something one did not know before." One learns something very specific in each of Chopin's *Etudes*. Each one covers a clearly identifiable type of hand use. All together they encompass every movement and every objective that could ever be required of the fingers and hands, and almost every nuance of sound which could conceivably be produced on a piano, yet they all share one thing in common – a laser-beam focus on a particular finger- or hand-movement.

When we begin to examine the *Etudes* we find that not only did Chopin reveal to us how the piano could be played in a new and magical way, he actually showed us just how the hand operates, or how it *should* operate, which is of course knowledge relevant to everyone. Chopin's *Etudes* differed substantially from those of Clementi, Cramer, Hummel and Czerny in their fundamental conception. Clementi's *Etudes* may have been contrapuntal, Cramer's clear and transparent, Hummel's finished and scholarly, and Czerny's distinguished by some excellences, but they were all dedicated first and foremost to the athletic exercise of the fingers, as a kind of digital calisthenics. Chopin's *Etudes* zeroed in on physiological archetypes, and did not require constant repetition, as do calisthenics, but instead *understanding*.

Experts at MIT are today carefully and painstakingly analyzing the workings of the hand in order to try to help the many pianists who become mysteriously incapacitated after years of professional performing careers, nearly always – *not* so mysteriously – having spent years playing in a strained manner. Now there's a new urgency to this search because of the need to find solutions to the epidemic of repetitive strain injuries. Yet this young man, newly graduated from the Warsaw Conservatory in 1829, at age nineteen, in far-off Poland – far away from all that was new and fashionable in the world – suddenly perceived the whole picture of hand anatomy and the techniques for using the hands and fingers to best advantage, just at the time that the piano was starting to develop into the instrument we know today.

Since playing the piano in a virtuoso way is just about the most complicated activity in which we can engage our hands, it's not necessary for the average person to know all the secrets Chopin revealed. Typing on a computer keyboard and using a computer mouse require much simpler movements of the hands, however those it does require are the same as those needed to play the piano. Nevertheless, the field is so rich with our common physiology that an in-depth look beneath the beauties of the music is not unwarranted for any intelligent observer.

"But now something was required which would also cultivate the feelings." Chopin's *Etudes* are also gems of the repertoire considered purely as music, beautiful and perfect in their shape, design and content. The music is so full of charm and artistry, that if you didn't know, you would think the *Etudes* were composed purely for poetic musical reasons. With his *Etudes* Chopin to all intents and purposes created the small self-contained piano piece, or 'character-piece' for the piano. Schumann mentioned Ignaz Moscheles in this connection, but although Moscheles was half a generation older than Chopin, in this regard they were more or less contemporaneous, and Moscheles was far behind Chopin.

As for individual piano pieces complete in themselves, as opposed to sonatas in several movements following a more or less set pattern, before Chopin's *Etudes* there were really only the collection of *Bagatelles* by Beethoven (including *Fűr Elise*), and the *Moments Musicals* of Schubert. As the word *Bagatelle* suggests, Beethoven's pieces were brief trifles, while Schubert's were in the nature of meditations, philosophical musings. Beethoven and Schubert definitely required the framework of sonata-form for all their important work, and these few pieces were in the nature of scraps from their writing desk. The title '*Impromptu*' used by Schubert seemed to indicate a departure, but Schubert's *Impromptus* are in fact for the most part in classical sonata form. The second set of his *Impromptus* – Op. 142 – almost forms a complete sonata in four movements, and is thus often performed as a unit; likewise the three *Klavierstűcke* – 'Piano Pieces' – really an extra little set of Impromptus.

By combining a musical idea with a technical problem as the framework for a piano piece, Chopin created a whole new *genre*. After Chopin, other composers, most notably Liszt, Rachmaninoff, Scriabin, and Debussy, would follow his lead and compose series of *études* for the piano based on his model of combining focused technical difficulty with musical qualities, in the nature of miniature pianistic tone-poems, as well as many other short self-contained piano pieces. On average, each of Chopin's *Etudes* is no more than two and a half minutes long, however the world contained within each one is complete, and the variety within the set as a whole is enormous, covering the full spectrum of sounds, dynamics, rhythmic patterns and emotional content – everything, in fact, that need ever be required of a piano. Josef Hofmann, technically unsurpassed by any pianist, once responsed to a hopeful suggestion from Alexander Greiner, concert and artist manager of Steinway and Sons, by saying, perhaps overly modestly, "I'm surprised at you; you know better than that: there is no pianist, and there never will be one born, who can play all the Chopin *Etudes* equally well. I can only play perhaps half a dozen."

Vladimir Horowitz performed a number of the *Etudes* all his life – No. 4, No. 5 (the '*Black Keys*' Etude), No. 8, the seventh of Op. 25, and several others, but quite a few essential ones he never touched publicly – the first and second of Op. 10, the '*Thirds*' *Etude* of Op. 25, the '*Winter Wind*'. On his very last recording, made at the time of his death in New York at eighty-six, Horowitz included two *Etudes* he had never performed publicly – the '*Aeolian Harp*' and the fifth of Op. 25, in E minor.

Artur Rubinstein recorded nearly all the works of Chopin several times, set by set – all fifty-seven *Mazurkas* three times, the nineteen *Nocturnes* and fourteen *Waltzes* more than once, the *Ballades*, *Scherzos*, *Impromptus*, but he never even once recorded the *Etudes*, or the *Préludes* for that matter. He certainly played them all his life; on his recital programmes there was often a small group of *Etudes*. Borrowing a practice from his friend, the great Russian basso Feodor Chaliapin, Rubinstein usually avoided specifying which *Etudes* he would in fact play. A note would be inserted in the programme with an asterisk by the *Etudes* – "Maestro Rubinstein will decide which *Etudes* he will play only at the time of performance. As a rule, he usually chooses a selection of *Etudes* from (*both*) Op.10 and Op. 25."

Rubinstein tells us in his autobiography – thereby giving the game away – that not only did Chaliapin know *exactly* which of the five hundred songs impressively listed in his programme he was going to sing, but that they were always the same ones, presented with a dramatically thoughtful hesitation before each selection. It was a handful of numbers chiselled into gems over a lifetime. It's unlikely that Horowitz or Rubinstein had serious technical difficulties with the bulk of the *Etudes*, but their approach is typical of the awe attached by *all* pianists to the performance of these tricky pieces. Nevertheless, it's necessary, in fact *essential*, for every pianist, to study them all. They contain every conceivable pianistic effect and physical movement of the hand, so they help us to understand and to play almost everything ever composed for the piano.

In the age of long-playing recordings it would become customary to record, and, by extension, to perform in concert, all twenty-four *Etudes* in a row, as a set. But there's no evidence that Chopin ever intended such a practice. Quite the contrary, as we shall see as we learn about Chopin's personality, his Romantic freedom of spirit barred any trace of didacticness. He himself did as Horowitz and Rubinstein would do, often including in his concerts a small group of *Etudes*.

Chopin's model for his ground-breaking *Etudes* was not any one of the various composers who had already written studies for the piano, nor was it any pianist. His true model was the greatest of all harmonists, contrapuntalists and all-round musicians, Johann Sebastian Bach. The reason for this influence stems from the fact that Chopin's first teacher, an engaging old gentleman from Bohemia by the name of Adalbert Żywny, considered Bach to be the master of masters, and loved his music above all else, inspiring the same attitude in his young student.

Żywny's predilection was very unusual for that time, Bach having been largely forgotten by most musicians and nearly all of the public. Żywny was not a pianist at all, but primarily a violinist, who also played the organ a little. He had been brought to Poland by Prince Sapieha to be director of music and teacher at his family estate, but that position had long since disappeared with the partition of Poland in 1794, and he had for many years lived in Warsaw, known in Polish as Wojciech Żywny, eking out a living giving music lessons.

Adalbert Żywny

As the 1945 Hollywood film *A Song to Remember* depicts him, Żywny was a character – sixtyish, tall, rather stooping, with a goatee beard and tight yellow wig, always in high Hessian boots, a green frock coat with a huge red-checked handkerchief protruding from his pocket, and an enormous snuffbox, into which he dipped copiously. A very large pencil, which he would use as a baton, stuck out of his yellow velvet vest, which, like his cravat and coat, was covered in tobacco stains. As in the film, Żywny took to dropping in regularly at the Chopin house, not only to give lessons to Frederic and his sisters but to play cards with their father and talk about events of the day. Żywny was a dedicated musician, and he adored his little pupil, who, after all these decades, made him feel it had all been worthwhile after all.

What made the old violinist/organist happiest was that he was able to pass on to his unusually talented young pupil, over six years of music lessons, his love for the music of Bach. Chopin would remain forever grateful to his boyhood teacher, and retain an undying fondness for him.

Chopin's *piano playing* developed as if by spontaneous combustion, inspired by the impression of his mother Justyna and elder sister Louise playing simple melodies and dances on the family's grand piano – an unusual luxury. Żywny was not at all equipped to help Frederic very much in this area, and it was Louise who watched over her little brother's piano playing. In November of 1831, just after he had left Poland for Vienna, Chopin's father, Nicholas, wrote to him, "The mechanism of playing took you little time, and your mind rather than your fingers were busy. If others have spent whole days struggling with the keyboard, you rarely spent a whole hour at it."

Instead of pianistic method, Żywny introduced the young boy to the repertoire – the sonatas of Mozart, Haydn, Hummel, Beethoven, and above all the music of Bach. His big, fearsome pencil now acquired a new task, one for which it had waited a long time: with it Żywny helped Frederic write out his first compositions, simple but affecting *Polonaises* and *mazurkas*.

Frederic Chopin at eighteen

The only inaccuracy about this episode in the film is the name by which the music teacher is called – 'Joseph Elsner'. Josef Elsner, the immensely respected head of the recently established Warsaw Conservatory, was Chopin's *second* teacher – his only piano and theory teacher from 1823 to 1829, from age thirteen to nineteen – and it was from Elsner that Chopin learnt everything he knew about composition. Elsner was a prolific composer, who wrote operas, ballets, masses, oratorios, cantatas, symphonies, concertos, chamber music, and sonatas, all in the style of the period, which is to say, late 'classical' – not at all polyphonic like Bach, in fact very much the opposite – and not yet in the coming Romantic style.

Elsner had started out as a theology student in Wrocław – known in German as Breslau – in the west of Poland, and, as an ethnic German, spoke no Polish at all. But his conversion to the life of a musician following a visit to Vienna, and his marriage to an eminent opera singer who was a star of the Warsaw Opera, converted him also to Polish nationalism. Belatedly, he learnt to speak Polish; all his twenty-seven operas would be in Polish, and he became known, even revered, as the father-figure of Polish music.

Joseph Elsner, by Maximilian Fajans

The Warsaw Conservatory had only recently been founded – in 1821, growing out of a musical encouragement society which Elsner had established six years before, and he became its first director. He was already famous in Poland as the long-time conductor of the Warsaw National Theatre, since 1799, and before that of the Lvov (Lemberg) Theatre. Elsner was a beloved principal, and students would congregate at his house, where, like in *Goodbye Mr. Chips*, they were welcomed by Madame Elsner, as well as the Elsners' singing-student daughter Emilia. Chopin wrote several of his compositions into Emilia's 'album', including several of his songs, five *mazurkas*, three *waltzes* and two *écossaises*.

Josef Elsner was a solid teacher, who always prescribed classical models, but nevertheless was tolerant of Frederic's originality, and encouraging of his outstanding talent. He was very fond of Chopin, who was a student at the Conservatory from the age of sixteen to nineteen – one of a group of bright young pupils, all of whom were the greatest friends – and Chopin loved and admired Elsner. An entry in Elsner's diary reads, "Chopin, Fryderyk, third-year student, amazing capabilities, musical genius." To Joseph Elsner Chopin dedicated his least characteristic or successful work, but one which is a student's model of text-book classical form – his Sonata No.1 in C minor, Op. 4, written at age seventeen in 1827 but not published till two years after his death.

"From Żywny and Elsner," Chopin would later say, "even an ass could learn." It's usually hardly commented upon in biographies of Chopin, but the amazing fact is that neither of his two beloved teachers were pianists, or even piano *teachers* for that matter – the first a general music teacher, the second a teacher of composition. Chopin's elder sister Louise, more than anyone, looked after his piano practising. Frederic Chopin never really had a piano teacher! Rather like Thomas Edison, who never had an 'invention teacher'.

Chopin at the time of his studies with Joseph Elsner

Żywny (the dot in Polish turns z into *zh*, as in *Zhivago*) brought young Chopin up on *Das Wohltemperierte Klavier – The Well-Tempered Clavier*, Bach's famous *Forty-Eight Preludes and Fugues*. This collection was the foundation of keyboard harmony – theoretically *any* keyboard, but Bach was actually writing for the harpsichord or the clavichord. The German word 'klavier' refers to any keyboard instrument, the word simply meaning 'keyboard', but it has always been applied ambiguously to the actual instrument as well; today it is synonymous with 'piano'.

Bach wrote his *Preludes and Fugues* as '*studies*' – studies in the performance of contrapuntal textures on the keyboard, the keyboard of an instrument of 'equal temperament'. 'Tempered', meaning 'tuned', referred to a new system of tuning, invented by the organist Andreas Werckmeister, who came up with the idea of dividing the octave into twelve equal *semi*-tones, within the eight notes, or 'octave', of the scale, including the last one, a repetition, an octave higher, of the first note, thus a unison. Werckmeister, a much respected theorist, clarified the new system in his 1691 book *Musikalische Temperatur*, giving detailed instructions on how to tune keyboard instruments.

Non-keyboard instruments tune notes individually, according to natural harmonic laws which are followed by the ear, and which were quantified mathematically in the sixth century B.C. by Pythagoras, for whom the whole universe formed "a musical scale and number". For Pythagoras and his school, numbers – in a virtually metaphysical way, which was later reinforced by a merging with Platonism – were the essential, immutable and eternal elements of the universe, from the sum of the three angles of any triangle always equaling two right angles, to the exact numbers by which musical scales could be measured. According to these natural laws, each interval, starting with the unison in the octave, then the interval of a *fifth*, the next on the ladder of overtones, then the *fourth*, etc., have an ascertainable number of vibrations which is true and universal. The Pythagorean theory, written out in detail, with additions, by Euclid in Alexandria around 300 B.C. in '*Elements of Music*', recognized the centrality of the interval of the *fifth*, and thus became the basis of diatonic harmony.

The number of gradations of tone available to any string or wind instrument is, of course, limitless: a tone on the violin or any wind instrument can be pitched anywhere the player wishes. But this is impossible on a keyboard instrument, as every pitch requires a finger-key. Even with quarter-tones, there would be an unmanageable number of finger-keys to operate.

'Equal temperament', which was thus necessitated by the rise of keyboard instruments, adopted a strategy of compromise, whereby the sharpened form of one note and the flattened one of the next – for example C sharp and D flat – would share one finger-key, or note. Hence, they had to be the same pitch. Neither would be completely accurate: by this system, all intervals except the octave are slightly out of tune, however near enough to be practicable. Every key was harmonically constructed in exactly the same way, and that allowed the possibility of unhindered modulation between different keys. Equal temperament, or equalised tuning, thus paved the way for the growth of orchestras. The problem of going out of tune ceased to be an issue standing in the way of easy modulation.

The idea of equal temperament had been suggested since the 16th century, but not until the 18th, with the growth in keyboard repertoire, as well as small orchestras, and the wider range of keys used by composers such as Bach, did it become a pressing need. Even then, it was a long time before the system was generally adopted; England held out until around 1845!

Bach's major objective with each book of twenty-four *Preludes and Fugues* was to demonstrate the advantages of this new system, by writing one *Prelude and Fugue* in each of the twelve major and minor keys, showing that the tonality of C sharp and that of D flat, major or minor, could be treated as exactly the same through this new method of tuning-by-compromise. Bach's *'Forty-Eight'* was, in fact, a manifesto for this system of tuning, as Chopin's *Etudes* would be a manifesto for piano technique.

But Bach's great opus was also a manifesto for keyboard *playing*. Bach was more famous during his lifetime as a keyboard virtuoso – his main keyboard instruments being the organ and the harpsichord – and for his improvising as well as playing skills, than as a composer. One 18th century history of music tells us that Bach was "an organist of renown who has also composed some excellent pieces of music." This assessment was certainly correct, but, of course, it missed the main point of Bach, a little like the first Hollywood studio appraisal of Fred Astaire missing *his* main point: "Balding, not very good actor, dances well."

The Well-Tempered Clavier, Bach's most influential and historically significant accomplishment, though produced in 1722 and 1744, was not even published until 1800, fifty years after the composer's death. Bach himself, humble and unpretentious, may have felt the same way as the history writer. Though *The Well-Tempered Clavier* was to have the most profound influence on the entire course of music history, Bach's immediate objective, as with most of his music for keyboard, including the *French Suites*, *English Suites* and *Partitas*, was to create works which would help his wife and children develop their keyboard playing skills. Chopin *also* valued Bach's music for its dexterous advantages: he would customarily use the fifth *French Suite*, in G major, a lively, 'fingery' work – to warm up before a concert.

Anna Magdalena Bach

A century after the composition of *The Well-Tempered Clavier*, Chopin, still a student at the Warsaw Conservatory, began, entirely out of his own imagination, to set forth the foundations of technique on the *modern* keyboard – the keyboard now being that of the piano, harpsichords and clavichords having become archaic. Bach's *Preludes and Fugues* were produced in two sets of twenty-four each, two decades apart. Chopin's *Etudes* would be in two sets of twelve each, written over a five-year period, with a postscript of three short extra *Etudes*. In the manner of Bach, Chopin began the sequence of his *Etudes* in a scheme of related keys – C major, A minor, E major, C sharp minor, G flat, E flat minor – but continued the pattern only patchily.

Three years after the completion of the *Etudes*, Chopin composed his *Préludes* in one set of twenty-four, in all the major and minor keys, however once again not in consistent order. After all, Chopin didn't have anything to prove about new systems of tuning, and the only 'temperament' he had to worry about was in the range of Romantic moods he was eccompassing in both the *Etudes* and the *Préludes*. The initial nod to relative major-minor ordering in the *Etudes* and in the *Préludes* was simply a salute to Johann Sebastian Bach.

The harmonic *structure*, however, of the first of Chopin's *Etudes* gives considerably *more* than an admiring nod to Bach's first *Prelude*. Both are in C major, of course. Both are built on a 'pedal-point' or organ-point, bass line – a bass consisting of long-held notes sustained to underpin the harmonies in the other parts.

But more than that, in both pieces the shape of the passages in the upper parts is integral to the overall shape and direction of the music. In both cases, the keyboard writing – which is to say the pianistic *texture* of the music – is inseparable from the musical thrust of the piece. One only has to listen to the way the melody grows out of the *arpeggio* figuration in Bach's *Prelude*. It blossoms like a flower from each fundamental note in the bass line, creating the effect of a series of blossomings with each bar. The effect of the whole is the musical counterpart to Giotto's perfect circle. In both the Bach and the Chopin, each bar turns like a wheel in a circular movement. In the same way as Bach's *Prelude*, Chopin builds the melodic contour of his first *Etude* by the nature of the figuration which springs forth from the bass notes, and by the progression of the harmonies.

But what an expansion of sound Chopin is able to create on *his* keyboard! It's not better because it's bigger; the simplicity and perfection of both on their own terms is on a par. Chopin is simply writing for a new instrument, and this first *Etude* is his '*take*' on Bach's first *Prelude*.

Like Chopin, Charles Gounod would also be enamoured of the structural pattern and atmosphere of Bach's first *Prelude*, and create his own 'take' on the tiny masterpiece, by adding a melody above the unfolding harmonies with their gently billowing texture to create his celebrated *Ave Maria*.

The love of Bach that Adalbert Żywny inspired in his young pupil was to remain with him throughout his life and colour his entire life's work. The texture of Chopin's music is unlike that of any of his contemporaries – it is markedly more clear-lined and polyphonic, even when boldly sounding at the height of Romantic fullness. This applies throughout his *oeuvre*, particularly in the later Mazurkas and Nocturnes, but as an individual example – one could select any number – the fourth *Ballade*, in F minor, written at the height of his maturity, at the age of thirty-two, is as clearly influenced by Bach as anything to be found anywhere, including the late sonatas and string quartets of Beethoven.

The work opens – like a flower opening up – with crystal clear polyphonic lines; then the main melody unfolds with a single meandering line which seems to proceed without any four-square boundaries, a melody without beginning or end, and sounds almost as if it could have been the theme of a fugue from the *Well-Tempered Clavier*; it is punctuated by a polyphonic conversation coming up from the bass; then this melancholy and seemingly unassuming theme opens out with growing passion, gathering in passion through the agency of a polyphonic accompaniment, a counterpoint which becomes more and more the driving force.

A second subject brings a brief interlude of calm before the temperature begins to rise again, all the time with polyphonic texture, until finally, having almost overloaded the emotional guage, emerges with a triumphant return to the opening bars of the introduction, now gloriously polyphonic. There is a pause, after which we meander apparently aimlessly in a three-part fugue which provides a breathing space. After this breathing space, quiet and internal, yet in complex three-part polyhony, a passage that is completely Bachian in its existential sense of timelessness, the momentum gathers and builds towards the dramatic conclusion, which is a *tour de force* of Romantic pianistic polyphony.

However, overt cases of polyphonic writing such as this, and there are many others – in the *Third Sonata* and the *Polonaise-Fantasy*, for instance – are not the only way in which we see the influence of Bach in Chopin's work. We see it in the clarity of the thematic and accompanimental lines everywhere. This clarity – a Mozartian clarity – is one of the distinguishing features of Chopin's music, and it comes from his early exposure to, and personal identification with, the music of J. S. Bach.

In the next chapter we will see how the piano developed from the instrument used by Mozart and Beethoven to that for which Chopin composed. We shall get to know the kind of piano Chopin preferred and used exclusively, which came from the French piano manufacturing firm Pleyel, and we'll meet Camille Pleyel, owner of the company and one of Chopin's close friends and associates. We will see how the piano's development affected what Chopin wrote, and how the piano in turn would be affected by Chopin's influence.

Chapter Two

AS THE PRINTING PRESS TO POETRY

George Bernard Shaw – who in order to earn a living wrote newspaper reviews as one of history's leading music critics – once said that the invention of the piano was to music what the invention of the printing press was to poetry. He was, of course, referring to the dissemination of music to a much wider public than had ever been possible before. Shaw could have added that without Frederic Chopin the piano would not have been able to make the contribution it did to the art of music, or indeed to the culture of modern times.

The piano became much more than a wonderful new musical instrument, one that could be played without the accompaniment of any other musicians. It did in fact fulfill a role similar to that of the printing press in literature, although its full potential in this regard did not become evident up until Chopin's time. From the second quarter of the 19th century, the piano was to the dissemination of music, and culture in a wider sense, very similar to the television set and recording devices in every home today. No sooner was a symphony, grand opera or comic opera composed, there was a 'piano reduction', or arrangement, made and published, simultaneously with the first performances. These piano versions came off the presses and were snapped up across Europe as quickly as we get the latest movies and information off the internet. They were played in the home everywhere, families and friends gathered round the piano sharing in the latest delight.

In the absence of television news programmes and documentaries, these sheet-music missives from the outside world were a great deal more than simple home entertainment. Music in the home was a potent form of contact with the wider world, keeping people up-to-date with social trends, fashions, political currents. With the symphonies of Beethoven one could keep abreast of the heroic thrust of the Romantic movement, with its philosophical ideas aimed at bringing about social equality and justice. With Rossini's comic operas or those of Offenbach one could be involved in the latest social satire of the day, from Beaumarchais' incendiary comedies to the overwrought politics of the second Empire in France. With Gilbert and Sullivan one became a participant in the amusing pomposities of English upper middle class life. Johann Strauss allowed you to share in the carefree social life of fashionable and glamorous Vienna. And all this was accomplished through the magical piece of furniture with eighty-eight keys – though it had a few less then.

As well as being a potent means of bringing the world into one's home, in the manner of a television or computer, the piano also acted as a social engine, or catalyst. The enormous social significance of the piano is examined in depth in '*Men, Women and Pianos*' by Arthur Loesser, elder brother of Frank Loesser, the composer of *Guys and Dolls*, and consequently "the Arthur of two Loessers." In this entertaining and richly erudite work, the author declares, with some justification, that "the history of the pianoforte and the history of the social status of women can be interpreted in terms of one another."

At the end of the 18th century and into the 19th, the prosperous classes, which very much included the new middle class, saw to it that their daughters were well educated in pursuits which confirmed the family's social standing. As well as the absolute essentials – writing letters and diaries in an educated style and drawing in a finished, almost professional, manner, there was needlework and embroidery, various crafts involving embellishment with assorted fabrics, flower arranging as an art form, and above all, music – most specifically singing and playing the piano. During the long evenings at home by candle-light, a young lady could provide music, especially songs, for everyone in the family, as well as guests, to enjoy and participate. Rather more social and friendly, really, than what we've become accustomed to. Most importantly, music was a tangible confirmation of the family's social status, because it was on display.

Jane Austen, herself a very competent pianist, received sheet music by mail every week at her father's parsonage in rural Hampshire, then later at her brother Edward's house. She copied out a large quantity of borrowed music for her own use.

The piano became a central prop for the perennial quest in Jane Austen's novels – the attempt to catch the right man. There are many instances in her novels of young ladies of marriageable age finding the piano bench the most conducive spot from which to balance the demands of having to charm potential suitors with the proprieties of social and family life.

At various times, several Austen characters claim to be passionately fond of music, and are then found to be frauds – for instance, the handsome young Frank Churchill in *Emma*. Perhaps that shows what Jane Austen thought of the significance of musical appreciation as an indicator of character.

In *Pride and Prejudice*, written semi-autobiographically by the twenty-one year-old Jane in 1796–7, originally entitled '*First Impressions*', we learn from Mr. Bingley, in response to Mr. Darcy's enquiry, that "A woman must have a thorough knowledge of music, singing, drawing, dancing, and the modern languages, to deserve the word 'accomplished'." The redoubtable Lady Catherine de Bourgh claims that "If I had ever learnt (the piano), I should have been a great proficient." Mr. Darcy speaks with affectionate praise of his own sister's proficiency: "I assure you, madam, that she practices very constantly." "So much the better," replies Lady Catherine. "It cannot be done too much; and when I next write to her I shall charge her not to neglect it on any account. I often tell young ladies that no excellence in music is to be acquired without constant practice. I have told Miss Bennet several times, that she will never play really well unless she practices more…"

As we shall discover, Lady Catherine, despite her customary self-assurance, was wrong. Practice *can* be done too much, something which Chopin cautioned against. And most importantly of all, as he was always at pains to make his students understand, practice will help not one whit without understanding. An excess of uninformed 'practice' won't improve one's excellence, and will most likely result in *tendinitis* and *carpal tunnel* problems.

Seeing the piano occupied such an important place in the social fabric of Europe as it entered the most glorious century of its history, the era in which so many artistic and intellectual strands would come to a pinnacle and reach a climax, let us pause to examine this new instrument.

At the beginning of the nineteenth century the piano occupied a place in many respects similar to that of the computer in the late twentieth century – a brilliant new invention which had only very recently become an integral part of daily life for a newly emerging society, one formed by new economic and political circumstances. And long before the dot.com boom there was the piano boom. Piano manufacture became a huge industry, with literally hundreds of companies in the second half of the 19th century. One in every four homes in Paris in Chopin's time had a piano. Therefore, before we go any further with our exploration of the fabulous software produced for the piano by Frederic Chopin, let's take a look at the hardware and examine the development of the piano itself, and how it determined what could be played upon it and how.

The first thing to understand about a keyboard instrument is that unlike every other instrument, and of course the greatest instrument of all, the human voice, it's *mechanical* – a machine, very much like a computer, and like a computer, it is operated by our two hands at a keyboard with keys and levers. In the spirit of the industrial age, and in line with the invention of so many machines which would transform modern life, the development of the piano – a modern, mechanical instrument, produced like a computer or a car, not in a workshop but in a factory, a 'fabrique' or 'Fabrik', by the assembly of a collection of parts – during the first half of the 19th century was completely natural and appropriate.

All non-keyboard instruments are primarily dependent on our breath or on the natural movement of our arms, even if the fingers often have to work almost as assiduously on stringed instruments and wind instruments they do on the piano. The movements of the arm and body in playing stringed instruments – which have been around for centuries – and the limitations of our breath when playing wind instruments – which have been with us since Creation – are natural and provide a warning system for our body in its propensity to strain itself – something playing the piano will *never* do because of its completely mechanical nature.

Unlike most machines, however, the piano *does* have a soul. The combined effect of its parts, consisting of seasoned wood, iron, strings and felt, varies from one instrument to the next, even within the same make, and of course its software consists for the most part of the most beautiful thoughts and sounds ever dreamt up by the mind of man. But it *is* a machine. You can read a newspaper while you're playing the piano – a procedure actually recommended by the renowned German pianist and teacher Friedrich Kalkbrenner, who thought the action of the fingers should be treated completely independently of musical and artistic requirements – in as mechanical a way, in fact, as that of the action of the hammers in striking the strings. Perhaps the piano's mechanical nature is the reason so many violinists look upon it with mild contempt, or indifference, regarding it's existence as an inescapable bore, its invention having been necessitated exclusively by their unavoidable need for an accompaniment.

Kalkbrenner was as wrong about the presumed mindless nature of piano technique as Lady Catherine was about the need for 'constant practice' in order to acquire excellence. It is impossible to separate the technical and the musical – the mechanical and the considered – when playing the piano. They are inextricably intertwined and mutually dependent, despite what many musical 'purists' like to say. One often hears that such and such is a great 'musician' and someone else 'merely a technician'. This, of course, is nonsense.

When he first arrived in Paris, Frederic Chopin, aged twenty-two, seriously considered studying with Kalkbrenner, famous for his cool precision and exquisite evenness of touch. But he soon changed his mind, at the urging of everyone, particularly his new friend Felix Mendelssohn, who told Chopin he already played better than Kalkbrenner any day. Nobody ever combined musicianship with technical know-how more organically and inseparably than Frederic Chopin, and this was apparent to everyone from the very beginning. Those who attended his first concert in Paris, which took place at the Salle Pleyel in February 1832, three months after he arrived, spoke of new vistas which could only have been suggested by this unusual combination of qualities.

For instance, the leading critic in Paris – who also happened to be professor of counterpoint and harmony at the Paris Conservatoire – François Fétis, wrote, in *La Revue Musicale*, "Here is a young man who, surrendering himself to his natural impressions and taking no model, has found, if not a complete renewal of piano music, at least a part of that which we have long sought in vain, namely an abundance of original ideas of a kind to be found nowhere else… "

Fétis was speaking of the *form* of Chopin's compositions, but as the only works of his own Chopin performed on that occasion were the F minor concerto, played as a solo, and the '*Là ci darem la mano*' variations – both very conventional works in terms of form – Fétis was obviously mesmerised by the pianistic texture of these works, and this was evidently blended in the impression he received with the forms of the compositions themselves.

Liszt, who was also in the audience, experienced a very similar reaction: 'The most enthusiastic applause didn't seem to do justice to our enchantment at this talent who revealed a new kind of poetic feeling and such innovations in the form of his art." Mendelssohn, writing in 1835, said, "There is something so thoroughly original and at the same time so very masterly in his playing that he may be called a really perfect virtuoso."

The never-ending argument in the piano world about technique-versus-musicality was best summed up by Vladimir Horowitz, who correctly pointed out that *both* were not only necessary, but inseparable:

"Playing the piano is a combination of brain, heart and means. And all three should be even. If one falls short of the others, the music suffers. Without brains you are a fiasco; without means you are an amateur; without heart, you are a machine. It has its dangers, this occupation."

Chopin lived just at the time the piano was becoming the quintessential musical instrument of the new age. He understood as no one else the over-riding problem of the mechanical nature of the piano sitting side-by-side with the artistic objectives of the pianist. To deal with this problem he produced his manifesto of piano technique – the *Etudes* – in order to take full advantage of the possibilities that the instrument offered, in a way that would make the piano not the despised stepchild in the instrument world, but on the contrary, the *prince* of instruments.

When Chopin was growing up, the piano was at that very moment in the course of being transformed from a wooden box with strings and hammers into the instrument we know today – from a Model T Ford to a Rolls Royce.

The piano had first appeared a century before Chopin's birth, around the year 1700, the invention of Bartolomeo Cristofori, instrument maker to the rich, music-loving Grand Prince of Florence, Ferdinando de Medici. Cristofori had been appointed in 1688 to care for the prince's harpsichords, and later on to look after all his musical instruments. An inventory of 1700 mentions an "*arpicembalo*" – an instrument 'resembling a harpsichord' – "*del piano e forte*" – 'with soft and loud', "newly invented by Bartolomeo Cristofori, with hammers and dampers, two keyboards and a range of four octaves."

However, the *harpsichord* was at its zenith during the first half of the 18th century and the piano would be treated as little more than a curiosity for a long while, only starting to emerge as a popular and worthy instrument in its own right in the latter part of the century, around 1780. Music written for the harpsichord could also be played on the 'fortepiano', as the piano was known throughout the 18th century, but the first music considered suitable for the fortepiano alone was not composed until the mid-1770s, by Clementi and Mozart, Clementi's first sonatas, his Op. 2, published in 1773, probably taking the palm, followed by Mozart's sonatas of 1774.

Most people think of the piano as a development from the harpsichord – known as *clavecin* in French and *cembalo* in Italian. But beyond the fact that they're both shapely wooden boxes with strings inside, and they're both played via a keyboard, there's little musical similarity, and the technique required to play them, beyond the basic fact that it centres almost entirely on the fingers, is quite different. This lack of similarity, in both respects, is due to the difference in the *action* by which their respective keyboards activate the strings – one by plucking with quills, the other by striking with hammers.

The piano's rationale had a completely different origin to the string-plucked harpsichord. It was that of the *dulcimer*, which emerged from Eastern Europe during the Middle Ages – an instrument in which the strings, stretched over a wooden frame or box, were struck with hand-held hammers. The dulcimer is still used in Hungary, where it is known as the *cimbalon*.

Cristofori called his invention '*cembalo con piano e forte*' – "harpsichord with soft and loud," or '*gravecembalo col piano e forte*' – a *big* harpsichord with soft and loud – indicating at once the step-child nature in which the new instrument was treated as well as its novel and completely unique characteristic as a keyboard instrument – the ability to play soft and loud in a graduated manner.

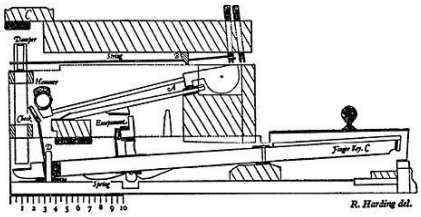
The harpsichord, and its smaller cousins the virginal and the spinet which had been in use since the 16th century, allowed for no variation of tone quality or level of sound through finger touch. (the joke 'Bach had twenty children and he practiced on a spinster in the attic' borrows the historically accurate anecdote of the boy Handel practising on a spinet, or small clavichord, in the attic, against his father's wishes).

Harpsichords had acquired two keyboards, with occasionally even three, and in conjunction with a swelling device operated by a pedal, which would open slats like those of a Venetian blind, the degree and character of tone could be varied considerably. But there was no possibility of varying the level or quality of sound of the individual notes, as the plucking mechanism by which the strings were sounded had an unvarying degree of force. The player's power of expression was thus fixed and limited.

The harpsichord's main use – the great keyboard works of Couperin, Bach, Handel and Scarlatti notwithstanding – was as an accompanying instrument in chamber or ensemble music, and as a support for voices in opera, cantata and oratorio, supplying the bass line and harmonies by way of a 'figured bass' – the same kind of thing popular musicians refer to today as 'chords'; essential but hardly requiring any expression or finesse of touch.

Cristofori invented the means by which the strings could be *struck*, by mechanically controlled hammers, with a system of levers which ensured that the hammers rebounded immediately by means of a lever on a spring, known as an 'escapement', as well as a 'damper', which fell upon the string when the hammer was released, thereby stopping the vibration of sound. Remarkably, within a decade and a half, Cristofori established all the essential elements of the piano's action, including, in 1722, the *una corda* mechanism, which made the hammers strike only one instead of the two strings with which Cristofori fitted each note. The new action opened the way to the possibility of limitless varieties of tone, depending on the pressure, or force, with which one struck the notes, and thus satisfied the underlying aim of the new invention – the ability to achieve 'expressivity'.

We can see Cristofori's patent-style drawing of his hammer mechanism, with its interconnected levers. This was included with a lengthy article published in Venice in 1711 in the influential *Giornale dei letterati d'Italia*.



We can also see from the 1720 Cristofori pianoforte – the oldest of three which survive, owned by the Metropolitan Museum – that the instrument was already very much in the form it would take for most of the 18th century, with a substantial dynamic range and a sensitive touch. The frame, however, was light and fragile, similar to that of a harpsichord, and not at all equal to the strength of the action, and the force of which the hammers were capable.

The *Giornale* article, written, by the poet and journalist Scipione Maffei – in such an expository and laudatory manner that one suspects it might have been a kind of 'info-ad' article – would be much reprinted over the next few years, and translated into German in 1725, inspiring the development of the new instrument north of the Alps. Describing the virtues of Cristofori's invention, it pointed out that whereas bowed instruments – the long-established violin family – created "differentiation and alternation of sound", the harpsichord was entirely incapable of doing any such thing. With the new "*piano e forte*," the player could control, by applying different degrees of force to the keys, "not only the volume, but also the diminution and variety of the sound, as if on a cello."

The essay was pleased to inform readers that one could experience the effect of "the soft and the loud" that one heard from the best musicians "in the grand concerts in Rome – either in the propositions and responses, or when the level of sound is allowed to drop little by little, through artful diminution, and then suddenly return at full blast." By "propositions and responses" the writer was referring to the possibility of contrast between one section and another, and also to the availability of contrast within individual phrases and counter-melodies. These possibilities would come eventually, in Chopin's hands a century later, to almost rival the variety of contrasts available to the human voice. Through "artful" means, Chopin would aspire to do just that – imitate the voice, and make the piano speak with every nuance and inflection of which the voice is capable.

The *forte-piano* – 'loud-soft', as it was called throughout the 18th century – was slow to catch on. It *never* caught on at all in Italy, the country of its origin. The Italians confined their musical enthusiasms almost exclusively to opera and to the violin. To this day, there are hardly even any symphony orchestras in Italy, and the great Italian pianists can be counted on a few fingers, but Italy's contribution to opera and to the art of the violin, as well as the invention of the piano, are surely laurels enough in the history and development of Western music.

As the early fortepianos were the same size and shape as harpsichords, they didn't at first seem all that different. But the new instrument in fact represented a complete departure. What it did so clearly, right from the beginning, was allow the player to differentiate melody from accompaniment, one of the aspects of "propositions and responses."

Johann Sebastian Bach's demonstration, in his manifesto of keyboard harmony, *The Well-Tempered Clavier*, that the system of keyboard tuning whereby the tones and semitones were evenly spaced and fixed – in contrast to the tuning of stringed and wind instruments – would eventually mean that the piano, which could also clearly differentiate melody and accompaniment, could be an entirely self-sufficient instrument, one which required no assisting instruments. What was lacking in terms of singing potential was gained in precision of modulation and transposition, and thereby complete harmonic and textural independence.

Bach tried out a few 'pianofortes' when he visited Dresden in 1736. He thought they were pleasant but weak in the treble and had too heavy and stiff a touch. The maker, Gottfried Silbermann, was the most celebrated organ builder and harpsichord manufacturer of his time, building forty-seven organs in Saxony. Silbermann had begun to make fortepianos in 1726 on the model of Cristofori's action, following the publication of the *Giornale* article in Hamburg the previous year.

According to a colleague, Silbermann was "angry with Mr. Bach for a long time." Nevertheless, Silbermann made improvements over the following years with Bach in mind. Eleven years after their first encounter, Bach played on Silbermann's pianos again, this time for Frederick the Great, a passionate musician and collector, who owned fifteen of Silbermann's pianos. Bach had come to Potsdam to see his son Carl Philipp Emanuel, who had been appointed harpsichordist to the emperor in 1740. Frederick, who was just then playing the flute with his orchestra – his favourite occupation – exclaimed "Gentlemen, old Bach is here!" Bach was sixty-two at the time – not that 'old', but perhaps the king simply meant Bach 'senior'. He didn't allow old Bach time to change his traveling clothes, hurrying him into the music room. Bach improvised on one of the fortepianos upon a theme by Frederick, producing a six-part fugue, which he later continued to develop when he got home to Leipzig, in the process creating *A Musical Offering*, dedicated to Frederick. This time, Bach was pleased by Silbermann's instruments, which had undergone much improvement in the intervening decade.

But for Johann Sebastian Bach, the greatest of all organists and harpsichordists, the fortepiano remained but a curiosity. It was his son, Carl Philipp Emmanuel, who became the first important composer for the fortepiano, and who wrote the first great treatise on the playing of keyboard instruments, "*Versuch űber die wahre Art das Klavier zu spielen*" – '*Essay on the True Art of Playing Keyboard Instruments*', Part 1 of which appeared in 1753, three years after the death of Johann Sebastian, and Part 2 nine years later.

The great harpsichordist, or 'clavecinist', François Couperin, had published a graceful and humorous instruction book on harpsichord playing, *L'Art de toucher le clavecin*, in 1716, dedicated to the six year-old king Louis XV, but Carl Philipp Emmanuel's monumental opus was a major overview of all keyboard performance practice, and it became very famous, being used as a reference work for generations, especially for the correct interpretation of ornaments, but also for systems of fingering, the realization of figured-basses, how to accompany, and the style and manner in which to play keyboard instruments with taste and refinement in general. "Whatever I understand of the pianoforte I learned from this book," Clementi, the first great fortepiano player, would say many years later.

The *Versuch* addressed players of all keyboard instruments, particularly the harpsichord and the clavichord – the latter being Carl Philipp Emmanuel's preferred instrument, because of its delicate expressivity. The clavichord was an older instrument, small and ethereal-sounding, which neither plucked nor struck the strings, but produced its sound by a pressure-stroke from below, delivered by small pieces of metal called *tangents*, which vibrated and 'stopped' the strings like a violinist's finger.

But the new instrument was also recognized: Carl Philipp Emmanuel had become very familiar with the fortepiano thanks to his employer's substantial collection of Silbermann pianos, and he himself gave performances on the instrument, including the sonatas he composed from the early 1740s until his death in 1787: "The more recent pianoforte, when it is sturdy and well built, has many fine qualities, despite its deficiency in sustaining tone, although its touch must be carefully worked out, as much as possible in a singing manner – a task which is by no means easy, if we desire not to leave the ear empty, or to disturb the noble simplicity of the *cantabile* by too much noise."

Chopin was still endeavouring – successfully – to do exactly the same thing three quarters of a century later, namely 'work out the touch as much as possible in a singing manner', without disturbing 'the noble simplicity of the *cantabile* by too much noise' – or *percussiveness* – a task which was still 'by no means easy'.

The first public "Piano Forte" concert was given in London in 1768, sixty years after the instrument's invention by Cristofori, and seventeen years after J. S. Bach's death, by Carl Phillip Emmanuel's much younger brother, Johann Christian. Living in England for two decades as a concert and opera director and music teacher to the family of George III, famously painted by Thomas Gainsborough, on a commission from his old teacher, Padre Martini, Johann Christian, the eighteenth and youngest surviving child of Johann Sebastian, was known as "The English Bach."

Johann Christian Bach, by Gainsborough, 1776

A man of charm and tact, Johann Christian Bach, who had studied with his eldest brother Carl Philipp Emanuel in Berlin, then the famous Padre Martini in Bologna, was something of a black sheep in the Bach family, especially after his conversion to Catholicism in Milan, which estranged him from his deeply Lutheran family. After a decade in Italy, during which he became organist at Milan Cathedral, Johann Christian came to London, where he was soon the leading musical personality in England, an admired composer and keyboard virtuoso, and the adored mentor of Mozart, who with his family spent a year in London when he was nine. Johann married the Italian opera singer Cecilia Grassi in 1773, and with his boyhood friend Carl Friedrich Abel he presented the first subscription series in England, the Bach-Abel Concerts. In 1774 they established the Hanover Square Rooms, which became the principal concert venue in London for over a century. Johann Christian didn't make much from all his ventures; instead he ended up plagued by debts at his death at age forty-eight in 1782.

J. C. Bach was the leader of the new *style galant*, a complete departure from his father's High Baroque polyphonic style, which had by then been consigned to history, and he was the most important influence upon Mozart's compositional development.

Wolfgang Amadeus Mozart

It was in fact Mozart who really put the fortepiano on the map. Mozart was also an accomplished performer on the violin and other keyboard instruments, but during the mid-1770s, in his early twenties, the fortepiano became his preferred vehicle for displaying his own performing talents. Mozart's twenty-seven piano concertos, and his twenty piano sonatas, were the first major body of work to be composed specifically for the fortepiano. Written for his own use as a performer, Mozart's concertos would remain unsurpassed for idiomatic pianistic writing, as well as beauty, and for their elegant way of highlighting the abilities of a star performer.

Mozart took a keen interest in the development of the instrument, being particularly impressed by the pianos of the Austrian maker Andreas Stein, whose pianos, starting around 1770, were the first where the action and the stringing in the frame were reasonably matched. At the same time, Stein invented what was to become known as the "Viennese" action, the most important feature of which was the consistent incorporation of a well co-ordinated 'escapement'. The hammers were light, the touch shallow, not unlike that of a clavichord, and the strings were able to sustain the hammer action, thereby producing a charming, 'singing' tone.

Mozart derived great pleasure and interest when visiting Stein at his workshop in Augsburg during the course of his travels, and wrote home to his father about Stein's pianos, in a letter dated October 17, 1777, which is an important document regarding the development of the pianoforte: "Before I had seen any of his make, Späth's claviers had always been my favourites. But now I prefer Stein's, for they dampen so much better than the Regensburg instruments. When I play vigorously, whether I leave the finger down on the note or lift it up, the tone ceases the moment I have sounded it. I can touch the keys any way I wish, the tone will always be even; it never jars, it will never come out too loud or too soft or perhaps even fail to sound at all; in a word, everything is even…

"His instruments have this distinguishing feature: they are made with an escape action… Only one maker in a hundred bothers about this, but without an escapement it is impossible for a note not to jingle or leave a vibration after being struck. When you touch the keys, his hammers fall back again the moment after they have struck the strings, whether you leave the keys down or release them.

"He himself told me that when he has finished making one of these claviers, he sits down and tries all kinds of passages, runs and jumps, and he polishes and works away at it until it can do anything. For he labours only in the interest of music, and not for his own profit; otherwise he would be finished almost immediately. He often says: 'If I myself were not such a passionate lover of music and had not myself some slight skill on the clavier, I should long ago have lost patience with my work'.

"And his claviers really do last. He guarantees that the sounding-board will neither break nor split. When he has finished making one for a clavier, he places it in the open air, exposing it to rain, snow, the heat of the sun and all hell, in order that it may crack. Then he inserts wedges and glues them in to make the instrument very strong and firm. He is delighted when it cracks, for he can then be sure that nothing more can happen to it. Indeed, he often cuts into it himself and then glues it together and strengthens it in this way…

"The device too which you work with the knee is better on his than on other instruments. I have only to touch it and it works; and when you shift your knee the slightest bit, you do not feel the least reverberation." (The device to which Mozart refers is the forerunner of the pedal, which Stein pioneered in conjunction with the escapement. This was initially a lever underneath the piano case which one pressed with the knee, thereby raising the dampers and prolonging the sound independently of whatever the fingers did.)

Leopold answered his son's enthusiastic letter by saying he was glad Mr. Stein's pianos were good, but they were too expensive.

Mozart, aged 23, and sister Nannerl, 28, with father Leopold, and mother on the wall, by Johann Nepomuk de la Croce, 1779

Mozart also had plenty to say about Stein's precocious daughter Nanette, and his observations throw a useful light on his attitudes to pianoforte technique and style:

"About his little girl. Anybody who sees and hears her play and does not burst out laughing must, like her father, be made of stone ('like her father' is a pun on the word *Stein*, which means 'stone' in German). Mr. Stein is completely silly about his daughter. She is eight years old and learns everything only from memory… Instead of sitting in the middle of the keyboard, she sits right up by the treble, as it gives her more chance of flopping about and making grimaces. She rolls her eyes and smirks. When a passage is repeated, she plays it slower the second time. If it has to be played a third time, then she plays it even more slowly.

"She raises the arm as high as possible, and if the notes in a passage are stressed, the arm, not the fingers, do this, and that too, with great emphasis and clumsy manner.. She may succeed, for she has great talent, but by this method she will not make progress, for she will never acquire great rapidity… She will never get that which is the most essential, the hardest, and the principal thing in music, *tempo* – because from infancy she has done her utmost not to play in time.

"Mr. Stein and I talked about this for two hours at least. I have almost converted him, and he now asks my advice about everything… he sees and hears that I do not make grimaces and yet play with such expression that, as he himself confesses, no one up to the present has been able to get such good results out of his pianofortes. Everyone is amazed that I can always keep strict time. What these people cannot grasp is that in *tempo rubato* in an adagio, the left hand should go on playing in strict time. With them the left hand always follows suit."

The observations about playing in time and about the importance of the left hand maintaining strict time in *tempo rubato* are particularly interesting, as the concept, and even the term *tempo rubato*, are generally thought of as the property of Chopin, and are certainly associated mainly with him. But here it is, being described by Mozart in exactly the same way in which it would be used by Chopin, sixty years earlier.

"Even in his *tempo rubato*," according to Chopin's pupil Carl Mikuli, "one hand – that having the accompaniment – always played on in strict time, while the other, singing the melody, either hesitating as if undecided, or, with increased animation, anticipating with a kind of impatient vehemence… maintained the freedom of expression from the fetters of strict regularity."

Mozart himself adopted the expression *tempo rubato* – which, of course, describes a completely natural phenomenon, namely the progress of music over time according to natural rhythm, the way we breathe – from Carl Philipp Emmanuel Bach. "He is the father, we are the children," said Mozart. In the *Versuch*, Bach had written, "As soon as the upper part begins slavishly to follow the bar, the essence of *rubato* is lost, for then all other parts must be played in time. Other instrumentalists and singers, when they are accompanied, can introduce the tempo (*tempo rubato*) much more easily than the solo clavierist."

The controversy about technique-versus-musicality among pianists – as if one could only have one or the other, having to make some kind of pact with the devil by which one sacrificed one's musical feeling in exchange for technique – emerged full-blown right at the very beginning of the piano's history.

The representatives of the respective sides were Mozart – the 'musical' one – and the energetic, extroverted Italian who had settled in England, Muzio Clementi – somewhat unfairly categorized, because of the vitality of his playing, as the king of 'technical' virtuosity, the Horowitz of his day. Clementi became a substantial composer, and his many sonatas – around seventy for the piano alone, with another thirty for violin and piano – probably influenced Beethoven as much, or more, than did those of Mozart or Haydn, a debt Beethoven freely acknowledged. The sonatas were largely neglected by posterity, overshadowed by Clementi's composition of the first great set of piano *Etudes*, published in 1817. This famous set of studies, entitled *Gradus ad Parnassum* – 'Steps to Parnassus' (Parnassus being the home of the muses, and this title often given to dictionaries of Latin and Greek) – combined technical instruction with expressivity, and was to be constantly used for the training of piano students thenceforth. It was always the first prescribed by Chopin for his own pupils.

Clementi's sonatas, completely neglected, would be championed in the 1950s by Vladimir Horowitz, who was delighted to discover them when his wife Wanda brought back the scores from Italy, as well as the sonatas of Scarlatti. Horowitz found in Clementi's short and dramatically effective sonatas a stimulating Classic-Romantic alternative to the obligatory Beethoven sonata for concert programmes.

Clementi's reputation as being first and foremost a virtuoso performer rather than a composer was due to the fact that his strikingly effective compositional style, with its adventurous modulations and proto-Romantic manner, developed only in mid-life, after his performing days were over, and well after his famous encounter with Mozart, which took place in Vienna, when he was just twenty-eight years old and Mozart twenty-four.

The music-loving emperor of Austria, Joseph II, was keen to compare the two leading executants on the fortepiano, somewhat to Mozart's reticence. When Clementi visited the city in January 1781, Joseph immediately arranged an evening at which the two were invited alternately to perform their compositions and, most of all, to improvise on a variety of themes. The emperor was in a high state of excitement, canvassing opinion, and even taking bets around him. Years later, Joseph was still pondering the question. He asked the composer Karl Ditters von Dittersdorf about Mozart and Clementi: "What is your opinion? Be honest". Dittersdorf replied, "Clementi's way of playing is art alone. Mozart's is art and taste." To which the emperor responded, "That's just what I said!"

After this celebrated occasion, significant because of its historical timing at the real starting point of the piano as a virtuoso solo performing instrument – 1780 – Clementi spoke admiringly of Mozart's singing touch and exquisite taste, qualities which he apparently emulated thereafter. He lived forty years beyond Mozart, till the early days of Chopin and Liszt, and his most famous pupils would be John Cramer, John Field and Friedrich Kalkbrenner. Another student was the celebrated opera composer of Chopin's time Giacomo Meyerbeer.

A man of vitality, as well as keen business sense, *and* a social one, noting that "the only way to become a gentleman is to handle money without having to handle goods," Clementi established a piano manufacturing and music publishing business in 1799, and gave up performing, which was on the level of a "circus tumbler." He gave lessons to the teenaged Irish pianist John Field in return for his working for him in the factory, apparently exceedingly long hours, as a piano demonstrator and salesman. After Clementi's death in 1832, the piano firm became known as Collard and Collard.

Muzio Clementi

Clementi told his student Ludwig Berger, who would be the piano teacher of Felix and Fanny Mendelssohn in Berlin, that "he had achieved a more melodic and noble style of performance after listening attentively to famous singers, and also by means of the perfected mechanism of English pianos, the construction of which formerly stood in the way of a *cantabile* and *legato* style of playing."

But Mozart was discomfited by Clementi, despite the fact that the tone of their 'duel' had been friendly, and as part of the proceedings they played a duet. Mozart was particularly irritated by Clementi's prowess with passages in double notes, which were the Italian visitor's speciality. Any pianist today will likewise be caught between fascination and envy of anyone who can play Chopin's Etude in *thirds* well, or Liszt's octave passages, and just like Mozart, be eager to point out that that's *all* they can do!

"I implore my sister not to practise these passages too much," Mozart wrote to his sister Nannerl two years later, about Clementi's sonatas, "so that she may not spoil her quiet, even touch, and that her hand may not lose its natural lightness, flexibility and smooth rapidity. For after all, what is to be gained by it? Supposing that you do play *sixths* and *octaves* with the utmost velocity – which no-one can accomplish, not even Clementi – you can produce only an atrocious chopping effect and nothing else whatsoever.

"Clementi is a charlatan, like all Italians. He writes *Presto* over a sonata or even *Prestissimo* and *Alla breve*, and plays it himself *Allegro* in 4/4 time. I know this is the case for I have heard him do so. His star passages are *thirds*; but he sweated over them day and night in London. Apart from this he can do nothing, absolutely nothing, for he has not a farthing's worth of taste or feeling; he is a mere *mechanicus*."

It must be reiterated, however, in fairness to Mozart, that Clementi's style of playing, by his own admission as well as repute, changed considerably, later becoming positively distinguished and admired for its *legato* and *cantabile*. As Clementi himself pointed out, this transformation coincided with the change in the pianoforte, something with which he was intimately involved. Clementi lived happily in England, becoming rich from his piano business as well as property, and married twice, in his fifties, his first wife dying in childbirth. He visited the Continent periodically in order to sell his pianos, taking his young demonstrator John Field with him on his first extended tour, in 1802 – 3. Like a true English gentleman, Clementi made his home in the country, and his final resting place was to be Westminster Abbey.

Field did not return to England with Clementi. He liked Russia, and settled in St. Petersburg in 1803, at the age of twenty-one, becoming a fashionable teacher. The Irishman would be based there for the next thirty years, often touring Europe. Apart from his seven piano concertos and four sonatas, Field, with his individual expressive style, initiated the form of the *Nocturne*, later taken up so distinctively by Chopin. Field was the first performer to make consistent use of the sustaining pedal for widespread chords, and for general artistic effect. He also established the primacy of a *cantabile* line, simple or ornamented, with a supportive accompaniment in the left hand, thereby laying the ground for Chopin.

John Field, precursor of Chopin

From Mozart's illuminating letters about Andreas Stein and his daughter, and those about Clementi and his style of playing, we can see the essential elements of Mozart's own style – clear, undemonstrative, no raised arm movements, hands close to the keys, light, flexible, fleet, above all 'singing'; though Beethoven told Carl Czerny that Mozart's playing was "neat and clean, but rather empty, flat and antiquated." We can also see the relation of that style to the kind of piano available to Mozart, a piano which underpinned the "Viennese School" of piano playing.

By 1800, a decade after Mozart's death, Andreas Stein's escapement had become standard, and was now known as the "Vienna action". Stein himself had died a year after Mozart, but his firm continued in the hands of his son Matthaűs Andreas and daughter Nanette. There was a marked contrast between the two leading streams of piano manufacturers in the early 19th century, the Viennese and the English. In his celebrated *Méthode*, Kalkbrenner described it well: "The Viennese pianists are particularly distinguished for their precision, the clarity and rapidity of their execution. Thus the instruments manufactured in that city are extremely easy to play… English pianos have a fuller sound and a heavier keyboard action. The players of that country have adopted a larger style and the beautiful way of singing that distinguishes them, and it is indispensable to use the large pedal in order to conceal the inherent dryness of the piano. Dussek, Field and J. B. Cramer, the leaders of that school which was founded by Clementi, use the pedal when harmonies do not change."

The many differences between the actions of the Viennese pianos and the English ones revolved mainly around a lighter action in the Viennese models, which was conducive to velocity of performance, as well as charm and elegance. In the Viennese action the hammer was fixed to the key itself, effecting a crisper dampening action when the hammer engaged with the escapement.

But the really big difference between the Viennese and English pianos was the relationship between the key and hammer action and the frame, soundboard and case. The English pianos were altogether more massive and stronger, allowing for a richer, fuller tone, hence 'singing' – *cantabile* – playing, and a sonorous solidity in bass chords, necessary for the works of Beethoven. English pianos also had 'trichord' stringing – three strings to each note – throughout, brass in the bass, steel in the treble, adding to the brilliance as well as the depth of sound. Beethoven was unabashed about his preference for English pianos.

The leading Viennese manufacturer at the turn of the 19th century was the firm of Johann Streicher, run by 'Nanette Streicher, *née* Stein', who had separated her and her husband's operation from that of her brother in 1802. The 'Vienna action' had a shallow key fall and small hammers, and its lightness allowed for a fluency which suited the music of the Viennese composers, above all Mozart and Haydn. Hammers in both the Viennese and English pianos were covered with leather; various materials were experimented with, including cloth over leather, and leather over felt, but all-felt hammers, which dampened the more dissonant harmonics and produced a mellower tone, would not appear until 1826, when the Parisian piano manufacturer Jean Henri Pape introduced them.

In the 1790s, the young pianoforte virtuoso Ludwig van Beethoven – a close friend of Nanette Streicher, who looked after him in Vienna like a sister, bringing him food, taking away his washing, checking on things with his many landladies – was champing at the bit for a more powerful instrument, and this was to come to him from the leading English manufacturer, Broadwood and Sons.

The Broadwood company had been founded in 1728 by the Swiss harpsichord maker Burkhard Tschudi, for the manufacture of harpsichords. In the wake of the Seven Years' War between Prussia and most of the rest of Europe, a number of German craftsmen settled in London during the 1760s. Among them was Johann Christoph Zumpe, a pupil of Gottfried Silbermann, who came as a young man to work for Tschudi, and then set up his own shop at Great Pulteney street.

Zumpe, who pronounced his name 'Zumpy', introduced to England the manufacture of the square piano, a small domestic instrument which had been invented by another Silbermann pupil, Christian Ernst Friederici. Square pianos, which incorporated a simplified form of the Cristofori action, became enormously popular and fashionable during the late 18th century and the first part of the 19th above all in England – where the clavichord had never caught on. Jane Austen would certainly have played on a square piano. Chopin seems to be playing one in the youthful drawing of him by Elise Radziwill, but it's hard to tell because we can only see the keyboard and the front legs. The square piano was improved and increased in size by Broadwood, and it remained in general use during the first half of the 19th century, eventually being completely replaced by the upright piano, which had begun life in the 1820s in a variety of shapes and sizes, including the 'lyre', 'giraffe' and 'pyramid'. Steinway produced its last square piano as late as 1888.

There was enormous demand for domestic pianos of all kinds from the time of Jane Austen's youth through the first decades of the 19th century. Broadwood and Sons catered to all these requirements as the market leader in England, but Broadwood was to become *really* celebrated as the manufacturer of the heavier, fuller *grand* fortepiano, the instrument we recognize as a 'grand piano'. The word 'grand' was first used in 1771, when the London maker Robert Stodart took out a patent for an 'English Grand Action', and a few years later his son William patented the "upright" piano.

The firm of 'Shudi and Broadwood' had come into existence in 1770, the year of Beethoven's birth, when young John Broadwood, who was employed by Tschudi – now Shudi – and had married his daughter the year before, went into partnership with him. John Broadwood himself was very inventive, and took out several patents for new developments in the 1780s, including one in 1783 for pedals to operate the dampening mechanism – the 'sustaining pedal' – in place of the former knee levers.

Broadwood's manufacture of pianos – *square* pianos – began in 1773, the year Shudi died, and grand pianos in 1781. In 1795 the firm became John Broadwood and Son', and in 1807, 'John Broadwood and Sons'. It's like a family business that starts out manufacturing and selling typewriters and moves on naturally in the next generation to word processors, then computers. Members of the family still sat on the board of the company in the second half of the twentieth century.

Like Mozart, Beethoven had started out as a virtuoso *performer* rather than a composer. His dramatic, Romantically charged improvisation at the keyboard astonished absolutely everyone. We can get some idea of how exciting this must have been from the cadenzas he wrote for his own concertos – notably the first, third and fourth. By the time he came to write his fifth concerto, the *Emperor*, Beethoven had decided to write the cadenzas into the composition as an integral part of the work, so that there was no possibility of a tame, lack-lustre performance. Far and away the strongest performer of his time, Beethoven's playing was full of fire and vitality. Czerny recalled that Beethoven's playing was "marked by enormous energy, strength, incredible bravura and fluency."

One of the most salient features of Beethoven's performances was a constant barrage of broken strings. The Bohemian flautist and composer Anton Reicha, a friend of Beethoven from his Bonn days, then in Vienna, who would later settle in Paris and give composition lessons to Berlioz, Liszt, Gounod and Franck, reports that once, around 1795, when Beethoven played at court,

"He asked me to turn pages for him. But I was mostly occupied in wrenching the strings of the pianoforte which snapped, while the hammers stuck among the broken strings. Beethoven insisted on finishing the concerto (*it was a concerto by Mozart*) and so back and forth I leapt, jerking out a string, disentangling a hammer, turning a page, and I worked harder than Beethoven."

The fortepiano of Beethoven's youth, especially the Viennese model, was still very much a chamber instrument with little resonance or carrying power, and a limited variety of sound quality. It had a range of no more than five octaves, little more than Cristofori's four-and-a-half octaves. This began to change dramatically during the first years of the 19th century, coinciding with the turning point of Beethoven's career.

Beethoven by Joseph Mähler, 1804

Beethoven was always unhappy with his pianos. In 1796, he wrote to Johann Streicher, "there is no doubt that as far as the manner of playing it is concerned, the pianoforte is still the least studied and least developed of all instruments – often one thinks that one is merely listening to a harp. I am delighted, my dear fellow, that you are one of the few who realize that, providing one feels the music, one can also make the pianoforte sing."

During his middle years there were steady improvements, with increases in the size of the keyboard and sturdiness of construction, particularly from the English manufacturers, but the broken strings never stopped with Beethoven. Ironically, were it not for his deafness, and his consequent focus on composition instead of performing, and, of course, the intensity of that focus, Beethoven would almost certainly not have developed into the overwhelming composer we know. Goethe wrote to his friend, the composer Carl Zelter, in 1812, "one must pity him for the loss of hearing which, however, is perhaps less harmful to him from a musical than a social viewpoint." To his wife he wrote, "Never have I met such a concentrated, forceful and fervent artist. I can well understand that he must have a strange relationship to the world."

Broadwood led the way in increasing the size and range of the piano keyboard, averaging five and a half to six octaves by 1800. The first six-octave piano – a Broadwood of course – had been played at a concert in London in 1794 by the star virtuoso Jan Ladislav Dussek, the first full-time touring celebrity concert performer. "*Le beau Dussek*" – 'beau' in his early years, but not so beau later on, becoming very fat – was also the first pianist to perform with his profile to the audience, the first instance being a concerto performance in Prague in 1804.

A student of Carl Philipp Emanuel Bach, Dussek, who composed about fifty piano sonatas, anticipating the characteristics of Romantic piano music, was greatly admired for his 'singing' style and conceptual projection. Dussek's performances in 1808 in Paris, where he had first come in 1786, soon acquiring the patronage of Marie Antoinette, and now that of Talleyrand – in whose house he would live for the remaining three years of his life as a permanent houseguest – caused a furore. The critic François Fétis, who was to laud the appearance of Chopin a little over twenty years later, wrote, "The broad and noble style of this artist, his method of *singing* on an instrument which possessed no sustained sounds, the neatness, delicacy and brilliance of his playing in short, procured him a triumph of which there had been no previous example."

Nanette Streicher was not to be outdone without a fight, and in 1816 she began producing pianos with a six-and-a-half-octave range. In December 1817, Thomas Broadwood sent Beethoven a birthday present of the latest model Broadwood, a sturdy grand more resonant than anything up until that time, with a similar range. The piano came by sea around Gibraltar to Venice, then north over the mountains to Vienna. Beethoven was thrilled, and enormously proud of his Broadwood, even though he could by then hear hardly a thing. Over the remaining nine years of his life he would pound it in a futile attempt to hear the music he was composing, until all the strings were broken and tangled up like a bramble bush; there was no need, after all, to remove the broken strings if you were deaf and if you weren't going to give a concert.

The range of the piano now completely outstripped that of any other instrument by a long way. Within the next ten years, the range would steadily increase further, finally reaching the standard *seven* octaves in 1836, the year that Chopin completed his 24 *Etudes*. With every addition of a note or two, Beethoven became so excited he would compose a new sonata using the expanded range. This was cutting-edge technology, 19th century-style, comparable in our time to Microsoft bringing out new programmes. The hardware was improving, and in Beethoven's hands the software kept pace. It was, in fact, the power of Beethoven's music, more than anything, which inspired manufacturers to develop the range and scope of the pianoforte.

In 1821, when Beethoven, at fifty, was at his apex, and Frederic Chopin was eleven, the French piano maker, Sébastien Érard, patented a "*double* escapement," or "repetition," action, which would become the standard grand piano action thereafter, and so it is to this day. This improvement upon the Stein-Streicher Vienna action allowed for a repetition lever to have the mechanism in place to allow repetition of a key before it was completely released. That meant that there was a resistance and a kick in the final moment before the key went right down, thus allowing the pianist much more control of the sound produced, and much quicker repetition of the note.

The double escapement meant that the hammer didn't need to be fully raised before it repeated the note, so it was no longer necessary to strike the keys in a cut and dried, brittle fashion. A lot of early 19th century piano music incorporated repeated notes frequently, as a means of emulating the *tremolando* of a violin, but quicker repetition would mean much more than simply being able to play repeated notes faster. In a broader sense, it would signify a major development for the ease and *fluidity* with which the piano could be played. The year after the introduction of the crucial '*double escapement*' action, Érard started manufacturing grand pianos with the modern seven-octave range, that range only being increased eventually by another third of an octave.

Érard, of German origin, came from Strasbourg, and had arrived in Paris in 1768 at the age of sixteen, getting a job working for a harpsichord manufacturer. The Duchesse de Villeroi became young Érard's patroness, and she gave him his own workshop in her *hôtel de ville*, where in 1777 he produced the first piano ever made in France. Unable to handle all the commissions he received, Sébastien sent for his brother Jean Baptiste, with whom he developed his own instrument manufacturing business, producing harps as well as pianos, rue de Bourbon, in the Faubourg St. Germain. In 1786 the company opened a branch in London, and the Érard brothers stayed in London throughout the Revolutionary period (*good idea*), not returning to Paris until 1796. The solid English style of piano manufacture influenced Érard's grand pianos. In 1803, the brothers gave Beethoven a piano, which he used for many years. Sébastien lived in London for another extended period, 1808 to 1812.

Enormously inventive, Sébastien Érard introduced not only the double escapement (his crowning achievement, at the age of seventy) but also the 'celeste pedal', an alternative to the *una corda* method for damping the strings, now obsolete, which, instead of moving the hammers along so that just one string – *una corda* – was struck, employed a strip of felt. In 1810, during his second residence in London, Sébastien introduced the double-action harp – the standard harp still in use today. The double action of the harp is as essential to the modern harp as the double escapement is to the piano, and the two are not dissimilar. The seven pedals on the harp – one for each note of the octave – each have two notches, and each pedal can be depressed to two levels – or notches – shortening the strings to the degree of a semitone or a tone. The name Érard is as important to harpists as it is to pianists.

Also, simultaneously with Broadwood, Érard developed metal bracing for the piano frame, using iron tension bars in the treble. The need for metal support for the wooden case – which kept the possibilities of the pianoforte in a box, so to speak – was steadily becoming increasingly necessary as bigger, stronger pianos were sought.

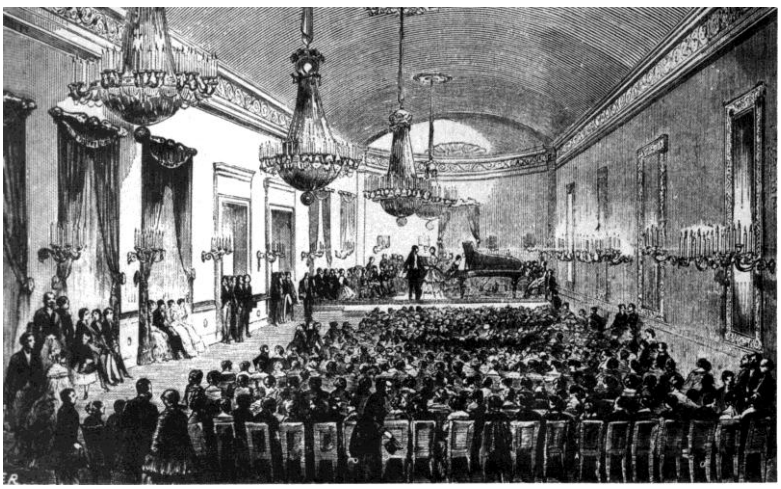
After a while, Érard had competition from a new name, one which is central to our story. Ignaz Pleyel, the twenty-fourth child of a poor schoolmaster in the village of Ruppersthal near Vienna, studied piano under the Bohemian composer Johann Baptist Vanhall, and composition with Haydn, who became his friend. Renowned in his day, Vanhall, who had studied with his contemporary, Karl Ditters von Ditterdorf, in Vienna, composed over a hundred symphonies and a similar number of string quartets, as well as twenty-five masses. Vanhall, Dittersdorf, Mozart and Haydn would on occasion play string quartets together. Pleyel himself became a most prolific composer, beginning at nineteen with a puppet opera which was performed with Haydn's help at Esterház. Pleyel produced twenty-nine symphonies and sixty-four string quartets, as well as quintets, piano and violin concertos, and piano sonatas, all in a spirited and inventive style. Niccolò Paganini's first public performance, as a boy of eight in a church in Genoa in 1790, was of a concerto by Pleyel. In 1792 Pleyel saw his mentor Haydn in London when they both conducted concerts there. Some of Pleyel's works are still occasionally played in France, especially by violinists.

At age twenty-six, Pleyel became deputy *maître de chapelle*, or *kapellmeister*, at the cathedral of Strasbourg, and six years later, in 1789, *maître de chapelle*. Not the best of times to land a job in France, Pleyel only narrowly escaped the guillotine, and in 1795, after the Terror, he moved to Paris and opened a music shop. Soon afterwards, he entered the music publishing field, his first major project being the publication of the first complete edition of Haydn's eighty-four string quartets.

Pleyel soon launched the concept of pocket editions of music, which he sold at '*des prix bon marché*' – popular prices. In 1807, responding to the great demand, Pleyel began manufacturing pianos, and from then on this became the major part of his business. 'Great demand' is putting it mildly: within another generation, one in every ten of the one million residents of Paris played the piano! An 1845 survey estimated that there were 60,000 pianos in Paris alone.

Ignaz Pleyel died just one month after Frederic Chopin came to Paris, Sébastien Érard having died three months earlier. But Pleyel had handed over the reins of his business seven years before, in 1824, to his son Camille. A very accomplished pianist himself, Camille Pleyel moved with the times and allied his flourishing company with the new generation of celebrity pianists. The first among them, Friedrich Kalkbrenner, became a part-owner in the Pleyel piano company, and from this he became rich – not from from his many concerts or his heavy teaching schedule (Kalkbrenner was the busiest and most fashionable piano teacher in Paris). After Kalkbrenner joined the company, the Pleyel piano became the instrument of choice for many of the virtuoso performers in Paris, though Érard held its ground well into the twentieth century.

Camille Pleyel went even further in combining piano manufacture with the music and concert business. In 1830, with much fanfare, the company opened a beautiful concert hall, the Salle Pleyel, at 9 rue Cadet, in the 9th arrondissement, which was available for rent to the public, and nine years later another hall was opened.



Salle Pleyel, 'l'Illustration, journal universel', June 9, 1855

The two halls, running concurrently, presented around two hundred concerts a year – all using Pleyel pianos of course. Pleyel's example was followed by other piano manufacturers, with a Salle Érard, a Salle Gaveau, and in New York, Steinway Hall, which was New York's main concert hall until the opening of Carnegie Hall in 1891.

The alliance of art and commerce continued to develop as a natural business practice in America till the mid-twentieth century, piano companies identifying themselves with famous performers, and organizing their concerts and tours with their own pianos. The culmination of this kind of partnership between classical music, technology and commerce, was the association between 1937 and 1954 of NBC's new radio and television broadcasting technology with the celebrated name and talent of Arturo Toscanini. Camille Pleyel was to the Paris of the 1830s rather like David Sarnoff was to America in the 1930s and 40s, and Pleyel more than anyone created this type of modern promotional business style in music.

It was into this world that the twenty-one year-old Frederic Chopin arrived in the autumn of 1831. The instrument had finally become definitively known as a *piano*, although the English quaintly went on calling it 'pianoforte' throughout the 19th century. Chopin had been accustomed to Viennese pianos in Poland when he was growing up. His farewell concert in Warsaw, on October 11th, 1830, at which he played his new E minor concerto, was given on a Streicher piano. Chopin's choice of wording in his own description of this concert seems to indicate the lightness of the Viennese piano: "… Then My Highness played the first *allegro* of the E minor concerto, which I *reeled* off on a Streicher piano; the bravos were deafening… "

Now, in Paris, Chopin felt comfortable with the Pleyel piano, which suited his elegant touch and refined sound, while Liszt preferred the somewhat sturdier, more English-style Érard. The most important of Chopin's few public concerts took place at the main Salle Pleyel, from his very first, which took place on February 26th, 1832.

Chopin's own piano at home in Paris would be a Pleyel grand, a light-actioned, clear-sounding piano with no great depth of volume, but with a pearly finesse. He also had a Pleyel upright, which he almost preferred, with its more intimate sound and even lighter action. During lessons – he taught on average for four or five hours each day – Chopin would have his students play the grand, while he himself would be seated at the upright, giving examples.

Chopin at home, by Jakob Gőtzenberger, 1838

Camille Pleyel became a close friend of Chopin, from his first appearance in Paris. Soon afterwards, he dedicated the three *Nocturnes*, Op. 9, to Pleyel's new young wife. Marie Pleyel was the leading woman pianist of her generation, considered by some to be the female counterpart of Liszt, and would be rivaled only by Clara Wieck, who was still a girl at this time. The two women were very different pianists, though they became friends: Marie was an exciting, Lisztian style pianist, whereas Clara, having been a brilliant pianist in her youth, became the *doyenne* of 'musical' pianists.

Pleyel's marriage was not a success, as we shall see in a future chapter, getting off to a bad start when Marie's outraged former fiancé, Hector Berlioz – who only found out that he had become 'former' after the fact – set off in a fury with loaded pistols from Rome, where he had only recently arrived to take up his *Prix de Rome* scholarship. But Chopin's *Nocturnes* were a miraculous success, taking Field's simple model and transforming it into an ethereal, transcendant kind of pianistic magic which, as Liszt would say of Chopin's music in this vein, is "like nothing on earth."

Chopin's twenty-four *Préludes*, completed at Majorca during his fateful sojourn there, on a Pleyel upright sent from Paris, was dedicated to Camille Pleyel in its French edition. Pleyel paid Chopin properly, and was well aware of the uniqueness of his friend's genius. The two visited London together in 1837, the coronation year of Victoria, and Pleyel, having distanced himself from his wife, lived there for a while.

Chopin's name became inextricably linked with Pleyel pianos. He even issued an endorsement, published to this day by Pleyel, which sounds remarkably like modern American endorsements for Steinway pianos: "*Quand je me sens en verve et assez fort pour trouver mon propre son á moi, il me faut un piano de Pleye*l" – 'When I'm on form and strong enough to achieve my own individual sound, I need a Pleyel piano.'

Pleyel pianos were, from the start, very precise in their action, yielding the possibility of both delicate sound and rapid 'attack'. Perhaps it was Ignaz Pleyel's Austrian origin which inspired this Viennese-style clarity and lightness of the mechanism. Ignaz's motto was "*Quand on a pour vocation la musique, la perfection doit être permanente*" – 'When one's vocation is music, perfection has to be a constant'. Because of their precise and clear quality, Pleyel pianos have appealed to many musicians trained in, or influenced by, the French school, including composers such as César Franck, Debussy, Grieg, Ravel, de Falla and Stravinsky – diverse composers, but all of whom relied heavily on atmospheric but very clear sound effects.

Chopin's taste in pianos has been elucidated for us by Liszt: "While Chopin was strong and healthy, during the first years of his residence in Paris, he used to play on an Érard piano. But after his friend Camille Pleyel made him a present of one of his splendid instruments, remarkable for their metallic ring and very light touch, he would play on no other maker's. If he was engaged for a soirée at the house of one of his Polish or French friends, he would often send his own instrument, if there did not happen to be a Pleyel in the house. Chopin was very partial to Pleyel's pianos, particularly because of their silvery and somewhat veiled sonority, and of the easy touch which permitted him to draw from them sounds… marrying crystal to water."

Broadwood built a piano specially for Chopin when he came to London in 1848, a piano more in the style of a Pleyel than a normal Broadwood. It has a shallow touch and a light action similar to the Viennese pianos, with a touch weight of 2½ ounces, as opposed to the 4 ounces which became standard in the latter part of the 19th century.

Like Érard, Pleyel also always manufactured harps, and in the latter part of the 19th century introduced various innovations, invented by members of the family, which aimed at chromaticizing the harp by non-mechanical means. Pleyel's factory occupied five hectares in Paris, and the company was for quite some time the biggest manufacturer in the world. There's still a métro stop named for the place where the piano factory stood, 'Carrefour Pleyel', and the largest concert hall in Paris today is the present-day Salle Pleyel, located at the top of the rue du Faubourg St. Honoré, near the Arc de Triomphe – built in 1927 by the descendants of Ignaz and Camille Pleyel.

The increasing demand for the piano as a concert, as well as domestic, instrument, and the growing number and size of halls, required a much bigger sound than could ever have been supplied by the fortepiano, or by the pianos of Chopin's time. For the increase in tension which would be required on the strings by a larger sound it would be essential to have a full metal frame inside the piano on which to fix and tighten the strings. This would also create the added advantage of keeping pianos in tune much longer.

A patent for such a frame, "to which the strings of the piano forte are attached, of cast iron, wrought-iron, brass composition metal, or some other metal, or compound of metals, suitable to this purpose," was taken out in 1825 by a Boston craftsman by the name of Alpheus Babcock. It seems natural that it was an American who came up with the engineering development which was to allow the quantum leap for the piano from a comparatively fragile chamber instrument to a 'concert grand' capable of filling large halls with a penetrating, ringing sound. Babcock went to work in the 1830s for Jonas Chickering, who had founded his well-known piano company in Boston in 1823, and Chickering made a commercial success of Babcock's idea, becoming the first to build pianos with iron frames in 1840. From then onward, strings could be heavier, longer, stronger. Liszt had a Chickering in his study at Weimar in his later years.

Seven years after Chopin's death, Henry Bessemer would invent the process of inexpensively producing malleable steel in large quantities, the culture-revolutionizing 'Bessemer process', which, by blowing air through molten pig iron over an open hearth while maintaining enough heat to maintain liquidity, would make available the supply of vast amounts of steel for the construction of bridges, shipbuilding, railways, skyscrapers – and piano strings.

Finally, in 1859, Henry Steinway Jr. would patent the first 'cross-strung' grand piano, an idea which had been in use since the 1820s for uprights so that they might sound more like grands. Introduced by the inventive manufacturer Jean Henri Pape in 1828, with the need to accomodate longer strings in the smaller case of an upright, the strings were somewhat fanned out, and the bass strings crossed over those of the treble. By adopting this idea for grand pianos, the sound of concert pianos would become louder, richer, and, as a welcome bonus, more blended across the different areas of the range, something which had always been a persistent and nagging problem. The combination of cross-stringing with other innovations already in use, such as felt-covered hammers, the split bridge, the one-piece iron frame and the full modern range of $7_{1/3}$ octaves – eighty-eight keys – together with a mysterious extra quality consisting of the sum of the elements, would create the "Steinway sound."

Since the late nineteenth century, Steinway has been in a class by itself, the only piano responding consistently with strength and clarity in the large concert halls of the 20th century, Carnegie Hall being the first and most famous such hall. It is universally taken for granted that if a concert hall has a piano, it will be a Steinway. Occasionally a pianist may have an individual preference of piano for a recital; but for a concerto – needing to ring out over an orchestra and into a large hall – only a Steinway is really possible. Why this is so is hard to understand, as the innovations introduced during the 19^{th} century were adopted by all piano manufacturers. There are no longer any structural differences between 'English' and 'German' pianos. Bösendorfer amazingly went on producing pianos with the long outdated 'Viennese action' until 1913, but since that time there is no basic difference in any piano make.

Yet nearly all pianists feel like Thomas Edison, who wrote to Steinway in 1890, "I have decided to keep your grand piano. For some reason unknown to me it gives better results than any other so far tried. Please send bill with lowest price." From the man with 1,000 patents, who knew how everything worked – from the gramophone to the light bulb? Perhaps he was hoping for a discount for a neatly worded endorsement.

The best German piano, Bechstein, once Steinway's greatest rival, founded in Berlin in 1856 by Friedrich Wilhelm Bechstein, is also still produced. Bechstein was always the ideal piano for the home, with its beautiful, rich and refined sound, but it was hardly ever used in concertos, lacking the power of a Steinway. In the style of Pleyel, the sons of Friedrich Bechstein opened a recital hall in London in 1901 – 'Bechstein Hall', in Wigmore street, which in 1917 was renamed Wigmore Hall. Similarly, Blűthner, founded in Leipzig in 1853 by Julius Ferdinand Blűthner, always very popular in England because of its pretty sound, is fine for the drawing room but completely inadequate in a concert hall.

Bősendorfer pianos, warmly endorsed by Liszt in his later years, have a certain cachet for collectors – largely because of their cost, as only a very limited number is produced annually, by a small group of expert craftsmen in Vienna. Bösendorfer's characteristic sound, sonorous in the middle register, is well suited to the music of Beethoven, who died just one year before Ignaz Bösendorfer founded his company in Vienna, but they are ineffective in a concerto situation in a large hall, despite their size, which is slightly larger than the standard 'concert grand'. The carrying power is absent, especially in the treble, and that is what is most essential for playing with, and being heard above, an orchestra.

Yamaha has produced pianos since the 1880s, and is far and away the largest international producer, turning out ten times as many pianos as Steinway annually, but they have tended to be neither refined enough for recitals nor penetrating enough for concertos. Of late, that situation has changed, and Yamaha concert grands have become the closest thing to a Steinway – imitation the truest form of flattery.

Chopin died ten years before Steinway patented the all-important 'overstrung grand piano frame', but a significant portion of his music was composed with the resulting richer sound in mind, and is hardly playable on the instrument of his time – music such as the last three *Etudes*, the *Polonaises*, *Ballades* and *Scherzos*, the *Fantasy in F minor*, and the *Polonaise-Fantasy*. When we see Chopin's Pleyel grand in the musical instrument collection of the Paris Conservatoire we are immediately struck by the apparent fragility of the small wooden piano which looks as if it would almost certainly fall to pieces if we were to play the '*Winter Wind*' *Etude* or one of his *Polonaises* on it.

It comes as something of a surprise to a non-French pianist when visiting France to find that Pleyel pianos are still proudly manufactured there – one would be virtually unaware of these pianos anywhere else in the world. Despite the beautiful craftsmanship, one would not encounter one in any piano store outside France today, and certainly not any concert hall. Today the factory is located at Alès, near Nîmes, in the south of France.

We see, then, that the 'piano' was really a very new thing when Chopin was growing up. Before the addition of the iron frame, which only made its first appearance mid-way during Chopin's all-too-brief adult career, it was hardly at all what we would recognize today as a 'grand piano'. The piano's pivotal years were the mid-1820s, when Érard and Pleyel were manufacturing their new instruments with the essential 'repetition' action. While that was going on in Paris, Frederic Chopin was studying composition at the Warsaw Conservatory, and, on his own, developing the technique for *playing* the new instrument.

Chopin's style of playing, original as it was, didn't develop in a vacuum, of course. His pianistic style and technique can be traced back to Carl Philipp Emmanuel Bach – who was a very expressive player on his preferred keyboard instrument, the clavichord, as well as the new fortepiano – then to Clementi, with his precision and fluidity, and finally Hummel and Field, both of whom developed the suave, floating, dove-tailed, expressive style of pianism which Chopin was to turn into something wondrous.

Chopin certainly recognized the greatness and importance of Beethoven, but pianistically, Beethoven was the central figure in a completely different stream, one of overt energy, directness and forcefulness – qualities of pianism which were alien to Chopin's nature and style.

Beethoven's energetic pianistic style would continue in the compositions of Liszt – which Chopin absolutely hated, while at the same time having boundless admiration for his friend's urbanely wonderful playing. But that, as they say, is another story – one that will take more than a chapter.

Whereas Beethoven's pianism was best served by the sturdy pianos produced by Broadwood and Sons, and likewise Liszt's forthright playing found its best expression through the similarly solid Érard pianos, as well as those of Bösendorfer later on, Chopin's style of pianism was perfectly matched and complemented by the Pleyel piano, with its light, pearly, velvety, suave sound – a kind of updated, souped-up Mozartian sound.

In the next chapter we shall find Chopin taking the piano, with all its new developments, and turning it into an instrument capable of almost simulating the human voice, or at any rate, taking a good shot at it. Although it was still much smaller in every way than the modern grand piano, there was enough there for Chopin to try to emulate the *bel canto* voices he heard often at the Paris Opéra. We will meet some of the great singers and opera composers Chopin knew and admired, and thereby come to know and come to understand an important area of Chopin's world, one not often closely explored. It was Frederic Chopin who gave us the ability to play the piano with a 'singing' tone, through careful manipulation of the sonorities of the notes and imitation of the breathing and phrasing patterns of the human voice.

MASTERING THE CHOPIN ÉTUDES

Companion to
GENIUS OF THE PIANO

ALAN KOGOSOWSKI

CHOPIN AND THE PIANO

MASTERING THE ETUDES

Chopin at the piano, by Jakob Gőtzenberger, 1838

MASTERING THE ETUDES

Frederic Chopin and the Art of the Piano

ALAN KOGOSOWSKI

Cover design by Gerald Szubin

"To be sure, very few will be able to master them… But this need not restrain others from studying them: one does well to approach the highest point of virtuosity, though even at some distance… The word 'Etude' covers many things here. They must be studied, no matter at what cost."

- Robert Schumann,

Neue Zeitschrift fűr Musik, 1836

"The style of Chopin's playing is exactly like that of his compositions: that is to say, unique."

- Robert Schumann,

Neue Zeitschrift fűr Musik, 1835

"Never displace the natural position of the hand"

- Jan Ladislas Dussek

Instructions on the Art of Playing the Pianoforte or Harpsichord, 1799

MASTERING THE ETUDES

FREDERIC CHOPIN AND THE ART OF THE PIANO

Accompanied by GENIUS OF THE PIANO

The subject of how the piano is actually played in practically applied detail has virtually never been addressed in books. This is because it is generally assumed that high-level performers are born with an innate talent for playing. Thus discussion has nearly always focused on the 'musical' side of the equation – 'interpretation', style, taste, phrasing, poetic meaning. It is certainly true that unless the necessary brain-hand skills are developed at an early age, one can never develop into a first class performer. *All* virtuosi start out as 'child prodigies' – if they are not playing their chosen instrument at a high level by the age of twelve they will never become masters of it.

However, the action of the fingers and hand *are* definable, and even players who are not destined to become top performers can improve their skills by understanding the principles involved. These principles are clear and immutable, and knowable by everyone. Even *non*-performers can glean insights about brain-hand co-ordination from this study. ***Mastering the Etudes*** exposes the actual physical processes involved in playing the piano, covering every contingency that can be encountered. 'Interpretation' is a matter of personal taste, but clear analysis of what is actually going on physically is a matter of anatomically immutable principles.

This two-volume study is based on the self-evident principle that 'interpretation' and 'technique' are inseparable and must be considered together at all times. As Vladimir Horowitz said, without the first, one is a machine; without the second, one is an amateur. Technique is simply the means by which we produce the sounds we wish to hear. 'Technique' is usually taken to mean the ability to negotiate many notes, usually in fast music, successfully. But technique is all-encompassing, embracing everything to do with the physical side of playing the piano – slow passages as much as fast, quality of tone and nuance of phrasing as much as rapid execution.

The physical processes involved in playing the piano may be summarised in three main areas:

1. *Position*. The positioning of our physical resources – body, arms, fingers, and most of all *our hands*. Position of our hands is most important because the effects of this carry through to all other areas. It is of paramount importance in everything we do on the piano, each individual note as well as groups of notes.

2. *The design of our hands*. Human hands are built to *grasp*, being constructed of four jointed fingers and an 'opposing' thumb, the latter separate and distinct from the other fingers and needing to be allowed to remain free and loose, and *never* pushed to operate in the same up-and-down manner as the other fingers, but sideways, as it was designed to do.

3. *The movement of our hands*. Not by means of having them struggle to stretch from one place to another, but by smoothly *displacing* them from each position to the next.

Freedom of physical movement is inextricably linked to the flow of ideas from our brains. Even if one doesn't play the piano, the co-ordination of mind and hand that comes with an understanding of the principles involved will improve one's ability to do anything at all; tactile function and brain function go together.

Thus playing the piano revolves around the application of the human body's physiological resources at all times in in the most sympathetic ways possible. That is to say, one must never fight against the body's natural inclinations, but instead work with it in the directions that its design and structure request.

Then, you also need heart and soul. This book cannot help the reader much there, but some background knowkedge as to the heart and soul which inspired the music is to be found in the companion book to *Mastering the Etudes*, '*Genius of the Piano*'. It can only be helpful to be aware of the circumstances which gave birth to the music.

Alan Kogosowski's understanding of the workings of the hand and of piano technique is due to several exceptional teachers. First, Leo Shalit, old-school cultivated European gentleman from Riga with a distinguished pianistic backround and deep understanding of the piano and its literature, who attended classes of Rachmaninoff's colleague Alexander Goldenweiser in Moscow in the inter-war years, inculcated in Kogosowski when he was a boy a feeling for 'dead-weight' looseness and suppleness, a crucial element in the manner of playing developed by Chopin and Liszt. The outstanding Australian teacher, Roy Shepherd, a student of Alfred Cortot, further enhanced this feeling for suppleness – "*souplesse*", as Chopin called it.

Next, most importantly, Michel Block – superlative, refined French pianist steeped in the pianism of Chopin and Rachmaninoff and a protégé of Alexis Weissenberg, a master of it, took this grounding in suppleness and demonstrated how it must be understood and monitored on a definable and ongoing basis, with the over-riding importance of correct positioning of the hands in everything we do.

The distinction between 'musical' and 'technical' has been a commonplace since the time of Mozart and Clementi, and while some pianists may be more tasteful, refined, emotional or passionate than others, the distinction is misleading, and useless. Music is serviced by technique, and technique is determined by the music. 'Technique' is by definition simply the means by which we produce the sounds we wish to hear. Michel Block told Kogosowski, "fifty per cent of technique is in the ear," by which he meant that half of any technical question consists of accurately and precisely defining *exactly* what sound we wish to produce at every given moment.

The same applies to the ethos of the music: if we don't know where it came from, what circumstances and ideas gave it birth, and what it was intended to express, a major element is lost on us – though great music does have intrinsic worth for itself, as well as universality. It is the need for listeners and performers to understand *both* elements in inseparable context that inspired the accompanying background story to each chapter of *Mastering the Etudes* in *Genius of the Piano.*


LISZT
Klavierwerke Band III
ETÜDEN
CHOPIN
COMPLETE WORKS
EDITOR
PADEREWSKI
II
STUDIES
FRANZ
LISZT
WALDESRAUSCHEN
(FOREST MURMERS)
for piano solo

Mastering the Chopin Etudes

Foreword

The objective of *Mastering the Etudes* is to provide a guide for the pianist which emphasizes the necessity of keeping strain out of the equation at all times. If something is being played correctly, there is no strain; that is an unarguable given. If we feel strain of any kind then we are doing something incorrectly in some way. It is our task to find the culprit – and a culprit is always there, somewhere or other. Writing off strain in a performance as not feeling the best on that day is simply wrong. The task for us is to clear-headedly acknowledge in the preparation stage when something is not quite right, identify the problem, and correct it.

When dealing with the purely physical – which by definition is exactly what 'technique' is, no more, no less. There is no such thing as a problem which cannot be solved. Thus, it is more correct to think not in terms of 'problems' but of puzzles. There is *always* an answer – not just an answer to making something easier or better, but actually making it perfect. If a passage does not flow perfectly, then we are missing a piece of the puzzle. We just have to find it. But before we can find it, we must analyze and precisely identify it.

The twenty-four *Etudes* of Opus 10 and Opus 25 constitute Chopin's exposition of every imaginable issue that can be encountered when playing the piano. The twelve *Etudes* of Op. 25 are different in character from those of Opus 10. The first set is predominantly 'fingery' – brilliant, sharply etched, crystalline. The second set, completed three years later, is more feminine in character (with the exception of the overpowering last three) – more concerned with questions of tone colour and poetic atmosphere. But these require just as much identification of the necessary physical means of producing these sounds as do the more overtly brilliant *Etudes* of Opus 10.

The main thrust of *Mastering the Etudes*, in every situation, be it the fulminating brilliance of the first *Etude* of Opus 10 or the svelte poetry of the first *Etude* of Opus 25 – is that the cornerstone of what we call 'technique' is that the piano *must* be played with the hands always in their '*natural*' position – namely, the position in which they find themselves when hanging loose: never stretching out, either forward or sideways, but instead moving freely and easily around the keyboard from one position to the next.

This is the correct way to play, demonstrable by universal anatomical principles. The right thing is not to strain the hands in the first place, rather than allow strain to creep in and then apply relaxation techniques of some kind or other after the damage has already been done. These efforts at relaxation are mere band-aids, temporary fixes, which may provide a soothing hiatus – simply because one has stopped doing for a brief while that which was causing the strain, only to reactivate it as soon as one returns to the piano – but they never address the real issue: the strain being incurred and acerbated. This can only be solved by playing correctly all along, or by fixing something if it is not quite right, and not straining the hands, wrists or arms *ever*.

Using our hands in the way they are designed is simply applying incontrovertible laws of anatomy; thus postulating some idiosyncratic 'technique', 'method' or 'theory' is wrong-headed. What we are aiming at is more about *disengaging* than engaging. When working on any piece, we should always be stripping away, refining down, removing problems and difficulties, both physical and musical.

The physical problems can be easily recognized: they are *always* characterised by strain or tightness in the hand and arms. The musical problems take a little more careful listening with 'our mind's ear', as our teacher Michel Block described it. Our objective must always be to *minimize* to the greatest extent possible all physical activity outside the fingers – and that means using the end-joints of the fingers, pulling in toward the palm of the hand as much as possible. Complete evaporation of all other movements apart from those of the finger-tips is the ideal to which we must consciously aspire.

This is of course an *ideal*, and nowhere near fully possible in the real world, but it is an ideal we must have constantly in our sights, and work towards all the time. This is the substance of what we term 'practice'. Our time at the piano should be almost entirely devoted to solving each puzzle that comes up in the course of a piece, until each and every one is clearly identified and we have worked out a plan for what we are going to do with every note, chord and phrase. Once this is done, we know the piece; the idea of 'practising' it becomes redundant. The French don't even have a word for 'practise': they say *travailler* – to work.

Practice does *not* make perfect. Analysis, definition and plan of action does. Playing the piano is nothing like athletics, an activity that requires constant physical training. Playing the piano is a matter of mind-hand co-ordination. We've got to get it right in our mind – in every detail as we imagine it *should* sound: note by note, nuance by nuance, phrase by phrase. When we have worked out *exactly* how every note should sound and fit into the whole, then it's a relatively straightforward matter to determine how we are going to project it. Even if we are no longer at that early age when the synapses in our brain for mind/hand co-ordination are developed, we can still understand what's at play, and apply these principles elsewhere, in everything we do.

Once we have fully worked out each note's position – and that means everything about that note: its fingering, weight, tone, touch, etc. – we never have to 'practise' that particular bit again. It slots happily into our brain program for that piece of music. If we have *not* fully worked out all the details of how we are to play a particular note or phrase, no amount of 'practice' will make it right. If our adrenalin is up, we may get it more or less right on a good day, if our brain's subconscious is working overtime – but only occasionally, and never under stress conditions, namely a public performance.

The basic principle is position, position, position: *position in which the fingers lie* – slightly curved, so that they can *pull* inwards at all times, with the ends of the fingers, never *striking* the key; *position in which the thumb lies* – flexed, i.e. slightly curved, so that it doesn't become fixed in a straight position and thus rigid; and *position of the hand* in relation to what comes before and what goes after every note.

The ideas expressed in this book are not the author's personal ideas or opinions – they are incontrovertible laws of nature. When we walk, we put one foot in front of the other, flexed at its hinge, the knee. This is the law of nature as it pertains to walking – not a philosophy or theory or method of walking, not something that is open to opinion or debate. The 'ideas' herein are the laws of nature by which we play the piano, and they apply *in every case* to our playing – whether subconsciously or consciously.

Getting things right is not at all a dry, unglamorous subject next to the sway and emotion of the music itself – which one also has to get right, and not entrust to the feeling of the moment. It is a rewarding and uplifting activity which becomes a source of great satisfaction, whether we perform in public or play just for ourselves.

"Never displace the natural position of the hand" - Jan Ladislas Dussek

Mastering the Etudes

Chapter One

A WHOLE ORCHESTRA WITH TWO HANDS

Etude No. 1 in C major: Hand Positions; Thumb; Posture

Opening up the spectrum of piano playing from that designed for a chamber-sized fortepiano to that organically conceived for a modern grand, with an orchestral spectrum of sound, expanding the scope from a centralized area of the keyboard to a range of six octaves

Chopin's first *Etude* can be seen as a *homage* to Johann Sebastian Bach. But it was primarily something else – a unique piece representing a pivotal moment in the history of the development of piano technique. In that two-and-a-quarter minutes of music, composed at age nineteen, Chopin unlocked a whole new world of technical and artistic possibilities for the new and still developing keyboard, by opening up the limits of what could be expected of the hand.

The hand was now, for the first time, required by Chopin to range in wide-spread arpeggios over five octaves in quick expansions and contractions. No composer – with the exception of Beethoven in a few rare examples – had ever dared write music for the piano where the individual hand positions were not contained within the span of an octave. It was the natural way of things harmonically, all the elements of any particular key being contained within a single octave span, and even more so physically, as the natural span of most hands when stretched out is around an octave.

'Hands' were used as measurents for centuries – for instance in describing the height of a horse – the original 'hand' measurement supposedly dating from the tall king of England Edward 1st in the 13th century, whose hand was used as the template for this unit of measurement (his foot was used to establish the unit of measurement for 'feet').

Occasionally there are hands which are considerably larger than the norm – those of Rachmaninoff, Lhévinne, and Arthur Rubinstein being salient examples, all three encompassing stretches of an octave and a half! – but these are extremely unusual, and in the case of pianists do not fundamentally determine the quality or nature of their playing; a small handful of pieces, such as Schumann's *Toccata*, are more easily within their grasp; that's the only advantage these pianists with oversized hands have over normal mortals.

Chopin had small hands, being only about five foot four inches tall, and Liszt, for all his wide-ranging pyrothechnics, was also slight of build and had no more than average-sized hands. It is probably fair to say that ninety per cent of people have hands which span eight notes when stretched out – basically the compass of an octave. So the idea of writing music for the piano where hand positions extend beyond this span never really came up during the first decades of the pianoforte's existence and the half century that the 'grand piano' was in existence before Chopin wrote his first *Etude*. And because of the nature of diatonic harmony – universal in the 18th century 'Classical' period – hand positions were almost always close and contained.

By 'hand position' – a critical concept in the understanding of piano technique and the causes of chronic hand strain problems – we simply mean the position in which the hand finds itself while the fingers play whatever they are required to play, before it moves along to the next position.

Here, for the first time, the *apparent* hand positions are expanded not just beyond the eight-note range of an *octave*, but to ten and *eleven* notes – over and over again, four times in each bar. And four times in each bar they *contract*, in order to regroup and spread out again. There were hardly ever passages in piano music before Chopin which required hand positions of this size, or rather, 'extension'. Certainly no-one had ever written a composition which required this kind of extended hand position, or *seemingly* extended hand position, consistently throughout a piece.

The basic, natural 'hand position', fundamental to all piano music of the classical period, including all of Mozart, Haydn and nearly all of Beethoven, was a *sixth* – the span of six notes, embodied in the classic accompanimental figure known as the 'Alberti bass', which consisted of a *fifth* or a *sixth* with a *third* incorporated within this position. Which is to say, the hand was never required to stretch more than the distance of six notes – a *sixth* – before moving on to another playing position.

The first subject of Beethoven's *Les Adieux* Sonata, Op. 81a, has a left-hand accompaniment figure built on a sequence of *tenths*. There is also an instance in the first movement of the next sonata, Sonata in E minor, Op. 90, on the second page, where the left hand is required to play an accompaniment figure of broken chords spread over a *tenth* in each beat. There is a momentary instance in the last movement of the '*Moonlight*' Sonata – another prototypically Romantic work – where the left hand is made to take in a span of a *ninth* three times in a bar, and that is also strikingly unusual.

A more extended example occurs in the accompaniment to the middle section of the scherzo of the *Hammerklavier* Sonata. There is also a four-bar sequence in the first movement, in the left hand, just before the end of the exposition.

By comparison, notice a similar middle section to the *Hammerklavier* example in the *scherzo* movement of Beethoven's *Pastoral* Sonata of seventeen years earlier. This 'trio' fulfills a similar function musically, suddenly casting us into the furtive minor mode for contrast in the middle of a bouncy *scherzo* movement. But in the *Pastorale* Sonata the left hand accompaniment is in simple broken octaves, whereas in the *Hammerklavier* scherzo it is broken *tenth* chords.

The above examples are rare instances of such a figuration before Chopin, and all in prototypical Romantic piano works. They last only a short while, but if the pianist lets his hand *grasp* for the *tenths*, the hand will become strained.

The trick is to try as much as possible to keep the hand in its 'natural' position, that of a *sixth,* and move it along briskly but with ease from position to position. The first note must be released like a hot potato, as the second note is a full *tenth* away – beyond anyone's unstrained span. The hand should move quickly and *laterally* – i.e. without stretching, grasping, or twisting around – from one note to the next.

This is more than just a 'trick' – it is the essential way to play, keeping the hand at all times in its natural position of spanning approximately a *sixth*.

By using this principle, Chopin was able to establish the chord of the *tenth* – as opposed to the chord of the *sixth* and the *octave* – as the basic unit of pianistic harmony. *Harmony* – not physical approach, i.e. the actual playing of the notes. The basic hand position would remain that of a *sixth* – it had to; that's how big our natural at-rest hand span is. Evolution takes much longer than the development of harmony.

This new building block of pianistic sound transformed the quality of sound emanating from a piano from that of a keyboard sound to a much broader, svelte sound, orchestral in quality and dimension.

The main reason to expand the span of the 'hand positions' in piano music is to create the sound texture of multiple instruments. That is to say, the aural effect becomes that of a small orchestra. The expanded hand-position is equivalent to expanded chordal blocks. Chordal blocks are the fundamental textural building blocks of orchestral music: in an orchestral score a chord is played by several instruments, often over a very widespread range. The use of many instruments affords the possibility of much chromatic variety – crisp, clear flutes playing the upper notes of the same chord in which cellos and double basses play the weightier lower ones.

But the availability of many colours is only a by-product of the fact that the orchestra has many players: the *true* distinguishing feature of an orchestra is that the chordal harmonies can be spread out over several octaves, thus lending a depth and breadth to the sound that is unachievable by a solo violin, flute or pianoforte.

Chords in diatonic harmony contain all their components within the space of a *sixth*, so the only reason to expand the span of apparent hand positions in piano music is textural, not harmonic – i.e. to create the sound texture of multiple instruments. The effect becomes that of several instruments playing at once.

With Chopin's new way of writing for the piano, the piano was now capable of an orchestral range of sound, and the pianist was no longer just a keyboard operator but more like a conductor, controlling waves of sound with chromatic strands throughout the texture, as well as the structure, or 'architecture', of the whole.

Chopin's innovation of writing music where the chordal span of a *tenth* is carried on *consistently* throughout a piece – in so doing, establishing a new kind of pianistic texture – seems like a simple idea, but it was to the sound of the piano what the invention of the wheel – also a simple and obvious idea in hindsight – was to transportation.

The result of this new concept of chordal distribution on the keyboard was an exponential expansion of the scope and possibilities of the kind of sound which could be produced on a piano.

That's the musical side of the story. Now back to the physical. The Beethoven examples quoted above last only a short while, but if the pianist lets his hand *grasp* for the *tenths* it will unavoidably become strained. The trick is to try as much as possible to keep the hand in its natural position of a *sixth* and move it along briskly but calmly from one position to the next. The first note must be released immediately, as the second note is a full *tenth* away – a distance beyond anyone's unstrained span. The hand should move *laterally* – without any kind of twisting, turning or stretching – from one note to the next note and the next.

Chopin always emphasized the importance of smooth *lateral* movement. Physically, a *sixth* is our natural hand position – much more so than an octave, the span of which is pushing the hand close to the extremity of its natural possibility. The natural position of the hand when dropped loosely by our side is the span of a *fifth* (small hands) or a *sixth* – so in order to accommodate the harmonic and textural unit of a *tenth* there is going to have to be some sleight-of-hand.

That's what Chopin's first *Etude* is all about. If we think of this piece as being playable only by pianists who have unusually large hands, then we have missed the whole point of this *Etude*. In fact, this is one of the rare examples in the piano literature where it is perhaps – only perhaps – more convenient to have a large hand. But that is *not* the purpose of the *Etude*. The reason we should study this piece is in order to accustom our hand to moving from one note to another *without stretching it out*.

Surprising as it may seem, the size of the hand is largely immaterial, and even freakishly outsized hands like Josef Lhévinne's and Sergei Rachmaninoff's won't do us much good. Lhévinne and Arthur Rubinstein could comfortably stretch an *eleventh*, while Rachmaninoff famously could stretch a *twelfth* – an octave plus a *fifth!* However that's completely unnatural, almost grotesque, and virtually impossible to believe without seeing such a thing with one's own eyes. Above all, it is quite irrelevant to the task at hand. Hand size does not enter into the equation of the first *Etude* and the fundamental element of piano playing and hand usage which it exposes.

Even if one *could* stretch a *tenth* or *eleventh* with ease, the hand would still be *stretched*, and therefore not in its ***natural position***. The resulting strain from the continual repetition – '*repetitive* strain' – of the stretch of anything greater than the hand's 'natural' span – i.e. as it falls when in an unforced, limp state – will become crippling in a very short space of time, no matter *how* big one's hand. *Our hands are not supposed to stretch at all. Not ever*.

The secret in the first *Etude* is not to try to stretch the hand positions – in fact, to *ignore* the extended hand positions implied by the extended chordal blocks, and keep our hands in their natural position, meaning *not extended any more than the distance of a sixth* – six white notes on the keyboard.

What exactly *is* the hand's '*natural*' position? This is the first thing all pianists as well as everyone using a computer keyboard or mouse must grasp and understand. The 'natural' position of the hand is a loose fist with the fingers hanging easily. If we are to avoid strain, and even injury, to our hands – and in the case of this first *Etude*, just be able to play it at all – then the hand has to stay as close as possible to this natural position at all times.

To gauge this natural position precisely we need only drop our arm limply by our side. The way the hand is positioned when we drop the arm in this way is what may be termed its *natural* state, and that's just how we must try to keep it at all times, as far as possible. There's no strain when it's in this position. There *is* strain with any divergence from this relaxed position – which is basically to say, stretching it out. Rachmaninoff's gigantic hands would be just as subject to this principle as ours, so size of hands is really almost irrelevant in the context of normal playing.

A spread-out, or splayed, hand position, which if held inevitably becomes fixed, will always injure us, and quite soon. The hand should ***never*** diverge for more than the briefest moment from its natural position when relaxed – where the fingers are naturally close together in this loose fist, encompassing a span on the keyboard of a *fifth*, and never more than a *sixth*.

We must endeavour to keep the hand in this position at all times, moving it along quickly and easily to the next position – '***displacing***' it from one group of notes to the next. That is one of the basic secrets, of '*technique*', and it is clearly demonstrated by Chopin in his first *Etude*. It's clear because of the impossibility of playing this piece without the hand seizing up in a cramp unless we actually keep it in a loose, natural, contained position, and move it along freely and easily without stretching it.

In the course of the *Etudes* Chopin will deal with every aspect of piano technique, from fingering to tone-production, variations in touch, hand symmetry, sound range, phrasing style, and of course emotional projection. But the first essential is to *position* our hands, through carefully considered '*hand positions*', in such a way that the fingers are free to accomplish all these things.

In the next chapter we will see how important it is to gauge the hand's position with exactitude – not just the *size* of the hand position, i.e., how extended the hand is required to be, but also the *angle* at which the hand is placed on the keyboard at each and every point.

Position is everything. It is essential for a golfer before he swings, a tennis player before he hits, a builder before he builds, and a pianist when he addresses the keyboard. If we've got the positioning right, we can virtually switch off when we perform. It doesn't matter if we have a headache or aren't feeling well. The fingers will find their mark automatically and surely, just as the golf ball will head for the green automatically if the shot has been prepared correctly or the tennis ball will clear the net if the stroke has been properly prepared. The result of the actual stroke is a foregone conclusion, just as the actual playing of each note on the piano is a direct consequence of the positioning of our hands.

On the computer keyboard a lot of us can get away with 'hunt-and-peck' style typing – using just the index finger of each hand. It's not very professional, but a lot of people can manage quite happily, especially if they are using the computer for tasks other than typing letters and documents continually. With 'hunt-and-peck' typing our hands fall automatically into their ideal position for work – their *natural* position – the way the hands fall when dropped limply.

On the piano, however, we have to use *all* the fingers, not just the two index fingers, if we want to play anything other than Chopsticks – which is naturally and unavoidably played 'hunt-and-peck' style, the hands automatically falling into their natural position and flopping loosely from the wrist.

When a musical child of seven or eight begins to take piano lessons, he or she usually gets the placement of the hands and fingers right more or less perfectly. Within a few weeks or months, that child is often playing Mozart rather well, with a Mozartian touch that's difficult for adults to achieve.

Problems usually start developing around the age of thirteen, and continue through the teen years. By the late teens, many drop out and never play again. Those who have their heart set on pursuing a musical career will persist and try hard to ignore the developing problems, but these often become embedded and slowly wear away at the young pianist's musculature. Even if they make it into their twenties and beyond, sooner or later chronic hand problems will inevitably develop and in many cases curtail a performing career.

The main troublemaker is the need to play chords, or chordal harmonies. On the computer keyboard, no matter how fast we type, it's always one key at a time – with an occasional ctrl-alt-delete or 'shift' to break up the flow. On the piano, however, the harder the pieces we play, the more complex the accompaniments in the left hand, as well as the more often multiples of notes are required to be played by both hands.

What happens when we play a chordal accompaniment to a melody, if we haven't been conditioned by years of thought and practice to watching our hands in order to make sure that the natural position is maintained at all times? In most cases, a student will allow his hand – usually the left, where chordal accompaniments most often reside – to become fixed in a set position. Instead of using the fingers individually, as does a typist, or a young pianist playing Mozart, he or she allows the hand to fall into a pattern of operating like a paw. They find the chord and then clump the hand down on it.

Chords should be treated as collections of several notes played simultaneously – which is exactly what they are. Chords should not be played as clusters, but as individual notes sounded simultaneously, each note having its own touch and weight.

When played as clusters, the hand remains in this fixed position and clumps about by twisting and turning, or by small rotations. We can see this clearly with many popular or Blues pianists, or pop singers accompanying themselves – especially when they try to make the chord reverberate by tremolo-ing it: they twist their whole hand from side to side, like Fred Astaire or Gene Kelly waving a straw hat.

These popular-music pianists are unaware that unlike Fred and Gene, whose hands and whole body were as loose as loose could be, their hands have become fixed and rigid. Fred and Gene were shaking their hands *from the wrist*, but these pianists have tightened all the muscles extending from the hand through the wrist, and the wrist is just as fixed as the hand is on the chord. These pianists are shaking their hand *from the forearm*.

Shaking or rotating – this is not the way to play the piano. Firstly there is no clarity in the sound of the notes and no ease of performance, the arms and wrists being in a continual state of strain. You can immediately see the tightness in all amateur pianists accompanying themselves in modern songs. Significantly, carpal tunnel problems will develop before long because of the continual tightening in the forearm and wrist – home of the Carpal Tunnel.

The first *Etude* moves up and down the keyboard not in a sequence of broken chords of the *tenth* and *eleventh*, let alone 'arpeggios'. It moves up and down in a repeated pattern of a *fifth*, then a *fourth* and finally a *third*. This is essential to grasp and fully understand, and vigilantly monitor at all times if we are to play this *Etude*.

Our natural inclination to stretch the hand to encompass the extended position of a *tenth* is entirely based on our perception of the *harmonic* structure of the piece. Harmonically, the ubiquitous '*alberti*' chord of Western keyboard music has now been transformed from a chord of the *sixth* which has the *third* included within it to one where the central *third* has been removed and placed *outside* the octave span – it is now the *top* interval, added *above* the octave.

Therefore, even if you belong to the one percent of pianists who can stretch a *tenth* comfortably, your hand is still incapable of stretching that *tenth* in the way that the broken chords of Chopin's first *Etude* divide its component intervals. The first bar might not be too uncomfortable if you have a large hand, able to encompass a *fifth* with the thumb and index finger without too much strain, but already in bar two the first interval becomes that of a *sixth*. Thereafter, it occurs sometimes as a *fourth*, which turns the following interval into a *fifth* that has to be spanned by the index finger and the fourth finger – impossible for *anyone* without incurring severe strain. On a couple of occasions, the first interval even becomes a *seventh*.

Whether it is a *fourth*, a *fifth*, a *sixth* or a *seventh* – all of these come up as regularly throughout the *Etude* as the first interval – because of the layout of the *Etude* the first interval must always be played by the thumb and the index finger. The span between the thumb and the index finger is the largest span among our adjacent fingers, but it still has its limits, and a *seventh* is right at the upper limit of a single grasp of the thumb and second finger even for a giant hand, while a *sixth* is stretching things too far for most pianists.

But even the sequences which begin with a *fourth* – an easy enough interval for thumb and second finger – are problematic. These sequences, as it turns out, are trickier than the ones beginning with a *seventh*, because the *fourth* segues in each case to an interval of a *fifth* in order to complete the octave, and in this *Etude* that interval must always be played by the second and fourth fingers. The second and fourth fingers *cannot* stretch an interval of a *fifth* naturally. No-one's hand can, not without injury; we feel the webbing at the base of the fingers seem to start to tear from doing it just once, let alone repeatedly, as it must in this *Etude*.

The only conclusion from this conundrum is that *each note we ever play must be treated – as an ideal, of course – as if it is a whole hand position*. In other words, we must not try to connect each note with the next as if both belonged to the same hand position. Sometimes two adjacent notes will fall comfortably within the reach of the fingers playing them, those fingers lying in their natural position. But even in these cases, the *angle* at which the hand lies as it plays each note will change, thus changing the hand position; the position and angle of the hand on the first note of the C major *Etude* is different from that which it needs to adopt for the second note, even though the span between the two notes played by thumb and second finger is manageable. The position and angle of the hand on the first note of the C major *scale* is slightly different from that which it should ideally be in for the second note, and the third, and so on.

We will learn a lot more about the position of the hands *vis-à-vis* every note as well as every grouping of notes through the course of this book. The overall effect of understanding that each note must be approached individually and separately, and given its own treatment and its full value as an individual, is that most of our playing becomes, in effect, quasi *non legato*.

That does *not* mean staccato! It means we must never get stuck in the keys in an attempt to play with a "*finger legato*" – tying the notes together physically. *Legato* is an *aural* effect – an *illusion* which we must create without making the fingers yoke themselves to adjacent notes.

We must treat it as an illusion, one that we create with a variety of techniques – pedal, combinations of voices, but above all full value given to each individual note. If each note has its due, then the aural effect will be smooth – it will ***sound*** *legato* – considerably more so than if we tie the notes together physically, a process which will often produce a lumpy effect in the sound, because it doesn't take into account the 'hangover' of sound from notes, even after they have been released.

Acoustically, tying notes to each other – and overlapping them, which only an instrumentalist can do – has an adverse effect on the aural impression of *legato*, because the reverberation of notes, i.e. the overhang, means that true *legato* is compromised while the previous note or notes are still sounding. And physically, it has a negative effect, because fingers which hold down notes while others take center-stage are compromised, their ability to deal with upcoming notes weakened.

Pianists should not feel guilty about having to use artifice – not artificial, but *calculated* techniques – in order to create a legato sound. Why should they be exhorted to use "*finger* legato", as the French school has always done, and others as well?

Singers automatically, and of necessity, use calculated artifice with every phrase – *with every breath they take* – in order to tie the notes together in a *legato* ***sounding*** line. This is because they have a different amount of breath available for each and every note that they sing in a sequence, so they are consequently forced to use artifice to create the *illusion* of *legato*.

Throughout the course of this book we will learn a lot more about the position of the hands in relation to *a*) every individual note, and *b*) every group of notes. Having to play each key separately – from both the physical and acoustical point of view – makes most of our playing in effect *non legato*, but this is solely for the purposes of the physical reality of the sound production, not the aesthetic imperative. What we are in fact trying to do is stop our fingers from becoming 'glued' to the keys in a vain attempt to create a legato *sound*.

So we have a major principle here. The principle is this: we must play each and every note that we ever play – in *anything* and *everything* – by ***displacing the hand*** from one key to the next while keeping it in its natural, at-ease position.

Sometimes two adjacent keys are comfortably within the reach of the fingers which are to play them. However even in these cases, the *angle* of the hand changes after it has been displaced from one key to the next. Thus the new key must still be addressed separately and individually, in what is in effect a *non legato* manner – not '*staccato*', but definitely not *legato*.

Another crucial element in playing the piano, and this is huge – the pachoderm in the drawing room – and being able to *continue* playing it, is the correct management and operation of ***the thumb***. A considerable number of pianists have developed supposedly mysterious problems in their thumbs, and these become debilitating enough to temporarily or permanently halt their careers.

The importance of the thumb's looseness, flexion and disconnection from the rest of the hand – i.e. *it should hang away from the hand* – cannot be over-emphasised. The natural position of the thumb – i.e. the way Nature designed it – is *flexed* and hanging loosely away from the hand, about two and a half inches away from, and *below*, not beside, its neighbour the index finger. A lot will be said about this in future chapters. If you get this right, you're most of the way there. Without understanding and mastering the use of the thumb, one will *never* be free of the threat of RSI, tendinitis, carpal tunnel syndrome and any other kind of strain of the hand, wrist and arms.

The thumb must be *bent, curved, flexed,* whatever you want to call it – just make sure it isn't straight. This cannot be stressed enough. If the thumb is straight, it becomes unavoidably tightened and strained. This is injurious to all the muscles, tendons and nerves at the base of the other fingers – especially the index finger, its neighbour, upon which it more often than not presses when it is rigid – as well as its own base, the side of the wrist, and the long muscles going up the inner side of the forearm. Just don't straighten and thus tighten the thumb.

The thing we have to be aware of is the thumb has a very strong tendency to straighten and become rigid unless we watch it carefully and constantly. This is partly due to laziness on the thumb's part; it's easier for it to simply follow the leader with the other fingers – the other fingers are designed to point in a forward direction, unlike the thumb, which is entirely constructed to ***oppose***, i.e. move sideways and *only* sideways.

Also, the thumb does this straightening motion as an automatic reflex action such as when we are yawning and stretching. However those bodily reflex actions last only a moment – not long enough to do any damage. If we held this position for any amount of time, we would soon start to cause strain and then injury.

When playing the piano, if we don't watch the thumb constantly, and we let it fall into its lazy, reflex, 'default' position, we will find ourselves playing for five hours with the thumb semi-permanently in this dangerous mode. The result is hand strain in no time, because the strain is prolonged and *repetitive*.

This tendency to straighten is also forced on the thumb by the need to grasp implements with pressure. The thumb might seem to be able to exert more pressure when it is straight: imagine the mode our thumb immediately slips into when we are trying to twist a cap off a jar that is sealed tight – it becomes rigid and straight. Similarly is trying to push a heavy object, such as a stalled car. It almost seems to bend *backwards* at such times – 'seems', because it is a physical impossibility for the thumb or for any of the other fingers to bend backwards; their hinges only allow a forward movement. At such times it is in fact the muscles and tendons at the side of the wrist and forearm which are pushing the thumb into a backward position; the thumb itself cannot bend back – certainly not at the joints, which work only one way: forward.

Twisting a cap and pushing a car are actions which are done only for a very short while, and in such cases no lasting harm is done. But when the thumb is straightened and tightened over any protracted period of time, or *repetitively* – as when playing the piano, or typing on a keyboard – it is without doubt injured.

In his huge scientific treatise *Physiological Mechanics of Piano Technique*, Otto Ortmann wrote: "Knowing the location of a muscle and its various angles of pull will readily prevent the assignment of impossible mechanical conditions… it will aid in distinguishing normal muscular fatigue from the fatigue of incorrect co-ordination."

The angle of pull of the fingers does not include the direction backwards. Yet the thumb straightens almost to the point of seeming to bend backwards if it is left to its own devices and not monitored vigilantly. We thus need to watch the thumb all the time – certainly until it gets into the habit of hanging loose and bent at all times. An experienced pianist watches the thumbs constantly to ensure that they are always bent. He knows that *the thumb cannot be loose if it is not flexed*.

Keeping a constant vigilant eye on the thumb is not as hard as it may sound: it is comparable to keeping a constant eye on the rear view mirror of a car while we are driving. This is essential; if we don't do it we are sure to run into trouble very soon. If we are going to avoid tendinitis and other forms of strain, we must keep our mind on our thumb in all repetitive activities involving the hands. Gardening tools, golf clubs, carpentry tools, scissors, pens, the necks of musical stringed instruments – all of these must be held loosely and with a ***flexed***, i.e. *gently curving inward*, thumb.

The position in which the thumb should be at all times: bent at the joint, hanging away from the rest of the hand a good couple of inches, much looser than the other fingers, almost lifeless. It should ***feel*** *lifeless. The hand itself should lie on the keyboard as it falls, in a loose fist, over a space of about a 'sixth', gently curved*

What has all this to do with Chopin's first *Etude*? Everything. The first *Etude* is all about playing the piano ***with the fingers***, and *only* the fingers, while minimizing the involvement of the arm and wrist to the greatest extent possible. It is about ***not tightening our hand into a fixed, rigid, set position***. In this *Etude* this is an almost unavoidable tendency, because of the chordal basis of the piece, broken chords moving up and down the keyboard as quasi arpeggios. They are not arpeggios at all – they're chords of a *tenth*, sometimes *eleventh*, repeated up an octave three times and down again four times. If we allow our hands to become set in fixed positions we simply will not be able to get to the end of the piece – or the first page for that matter.

As with our hands, our *body* must also be positioned correctly, so that it can give maximum support to our arms and hands. Although Chopin will show us that the fingers themselves must be the primary focus of our energies, and their independence – not just from each other, but from the hands and arms – should be our main objective, our posture at the piano is of crucial importance in providing the freedom we need for the fingers to be able to do their job properly.

If we sit with our back straight and our upper body pointing forward we can gain all the support in the world from the centre of our upper back – between the shoulder blades – and minimize tension in the forearms. In effect, we must use the piano bench not as a seat on which to perch ourselves comfortably, but as a *fulcrum* on which to pivot our body.

When we sit on the bench with our full weight, our spine inevitably becomes curved, the vertebrae pressing down on each other. Apart from the long-term physical problems this will cause, we lose all the advantage of having the power of our torso back up the thrust of our arms and the strength in our fingers. Instead, our whole body should be poised and ready for action like a leopard – not relaxing and passively leaving our arms to carry the burden of struggling to hold themselves up in the air. With the correct posture, the weight of our body can be distributed to create reserves of energy and power which will back up our fingers.

As with dancing or playing a sport at a high level, it actually *feels* good when we use our hands and body correctly and accomplish a physical activity perfectly. It puts us in another zone, one where all the tension flows out of our back, through our body, down through our arms and out of our fingers. We feel as if we are floating.

When we sit comfortably in or on a chair, we are making ourselves *apparently* comfortable, but we are not providing any support for our arms if they are to be raised and outstretched. Once we raise them to the keyboard they are out on their own. There is no back-up, no help from anywhere. And while it may seem like a small imposition, if we do this to our arms for hours, they are going to get very tired. We are hunched over when we sit on a chair; this is unavoidably our body's position when sitting. If it's an armchair, it's perfectly comfortable if all we are intending to do from this position is watch television or read a book. But if we are intending to do anything constructive from this position, we are going to have to engage muscles to raise our arms and operate our hands and fingers.

When a pianist walks out on stage and takes his seat at the piano you can tell immediately if he's master of the piano or if he belongs to the ninety-five percent of performers who may be talented, even full-time professionals, but will sooner or later develop carpal tunnel problems and tendinitis.

How can we tell this? If someone sits down on the piano bench as if it is a chair, then they are not placing their body in a position whereby the arms and hands will be able to function freely and naturally for any protracted period of time, or accomplish complex repetitive movements with the hands and fingers. Specifically, the muscles in our forearms are working unnecessarily on a long-term, unrelieved basis. Just try it, without the distraction of a keyboard. Or try doing something with your hands on a tabletop from a comfortably seated position. How long can we hold our arms up and out horizontally without them starting to feel like fifty-pound weights? We start to feel the strain almost immediately, and it becomes untenable in a minute.

Now try moving the chair back a little and sitting more forward, closer to the edge. We're not sitting purely for relaxation purposes now, as in an armchair. We are in a working position, *pivoting* our body at the front of the seat in order to be poised for action in our arms and hands. Our elbows are no longer by our side but thrust back. And the big job which the muscles in our arms formerly had to do has now completely evaporated. The task of maintaining our forearms in a horizontal position now falls naturally to the much larger muscles higher up – those in our shoulders, and even further, in the top and centre of our back.

The piano keyboard is much wider, of course, than a computer keyboard, and requires much more activity from our body than the kind of task at which we would be working at on a table top, such as writing a letter, or eating. So in order to balance ourselves and not fall off the bench when we move from one part of the keyboard to another, it's necessary to pivot ourselves by putting one leg – the right one most of the time – *forward* and the other one back. We're actually ***pivoting*** our bodies in this way, and the chair becoming a fulcrum rather than a chair.

That's why piano benches are just that – *benches*, rather than chairs with backs. This is a comfortable and secure position for our bodies, and there's an added advantage in that our backs are stretched out straight. In the normal armchair-style sitting position this is not the case at all; when sitting normally our backs are *curved*, the vertebrae pressing down on one another, and our shoulders are hunched up. The disadvantages of this require no explanation.

With the computer keyboard it's not necessary to adopt this poised position for our legs – like a tiger getting ready to pounce. It doesn't do any harm, and may even make us feel more relaxed, but it's not necessary in order to avoid strain. Sitting forward towards the edge of the seat, however, is definitely better when we are playing the piano, where we are using our hands assiduously, over a wide lateral range, as they are not impeded by the extra, unnecessary, tiring strain of simply holding up our arms. Also, by this means our back can be stretched out straight, and can impart reserves of support to our forearms and hands. Sitting forward, with a straight back, is always helpful whenever we're working on a table top or keyboard with our hands over an extended period. For serious piano playing it's indispensable.

All Russian pianists sit at the piano in this way. Very few others do. There's a reason for this: by sitting up high, perched atop a seat looking down at the keyboard, pianists not entirely confident of their abilities have a sensation of power, of control. But this feeling is misplaced. Horowitz, who had no worries about his playing abilities (he suffered from debilitating nerves for entirely personal reasons, not his playing abilities, of which he was always confident) never in his entire life slackened his ramrod-straight back, forward-inclined, when performing. Perched on the edge of the piano bench, he unfailingly maintained this straight back and forward-leaning position.

One could make geometric drawings of every photo ever taken of Horowitz at a piano, on tracing paper placed over any of the photos taken of him at any stage of his life, from early youth to old age, and always see the same perfect triangle of straight back at a 25 – 30 degree angle, horizontal forearms (no 'high wrists', low wrists or any other such arbitrary ideas), and perpendicular line from his nose down to the edge of the keyboard, more or less exactly above middle C. The same was true of Horowitz's great predecessor Anton Rubinstein, the acknowledged father of the Russian piano tradition, which has never altered since Rubinstein brought it back from Paris after encountering Chopin and Liszt.

The Russians understood that the physical principles of piano playing are not open to question or opinion or theories; they are immutable anatomical facts.

The perfect posture. In a career that spanned 68 years, Horowitz never altered this posture for a single moment whenever he sat at a piano. The same posture was true of Anton Rubinstein, Sergei Rachmaninoff and every other Russian pianist to this day – and this came from Chopin and Liszt

Glenn Gould famously sat on a piano bench that was only 14 inches high. He took this bench with him wherever he went during his performing days, and said that the piano on which he played was not as important to him as the bench. When Gould was ten years old he injured his back as the result of a fall from a boat ramp on the shore of Lake Simcoe in Canada. His father then made an adjustable height chair for him, which Gould used for the rest of his life.

However, the outladishly low sitting position which Gould adopted was not so much the result of his accident as of an understanding of the operation of the ***extensor*** and ***flexor*** muscles which operate the fingers – of which we will hear much in the course of this book – and the understanding that finger strength and clarity is only achieved through the *flexors*.

Optimum finger strength and clarity is achieved *only* through the use of the *flexors*, and these are brought more into operation the lower one sits: the flexors ***pull*** the fingers, while the extensors stretch them and force them to *strike* the notes. The first and foremost principle of piano playing is that the fingers must *pull*, or grasp, the keys. '*Draw* the sound from the piano,' said Chopin often to all his students. Glenn Gould's teacher, Alberto Guerrero, took this as a central principle of piano playing – pulling the keys instead of striking them from above – and thereby gave his young pupil the means by which he would be able to achieve stunning finger articulation, separation and clarity of each note – particularly advantageous in the keyboard works of Bach.

Anton Rubinstein in perfect performing posture – absolutely straight back, forward inclined, body anchored by right leg in forward position

If we sit high, with our arms inclined downwards, we feel nicely comfortable and more in command than if seated lower (especially shorter pianists, and those with a Napoleonic complex). However, a higher position short-circuits our ability to use the *flexors* of the fingers freely. Try it – without a keyboard: if you wish to simply activate the ends of the fingers in a pinching, pulling motion, you naturally raise the hands, inclining them upwards from the wrist. Inclined downwards, it is much harder to pull the ends of the fingers inwards.

The ideal position of our arms in order to be able to pull the fingers inwards – i.e. to allow the *flexors* of the fingers to operate freely – is *horizontal* to the keyboard. However, sitting lower – with the arms thereby inclined upwards – will increase the capacity of the flexors to pull the fingers towards the palm. Thus, if one wishes to play predominantly 'fingery' piano music, such as the music of Bach, a lower sitting position is decidedly better. If one wishes to command a broader textural scope, with chordal and wide-ranging passages, as in Romantic music, a slightly higher position, plus a greater distance from the keyboard with a greater forward incline of the back, is better. A horizontal plane for the arms is the optimum balance.

The only known photograph of Rachmaninoff in performance. The straight back, sharply inclined forward, was de rigeur for all the great Russian pianists. It is the ideal position. Note also the flexed – i.e. curved – thumb, hanging below the hand (huge hand!), and very definitely not on the same plane as the other fingers

In his *Introduction to the Art of Playing on the Pianoforte*, Clementi strictured that the hand and arm should always be completely horizontal. His pupil Kalkbrenner, as well as Dussek, Hummel, and all other authorities, agreed fully with this attitude. A fellow by the name of John Baptist Logier even invented a contraption he called a 'chiroplast' – a brass and wood device which was clamped to the keyboard – that 'assured a correct hand and arm position', and determined 'positively' the correct height of the piano bench for each individual, the objective (quite rightly) being that the arms should be perfectly horizontal to the keyboard. Logier, a German who settled in England in his twenties, made a fortune from his 1814 invention. Logier, as well as Kalkbrenner, who firmly advocated this odd device – was right. There *is* an exact height of piano bench for every pianist – one which determines the angle at which the back can lean straight in to the piano and at which the arms will be horizontal, or slightly inclined upwards, so that the flexors of the fingers can operate freely.

Clementi went on to say that the hand and palm should be stationary and only the fingers should move. This is *exactly* correct. It is of course an impossible ideal, but it is the ideal to which we should strive. Chopin and Liszt advocated exercises of a kind to promote this ideal – which we shall discover in later chapters. Super craftsmen such as Michelangeli and Horowitz would almost make a game of this – seeing just how still they could keep their hands and arms, as well as body, while moving ***only the ends of their fingers*** – i.e. the *flexors*. They seemed as if they had a stroke as they sat at the keyboard in recitals, nothing at all moving but the ends of their fingers.

It is rare to hear a note-perfect performance of Chopin's first *Etude*, one in which its fulminating spirit emerges with clear definition, and yet in which all the notes come out correctly – especially in the central section, where we move through a series of broken chords that are extremely awkward to negotiate. This series of modulations shows Chopin even at this early age already using far-reaching modulations with a seamless ease and fluidity comparable to Bach and Mozart. This episode moves in a Bachian manner by step through a sequence of related keys. At the central point of the *Etude* we find ourselves in the distant key of A major without having noticed any abruptness in arriving at this particular key, and over the following bars we move seamlessly and imperceptibly back to C major, arriving, as always in Bach, with a feeling of complete inevitability.

The A major arpeggio at the centre of the *Etude* is the most awkward of all to negotiate physically, because of the C sharp in each of the positions of the passage, up and down. This 'arpeggio' can only be played by moving, or ***displacing***, the hand, not just from one *position* to the next, but from each *note* to the next – in a *non legato* fashion, i.e. without actually connecting any of the notes. If we try to connect them, our hand will be forced to twist and turn to accommodate the C sharp, and we simply won't be able to play this arpeggio.

The elemental, fearless, extroverted, quality of Chopin's first *Etude* was emphasized by Sviatoslav Richter, considered with justification by many to be the greatest all-round pianist of the second half of the twentieth century. With all his peculiarities, Richter was certainly in a class apart, nothing like any other pianist. He was an existential artist in the manner of Anton Rubinstein – perhaps the only other pianist with whom we might think of comparing him. Like the legendary Rubinstein, with Richter there was never the slightest concession to pianistic or platform niceties. The music was all-enveloping, all-consuming. Performer and music literally became one. Nobody cared about wrong notes or impatient abruptnesses, although at his best, Richter could play more right notes than any other pianist.

In a live performance recorded in 1963, we hear Richter bringing out the organ-point bass line of the first *Etude* with uncompromising strength of purpose and forward movement. The right hand arpeggios are spectacularly played, but they take a back seat to the dominating bass line, which unequivocally evokes Bach the organist.

For the fulminating rush up the keyboard of each arpeggio, with crystalline clarity, no pianist could ever surpass Martha Argerich's performance at the 1965 Chopin Competition in Warsaw – also recorded live. The first *Etude* is, in fact, the ultimate piano competition piece, demonstrating a larger range of contrasting pianistic qualities than almost any other work – power with clarity, poise alongside daring, nerve yet control. It deals virtually with the right hand alone, of course, but anyone who can play the first *Etude* even passably knows what they are doing.

James Huneker, the late-19th century New York music critic, writer and author of books on Chopin and Liszt, was very much a man of his time, given to unabashed hyperbole, in a prose style very much in keeping with his time, the age of Sarah Bernhardt. Nevertheless, Huneker did understand Chopin.

Of the first *Etude*, he wrote, "Here in all its nakedness is the new technique; new in the sense of figure and pattern, new in a harmonic way. The old order was fairly horrified at the modulations, the younger generation fascinated and also a trifle frightened. A man who could thus explode a mine that assailed the stars must be reckoned with. The nub of modern piano music is in this study. With this study Chopin unlocked the kingdom of technique."

In the next chapter we will explore the basic anatomy of the hand and see how it actually works. We will discover the central importance of the thumb and the need to understand how easily it can be strained, thereby tightening and straining our whole hand as well as the forearm and carpal tunnel. We shall see the importance of fingering, and why it is prescribed in detail by Chopin in the next *Etude*.

Chapter Two

SMALLER HAND POSITIONS, SAME HAND

Etude No. 2 in A minor: Hand Positions; Use of the Thumb; Fingering; Mirror-image hand positions

The basic anatomy of the hand and how it works, with the central importance of the thumb and the need to understand how it may be used without tightening and straining the whole hand, the forearm and the carpal tunnel in the wrist. The crucial role of fingering.

With the second *Etude* we see Chopin approach the basic question of the anatomy of our hand from a completely different angle to that from which he approached the first *Etude*. We are now going to look at the way our hands are actually constructed, and fully understand the crucial importance of the thumb. We'll find out why the thumb affects our entire ability to use our hands without strain. If we can master the correct movement of the thumb we can avoid not only temporary strain of the hands, but also the long-term afflictions of tendinitis and carpal tunnel problems. This subject is of on-going relevance to *everyone*.

The first two *Etudes*, dated November 2nd 1830 in the manuscripts carefully copied out by Chopin's elder sister Louise, are probably the most significant of all the *Etudes*, and two of the most original piano pieces ever written. Most of us will never be able to perform them satisfactorily, but they are both essential for every pianist to learn and try to understand – understand them the way we might take apart a watch mechanism and understand it. The lessons they teach us apply to almost everything we will ever play.

These two *Etudes* zero in on the fundamental concern which confronts us when we approach the piano keyboard: how to physically accomplish what is required of us without straining our hands and arms, even injuring them. That primary necessity, without which we cannot proceed to a level of pianism of any real sophistication or quality, accompanies all our efforts at the piano simply because of the mechanical nature of the piano. We are, after all, operating a machine – which is not the case with any non-keyboard instrument. There are mechanisms involved with wind instruments, certainly, but those instruments are primarily dependent on breath and breath control. With string instruments, which have no mechanism at all, a hollow sounding box is being acted upon by the vibration of strings which are played for the most part by a bow which is a virtual extension of our arm and body.

A keyboard, however, requires the same dispassionate treatment as a control panel confronting a pilot. The last thing a pilot needs to worry about is straining his arms and hands, incurring carpal tunnel syndrome, when he's trying to successfully land a jet plane. If his arms and hands are causing him strain and he is thinking about them, or even aware of them, it would be better not to be on that plane.

The first and overriding requirement of 'technique' in playing the piano concerns our actual physical situation – the positioning of our body and hands – in relation to the sound that we wish to produce. We must first of all precisely identify the natural 'hand position' – the position the hand would be in if it were completely unstrained and unencumbered – for each and every phase of the piece to be played, and that means every phrase, every individual note. That's always the first thing we must get right, and that is what Chopin's first two *Etudes* are all about.

In the first *Etude* we learnt that we must ***never*** stretch the hand out, other than momentarily – in short quick bursts, or grasps – in so doing manage to let it become set in a fixed position, because we'll quite simply injure ourselves. We literally won't be able to get halfway through that *Etude* if the hand is fixed in a splayed position – which it will automatically do unless we watch carefully that it doesn't.

The hand will do exactly the same thing in the second *Etude* – also become set in a fixed position, thus rigid, and from that rigidity strained – unless we take positive steps to ensure that it doesn't. In the second *Etude*, the lurking 'fixed' position is also a stretched one (a bad hand position is *always* a stretched one), but instead of being displaced up and down the keyboard over four octaves, the stretch is now one which moves along in minute steps. The hand must, as always, remain as much as possible in its natural position, diverging only for the briefest moments in order to grab the stretched chords – or, in the first *Etude*, *broken* chords.

As we learnt in the first *Etude*, all pianists, as well as everyone using a computer keyboard or mouse, must understand the 'natural' position of the hand – a loose fist with the fingers hanging easily. If we are to avoid strain, and thereby inevitable injury, to our hands, we have to keep them as close as possible to this natural position at all times. They need to diverge from this 'natural' position in order to play stretched chords, true enough, but these divergences have to be in the nature of a 'breakout' – jumping back to the natural position as quickly as possible like an elastic band.

Chopin maintained that the natural position of the hand is the basic starting point of piano playing, and that the ideal hand position – the one in which the hand is most relaxed and in its natural state – is the position it's in when the fingers are resting on the notes E - F sharp - G sharp - A sharp - B (or B sharp). This is instantly clear when we look at our hands as they are positioned on these notes, the long middle finger having unrestricted room to stretch out over the black note G sharp, not being forced to cramp up in order to accomodate a white note, as in the C major scale for instance. On either side of it, the next two longest fingers – the index finger and the fourth finger – also rest unhindered on black notes, while the thumb is allowed to ***hang down*** and fit perfectly into the position required by the lower white note E in the right hand, B in the left, and the fifth finger also has a white note onto which it can drop easily without the hand having to twist or swivel in any way.

By contrast, when we look at the hand as it rests upon the first five notes of the C major scale, C - D - E - F - G, we see that in that position the thumb cannot hang down naturally – it is forced to be on the same plane as the other fingers; the index finger has to scrunch up, the long third finger is bottled in, the fourth contracted, and the fifth raised. C major may be the easiest key to read, with no sharps or flats to consider, but it's the worst key to play, Chopin asserted, understandably, as there's no mixture of black notes with white ones to parallel the natural contour of the hand.

The key of C major is the easiest to read because it has no sharps or flats, but on the piano, because of the design of the keyboard, that translates into *no black notes*. Because black notes are recessed *and* raised half an inch, they allow our hands to manoueuvre about in positions which are much more suited to their natural contour than a flat surface. A completely flat surface is the *only* surface that white notes provide – as with computer keyboards. *This is the main reason that keyboards give rise to chronic hand problems*. With the computer keyboard it's *all* flat; with the piano keyboard there are contours thanks to the black notes (except in C major), and we must take full advantage of these.

Chopin had his pupils accustom themselves to the ideal five-finger configuration, E - F sharp - G sharp - A sharp - B (or B sharp), by resting their hand upon it gently, getting used to connecting with the keyboard in this manner, then gently and easily – *without any force or strain* – depressing each of the notes one by one.

From Carl Mikuli, Chopin's student, we also know that Chopin recommended beginning to play scales with the ones where the white notes were intermingled with plenty of black ones, the best scales of all being B major for the right hand and D flat major for the left, then progressing only gradually to the more awkwardly configured scales, ending with the hardest, the most awkward of all – that of C major.

Physically, the second *Etude* addresses exactly the same problem as that which concerned the first, but you would never realize this simply by listening to the two pieces. Everything 'musical' about these two *Etudes* is in the sharpest possible contrast. This juxtaposition of two vastly different sounding *Etudes* dealing surprisingly with the same physical question is a pattern which Chopin establishes here at the outset and will follow in a number of pairings throughout the series.

Where the first *Etude* was extroverted and grand, in blazing C major, the second is hushed and intimate, in the relative minor key, A minor. Where the first was built upon wide-ranging arpeggio-like passages extending from one end of the keyboard to the other, the second consists of a meandering chromatic scale tightly contained within the central area of the keyboard. Where the first *Etude* was founded upon a majestic organ-like bass, the second is underpinned by light and playful *pizzicato* chords, like juggler's balls bouncing gently up and down.

Even the kind of piano one needs to play these two *Etudes* is entirely different. The first *Etude* requires a strong, sturdy, orchestrally full-bodied piano, with a solid action we can grip with vigorous abandon as we grasp the sequences of diatonic chords lustily displaced over four octaves. The second *Etude* requires a piano with the lightest possible mechanism, one where our hand can remain completely calm and float effortlessly up and down the keyboard. The first *Etude* requires a full application of the pedal, the second the merest touch – or better yet, almost none at all.

But the fundamental technical problem is *exactly* the same, even though it is approached from the opposite end of the sound spectrum. That problem is the basic one for all pianists: how to use the hand – the right hand in these two cases – in every position, no matter how seemingly awkward, without tightening and thereby straining it. In both these *Etudes*, apparent awkwardness of hand position is stretched to the limit, and the objective is to reduce it as much as possible. That requires *identifying* the hand positions accurately, and thereby keeping the hand as free as possible. And the key to that freedom is ***the thumb.***

Let's see just why it is so crucial to keep the thumb free. If we turn our hand over and look at its construction we can see that the thumb is much more than just a finger. It's not really a finger at all – it's virtually ***half the hand***. It closes with the other half – the half with four fingers sticking out from its mass – to ***grip***. When in a relaxed state, the thumb falls *below* the rest of the hand.

Next, the thumb isn't constructed at all in the same way as the other fingers, nor is it designed to be used in the same way as the other fingers, with vertical movements. The other fingers have *three* joints, the base and two knucke joints, all of which which move the finger up and down vertically. The thumb has only two, the base and central joint, and they move it from side to side – laterally. The thumb is not built to strike, as are the other fingers (which also should never 'strike', but rather press, or depress – press down). The thumb is designed to '*oppose*', as its defining movement is called.

On the piano, or any keyboard for that matter – piano, harpsichord, organ or computer keyboard – the temptation is to let the thumb be used in the same way as the other fingers, moving in an *up-down* direction. As the thumb is not built to move in this direction – it can only be *forced* to move vertically by the long muscles extending up into the carpal area, i.e. the wrist – this movement is very awkward for it, and immediately straining. With this unnatural movement of the thumb comes the accompanying disaster of the huge, fleshy chunk at its base, which operates the movement of the thumb – a major component of the hand itself – being raised unnaturally to the level of the other fingers.

This 'tendinous expanse' of the base of the thumb emanates from the base of the hand, where it meets the wrist, and all movements of it are controlled from that point. If we operate the thumb from this point – i.e. the base of the thumb – it becomes untenably strained. You can feel the smarting pain at the side of the wrist very quickly when you use the thumb vertically. The strain is especially acerbated when we hold the thumb in this raised position in a prolonged manner, even after just a few seconds. The strain becomes crippling to the hand, and we have to stop playing altogether for a moment and drop the hand into a resting position until it recovers. Over time we can do ourselves real damage.

Therefore, one of the absolute essentials of piano playing is to carefully monitor the thumb to ensure that it does not slip into the mode of behaving like the other fingers – i.e. playing the keys with an up-down motion. That motion will inevitably tighten the thumb, and then strain, even *injure*, the nerves and muscles connecting it to the forearm.

The muscles which control the movement of the thumb all originate up in the arm – at the top of the forearm, by the elbow. If the thumb tightens, that means we're tensing, or *contracting*, the muscles and nerves which extend up the underside of the forearm. We can feel it immediately. After a short while there will be jabs of pain in the forearm, which eventually leads to *tendinitis*. If we go on acerbating this situation by tightening the thumb in this way, before long the narrow tunnel in the wrist, known as the *carpal* tunnel – through which all the nerves to the hand and fingers run – will become inflamed.

For a pianist that's fatal. But it's also debilitating for non-pianists, whose capacity for movement of the hand is diminished by the very same process – the aggravation of the nerves and muscles inflaming the carpal tunnel is produced by the same incorrect and strained movements of the hand, and the thumb in particular.

The moment the thumb becomes rigid, it tightens and strains the nerves and muscles going through the carpal tunnel and up into the forearm.

The first effect in this particular *Etude* is that we literally break down with cramp and simply cannot continue. If the pattern is continued over time, it's *Carpal Tunnel Syndrome* down the line, and not so very far down the line. It's a streetcar named Carpal Tunnel whose last stop is the surgery. Many pianists have had their careers curtailed in this way, and they never realized it was all just a question of a simple adjustment in the movement of the thumb. (Exactly the same applies to the way we use the computer keyboard.)

Chopin's second *Etude* consists of a quiet, sinuous chromatic scale which weaves its way up and down the keyboard with nonchalant suavity. With its regular pendulum swing, the humble left hand part keeps the momentum of the scale going, while in the right hand Chopin has added a chord to the scale on each beat, co-inciding with the jugglers' balls in the left hand; this little chord on each fourth note of the rising and descending scale renders it obligatory to play the chromatic scale with only three fingers – the third, fourth and fifth.

You can only play this scale if the thumb – which comes in only on each chord, four times in each bar – is completely free and loose. If the thumb tenses at all, the hand will seize up, making it impossible to continue with the scale. So if you're playing this *Etude* and you *can* get to the end, you've got the freedom of the thumb more or less right. The point, however – the point of this whole book – is that you won't be able to get it right unless you've understood it.

Exactly the same situation applied in the first *Etude* – it's impossible to get to the end of that *Etude* unless the thumb stays completely loose and never allows itself to remain – even momentarily – stretched out sideways or contracted inwards as the hand negotiates the wide-spread arpeggiando passages. Here, in the second *Etude*, the looseness of the thumb is addressed in the context of a natural impulse towards an *up-down* movement – a movement of the thumb which must be avoided at all costs.

The trick here – the *only* way this piece can be played – is to ***release*** the little two-note chords on each beat in the right hand as soon as they've been played – specifically the lowest note of the chord, that played by the thumb. Otherwise these little chords will tie down the lower half of the hand, and strain the upper half as it tries to play the chromatic scale with the weakest fingers of the hand.

As well as *releasing* them immediately, the thumb should also play its notes extremely lightly. It should play them as lightly as a feather, almost as if hardly at all; the thumb should glance off the notes it has to play, dusting them nonchalantly, as if they are not important. No need to worry – they will sound, as they are the bass note of each chord; the ear will *think* it heard them just as strongly as the other notes in the chord. The thumb must simply not hold on to them, not for a micro-second.

One can injure oneself in no time at all with this particular *Etude*, as with the first one, if one doesn't consistently release the thumb in that Etude's wide-ranging passages very quickly – instantly, in fact. One contemporary critic, Ludwig Rellstab – a caustic commentator who took delight in being spiteful about Chopin, but who later did a *volte face* when he realized that he was entirely alone, even asking Liszt for a letter of introduction to Chopin when he visited Paris – complained about the *Etudes*:

"If you're going to try to learn these pieces," he wrote in the Berlin musical journal '*The Iris*', "it would be advisable to have a surgeon standing by."

It was Rellstab who said that the first movement of Beethoven's C sharp minor Sonata suggested to him a vision of "moonlight on Lake Lucerne," which is why it has ever since been known as the '*Moonlight*' Sonata. Beethoven asked his student Carl Czerny, "Why does everyone always go on about the C sharp minor? I've written better sonatas." Everyone has always gone on about Beethoven's C sharp minor sonata because first and foremost it's a striking and deeply moving work, but also, a catchy title is always an aid to public recognition.

Nevertheless, it's probably a good thing that Chopin's second *Etude* didn't become saddled with a title, courtesy of Rellstab, such as '*The Unplayable*,' or '*The Surgeon's Delight*,' the kind of name which could easily become attached to a piano piece in the mid-19th century. The first English edition of the G minor Ballade was entitled '*La Favorite*'; the first set of Nocturnes, Op. 9, '*Murmures de la Seine*'; various mazurkas '*Souvenirs de la Pologne*'; the two Nocturnes, Op. 37 '*Les Soupirs*'; and the diabolical-sounding Scherzo in B minor '*Le Banquet Infernal*' – all of which the reticent and discreet Chopin would have hated.

The second *Etude* is a celebrated *tour de force* for all pianists, one which most of whom work at their whole lives. It is no more than a minute and three quarters long. It is quiet and innocent-sounding in a gently seductive way, but it's deceptively clever. This *Etude* is one of the pinnacles of piano writing. Chopin has neatly separated the tasks to be performed by the two halves of the right hand – the thumb and second finger in the lower part; the third, fourth and fifth fingers in the upper, and he has given us the possibility of playing this near-impossible scale by having it accompanied by a left-hand part which complements it physically in an ideally supportive manner.

The purpose of the second *Etude*, as with *all* the *Etudes*, is to guide us towards complete independence of the fingers – not just independence from *each other*, but independence *within themselves*: independence of one finger-joint from another, as well as independence of everything else that we use when we play – independence of the hand from the wrist, independence of the wrist from the arm, and independence of our arms from our body. To play the second *Etude*, one half of our right hand has to be independent of the other half.

There are two essential considerations to piano technique, and they go together hand-in-hand. The first is the positioning of our hands and body. The other essential, which is strikingly addressed by the second *Etude*, is the question of *fingering.*

Fingering was one of the major preoccupations of Carl Philipp Emmanuel Bach's "*Essay on the True Art of Playing Keyboard Instruments*", and for a very specific reason. At that time, the concept of using all the fingers was brand new, introduced by the greatest keyboard virtuoso of the age, Johann Sebastian Bach.

Up until that time, use of the thumb by the right hand had been largely avoided, as was that of the little finger. The extreme lightness of the harpsichord's action allowed – even *encouraged* – the playing of melodic passages and runs without the anchor of the thumb tying the hand down to the keyboard.

The fingering system used by Bach, which became known in Germany as "Bach's Fingering", and which his son's great treatise promoted, called for the thumb to "pass under" the hand in order to connect hand positions in scale and arpeggio figurations – which means, to all intents and purposes, *all lateral movement* over the keyboard – with a firmer, stronger grasp of the keyboard than was formerly possible.

Conversely, the other fingers would pass *over* the thumb when going in the other direction. 'Passing the thumb under' (or over) became a cornerstone of keyboard technique, an immutable mantra repeated unthinkingly by piano teachers and manuals over the next two centuries, even though Chopin would significantly alter this conception, as we shall discover in a later chapter, when we come to the question of the lateral movement of the hand.

The whole question of the role of the thumb was to become central with the piano, as the new instrument's firmer action required a much stronger grasp of the keyboard than did earlier instruments; and related to this grasp of the hand, a method of grouping notes together in 'hand positions'.

We have seen the need for clear definition of these groupings, or *positions*, in the first *Etude*. But the interconnection of these 'hand positions' would bring with it the need for a whole new approach to the way in which the thumb was treated. 'Passing the thumb under' describes what *appears* to be happening when we move from one hand-position to another, because the thumb is the point at which most new hand positions begin. The thumb is the *anchor* of any 'hand position', as it is around the thumb that each hand-position must pivot in all scales, arpeggios, broken chords – in fact, virtually all lateral movements of the hand.

But what's *really* going on – or *should* be going on – is a smooth and unruffled ***displacement*** of the hand – meaning the transportation of the whole hand from one position to the next. It is our task to ensure that these displacements should be done as quickly and effortlessly as possible, without allowing the thumb to become trapped, stuck beneath the hand as the hand passes over it.

Any amount of tucking the thumb under – or just pressing it against the hand – will stiffen it and strain all the muscles connecting the thumb to the forearm, especially those at the base of the thumb by the side of the wrist. We feel the strain and potential injury right away. ***This action is the major source of all debilitating hand and arm problems for pianists***, with carpal tunnel syndrome at the top of the list. It's that inevitable streetcar.

But our main concern at the moment, in the second *Etude*, is the fingering of scale passages *not* involving the thumb – a highly unusual circumstance, one we will not encounter anywhere else in a protracted sequence other than in Chopin's second *Etude*. Liszt's *Grand Galop Chromatique* is the only other instance that comes to mind. In that delightful romp, a scale passage rollicks up the keyboard, then tumbles down again, over and over again, the scale played by the third, fourth and fifth fingers, with little two-note chords on the beats. But this principal motif is interspersed with other sections, whereas Chopin's *Etude* consists *exclusively* of this pattern, and in its quiet way is much more difficult, as it weaves its way up and down in many ways.

Chopin is harking back to the fingering generally employed on harpsichords, and in fact, the lightness of this *Etude* ideally requires a piano of light action, one requiring the lightest touch and pressure from the fingers.

Chopin was the first pianist to realize the vital importance of planning the correct fingering for each and every note at any given point in a piece. With the sole exception of Rachmaninoff, who sometimes recommended specific fingerings for certain passages, Chopin remained practically unique in this understanding. He believed, quite rightly, that there are certain principles of fingering which apply to everyone – because we all have the same anatomy, the same hand structure. Larger hands might find large chords easier, or long, thin fingers may have their own preferences, but the basic principles of finger movement apply to everyone, size of hand largely immaterial.

Chopin makes the point here by writing an *Etude* which can only be played with certain fingering patterns, and he writes – in the score of one of his pupils – the exact finger with which we must play each and every note in the right hand. The fingering which Chopin has so meticulously written out in the right hand in this *Etude* is not at all eccentric or unexpected, as the only fingers which are available for the melodic scale passages are the 3rd, 4th and 5th. Because the thumb and index finger are occupied by the two-note chords on each beat, there are in fact few alternatives.

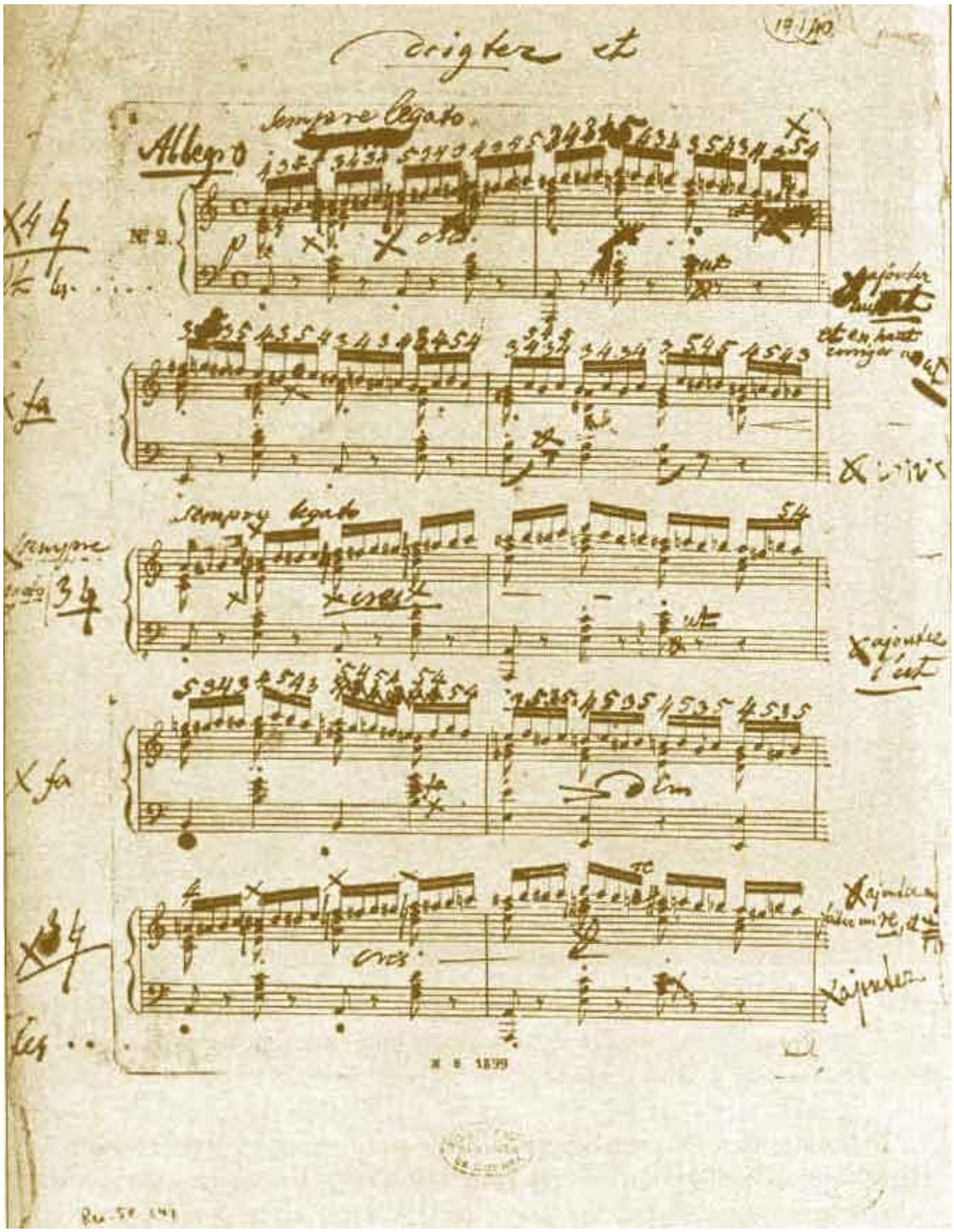
Some of Chopin's fingerings are certainly unorthodox, as, for example, passing the longest finger of the hand over the shortest, without recourse to the thumb – as Chico Marx liked to do as a stunt – and Chopin has no hesitation at all about using the thumb on a black key – a practice rigorously avoided, with no justification, by the 'Old School', as one might avoid a black cat. These unusual fingering patterns may have arisen from the special character of Chopin's own rather bony and flexible hands, but for the most part they are unavoidable, being the only ones possible – for *any* hands. Perhaps Chopin included the fingering simply to reassure his student, and others, none of whom had never seen such writing for the piano, that this *Etude* was indeed playable, and that they should persevere.

One of Chopin's most felicitous and distinctive fingering patterns – referred to by von Bűlow like "Bach's Fingering" as "Chopin's Fingering", consists of avoiding the thumb in lyrical passages and sliding the fifth finger under the fourth in a descending theme or lyrical scale passage – or for instance in the cascading scale on the second page of the E flat *Nocturne*, Op. 9 (he wrote this fingering into the published score of the Nocturne).

The ***real*** purpose of 'fingering' – selecting exactly which fingers are to be used on each note – is, however, *not* to satisfy the preferences of the fingers – which are basically just weak little appendages at the ends of our hands and no more than subservient pawns for our hands – but to determine the *position* of our hands at each and every moment.

If the position of the hand is correct – i.e. exactly as it *should* be at any given moment in order to produce the exact sound desired with the least possible strain of the hand and arm – then we might just as effectively play the notes with the end of a pencil or the end of our nose.

The finger itself is no magic stick – it's a simple little mechanism with a couple of small muscles in it. The ***position*** in which we place the fingers, and our whole physical configuration, is what counts, and *that* is what 'fingering' is for: *to put our hand in the optimum position – the correct position – for each and every note*.



Etude No. 2 in A minor, with penciled fingerings by Chopin

As we have already observed in the first *Etude*, ***positioning is everything***. If a tennis player or a golfer places his body and arm in the right position, thereby preparing his shot perfectly, the actual stroke itself becomes a technicality and the result a foregone conclusion; he doesn't even have to think about it, and can turn his attention to the next move. Stockbrokers tell us not to worry about our shares' ups and downs – the only thing that counts, they assure us, is that we be well 'positioned' for future movements in the market.

One of the most important uses of fingering – if you forget about the function of actually make the note go down and 'sound' (which can equally well be done by a pencil-end) – is to determine the position of our hands so that they can be in '***mirror-image***' of each other. Mirror-imaging of the hands is of major importance and it's a constant consideration.

As the position in which our hands find themselves is far and away more important than any other factor in allowing the fingers to do their job, and as the fingers will do the best job possible if they are completely free to do so, and as the primary determinant of that freedom is the position of the hand, one of the most important factors becomes the ***angle*** at which the hand is positioned.

What does '*mirror-image*' mean?

Hold your hands out – do you see how the left and right hands face each other in a mirror image? Now slowly angle one of the hands outwards. The other hand instinctively and automatically wants to counter-balance it in the opposite direction – to exactly the same degree that the first one is angled. It requires an act of will and physical effort to prevent it from doing so. The same applies when one hand is angled *inwards*. Same thing with our feet, legs, arms – there is an automatic natural pull for the two sides of our body to mirror each other. Our limbs come in twos, and they balance each other in mirror-image.

This anatomical principle applies in everything we do, and certainly in everything we play on the piano. For the optimum effective use of our hands we should have the two hands balanced at the same angle against each other at every point in a piece of music. This alignment will alter with each phrase, in fact with each and every note.

Let us just look at the first line of this *Etude*. As we can see, the left hand, on the surface, seems to be locked in to a set of hand positions: it consists of a simple pendulum swing of the hand from one chord to the next which is consistent throughout the piece. The right hand's manoueverings are *much* more complicated, and there are obviously many more notes involved. But if the right hand is to be able to accomplish its task comfortably, the left has to be in synch with it at all times in a perfectly balanced 'mirror-image'.

The left hand is not as locked in to a fingering pattern as may at first seem to be the case. In order to balance the right hand in mirror-image, the left hand's fingering can be adjusted with advantage to 5 – 5/3/1, 5 – 5/4/1 instead of the obvious 5 – 4/2/1, 5 – 4/2/1. Although it seems innocuous enough when we look at the left hand alone, the standard 4/2/1 fingering angles the hand slightly towards the *left*, i.e. facing *away* from the centre of the keyboard.

Because of the natural way in which our hands form a mirror-image, the right hand is forced into the same angle inversely, i.e. *away* from the center, outwards towards the right of the keyboard centre.

At this angle, in this position, the 3rd, 4th and 5th fingers of the right hand become squeezed into a strained, scrunched-up position which is debilitating. But with 5/3/1 and 5/4/1 in the left hand, the right hand automatically angles more towards the center, releasing the struggling 3rd, 4th and 5th fingers. Now the hands are not angled *outwards* but slightly *inward* towards the centre of the keyboard. At this angle the truly difficult passage, the chromatic scale, is able to work with the unavoidable fingering 3,4,5 *and* release the little chords on each beat. Angling the *other* way, it is *not* able to release those little chords, which hang around, tightening the thumb and handicapping the upper part.

There is another application of hand-positioning to be observed here in the second *Etude*. This may seem to the reader to be a case of 'tricks' of the virtuoso performer, almost in the nature of magician's tricks that are somehow not quite proper to be spoken of in polite pianistic society, and if one does use them, one should only do so on the quiet, and talk about it as little as possible, for fear of outraging people with the possible implication of 'cheating'. We are referring her to the occasional preferability of taking certain notes written for the right hand with the left, and vice versa.

This *Etude* provides us with a clear instance where 'simplifying' is not the issue; the question is how do we achieve the correct hand position for each and every situation – not just every bar or measure, but every note – because frankly, without the correct hand position in every beat, we will simply not be able to play this fiendishly difficult piece of music; we won't even get to the end of the second line – if we do manage, with a lot of strain, to get to the end of the first.

The very first note, or chord, places us in the invidious position of having to move the whole hand immediately, the moment it plays the first note. Which is to say, the first note, or chord, is a complete 'hand position' in itself, one which must be abandoned immediately it has been played.

Right away in the first *Etude*, we learned that we must take c areful note of hand positions and move the whole hand along laterally, easily and smoothly from one position to the next without twisting or swiveling it around, or stretching it to grasp at the next hand position. But with a hand position of just one solitary beat – in this case C/E/A, played by 1/2/5, or 1/2/4 (the latter being Chopin's suggestion) – we are in a very weak position, unable to have any comfort or firmness on this first chord/ hand position and having to literally throw the hand over to the next note, A sharp, in a kind of lunge. It cannot be done without twisting the hand, or playing the first chord in an awkward manner, the hand stretched out unnaturally in the direction of the A sharp.

In this case, it is not cheating, but natural hand-positioning for the best effect – if we can manage a *tenth* – to play the first beat not as written, i.e. a three-note-chord, but instead as a *two*-note chord, E/A, with the thumb and index finger, with the bottom note of the chord, C, given over to the left hand sd the top note of a *tenth*. This *tenth* is easier than most *tenths*, as it is right at the beginning of the piece, so we can prepare for it. Also, it need not be very firm – in fact the lighter it is the better: we need just pick the two notes lightly, *pianissimo*, with a pincer movement.

Now we have a new hand-position in the right hand, one lasting the whole first beat of four notes: E/A - A sharp - B - C. This is an infinitely more secure way in which to begin this *Etude*, sparing us the stress and weakness of having to throw the third finger over the little finger – or over the fourth, if we use Chopin's fingering. Either of them is very fragile for an opening hand-position, as whichever one we choose, it will last no longer than a semi-quaver before we have to throw the hand over onto the next position, and what's more, throw it without any support underneath, like jumping off a cliff on to an adjacent crag, or from one rooftop to another. With the new hand-position, we have a secure foundation for the first four notes of the scale – the notes to be played while the hand is in this initial, unchanging position.

If we have thus 'simplified' the opening right-hand chord, it is tempting to play the four notes in the upper part with 2-3-4-5. This seems the easiest and most natural fingering, but our objective is to achieve – at every point – the most natural and unchanging *hand positions*. Fingering is at all times the servant of ***hand-positions***. With 2-3-4-5, the hand is forced into a scrunched-up position, from which it will have to open out in the next position, creating a gear-change.

A gear-change right at the beginning of our journey! One beat after we have pressed the accelerator and moved off the starting line. **5**-3-4-5 (the first beat being a two-note chord, E/A, played by 1/**5**) is actually better in this situation than the seemingly easier 2-3-4-5, even though we are beginning the scale with the weak little finger. But it is not weak in *this* position, because the *hand* is in a comfortable position – not stretched, not scrunched, but opened just the right amount.

Position is everything. There's nothing magical about fingers – unlike voices, which *do* have special qualities. If our hand is in the wrong position, we cannot play a passage comfortably or securely with the best-trained fingers in the world.

The next hand-position in the *Etude*, beginning on the second beat – can also be improved. If we take the lowest note of the right-hand chord, E, with the left hand – perfectly easy for the left hand in this case, as it creates the chord of just an octave, not a *tenth* – then this hand-position will begin on the very secure position of a two-note chord, A/C sharp, played by 1/3. The secureness of this position is derived not from the starting chord being small – a two-note *third* chord instead of a three-note *sixth* chord, but from the fact that the hand glides into it easily and smoothly, without any expansion or contraction, from the previous hand-position.

In this configuration, the thumb – the lower note of the right hand chords – slides smoothly and easily across from E to A. The upper part is completely unhindered in its scale trajectory: the angle of direction of the upper part of the hand – the third, fourth and fifth fingers – is unchanging. If we have to 'cheat' in order to create smooth transition from one hand-position to another, so be it. Smooth transition between hand-positions must be our constant objective.

At the end of the first line – i.e. the last beat of the second bar – we have another opportunity to take one of the right hand's little chords with the left hand without disturbing the integrity of the score in any way. At the same time, we are able to vastly improve a hand-position in the right hand. In this case, the hand is required to take another of those unsupported leaps – the hand having to jump from a hand-position at the top of the phrase to one a *third* lower, with nothing to support this freefall leap.

Not only is this an unsupported leap – nothing below us – but the weakness is compounded by the fact that the new hand-position is distinctly different from the previous one: the E played by the index finger in the new position causes the hand to twist around and change its angle.

If, however, we take the bottom note of the little chord on the last beat in the right hand, C natural, lightly dusting it with the tip of the left hand thumb, we have created a brand new hand-position in the right hand, starting on E/A, played by 1/5. In fact, this is hardly a new position at all, as the hand moves very little from the preceding hand postion (only the top note, the fifth finger, has to move) such that the position of the hand is made more compact; but the hand itself doesn't actually have to move anywhere at all.

In the next bar the same possibility arises again – in the corresponding place: the fourth beat of the bar. Once again, the left hand can comfortable take one note away from the chord in the right hand, thus – and this is the crucial point of these adjustments – enabling the right hand to stay quiet, in a less busy sequence of hand-positions; i.e. it doesn't have to jump about from one position to another, with positions varying in size and angle: *that's* the killer for causing weakness and strain.

This instance is another of those cliff-jumpers if played as written – the hand has to leave the postion on the third beat – starting on A/C/D sharp – and jump, with no support underneath, no safety net, to a different-sized position a *third* lower, E/A/B – the different size brought about by the stretched span of the thumb and index finger. By taking the E with the left hand, the right hand can stay in the same position in which it found itself previously, and thus have a hand-position which lasts more than a full bar – from the second half of bar 3 till the end of bar 4! *It is almost impossible to become strained or play a wrong note in an unchanging hand-position*. There is no danger of weakness in the melodic line or wrong notes.

It goes without saying that we allow the left hand to take the two-note chord in the lower part of the *augmented seventh* chord in the right hand on the last beat of the fourth bar. This chord as written is awkward and straining *not* because it stretches the hand close to its limit of stretchability, but because it forces a sudden expansion of the hand from a scrunched-up position to a much different position, a splayed one. In order to preserve the hand position – the position that has now gone on for six beats – the scale passage in the top part should avoid the thumb, which would make the hand twist around and start a *new* hand position – thus 2-5-4-3 - 2-**5**-4-3 – and thereby slide easily into the reprise of the subject starting in the fifth bar – on the *two*-note chord of E/A.

A long-enduring hand-position is the holy grail: the less we have to swivel around, jump from one position to another, alter the shape of the positions into which our hand is forced, the better. It is virtually impossible to make a mistake – i.e. play a wrong note – when a hand-position doesn't change.

We can think about the weather, or what we had for dinner, or how many unsold seats there are, or if the pretty girl in the fifth row is enjoying our performance, and our fingers will automatically play the right notes firmly and securely if our hand-positions are secure. It's the ***change-over points*** between hand-positions which are the weak links – *that* is where the fingers are insecure.

*I*n the central section of the *Etude*, beginning half-way down on page two, with the gradually building series of modulations, there is a recurring spot where it seems natural and easy to play a note with the thumb, in this thumbless *Etude*. The first thumb-opportunity occurs at the end of the first bar of this middle section, and that one is fine, but then it occurs again, in the first beat of the next measure.

Here, we have a different situation, one which forces the hand to twist around in order to play the notes immediately following the thumb note. *Twisting and turning is always a bad sign*. We may be able to do it at home, in a slower and more relaxed practice tempo, but when it comes to performance, a twisting hand bodes no good. Twisting means an awkward change of hand-position, or an incorrectly defined hand-position – by using the thumb at this point we have actually created *two* hand-positions in the one beat – each no more than two semiquaver notes' duration. By using the seemingly weaker fingering of 3-5-3-5 instead of 3-1-3-5 we achieve instead a hand-position which is firm and unchanging, blending smoothly with the hand-position that came before it and the one that comes after it. The hand virtually glides into the next position, covering the second beat of the new bar; it is in fact almost the same hand-position, continued.

One more example to illustrate the fundamental issue of the need to avoid awkward trasitions from one hand-position to another, causing twisting and turning (*every* note and passage in every piece of music has to be considered in this way) – let us take bar 26 of the this *Etude* – the second bar at the top of the third page. Chopin's suggested fingering is not really good (he had a very light-actioned French Pleyel piano, very different from our much heavier-actioned keyboard, so his fingering suggestions are not to be treated as gospel, though they nearly always have a point):

Playing the top E flat with the little finger puts the hand in a weak, vulnerable, exposed position, and makes it twist around in order to accomodate what follows. On the other hand, if we play the E flat with the *third* finger, even though this requires a big jump of the hand, all will be right with the world. Why? *Not* because the middle finger is the longest and the strongest; the littlest finger can be the strongest *if it is in the right position* – ***position*** is what gives any individual (finger in this case) his, her or its power and strength.

By playing this chord with 1/**3**, the hand changes position by not the tiniest iota, despite the jump up to it, and for *this* reason it remains unruffled and is completely secure. This hand-position is impregnable – one can never have a slip here with this fingering – and it works every time. What's more, that hand-position is *so* secure it provides enough reserves of energy for the right hand to last till the next major hurdle, the tumbling-down sequence in the right hand, half way down the page.

In order to achieve the full effect of this strong hand-position at this point, we must precede this chord with 5-3-2-1. The whole hand moves easily and smoothly up to the G/ E flat chord. It moves easily and smoothly because – and for no other reason – *it is not required to change its angle in any way at all*.

At the end of this bar, we again end on the thumb – 3-5-3-1 – and move up smoothly and gently to the first chord of the next bar without altering the angle of the hand – the G minor chord played with 1/2/5. The hand should move laterally – i.e. from side to side across the keyboard, as if it is playing a *glissando*: no swivelling, twisting or turning.

The above fingering for the first chord of bar 26 in the second *Etude* neatly produces this *glissando* movement of the hand: no turning or twisting about. We can't miss the otherwise perilous jump, even if our attention wanders. And it feels good – smooth and gliding.

At the same time as all this is going on in the right hand, we must watch the mirror-image positioning of the hands in relation to each other. Chopin has given us the possibility of playing this near-impossible scale by having it accompanied by a left-hand part which complements the right in an ideally supportive manner from a physical stand-point – but we must be *aware* of the dynamics of the positions.

All of the above discussion of hand-positions – a clear identification of which is necessary in order to establish the correct fingering, and vice versa, correctly chosen fingering being essential to creating smoothly progressing hand-positions – assumes that in effect *each note is itself virtually a hand-position*. That is to say, each and every note must be approached as if it is our only concern at that moment, no matter how quick the moment, and thus each note is given its full value in terms of weight, pressure, length, relation to simultaneously sounded notes, as well as previous ones, and every other consideration. The ultimate effect is that to all intents and purposes there is a virtual ***non legato*** approach to ***each note***. This will not cancel out the effect of *legato* – quite the contrary.

In his famous '*Versuch*' – '*Essay on the True Art of Playing Keyboard Instruments*', Carl Philip Emanuel Bach wrote that "notes which are neither *staccato* nor *legato* are held for half their value unless the word *tenuto* is placed over them."

Another well-known manual, '*Klavierschule*' of 1789 by Daniel Gottlob Tűrk, claimed that "when playing notes in the ordinary manner, that is, neither staccato nor legato, the finger should be lifted shortly before the written value of the notes requires it."

This eighteenth-century approach is exactly right. These authorities may have been speaking of 'keyboard instruments' in general, but in fact they were accustomed to the sound of large, reverberant harpsichords, as well as the new fortepiano. By 1803, when the pianoforte was virtually alone, harpsichords having for all practical purposes disappeared, Clementi introduced the idea of "finger legato" in his manual, '*The Art of Playing the Pianoforte*', insisting that one should "keep down the keys of the instrument the *full length* of every note."

Although the piano was now well and truly established, Clementi was accustomed to a much thinner-sounding, less reverberant instrument than are we. From an aural point of view, therefore, holding down notes for their full value was essential on Clementi's piano in order to compensate for the lack of reverberation. Beethoven asked for this *specifically* – to hold down the notes – via the sustaining pedal, not the fingers, for long periods in slow, quiet movements, famous examples being the first movement of the *Moonlight* Sonata and the slow movement of the 3rd concerto – both composed in 1800.

Holding down the notes with the fingers did not introduce any great physical problem, because the keyboard action was much lighter than that which was to develop over the next century. But Clementi's advice about holding notes for their full value is not helpful in the context of modern instruments.

It is in fact detrimental, from both the acoustic point of view as well as the physical: the overhanging reverberation from each note will cause a blurred, muddy sound unless there is a slight gap after each note in order to clear the air. From the physical point of view, on a firmer actioned piano, unless we release all the notes at the earliest opportunity, they will lock the hand into rigid positions, by way of some fingers holding down notes too long unnecessarily, creating 'excess baggage' for the hand.

All of the above is determined and locked in place by the fingers which we select to play each and every note in any given piece – i.e. '*fingering*'. Selection of the right finger for each note in terms of the sound we wish it to create and in the context of its surrounding notes is a puzzle which may take months of trial and error, and patient experimentation, even years in the case of great pieces of music, but once we have definitively established the correct fingering for every note in any given piece, we never have to 'practice' that piece again – we just need to refresh our memory whenever we are to perform it. Nor will we ever be nervous about performing it. Once we have locked the complete fingering into our brains, we *know* that piece.

Nervousness about performing is *always* the result of not knowing exactly what we must do with each note and phrase in a piece. Emotionally, we might feel that we know the piece, because we 'feel' its general contours and its message, and we think we know the notes. But generalities are not helpful to performance; in fact they are detrimental. Successful performance requires precision and detailed craftsmanship. A pilot doesn't fly a jet plane with a general feeling of exhilaration at being airborne, but through calm and precise manipulation of every knob on his dashboard and taking care of every detail. Subconsciously, we will be aware that there are gaps in our knowledge of a piece, certain places where we haven't yet arrived at a definitive fingering, and these gaps are where we will undoubtedly come to grief in performance.

Technically, the second *Etude* is indeed difficult, but an even greater challenge is the *psychological* one. It's frightening to walk onto a stage and have to expose one's weakest fingers – the fourth and fifth – and send their fragile sound productions out on their own into the dark yonder. Without all the fingers supporting each other with the whole hand operating as an entity in itself, any pianist will feel exposed and nervous.

The imposingly powerful Sviatoslav Richter, who possessed the most awesome technical equipment of any pianist ever, quaked before this tiny piece. When performing the twelve *Etudes* Op. 10 as a set, he hesitated and skipped over the quiet but treacherous second *Etude*. Richter was certainly not the only pianist to feel this way about this little *Etude*. It is not Chopin's aim here to make us nervous, however – which is the effect this *Etude* invariably has on any pianist, no matter how often he plays it – but to help us in the pursuit of complete finger independence.

Apart from the daunting challenge of playing the flowing melody of this *Etude* with the third, fourth and fifth fingers of the right hand alone, these fingers in an exposed position, the most intimidating thing about it is the actual *speed* it must go. If it went along gently, at a leisurely pace, it would still be a sinuously atmospheric, seductively beautiful piece of music, and a very valuable *Etude* indeed. But Chopin has given us a definite metronome indication – one which makes a big difference.

In fact, Chopin has given us a metronome marking for every one of the *Etudes*, and although, like all great music, the tempo might vary somewhat without loss of musical sense or quality according to the particular piano being used or the acoustics of a particular concert hall, Chopin's indications are there in front of us, and they're quite specific. Nearly *all* of Chopin's metronome markings are decidedly on the fast side, faster for the most part than we would instinctively choose to play them on a modern Steinway.

There are several reasons for this. Firstly, Chopin was very much akin to Mozart. When Mozart said that Andreas Stein's daughter Nanette was in danger of squandering her talent by not acquiring "great rapidity… that which is the most necessary, the hardest, and the principal thing in music – tempo," he was talking about rhythm and forward movement, which are the *definition* of ordered sound – which is what we call 'music'. Chopin felt exactly the same way. For all his supposed dreaminess and use of *tempo rubato*, he believed music should always *move* and never become mired in self-indulgence or exaggeration. '*Tempo*' ***is*** the principal, most necessary thing in music. Then, the size and power of a modern concert grand is far beyond that of any piano of Chopin's time, and the sound is much fuller than that of the Pleyel pianos he used, which were light and pearly sounding. A fuller sound automatically requires more breathing space to resonate.

The lighter touch and sound of the Pleyel is a very French thing. The French use the expression '*jeu perlé*' – 'pearly playing' – to describe an ideal to which they aspire. French pianists in general have always had a distinct predilection for the music of Mozart – whom they call '*Mozaar*' – where '*jeu perlé*' can be shown to best advantage. It's the kind of *sound* they like, more than a question of the musical content or emotional substance. Thomas Beecham's *bon mot*, "The English don't really *like* music; they just like the sound it makes," would have applied in a paraphrased form to the French, who have always prized style at least as highly as substance.

The kind of music the French prefer is that which presents an elegant, charming, smoothly tailored sound world, dramatic on occasion but always within the bounds of decorum, with finesse but with no great amount of depth. '*Mais c'est charmant*', was the best compliment Saint-Saëns could pay his young protégé Leopold Godowsky.

Although a modern Steinway *can* produce the sound of smooth pearly runs, that's not what it was designed or built for. The action of a Steinway is much heavier, requiring a great deal more pressure and weight behind the finger-attacks in order to fill a two-and-a-half-thousand-seat auditorium with a rich, multi-coloured sound of orchestral depth. Chopin, and Liszt for that matter, almost never performed in halls for more than three or four hundred people; they didn't exist.

On Chopin's light-actioned Pleyel, one could sit back and let one's fingers glide like feathers over the keys. If you did that with this particular *Etude* at its required speed on a Steinway, nothing would come out – as Mozart remarked of pianofortes of his time. Unless, perhaps, you had Horowitz's specially altered Steinway with its extremely light action. But even then, all you could be sure of is a greater degree of control of the finesse, or quality, of the sound. A 9-foot Steinway is a completely different proposition to a Pleyel grand of Chopin's time.

The second *Etude*, which taxes the weakest fingers to the limit, was designed to be played on a light-actioned French piano of Chopin's time. It's much harder, and completely nerve-wracking, on a modern grand at the speed Chopin has requested.

Nevertheless we must try. Even with his special light-actioned Steinway, Horowitz steered just as clear of this *Etude* as did Richter. Like Josef Hofmann, Horowitz played a number of the *Etudes* often, all his life, but certain ones he resolutely avoided. And if a pianist is going to be spooked by any of the *Etudes*, the second *Etude* will surely be the first!

But the challenge is there. Hence the pressure and the nerves which not only Richter and Horowitz felt, but which all pianists feel when approaching this piece. There are all kinds of mental calculations which have to be made in order to try to meet this challenge: 'How fast can I take this *Etude* and still get to the end without breaking down with a cramp in the right hand?' is the first question to ponder. Then, 'exactly what sound level do I need to maintain in order to have the hand at it's optimum lightness for this piece?,' and 'how quietly can it be played on this piano in this hall at the desired speed without losing control?'

These questions interrelate inextricably, of course, as do most considerations of art and technique, and the calculations can be fine indeed. Often, however, it might seem like a better option just to skip over this *Etude*.

In the end, the most daunting aspect of performing the second *Etude* as part of the set of Op. 10 comes from playing it immediately after the first *Etude*. On its own, it's a difficult and intimidating little piece, but perhaps not completely impossible. But following straight on from the first *Etude* it does becomes almost impossible, because of the vast gear-change in technical demands.

Chopin has addressed the same essential technical issue in these two *Etudes*, namely the importance of clearly articulating each and every hand position in a piece. The first *Etude* pushes our endurance to the limit with *fortissimo* passages in which we have to fight to resist *extending* the hand positions, i.e. stretching the hand out, while the second *Etude* has our hand contained within a small, circumscribed position, and the struggle in this case is to prevent it from becoming too tight and constricted.

In both *Etudes* we are aiming at an almost impossible ideal of keeping the hand completely loose all the way through. But it's an *ideal* – something to which we must aspire, even if it is not completely practical. And that's the whole point of *Etudes* – especially Chopin's *Etudes*. Stopping the hand from tightening may be the primary objective of the first two *Etudes*, but it's an ideal which is not fully realisable in practical terms. Plainly put, our right hand is usually exhausted by the end of the first *Etude* – complete looseness here being an impossible ideal – and we are not ready to go straight into the second *Etude* without a break, both mental and physical.

On top of that, the second *Etude* requires more anticipation than most pieces of piano music – it's just like taking a deep breath before swimming underwater for a minute and forty seconds, which is the length of time it takes to get to the other side of this piece. Perhaps it was more a matter of having to play the second *Etude* immediately after the first which gave Richter pause, and not the intrinsic difficulty of the *Etude* itself, which he could certainly manage. The similarly gossamer, quicksilver Etude by Liszt entitled '*Feux Follets*' – the fifth of his *Transcendental Etudes* – elicited from Richter the lightest, fastest, most magical performance ever. But in that famous performance, recorded live in 1959, Richter hadn't just played Chopin's first *Etude*.

One of the best performances of *all* the *Etudes* comes from a somewhat unexpected quarter. The great German pianist Wilhelm Backhaus, despite his later persona as a Beethoven and Brahms specialist, with an uncompromising Germanic approach, was in his youth one of the most brilliant of all virtuosos, with a fearless Horowitzian technique and sparkling lightness. With a Romantic shock of hair and debonair manner, Backhaus was, at the age of twenty-one, first-prize winner of the Anton Rubinstein piano competition in Paris in 1905 (second prize went to the twenty-four year-old Hungarian pianist Béla Bartók).

Backhaus' repertoire during the first half of his career, which was based in England, where he was much admired, was likewise a virtuoso Romantic one, with all manner of Lisztian transcriptions and the like. This is a little less surprising when one remembers that Backhaus was a student of the Scottish-German pianist and composer Eugène d'Albert, one of Liszt's favourite pupils – also, like Backhaus, a rigorous Beethovenian (he was known as "the little giant"), as well as a Lisztian.

Backhaus recorded the entire set of Chopin's twenty-four *Etudes* in the early 1930s. It was one of the first examples of what was to become a common practice in the era of LP recording, the phenomenon of 'complete' recordings. There doesn't seem to be any trace of constriction or difficulty in Backhaus' very fast performance of the second *Etude*, and on its completion, on the chord of A major, he fancifully improvises a nonchalant arpeggio as a cadence – not something that would be dared by anyone who hadn't been born in the 19th century. Perhaps Backhaus was breathing a musical sigh of relief at having conquered the one-and-a-half-minute little monster, or, much more likely, demonstrating a witty, very Chopin-like dismissal of the extraordinariness of his just-accomplished feat.

But as we are neither Chopin nor Backhaus, let us take a deep breath, and do what a pianist's got to do.

In the next chapter we will see Chopin try to simulate the human voice. In this context, we will examine the crucial distinction between the two different types of muscles which operate the fingers – the *extensors* and the *flexors* – a clear understanding of which is necessary to everything we ever play, and one which is absolutely essential for the cultivation of 'singing' tone.

We shall find Chopin taking the piano, with all its new developments, and turning it into an instrument capable of almost, though not quite, simulating the human voice – or at any rate, taking a good shot at it. Although it was still much smaller in every way than the modern grand piano, there was enough there for Chopin to try to emulate the *bel canto* voices he heard often at the Paris Opéra. It was Frederic Chopin who gave us the ability to play the piano with a 'singing' tone, through careful manipulation of the sonorities of the notes and imitation of the breathing and phrasing patterns of the human voice.