

Chopin's Revolutionary Legacy: A Pianistic Pianism

By Jon Verbalis

Giving precedence to physiological considerations (the hand) and physical ones (the keyboard), Chopin is in effect the first to emancipate himself from "Tyrant C", ruler of non-pianistic tonality.

-- Jean-Jacques Eigeldinger

True science does not constitute a separate branch of knowledge from art. On the contrary, science, when envisaged like this and demonstrated by a man like Chopin, is art itself.

-- Eugène Delacroix

Though undoubtedly a tribute to his singular genius as artist, pianist and composer, these words are also provocative. Eigeldinger reminds us of – and celebrates -- what is at the core of Chopin's rich and extraordinary legacy as composer, pianist and teacher. And Delacroix sheds significant light on a surprising, overlooked dimension of Chopin's thinking as well as creative process.

Chopin was passionate about science and the latest inventions, at least since his student days at Warsaw's Lyceum where his father taught French and Literature. He was enrolled there at age fourteen, and his rigorous program of studies was a broad one that included physics. This was an unusual course of study at a time when outstanding musical talents, especially those hailed early on as "geniuses," were customarily privately tutored very narrowly – all the better to focus on, nourish and promote their unique potential, it was thought. But that avenue for the broader development of Chopin's intellectual powers is exactly what distinguishes him from other leading musicians of his time.

Young Chopin was admitted to the recently established Warsaw Conservatory two years later. Quickly identified as "genius" by both institutions, as well as the musical, literary, and intellectual milieu of Warsaw's newly burgeoning though thriving cultural life, Chopin was at home in such a setting early on. This was an important facet of his cultural and creative development, especially later in the Paris of Polish exiles.

Among those at the forefront of the artistic and literary Paris of that time was Eugène Delacroix, one of Chopin's most ardent admirers and closest confidants (of Chopin's non-Polish friends and colleagues he shared that distinction with Heinrich Heine). Already famous as a painter of murals and large canvases, pianists know him best for his sensitive and revealing portrait of Chopin. Now at the Louvre, it is in fact only part of a work that originally included George Sand. But Delacroix knew Chopin so well and revered him so highly that he also cast Chopin's "angelic" face as Dante's model for his mural on the ceiling of the Luxembourg Palace.

A favorite pastime of Chopin and Delacroix was to hire a carriage for long drives in Paris' extensive parks, during which their favorite topic of conversation was science. Science! Delacroix further wrote that, in an artist like Chopin, "...art is no longer what the vulgar think it to be, that is, some sort of inspiration that comes from nowhere, which proceeds by chance, and presents no more than the picturesque externals of things. It is reason itself, adorned by genius, but following a necessary course and encompassed by higher laws."

To reason is to embrace the rational. And biographer Tad Szulc adds further insight to what was distinguishing about Chopin's artistic achievements and creative process: "Musical and mathematical aptitudes often come together...his emphasis on logic in music and on science in general suggests that his mind was as orderly as a mathematician's. *Such a notion had not been grasped in the early part of the nineteenth century, but Chopin was an intellectual pioneer in his own fashion as well as an inspired*

man (italics added). He was heir to the tradition of Leonardo da Vinci and Galileo, who saw music as the bridge between mathematics and philosophy and therefore between science and the humanities. Chopin's fascination with science and its practical applications – he kept reporting the latest inventions in his letters to the family in Warsaw – were part of it.”¹

It is this aspect of his creative capacities that is explored below, how Chopin's curiosity and insight led to a pianism and pedagogical legacy that is rightly deemed revolutionary – not only for his time but even to this day. What is it that makes Chopin's brand of pianism “pianistic” in contrast to a pianism that is “non-pianistic”? In what ways is this manifest, then and now?

We know that equal temperament was the tuning system of choice for Chopin's own piano since his young, formative years. This is all the more remarkable as it was not universally employed and Warsaw was deemed “provincial” at the time. In fact, it was more than likely that a pianist anywhere could expect to encounter a well-tempered piano in most instances. This seemingly insignificant detail bears mightily on what were to become hallmarks of Chopin's revolutionary legacy: a pianistic pianism and a pianistic pedagogy.

Compositional key choice and key schemes, the catapulting of a new chromatic harmony as the defining musical language of the Romantic era, identification of specific fundamentals governing a truly pianistic technical development, and études that are his era's equivalent to J. S. Bach's *Well-Tempered Clavier* can be counted chief among them.

EVOLUTION

As a pianist, it is generally held that Chopin was self-taught. Formal studies were with Wojciech Żywny, a violinist, and later Józef Elsner, a composer. From both he was imbued with a life-long love and deep appreciation of J. S. Bach and the classicists, especially Mozart whose operas he knew well.

He studied organ with Wilhelm Wacław Würfel, organist at the nearby Evangelical Church, for a time. Some in disbelief insist that young Chopin *must* have studied piano with him also, though conceding there is no concrete evidence of that. Nonetheless, a marked predilection for legato and a non-percussive, sustained sound undoubtedly comported with what was already a passionate love of singing and the opera. Likely too that such “Chopinesque” practices as *glissando* (a sliding of the finger from one adjacent key to another) and frequent finger substitutions were introduced or certainly not discouraged, as these are fundamental to organ technique. This, however, does not go to the heart of the matter, which is Chopin's natural sense of the piano. Independently he pursued a rational and intelligent development of his own *mechanisme* (as he called it), while nurturing a very distinct and individual style of pianism. The early études are compelling testimony in this regard.

The enormous influence of Jan Nepomuk Hummel (1778-1837) in his evolution as pianist, composer and teacher is well founded, if not widely recognized. Chopin's early compositions evince the bravura figurations characteristic of that *style brillant* in contrast to the *fioratura* embellishment better reflecting his passion for singing and the *bel canto* operatic style later on. And this is an important distinction, in performance practice as well. He also considered Hummel the most knowledgeable in matters of fingering and regularly included his compositions in the repertoire assigned to students.

Though all twenty-four of Hummel's *Études, Opus 125* predate Chopin's twelve of Opus 25, his Opus 10, Nos. 1 and 2 already mark a dramatic departure -- in key choice as well as strong contrast of technical emphasis and, most importantly, pedagogical intent. Whereas Hummel employs a uniform key (tonal) scheme --the major/parallel minor keys of the Circle of Fifths -- Chopin feels, needs and prefers no such

constraint. For him technical ends are best served by the tonalities chosen: those having a preponderance of black keys in most cases, or otherwise permitting them (A minor for the chromatic figurations of Opus 10 No. 2 and Opus 25 No. 11, for example).

Already Chopin demonstrates a keen, analytical sense of the *movements* of the pianist's playing mechanism that are necessarily enlisted in communicating the new musical language of his compositions, which he continually likened to speech as well as singing. Most significantly, individual key choice is wedded to the specific issues involved – not to create further difficulty but rather to influence and encourage a “correct,” more natural response to the challenges confronting the pianist. In other words, the chosen tonality was one that would inevitably support and facilitate the intended technical -- and musical -- outcome. In this we see that very early on Chopin was fundamentally influenced and motivated by an extraordinary topographical awareness. And there is no doubt that this was conscious.

Pianists without such insight and sensitivity, or encumbered by a limited movement sense of their *entire* playing mechanism, will of course be tempted to consider the challenges posed as a sort of “topographical warfare” whereby means (tonality and key scheme) will not be appreciated or understood as directly serving the desired end. At the other extreme, his études are revered primarily as poetic statements of the highest order though extremely demanding. But they are perfectly conceived to collaborate in exquisite balance -- Chopin's genius at work.

He did follow a specific key scheme in his *Preludes, Opus 28*: all major and *relative* minor keys, from C major through the Circle of Fifths. This was now possible with equal temperament. Even a cursory analysis of Chopin's compositional key choice reveals that most of his works sport key signatures of four or more sharps or flats. Though key signatures are not sole indicators, in the world of chromatic harmony they readily imply specific tonal relationships and affinities nonetheless. In regard to the waltzes alone, only four of the seventeen (Paderewski Edition) have signatures of fewer than three sharps or flats. But of these four, three are also written in their parallel majors of three or more sharps. Of the thirteen remaining, only two are in three flats, of which Opus 18 in E-flat shares the key of D-flat/B-flat minor (five flats). The other *eleven* are in four or more sharps or flats!

Hummel's celebrated method *A Complete Theoretical and Practical Course of Instructions on the Art of Playing the Piano-Forte* (1828) – then the most important contribution to that genre after C.P.E. Bach's *Essay on the True Art of Playing Keyboard Instruments* -- reflects the limitations of the well-tempered tuning system prevalent at the time. He candidly acknowledges as much, expressing the hope that one day it will be equal temperament that universally prevails. But having said that, Hummel felt it more compelling to accept those restrictions. Though fingerings were proposed for scales and double notes in all keys, he expressly composed all the music therein to exemplify and demonstrate the principles and applications espoused. And all were in tonalities having signatures of *no more than* four sharps or flats. Only equal temperament would have permitted extensive use of the enharmonic keys (B/C-flat – F-sharp/G-flat – C-sharp/D-flat and their relative minors), particularly in the matter of in-tune thirds and sixths.² But they are at the core of Chopin's innovative and revolutionary detour.

In this regard it is more than a curiosity that Franz Schubert's sublime *Impromptu, Opus 90 No.3* may still be found published by Kalmus in G instead of the usually performed G-flat. Considered an “easier” key by many, perhaps most, G major is only easier to *read* at a less advanced level. G-flat is in fact easier to *play*, specifically owing to its abundance of black keys – all five – permitting a generous application of glissando fingering options to facilitate a more fluent and musical performance. Moreover, there is an inherent quality in the more sensitive, subdued sound and textures of G-flat that is quite the opposite of G major, which is experienced as bright and brash in comparison, and at odds with the expressive

content. Though considered “theoretically” impossible, all accomplished pianists admit this is so nonetheless. G-flat not only feels differently – it is more comfortable to execute – but is heard differently. That said, Schubert’s publisher insisted it be published in both keys since well-tempered tuning was still the norm (sales of course!).

Beethoven’s relatively late F-sharp Sonata Opus 78, with its warm, tenderly lyrical first movement, is his first foray into these formerly uncharted waters. With equal temperament, an *unforced* execution ensured by an abundance of black keys could be achieved. It is more than noteworthy that Chopin’s *Impromptu, Op. 36* and *Barcarolle, Op. 60* are likewise in F-sharp.

Chopin never ceased to marvel at the keyboard design and organization that he inherited: “One cannot overpraise the genius who presided over the construction of the keyboard, so well adapted to the shape of the hand. Is there anything more ingenious than the higher [black] keys -- destined for the longer fingers – so admirably serving as points of pivot. Many times, without thinking, minds who know nothing about piano playing have seriously proposed that the keyboard be leveled: this would eliminate all the security that the pivot points give to the hand, [and] consequently make the passage of thumb in those scales involving sharps and flats extremely difficult.” (*Projet de méthode*)³

With these words, Chopin tells us that the hand’s natural shape and functional design can -- and must -- be wedded to the keyboard’s own functional design for optimal ease and effectiveness. This element of inherent, potential comfort is the essence of what can be described as “pianistic,” and goes far beyond the usual sense. Chopin’s piano works are so born of and for the piano that overall it is rare that they can be successfully and satisfactorily transcribed to other instrumental mediums. He is also indicating that the keyboard’s *topography* should serve as the fundamental basis for fingering solutions.

But the core of Chopin’s pedagogical legacy lies in his “intimations of symmetry.” And in this we are unavoidably led to consider once again the degree to which equal temperament was a factor in his remarkable discovery of what is now referred to as *symmetrical inversion* – “symmetrical adjustment” follows from this. Indeed, Chopin’s revolutionary insights and ensuing legacy would otherwise not have come to the fore. Eigeldinger concludes that “Chopin’s reasoning ... is exclusively pianistic; indeed, the entire reasoning of the *PM [Projet de méthode]* – including some theoretical notions – is founded on the structure of the (equal tempered) keyboard.”⁴

REVOLUTION

It is commonly known that Chopin contended that the B major scale be studied first -- and the C major scale last, “as it has no pivot.” But this by itself, though accurate, misrepresents the basis of Chopin’s own pedagogical practice as well as obscuring his extraordinary discovery and revolutionary approach to the keyboard.

Karol Mikuli (1819 - 1897), one of Chopin’s stellar students and destined to become one of the great teachers of all time, informs that scales were introduced hands separately, with D-flat for the left hand (LH) and B for the right hand (RH) – *not B for both hands*. G-flat/F-sharp was also included.⁵ What is significant about this is the interval distance for thumb-under/hand-over pivoting. In D-flat for the LH and B for the RH it is a half-step, but a whole step for reversed hands. However, for G-flat/F-sharp fourth and thumb encounter a half-step, and the longer third and thumb a whole step – in both hands. This would favor G-flat/F-sharp as the scale of choice for first coordinating hands together, also suggesting a preferred alternative for younger and smaller hands whether separately or together. With Chopin it is

the enharmonic keys that lead the way, courtesy of equal temperament. Further grounding was reinforced by the requirement that his students begin their work on Clementi's *Préludes et Exercices* with the second volume, in which these key signatures predominate.

Jan Kleczyński (1837-1895) is the foremost, earliest and most reliable authority on Chopin's teaching practices. He had studied with several of his most distinguished students, and *The Works of Frederic Chopin and Their Proper Interpretation* documents what was devotedly being passed on to others. A remarkable and penetrating account, what I have termed Chopin's Fundamental Pattern is set forth as pedagogical core.

With the long fingers 2-3-4 assigned to the short black (B) keys and the shorter thumb and fifth assigned to the longer white (W) keys, Chopin commenced study with this pattern representing the defining elements of the D-flat major scale for the LH⁶ and B major scale for the RH:

(LH) F G flat - A flat - B flat C E F sharp - G sharp - A sharp B (RH)

The pattern is **W B B B W** for each hand and is symmetrical. That is, both hands are mirrored contrariwise, identical as to fingering, topography (black and white keys) and interval. In fact, the entire D flat major scale of five flats exactly mirrors the B major scale of five sharps: They are symmetrical *inversions* of each other. With this pattern and the important role of the D-flat and B major scales, Chopin announces his recognition of their symmetrical equivalency. Remark that those of G-flat and F-sharp are also symmetrical, both having equal numbers of flats and sharps (six).

The "four-group," the notes taken by the hand's first four fingers, determines the fingering of each scale. Representing the major scales of D flat and B as it does here, **B B B W** and **W B B B** are whole tone patterns. This very important sequence is obscured by the way in which the major scale is traditionally represented: as an octave of two tetrachords a whole step apart, each constructed as whole – whole – half step. This has its own logic, of course, emphasizing as it does the half steps, the "tendency tones" of major scale degrees 3-4 and 7-8. For C this would be **CDEF-GABC**. But seen another way, major scale degrees 4-5-6-7 comprise the whole tone pattern **FGAB**.

Though Chopin famously complained, somewhat humorously, about a long nose and a fourth finger "out of practice," it is the fourth finger that unavoidably takes on the black key pivot extolled by him in the quote above. This is true of all the enharmonic major scales as well as their parallel *and* relative minors. There is no alternative to this unless the thumb is assigned to a black key. It is of utmost significance that the enharmonic keys – employing the five black keys -- are the foundation of Chopin's approach to keyboard study.

The Circle of Fifths, proceeding as it does from C, through the enharmonic keys and back, is literally turned on its head. "Tyrant C" is overthrown! Proceeding instead from the enharmonic keys, we move from more pianistic to less pianistic tonalities. The now-legendary Heinrich Neuhaus, close cousin of composer Karol Szymanowski and artist teacher of Sviatoslav Richter, Emil Gilels among so many others, exclaims: "Please do not think that I am so naïve as to ignore the circle around which our scales are built and the center of which is C. I merely stress that the theory of piano playing which deals with the hand and its physiology is distinct from the theory of music." And about Chopin's Fundamental Pattern, "With these five notes one must begin the whole methodology and heuristic of piano playing....This small formula is truly weightier than many heavy tomes.... You cannot find anything more natural on the keyboard than this position." ⁷

DEVOLUTION

The composer and theorist Johann Joseph Fux (1660-1741) identified D as the keyboard's "point of symmetry" already in the eighteenth century. But there are in fact *two* points of symmetry, the other being A-flat/G-sharp. Extending the thumb and fifth of Chopin's Fundamental Pattern to encompass an octave, the "architectural pillars" of the hand – fingers 1, 3 and 5 – are now assigned to both points of symmetry. The octave is then divided equally into two tritones:

(LH) D - A flat - D D - G sharp - D (RH)

A-flat/G-sharp is the defining element of Chopin's pattern. Moving "down one finger" or one black key in the RH, as he instructs, and up one in the LH we arrive at the symmetrical equivalents for major scales E-flat and A -- three flats and sharps respectively:

(LH) A flat - B flat - C - D D - E - F sharp - G sharp (RH)

Significantly, thumbs and 4ths of each hand are now positioned on both points of symmetry.

And proceeding similarly (contrariwise), thumbs take a whole step above and below point of symmetry D for F and G major:

(LH) B flat - C - D - E C - D - E - F sharp (RH)

So it is that, symmetrically adjusted and beginning on the tonic, the LH fingering for the F scale would then be 321-4321. It would now comport with the LH fingering for the other flat key major scales. Put another way, we arrive at a pianistic resolution – ensuring the same degree of comfort and ease of execution as the others

In his *Exercices Techniques pour Piano* (1887), Carl Eschmann-Dumur demonstrated that *all* major scales of the same number of sharps and flats were symmetrical: Contrariwise they mirrored each other exactly as to topography, interval, and fingering. Moreover, they were symmetrical when reversed. That is, the LH scale of E-flat major (three flats) exactly mirrored that of A major (three sharps) for the RH; conversely, A for LH mirrors E-flat for the RH. He then applied the principles deduced to the minor scale forms, and it is with these that symmetrical adjustment really comes into its own.⁸

This was also revolutionary, though the connection to Chopin's initial discovery was not immediately apparent or made obvious. But these fingerings were championed by Moritz Moszkowski who, in his monumental *School of Scales and Double Notes, Op. 64* (1904), astutely observes that they "correspond by identity of movement." This refers to thumb-under/hand-over actions specifically as well as symmetry of *movement* overall. His fingerings for double notes were founded on these observations. Of course one might choose to dismiss or ignore this remarkable topographical symmetry, and decline to enlist all its manifestations in the resolution of fingering matters. But it will nonetheless impact the process positively or negatively, obviously or subversively.

On this the now legendary Wanda Landowska, first a student of Kleczyński, weighs in:

"...fingering is only concerned with the topography of each phrase as it appears on the keyboard. When the disposition of the black keys is modified because the motive is repeated on another degree of the scale, it requires a different fingering."⁹ Without doubt, Chopin's legacy is further reflected in these deliberate comments.

Ignacy Jan Paderewski declared that “after Chopin, Moszkowski best understands how to write for the piano.”¹⁰ And Moszkowski’s many piano students included Landowska as well as Josef Hoffman, Joaquin Turina, and Vlado Perlemuter.

Mikuli was both student of and assistant to Chopin. His students in turn included Moriz Rosenthal, Aleksander Michałowski, Raul Koczalski – and Mieczysław Horszowski’s first teacher, mother Janina. Landowska is also counted among the many artist pupils of Michałowski as are Leopold Godowsky, Misha Levitzky, Vladimir Safronitsky, and Heinrich Neuhaus.

Chopin’s extraordinary legacy is reflected in this very impressive “line of succession” and is still being felt. That his pedagogical thinking continues to send revolutionary ripples, if not waves, should also not be surprising. But Chopin’s immortal music has never gone out of fashion, and with that the persistent demand for a tone quality imbued with warmth and color -- the ultimate arbiter of a pianistic pianism.

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¹ Tad Szulc. *Chopin in Paris*, 242-3.

² Stuart Isacoff. *Temperament*.

³ Jean-Jacques Eigeldinger. *Chopin – pianist and teacher, as seen by his pupils*, 192.

⁴ *Ibid.*, 90.

⁵ Frederick Niecks. *Frederick Chopin*, Vol. II 184.

⁶ Kleczyński didn’t quite grasp this, positing a whole tone pattern for the LH though spelled in flats. His “analogous” pattern with F-flat instead of F is perhaps responsible for Chopin’s pattern evolving as a whole tone pattern – but somewhat obscuring his revolutionary application in the process.

⁷ Heinrich Neuhaus. *The Art of Piano Playing*, 84-86.

⁸ Jon Verbalis. *Natural Fingering – A Topographical Approach to Pianism*, Chapter 2.

⁹ Wanda Landowska. *Landowska on Music*, 374.

¹⁰ New Groves Dictionary (2nd ed. 2001): “Moszkowski”