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Technique Based on Fingers Alone

INVENTION AND DEVELOPMENT OF THE PIANOFORTE

The history of both piano playing and piano teaching does not properly begin until the last quarter of the eighteenth century. Although the principle of hammer mechanics was first applied to keyboard instruments in 1709 by the Italian Bartolommeo Cristofori, its development and perfection required a long time.

Johann Sebastian Bach saw one of the first instruments of this type—Gottfried Silbermann's piano—around 1726. Although Bach praised the tone, he was not satisfied with the instrument, finding its action hard and its treble weak. He considered the pianoforte incapable of competing with the harpsichord and clavichord. Working hard to correct these shortcomings, Silbermann in 1747 again showed his improved "piano e forte" to Bach. This time Bach praised it warmly. But since this second trial took place in the presence of the King of Prussia on the court instruments, it is questionable whether Bach's praise was sincere. At any rate, Bach did not show any serious interest in the pianoforte. Possibly it was hard for an old man to appreciate such a revolutionary innovation.

Bach's son Carl Philipp Emanuel, however, in his famous *Essay on the True Art of Playing Keyboard Instruments* (1753) wrote: "The more recent pianoforte, when it is sturdy and well built, has many fine qualities, although its touch must be carefully worked out, a task which is not without difficulties. It sounds well by itself and in small ensembles."¹

By the 1770's the pianoforte was at last satisfactory in both sound and action, so that leading keyboard composers and performers began to pay serious attention to it.

In 1773 Muzio Clementi composed his Sonata Op. 2, the first composition intended for the pianoforte and

suitable to it. Although there were earlier isolated compositions "for harpsichord or pianoforte," their texture and technical exposition were not specifically designed for the new instrument. Interested in the new instrument as such, Clementi indulged in experiments and tried all sorts of technical and coloristic effects. In his compositions we can clearly see for the first time a musical texture that is distinctly characteristic of the pianoforte. Clementi may truly be considered a creator and founder of the piano technique of the nineteenth century. Availing himself of the advantages and peculiar qualities of the pianoforte, he enriched his compositions with octave, tremolo, double third, repeated note and cross-hand passages. He can rightfully be looked upon as the forerunner of Beethoven at least in the realm of technical exposition.

In 1777 the young Wolfgang Amadeus Mozart in a letter to his father described with enthusiasm the pianoforte made by Johann Andreas Stein, Silbermann's workman and disciple, and wrote that his Sonata in D major (evidently K. 284) "comes out incomparably better on the Stein pianoforte."

The March, 1783 issue of C. F. Cramer's *Magazin de Musik* mentioned "good instruments with newly invented hammers out of which the player may expect full satisfaction." Four years later the same magazine published a letter from Bonn which said that "the piano is greatly admired here. We have several instruments by Stein from Augsburg.... The young Baron von Gudenau plays the pianoforte splendidly and so does the young Beethoven."

Thus, the pianoforte gradually gained the approval of composers, performers and listeners. This recognition was accompanied by a long and tenacious struggle between the dying clavichord and harpsichord, and the new pianoforte. The outcome of the struggle was determined by historical developments.

Mental Work

MENTAL DEXTERITY

We cannot read a row of nonsense syllables quickly because we are unable to unite these syllables into meaningful words and sentences. Practice in repeating them would not be of much help; only when grasping the sense of what we are reading can we read quickly.

As the swiftness of our speech apparatus depends on our ability to think quickly, the agility of our motor apparatus depends more on our ability for fast musical thinking than on long practicing and numerous repetitions of movements. Practicing of the motor apparatus cannot be dispensed with, however, in the development of this fast thinking.

If technical insufficiency (unsuitable motor activity) can sometimes be caused by failure to find the appropriate position and movement forms of the playing apparatus, it is usually a symptom of undeveloped musical thinking. The reasons for the trouble should be looked for in the central nervous system.

"A player's fingers cannot travel faster than the thoughts which direct his fingers on the keyboard. Therefore his velocity depends first on his mental agility in grasping printed music and coordinating finger movements."⁵²

In reading music the pianist should not read single notes but should unite these notes in comprehensible successions: arpeggio or scale patterns of any kind, any kind of sequence, harmonic complex, and the like. In order to be able to play with speed, we have to organize our thinking in such a way that it will flow rapidly and unhampered.

If we try to play a scale or passage without dividing it into several groups with regular accents, then for each movement of each single finger a separate will-impulse must be sent from the central nervous system. In this way we would be able to play our scale in slow tempo only. Uniting two notes in one group by an accent on the first note will enable us to play a given succession somewhat faster because now only one will-impulse is needed to produce two tones. The faster we want to play, the greater the number of tones that have to be united into one group. Thus, many volitional impulses, each directed to a single action, would be replaced by a few directed to the compound action. For exceedingly rapid scale playing (in the finale of Chopin's G minor Ballade, for example), we should unite seven notes in one will-impulse. By doing so we gain the advantage of playing the regularly repeated patterns of notes and finger successions with octave orientation. Because of this orientation, it is easier to unite seven notes in one group than six or eight. Thus, at each strong beat we send a will-impulse and are not conscious of the notes which are played between these strong beats. These links have been worked out previously and stored in the motor region of the cortex.

When one can play any section of a difficult piece in the required fast tempo but fails to play the sections in continuity, it is clear that the real difficulty does not lie in the domain of pure motor activity. Rather, it is the inability to think fast enough to estimate the distances and to anticipate and prepare one's playing apparatus for each situation without the slightest delay.