

中央音乐学院图书馆藏书

书号

6400.183

登记号

300487

gy Sandor

ON PIANO PLAYING



and Expression

. 3

Motion, Sound and Expression

On Piano Playing

Motion, Sound and Expression

Gyorgy Sandor

Schirmer Books
A Division of Macmillan Publishing Co., Inc.
NEW YORK

Collier Macmillan Publishers
LONDON

Copyright © 1981 by Schirmer Books
A Division of Macmillan Publishing Co., Inc.

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the Publisher.

Schirmer Books
A Division of Macmillan Publishing Co., Inc.
866 Third Avenue, New York, N.Y. 10022

Collier Macmillan Canada, Ltd.

Library of Congress Catalog Card Number: 80-5442

Printed in the United States of America

printing number

4 5 6 7 8 9 10

Library of Congress Cataloging in Publication Data

Sandor, Gyorgy

On Piano Playing

1. Piano--Instruction and study. I. Title.
MT220.S19 786.3'041 80-5442
ISBN 0-02-872280-9 AACR2

Preface

Purpose of this
book

Since the introduction of the modern piano (approx. 1709), innumerable books have been written on piano technique; indeed, there are also quite a few books to be found on the keyboard technique of the piano's predecessors, the clavichord and the harpsichord. The purpose of my book is not to list and describe the content of these works or to give a bibliography on the subject. Rather, its aim is to clarify concepts of piano playing, describe and organize fundamental elements of technique, and indicate how to apply these elements in performance. In a broad sense, technique is the sum total of organized motions executed by the performer. These motions produce sounds that recreate the moods of the composer in the performer's own interpretation.

Technique:
coordination of
motions
according to the
characteristics
of the piano

Many intangibles are obviously involved in this process. Mood, interpretation, improvisation, inspiration, and creativity are terms that are hard to define. They are subject to discussion and to varying opinions and tastes. Technique, however, is a skill—a well-coordinated system of motions conditioned by the anatomy of the human body and the nature of the piano. Even the most complex technical activities can and should be comprehended by anyone who wishes to master them. They can be reduced to their components: motions executed by the fingers, hand, wrist, arm, and body—in fact, by the entire human anatomy. The coordination of this human mechanism is based on simple common-sense principles of physiology and the force of gravity. When you dance or when you play golf, ping-pong, tennis, the violin, or the piano, you are subject to these same conditions whether you know it or not. You might as well be aware of them!

Practicing must
be conscious,
not mechanical

It is not that awareness of these factors is essential to an artistic and inspired performance; in fact, quite the opposite is the case—creative processes are hardly conscious. But the preparation—the innumerable hours spent practicing—must be purposeful, not automatic and mechanical, and it must be consciously controlled by the mind.

While we are practicing we must know what we are doing; otherwise we will waste most of our time. Some of us enjoy practicing for its own sake and are hardly aware of the enormous amounts of time consumed in the process. For the majority of us, it is reassuring to realize that our practice time can be drastically reduced by the conscious application of correct principles and that this kind of practicing produces the best results.

Sustained
muscular
tension: the
cause of fatigue,
ailments, and
poor tone
production

The spectacularly high incidence of ailments among pianists (fatigue, muscle pain, tendonitis, bursitis, and other temporary and chronic afflictions) is primarily the result of faulty practice habits, of excessive tensions, and of muscle-building exercises. These undesirable and troublesome symptoms result from the continuous abuse of our muscular system; they can and must be avoided. I must disagree with the many pianists who believe that muscular fatigue is inevitable when playing the Chopin *Etude*, opus 10 no. 1 or 2, the extended and rapid octave passages of such pieces as Chopin's *Polonaise in A Flat*, opus 53, or Liszt's "Les Funérailles." They attribute their fatigue to the weakness of their muscles, which, they contend, must be built up. Nothing can be further from the truth! The finer, smaller muscles of our forearms move our fingers and are responsible for precision work. When the stronger upper-arm, shoulder, and body muscles are properly activated, they assist the weaker muscles and prevent all causes of fatigue. Our task is to know how to coordinate and activate the stronger muscles within the entire apparatus and to acquire the habit of doing so whenever we play the piano. The purpose of practice is to establish the right habits, not to spend unnecessary hours with mechanical warming-up exercises. Technique must be based not on the strength and endurance of our muscles but rather on their optimal coordination.

All pianistic
problems solved
by a limited
number of
motion patterns
and their
combinations.

Most books on piano playing have certain merits. Some of them, such as Rudolf Breithaupt's book *Die Grundlage der natürlichen Klaviertechnik* (1925), were quite a revelation in their day. Others present valid observations on technique, interpretation, and performance practice. Still others are filled with impressive biological, chemical, and anatomical statistics and resemble nothing so much as scientific textbooks. Obviously all of these aspects must be considered in examining piano technique. But I believe that it is the totality of piano playing that must be understood and described and not just some of its components. In fact, a strict correlation exists between the visual patterns of the score and the technical formulas that we use to interpret them. We may go a step further and state that motion patterns produce and correspond to sonorities that reflect the varying moods of the music. It

Fundamentals explained in their respective chapters.

Technique: the mastery of motions. Motion and emotion to correspond.

Visual and motion patterns interrelated.

is these moods that we aim to evoke in the listener through our own interpretation. Therefore interpretation and technique are indivisible.

This categorical statement and many other principles set down in this book run the risk of seeming either simplistic and arbitrary or not quite clear. I hope you will have the patience to read the respective chapters in which they are explored and save your evaluation until you have read these descriptions. I assure you that I not only formulate principles and rules, but I also describe, explain, and justify them. When the technique of piano playing is reduced to its fundamentals, it turns out to be a skill that is rather uncomplicated and unproblematical, but it is nonetheless a composite one; that is, the individual motions of the fingers, hand, arm, and shoulder are very simple in scope and in function, but they all must be coordinated and synchronized. If any element fails to function, or if it does too much or too little, the entire apparatus is affected. If the playing mechanism malfunctions, tone, touch, phrasing, breathing, the shaping of the music, and the interpretation as a whole are adversely affected. Thus musicianship and technique are inseparable!

This book deals with the technique and art of piano playing. Technique precedes art, and therefore it must be discussed first. In our examination of technique we will be concerned with the human anatomy, sources of energy (muscles and the force of gravity), and the characteristics of the piano. While innumerable motions are involved in piano playing, we can identify them as variants of a very limited number of fundamental motions. These fundamental motion patterns will be properly defined, described, and differentiated; they will then be integrated into the composite activities that comprise piano playing. It will then be necessary for them to be related unequivocally to their counterparts in the score.

In music, as in any kinetic art (such as dancing, acting, or conducting), emotions are expressed by motions; although we are not suggesting that these motions be executed with even a hint of uniformity, we recognize certain fundamental ways in which the motions correspond to and reflect the emotions that generate them. To illustrate this point in a rather obvious way, a delicate, dreamy, and subtle passage in a Chopin nocturne or in a Debussy prelude should not be performed with angular or abrupt motions.

There is one respect in which this book may transcend similar books on piano playing. Here technique will be reduced to a handful of fundamental motions and patterns, the combinations and variants of which form the entire scope of technique. What is of greater importance, however, is that the reader will discover that the types of motion

patterns to be used are indicated by the written score and will have to be identified by him. As we will see, visual features of the music (for example, phrasing, intervallic patterns, dynamics, and the location of notes on the keyboard) have their equivalents in the appropriate motion patterns.

The art of
technique

These motion patterns by no means limit the freedom a performer seeks in his interpretations; instead they serve as guidelines in the choice of technical solutions. The art of piano technique begins at the point where technical problems have already been resolved and where a sophisticated technique serves the creative purposes of the interpreter.

Contents

Preface	ix
The nature of technique — conscious practicing — fatigue and ailments — the mastery of motion patterns — motion and emotion	

Part One The Determining Factors in Piano Technique

Chapter 1: Music, Motions and Emotions	3
Modification of sound and human emotions — composer, performer, listener — coordination, independence, and interdependence — force of gravity and the muscles — pressure, weight, and stress — tone quality	
Chapter 2: The Piano	10
The most complete instrument — forerunners of the piano — transcriptions and ornamentation — the hand's reach — sound production — volume and tone quality	
Chapter 3: The Human Performing Mechanism	16
Coordination of the small and large muscles — extensors, flexors, biceps, and triceps — fingers, hand, forearm, and upper arm — the shoulder — torso, back and chest muscles, and the diaphragm — sitting positions — the feet and the bench	

Part Two Basic Technical Patterns

Chapter 4: Free Fall	37
Gravity and our muscles — the role of weight — lifting, drop, landing, and rebound — guidelines, exercises, and examples	
Chapter 5: Five-Fingers, Scales, and Arpeggios	52
Anatomy of the fingers and thumb — horizontal and vertical adjusting motions — use of the thumb — the upper arm and the body — shifting in arpeggios — note groupings and legato — use of the damper — phrase endings — guidelines, exercises, and examples	
Chapter 6: Rotation	79
Anatomy of the forearm — pronation and supination — axial rotation — fingers, forearm, and elbow — lateral motions — guidelines, exercises, and examples	

Part Three
Technique
Becomes Music

Chapter 7: Staccato **93**

The "wrist" staccato — roles of the fingers, hand, forearm, and upper arm — lift and rebound — white and black keys — staccato and legato octaves — guidelines, exercises, and examples

Chapter 8: Thrust **108**

Thrust versus free fall — when to use thrust — guidelines, exercises, and examples

Chapter 9: Summary of the Basic Technical Patterns **115**

Five motion patterns and the score — the slur as modifier of technique — the wrist and phrasing — variety in the application of staccato — the trill

Chapter 10: Identification and Application of the Basic Technical Patterns **141**

Symbols for the five basic motions; wrist positions and touch forms — skill and artistry — how to play the exposition of Beethoven's "Waldstein" Sonata — a variant of a familiar basic motion

Chapter 11: Independence and Interdependence **155**

The goal: coordination, not muscle building — the principal adjusting motions — active and passive motions — finger exercises — the human warning system

Chapter 12: The Pedals **161**

Evolution of the pedal — pedal nomenclature — uses of the three pedals — pedal markings — partial pedals and the pedal tremolo — the pedal in Baroque and pre-Baroque music — combining pedals — the ear as master

Chapter 13: Singing Tone **179**

The expressive capability of the piano — the role of the equipment — cushioning or pressure — the piano as "love object" — the shoulders and the role of weight

Chapter 14: Practicing **183**

Mechanical versus conscious practicing — varying rhythmic patterns — slow practice — metrically uneven practice — the conscious, subconscious, and automatic centers — creativity — mental practice

Chapter 15: Memorization **192**

Why memorize? — when to memorize — visual, acoustic, motoric, and intellectual memory — memory slips

Chapter 16: Musical Diction **198**

The language of music — upbeats and downbeats — means of emphasis — flexibility — crescendos — the "negative" emphasis — ornamental passages — appoggiaturas and grace notes — ritardando and accelerando — the intangibles — tension and release — the piano as orchestra — the human voice — singing tone at any cost? — rubato — the fermata — slurs — national and regional characteristics

Chapter 17: Public Performance 220

Performance: the ultimate issue — the performer as teacher — the expected and the unexpected at concerts — physiological and psychological factors — establishing the right tempo — the telling pause: on stage and in the recording studio — criteria for recordings versus live performances — the audiovisual film

Chapter 18: Mannerisms and Excess Energy 227

Mannerisms: manifestations of excess energy as a gauge of a well- or malfunctioning technique — spontaneous and cultivated mannerisms — “showmanship” — the value of slow, flexible movements — a mannerism sampler — “yes-yes” and “no-no” — walking on and off stage — beware of excess energy!

Index 231

PART ONE

**The Determining Factors
in Piano Technique**

CHAPTER

1

Music, Motions and Emotions

Music begins with modification of pitch, volume, timbre, and duration of sound.

Sound modifications reflect motions; motions reflect emotions.

The human ear responds to sounds and noises within a limited range of pitch and volume. We cannot hear sounds above or below certain pitches—namely, above 25,000 and below 20 vibrations per second, approximately. Nor can the ear distinguish extremely soft or loud sounds. As to music, I would not attempt to formulate a precise definition, but I'd be satisfied to live with the assumption that sound alone, without variation in pitch, timbre, or intensity is not music. Not unless we have a certain modification in any or all of these characteristics will sound turn into music. The sound of a foghorn, of a stationary beep, or even of any one note played on the organ with unchanging volume and color does not impress one as music; what transforms sound into music is its alteration. The expressiveness of music depends on the degree and quality of change of pitch, color and volume. When a musical instrument produces variances in pitch, dynamics, or color, then we may have music. Although I will not elaborate further on this topic now, I would like to submit that it is the motions used to alter the sound that determine how sound changes, how music develops, and what it expresses. The manner in which a pianist attacks the keyboard, the way the violinist uses his bow arm and fingers, and the way singers and wind-instrument players control their breath determine the quality of the tone they produce. Their music is the result of the motions they employ. In other words, the subtleties of their sound production arise from the motions that created them.

That is why technique cannot be separated from music and why faulty technique results in faulty music. One must achieve a well-coordinated correct technique in order to produce a beautiful varied sound expressive of all the infinite shadings of human emotions. Yet the sound we produce does not always have to be beautiful—if we choose it not to be. We are dealing with the entire range of human emotions, and beautiful sensations and experiences are not the only feelings we wish to express.

Just as motions and sounds are interrelated, so are motions and emotions. Sounds are the result of motions, and motions must correspond to emotions. Although emotional responses to music are individual, they should always manifest themselves in a manner that corresponds in degree and quality to the feelings of the composer. Obviously the mood that inspired Chopin to write some of his gentle, lovely nocturnes is not evoked by spastic, sudden, angular, or over-tense motions. Nor should one respond to the tempestuous vehemence and ecstasy of a Scriabin etude with dreamy, subtle gestures. Whether repressed or not, the degree and intensity of a pianist's feelings are expressed by the motions of his physical organism; these motions are transmitted through the piano and generate the same responses in the listener.

Composer,
performer,
listener

The chain of events is therefore established: we go from emotions to motions (technique) and from motions to sounds (music). The complete cycle in the creation of music is rather simple too: the emotions that prompt the composer to create his music are expressed by his music. When this music is notated, it becomes visible (musical score). The performer's role is to recreate the music (and the emotions that inspired its creator) in a manner that generates similar moods in the listener. The important link in this chain is technique—the motions employed by the performer to recreate the music. Under ideal circumstances, the listener's emotions are evoked by music played by the performer, whose mood and emotions reflect those of the composer. The performer's competence hinges on whether or not he interprets the written text according to the composer's indications and whether his technique (motions) corresponds to the emotional content of these indications.

This explanation may seem repetitious to some; to others it may seem like an oversimplification of a rather complex and subtle procedure. What I am trying to describe is the sequence of the composer's, performer's, and listener's roles in creating, recreating, and responding to music. I do so to call attention to a fundamentally important factor: the written image of music (the notes) indicates with unequivocal clarity the type of motions (technique) to be employed in the process of performing the music. The notated score establishes an absolutely clear connection between emotions and motions. One will find in the visible image of the music the corresponding motion patterns that provide the technical solution for any particular passage.

Limited number
of fundamental
motion patterns

One must simply organize the innumerable movements of the human body into a few clearly defined fundamental motion patterns, which form the essence of technique, and identify these with the visual patterns of the music itself. It is easy to do so because the human anatomy is basically the same all over the world and has been so from

time immemorial, certainly so since the invention of the piano. Given this uniformity, it is possible for us to establish human motion patterns that are basic to piano playing. Yet there is a welcome and limitless variety within this uniformity: the size, weight, and proportions of the components within the body are different for each individual. This variety in body types provides an unlimited variety of movements within these fundamental motion patterns. Thus every individual can produce his own distinctive sound—his own tonal palette of touch and color—when playing the piano.

Practicing: the establishment of habits through conscious repetition

The descriptions and groupings of these basic motion patterns are provided in the appropriate chapters. In order to develop a good technique the student and performer must learn and master these motion patterns—that is, he must make them an innate part of his physical movements. After he determines the specific motion pattern required from the score, he then applies it to the music. The practicing of technique is nothing other than the process of assimilating motion patterns through repetition. If these motions are executed correctly and consciously, relatively few repetitions will suffice. Practice methods will be discussed more fully in chapter fourteen; for now I'd like to suggest that once our motion habits have been correctly and firmly acquired, a need to practice technique no longer exists. All we need to do then is to apply these motion patterns to our repertory. Our technique continues to improve, and it becomes an obedient tool in our search for musical interpretation.

Coordination

Let us assume that most people who study music and are practicing musicians were born with a certain degree of coordination. The innate coordination of the human body enables us to survive, to function in our daily life, to move about, and to respond to challenges. If our coordination is properly developed, it may enable us to achieve peak accomplishments. Breaking world records in swimming, running, or pole vaulting and developing an exceptionally brilliant and expressive technique as a pianist or violinist are matters of coordination of the highest order. Besides training their coordination skills athletes must also build endurance and muscular strength, but musicians only need to develop coordination. We do not build strong muscles; instead we learn to activate the ones that are already strong and to use them in collaboration with the weaker ones in order to help them. Using the strong muscles to help the weaker ones is the essence of coordination, and this kind of skill is what we must put in the service of art. Tempting as it may be for some, music and practicing need not be regarded as athletic activity.

Don't build muscles; coordinate them.

There are many ways to practice this coordination—this interdependence of the entire body. Practicing to develop independence of the fingers from one another has its merits too, but we should be

Inter-
dependence vs.
independence

Practicing, not
performing, is
our present
concern.

Volume of
sound
contingent upon
speed of
hammer

careful in its application. As a rule these exercises abuse the forearm muscles by fixing and forcing them; they are based on the erroneous idea that our forearm muscles become tired because they are weak and therefore have to be strengthened by exercises. In fact, they become tired because they are being abused! What we may possibly gain in independence of the fingers, we will lose by disrupting the interdependence of the entire apparatus. Actually, nothing is gained, as I will explain in chapter eleven. Now I will simply say that finger exercises are useful only if they serve to create interdependence. By consistently placing the arm in the correct position for each and every finger, we relieve strain and avoid the overall fixed position that causes strain. The aim is not to strengthen muscles but to learn to synchronize them in the most effortless way. Any strain you feel in the arm is a sure warning that the muscles have been abused and are calling for help. We have mentioned some of the ailments (tendonitis, ganglia, bursitis) that result from faulty practice habits, continuous abuse of the muscles, forcing and fixing the joints, and extended pressure on the keys.

Our main concern now is not the unsuccessful performances that result from these wrongs, but all the damage caused during the countless hours, weeks, and years spent practicing. How much discomfort and suffering we must put up with! They can and must be avoided, especially since pianists have an enormous repertoire to cope with, larger than any other instrumentalist, and cannot afford to waste time and energy on wrong practice habits. With all the frustrations of strenuous practicing, many pianists become either discouraged or obsessive about proving themselves and will make a virtue of punishing themselves in the name of Art. It is for this reason that many people measure the quality, depth, and value of art by the amount of suffering poured into it. My apologies for sounding glib, but I wish merely to make the point that the mechanics of piano playing ought to be completely painless, enjoyable, and gratifying whether one practices or concertizes.

Our observations about the correct functioning of the human anatomy must be related to the characteristics of the piano itself. As we know, the sound of the piano is produced by hammers striking strings. The volume of the sound depends exclusively on the speed with which the hammer hits the string. It is important to realize this mechanical fact, since many confusing things have been said about weight, mass, force, strength, pressure, and, last but not least, about relaxation. The old school of piano playing emphasized "finger" strength. While this kind of technique sufficed for the harpsichord, clavichord, and organ, it became completely unsatisfactory for the modern concert grand piano. The strain on the muscles was such that a new approach had to be developed, and that new approach was

Relaxation?

called weight technique. By using weight instead of force, considerable relief was felt in the abused muscles: thus appeared the school of relaxation. Unfortunately, although this method became very popular, it wasn't satisfactory either. Use of weight in itself merely achieved a relatively comfortable sensation in the arm and body, compared to the tenseness inherent in the old technique. However, the "relaxed" muscles now tended to play sloppily, unevenly, and inaccurately, and they could not be controlled like the tense muscles. It should be obvious that there is no such thing as complete relaxation during piano playing: some of the muscles work some of the time, others relax, and one must identify those that are to be activated.

Sources of energy: force of gravity and the muscles

I have mentioned before that volume of sound is contingent on hammer speed. In order to mobilize the playing apparatus and generate the desired speed in the hammers, there are no other but two sources of energy available: the force of gravity, which pulls everything down toward the center of the earth, and muscular energy, or the force of our own muscles, which pulls the finger and the arm toward the affixed portion of the contracting muscles. These forces, and their combinations, provide all the sources of energy available to activate the entire playing equipment. The force of gravity helps immeasurably if the mass of the playing equipment is exposed to it judiciously. Most of the time, it is the participation of both energy sources that provides the optimal solution. Our aim is to achieve the greatest results with the least expenditure of energy. It will be up to us to determine when to utilize the force of gravity exclusively, when to use muscular energy exclusively, and when and how to combine both. Total relaxation is nonexistent in piano playing. Even when we rely purely on the force of gravity, we must use the necessary muscular equipment to lift and place the arm and hand in their proper positions. Most motions are executed by antagonistic sets of muscles: while one group (for example, the flexors) works, the other group (extensors) relaxes. Partial relaxation alternates with muscular activity at all times; complete relaxation exists only if we lie down and rest.

Position of equipment when activated

Our task is to determine what the position of the various components of the playing apparatus should be at activation, what groups of muscles should be activated, and how these muscles should function in order to achieve optimum results both technically and musically. What we seek is the maximum expression with the least expenditure of physical energy. One should not mistakenly equate inner intensity with continuous muscular tension, nor cultivate inner tension by stimulation of muscular activities (pressing the keys).

Pressure?

We must remember that once the piano's hammer strikes, we cannot alter the sound by any subsequent activity. Pressure and extended leaning on the keys (a futile throwback to the *Bebung* of the clavi-