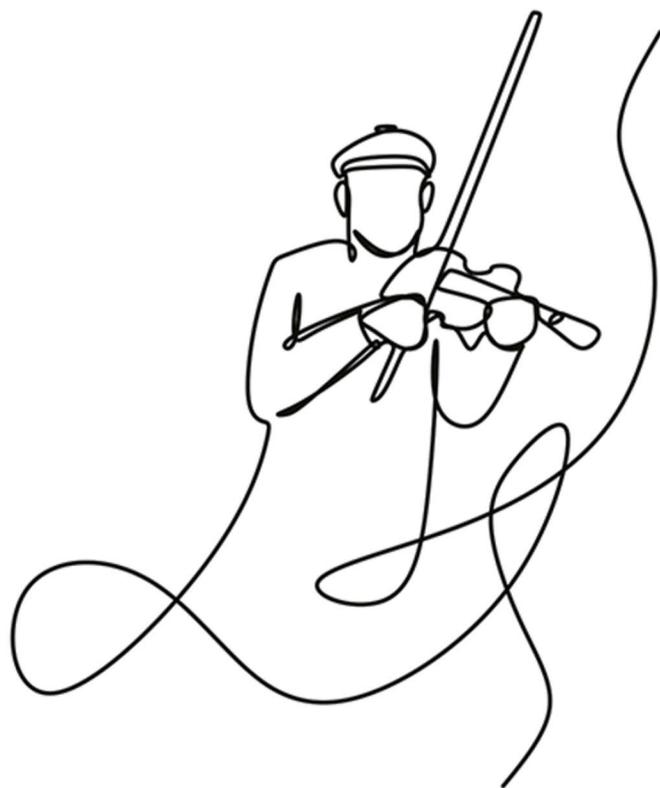


Practicing Music by Design

Historic Virtuosi on
Peak Performance



Christopher Berg

PRACTICING MUSIC BY DESIGN

Practicing Music by Design: Historic Virtuosi on Peak Performance explores pedagogical practices for achieving expert skill in performance. It is an account of the relationship between historic practices and modern research, examining the defining characteristics and applications of eight common components of practice from the perspectives of performing artists, master teachers, and scientists. The author presents research past and present designed to help musicians understand the abstract principles behind the concepts. After studying *Practicing Music by Design*, students and performers will be able to identify areas in their practice that prevent them from developing.

The tenets articulated here are universal, not instrument-specific, borne of modern research and the methods of legendary virtuosi and teachers. Those figures discussed include:

- Luminaries Franz Liszt and Frederic Chopin
- Renowned performers Anton Rubinstein, Mark Hambourg, Ignace Paderewski, and Sergei Rachmaninoff
- Extraordinary teachers Theodor Leschetizky, Rafael Joseffy, Leopold Auer, Carl Flesch, and Ivan Galamian
- Lesser-known musicians who wrote perceptively on the subject, such as violinists Frank Thistleton, Rowsby Woof, Achille Rivarde, and Sydney Robjohns

Practicing Music by Design forges old with new connections between research and practice, outlining the *practice* practices of some of the most virtuosic concert performers in history while ultimately addressing the question: How does all this work to make for better musicians and artists?

Christopher Berg is a Carolina Distinguished Professor at the University of South Carolina School of Music, where he runs the classical guitar program.



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Historic Virtuosi on Peak
Performance

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First published 2019
by Routledge
52 Vanderbilt Avenue, New York, NY 10017

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

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Library of Congress Cataloging-in-Publication Data

A catalog record for this book has been requested

ISBN: 978-0-367-19006-4 (hbk)

ISBN: 978-0-367-19007-1 (pbk)

ISBN: 978-0-429-19979-0 (ebk)

Typeset in Bembo
by Apex CoVantage, LLC

What should they know of England who only England know?

—RUDYARD KIPLING



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PREFACE

In the Spring of 2016, after I had finished reading the last of a half-dozen recent books on the development of expert skill, fleeting thoughts that had cropped up in my reading coalesced into a steady chorus. These short-lived thoughts were things like “Mark Hambourg wrote something similar in 1922,” or “I wonder if the author is familiar with Theodor Leschetizky’s teaching?” and “This is different from what’s recommended in some guitar methods.” The idea behind *Practicing Music by Design: Historic Virtuosi on Peak Performance* began with the recognition that there was a relationship between the recent neurological, psychological, and physiological research that informed these modern books and the practices of legendary performers and teachers of the past.

Practice occurs behind closed doors, and usually only its product can be observed by others. Who can infer the complexities and subtleties of a process by witnessing only its product? To put it crudely, who can infer the existence of a pig from seeing only a sausage?

Practice purports to lead to an artistic and creative performance of a piece of music, and although the quality of performance depends on the quality of practice, *performance as an act* has little in common with the innumerable acts of practice that make a performance possible. This doesn’t mean that practice and performance are not inextricably bound together, but what drives the creation of the most potent connections between the two?

This book is about the formation of the most artistic and technically rewarding of these bonds: the *drivers* of good practice. Why do *this* instead of *that*? And why do it one way as opposed to another? What does one need to know, or be able to do, before taking on advanced works? Why break a piece up into smaller sections instead of playing through the entire work repeatedly? Can mental work enhance physical skill? How does that work? Why practice slowly, other

than because your teacher says to do so? How does one bring artistic interpretations into being? What personal traits interfere with or enhance practice? What is the relationship between the study of technical exercises and the repertoire we wish to play? How do we recognize and work on problem areas in a piece? Why do some live performances on stage not feel as secure and brilliant as the previous day's run-through in the practice room? How does all this work to make us better musicians and artists?

Some method books and advice about practice are simply accounts of what the author thinks is effective or beneficial. These writings often consist of prescriptive or proscriptive advice such as "Do this for thirty minutes, and this for another twenty minutes, but don't practice any more than four hours a day," and so on. The *how* and *why* behind the *what* of practice are seldom explored. There is rarely reference to other books in the field or research that corroborates an author's statements. Instead, these works exist as atomized monologues, or as Rowsby Woof (1883–1943) put it in his *Technique and Interpretation in Violin-Playing* from 1920: "It is perhaps natural to most people to rate their own experiences too highly, and to imagine that their own classifications of old doctrines are new—not merely as regards classification, but also as to the doctrines themselves."¹

The great cellist Pablo Casals (1876–1973) gave a succinct summary of the defects of such works in the preface to Diran Alexanian's (1881–1954) *Traité Théorique et Pratique du Violoncelle* in 1922: "[A] great number of [methods] have passed through my hands, strengthening each time my conviction that only routine and empiricism contributed to the production of such works."² It will likely be a surprise for readers to learn that an older but now obsolete meaning of the word "empiricism" given in the Oxford English Dictionary is "a reliance on previous experience, unsystematic observation, or trial and error, rather than formal learning or an understanding of underlying principles." The OED gives an example of the word used this way as recently as 1969, and this is undoubtedly the meaning Casals intended in 1922.

Written advice about music practice most often occurs in books that are instrument-specific. Although there are certainly instrument-specific attributes that might call for variation in the application of the tenets I explore in this book, the ideas behind these tenets are universal, as borne out by modern research. If you're looking for a simple "how-to" book with lists of practice routines or possible quick fixes, this is not it. *Practicing Music by Design* is more of a "why-do" book. If serious musicians and teachers are to change or refine their practices, it is necessary that they understand why. Without understanding, one is left vulnerable to boredom and frustration and is liable to waste time trying to solve symptoms of problems rather than actual problems.

I hope to show the relationship between documented practices of legendary artists from the past and recent neurological, psychological, and physiological research on the development of high-level skill. Although the artists I discuss

had unique artistic voices, there is a consistency in the way they developed these voices. Herbert Whone put it nicely in *The Simplicity of Playing the Violin* from 1972: “What is intended is that a basic and universal logic should be understood in order later that individual characteristics may flourish.”³

There is more than the universal logic of one’s instrumental discipline that needs to be considered, however. High-level practice and performance include the development and mastery of many separate skills and sensitivities. We’ll hear from legendary musicians, but we’ll also hear from those with expertise in neurology, psychology, physiology, and creativity. Along the way, perhaps we’ll notice that Theodor Leschetizky’s teaching may have anticipated the work of Nobel Laureate Charles Sherrington or Frederick Matthias Alexander; that Frederic Chopin and guitarist Fernando Sor may have anticipated the way that today’s psychologists understand the difference between “rule learners” and “example learners”; that Ivan Galamian’s practices were identical to concepts later developed by psychologist Robert Bjork; and that violinist Achille Rivarde’s ideas about the dangers of approaching a work with preconceived notions is echoed in later research by Mihaly Csikszentmihalyi on creativity and problem-*finding*. And that almost all great performers understood the technical and artistic benefits of incorporating variety in their practice. Once these links are understood, readers will have a point of reference to help them recognize practices that might dull their ears, imaginations, and artistic perceptions.

The books on developing exceptional skill that I read in 2016 explore how modern research can improve athletic and academic performance. These books are invaluable to us because it’s unlikely a performing musician will be familiar with journals such as *Psychological Science*; *Trends in Neurosciences*, *Neuropsychologia*, *Behavioral, and Brain Sciences*; *Cognitive Brain Research*; *Journal of Verbal Learning and Verbal Behavior*; or the *Journal of General Psychology*, to name a handful of the sources modern authors use to develop and support their arguments.

This neurological, physiological, and psychological research confirms the efficacy of the way many legendary artists of the past studied and practiced as they acquired high-levels of virtuoso technique and musical artistry. Their writings—or writings about them—allow us to see practices in action that would be substantiated by research that would occur decades later. Among these artists are Franz Liszt and Frederic Chopin; legendary performers such as Anton Rubinstein, Mark Hambourg, Ignace Paderewski, Josef Hofmann, Alfred Cortot, Josef Lhévinne, Sergei Rachmaninoff, and Walter Gieseking; the extraordinary teachers Theodor Leschetizky, Rafael Joseffy, Leopold Auer, Carl Flesch, and Ivan Galamian; and lesser-known musicians who wrote perceptively about developing high-levels of artistic skill on their instrument, such as violinists Frank Thistleton, Rowsby Woof, Achille Rivarde, and Sydney Robjohns.

Through a series of books, interviews in anthologies such as James Francis Cooke’s *Great Pianists on Piano-Playing* (1913); Harriette Moore Brower’s two

volumes of *Piano Mastery* (1915 and 1917);⁴ and articles in popular music magazines such as *The Etude*, *The Musical Times*, or *The Musical Courier*, practice practices are presented that have been empirically tested by outstanding artists and confirm the results of later research. This confirmation takes the form of brilliant concert careers, historical recordings, written accounts of performances, and pedagogical successes. Musicians able to see the agreement between these approaches to practice and modern research will be able to design extraordinarily dynamic and rewarding practice sessions.

Eight components, or tenets, of practice turn up consistently in the writings of legendary artists and teachers (not all did write—much like today): building a foundation of knowledge and skill, chunking, mental work, slow practice, variety in repetition, continuity, phrase-storming (my term), and an openness to feedback and self-criticism. These eight components parallel concepts presented in recent literature that explore how brain and body learn best. Familiarity with these ideas can improve one's mental understanding and perceptions, physical skills, ability to generate and effect artistic ideas, and enhance the relationship among the three.

The first chapter of *Practicing Music by Design* lays the groundwork for why a detailed exploration of these ideas is important. The succeeding eight chapters examine the defining characteristics and applications of each from the perspectives of performing artists, master teachers, neurologists, physiologists, and psychologists.

Notes

1. Rowsby Woof, *Technique and Interpretation in Violin-Playing* (New York and London: Longmans, Green and E. Arnold, 1920), iii.
2. Diran Alexanian and Frederick Fairbanks, *Traité Théorique et Pratique du Violoncelle; Theoretical and Practical Treatise of the Violoncello* (Paris: A. Z. Mathot, 1922), 3.
3. Herbert Whone, *The Simplicity of Playing the Violin* (London: Victor Gollancz Ltd, 1989), 16.
4. To distinguish between these two volumes, after the initial reference I will always include the year, and I will always include the words "Second Series" in the short form of the title for the second book. (The first volume was not called "First Series.")

Sources

- Alexanian, Diran, and Frederick Fairbanks. *Traité Théorique et Pratique du Violoncelle; Theoretical and Practical Treatise of the Violoncello*. Paris: A. Z. Mathot, 1922.
- Whone, Herbert. *The Simplicity of Playing the Violin*. London: Victor Gollancz ltd, 1989.
- Woof, Rowsby. *Technique and Interpretation in Violin-Playing*. New York and London: Longmans, Green and E. Arnold, 1920.

ACKNOWLEDGMENTS

This work was originally intended to serve as a guide for my students to help them understand the reasons behind the practice advice I give them, especially when that advice seemed counter-intuitive or was contrary to cherished popular mythologies connected to an admired artist. I had no thought of publication until pianist Marina Lomazov, my colleague at the University of South Carolina School of Music and who now teaches at the Eastman School of Music, read an early draft of the book and asked if it was available publicly. I offer my thanks to Marina for helping me see that perhaps this book could find an audience beyond those who study with me.

I am especially grateful to Constance Ditzel, Senior Editor at Routledge, for skillfully guiding me through the steps leading to the final submission of my manuscript. Thanks are also due to Marie Louise Roberts, who managed the project, and the excellent copyeditors who made my prose easier to read.

Pianist, singer, and historian Susan Parker Shimp, my friend and sometime duo partner, read early drafts of the manuscript and provided numerous insightful comments.

Cellist Robert Jesselson, friend and colleague at the University of South Carolina, also read an early draft of the manuscript and offered many suggestions. His comments, along with numerous conversations throughout our four-decade friendship, have been particularly helpful.

I am also grateful for two serendipitous but well-timed email exchanges that were initially unrelated to the book. Phillip Ulanowsky, my best friend and roommate from high school, began to send me material about his father, pianist Paul Ulanowsky, a member of the well-known Bach Aria Group. Phillip sent me an unpublished address his father had given in 1962. Within this address was material that was tailor-made for the opening of chapter 6.

Pianist Sara Davis Buechner and I had corresponded about how our paths had crossed while I was a student at Peabody Conservatory. She sent me an address she had given in honor of her teacher, Reynaldo Reyes, on the occasion of his retirement from 50 years of teaching at Towson University. Within this touching and wonderful talk, I found the perfect way to end chapter 5.

Each of you has my gratitude, and the book is better because of you. The responsibility for errors or confusing writing lies solely with me.

Finally, my family has been preternaturally patient with me, especially as I became increasingly distracted in my everyday life as I tried to give form and expression to the inchoate mass of material swirling around in my head.



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1

INTRODUCTION

It hardly needs stating that the ways in which people experience music have changed throughout the centuries. Some ways of hearing live music have been at court, a concert hall, salon, or buying a score and playing it yourself at home. Exposure to recorded music has been through listening to the radio, 78s, 45s, LPs, cassettes, CDs, MP3s, and ubiquitous distribution channels on the internet.

Courts, cassettes, and crackly 78s are gone, but there are still concert halls, recitals, and people making music at home, although the latter is surely rarer than it once was. Despite the ease of creating music with samples and virtual instruments, classical musicians make music with real instruments in performance settings. It takes years of study and practice to do this with fluency and artistry. Those involved in working to master an instrumental discipline, studying, interpreting, and performing concert literature at the highest level do most of this work behind the closed door of the practice and teaching studio.

The level of technique required to master an instrumental discipline may have expanded over time, often in response to compositional innovations, an increased awareness of how to use ourselves better, or in response to changes in the instrument itself, but what goes on behind the studio doors of master musicians—the tenets of high-level practice that I explore in this book—has scarcely changed. Great artists of the past were aware that there were ways of working that could help them assimilate material quickly; attend to technical and artistic refinements; recognize and solve problems; and prevent their ears, aesthetic senses, and imaginations from growing dull. These artists—like many today—may not have known why these practices worked, but their writings, or writings about them, reveal ways of working that anticipated later neurological, psychological, and physiological research.

2 Introduction

These legendary musicians also pointed out practices they saw as hindering students' technical and artistic development. These faulty practices usually centered around a reliance on imitation and mindless repetition at the expense of solid foundational work and learning to recognize and reduce problems to their basic level.

The essential problem of teaching and practice is that good teachers try to have their students fulfill as many of the criteria of the advanced, fast, or complicated version of something as they acquire the skill and knowledge of the elementary, slow, or simple version of the thing. This isn't possible all the time, but skilled teachers are attuned to this and are adept at recognizing when it is possible. Students of these skilled teachers don't need to know these advanced criteria, but they have been prepared to meet these criteria in the future. Those teaching themselves won't have an awareness of these advanced criteria, only their product, which isn't the same thing.

Although I want the ideas explored in this book to be of immediate and practical value to students and teachers as they design, or redesign, their practice, it may not be possible for an inexperienced student to make use of this material right away without expert guidance. I explore tenets of practice in terms of their *practical* value, but I also explore the *concepts* that corroborate these tenets, which can lead one to more polished and refined ways of working in the future. The application of concepts to particular situations is "know-how"; first-hand knowledge of the concepts themselves requires cultivated thought.

Cultivated thought about practice can help students understand the differences between the limits of a skill that's undeveloped because not enough time has been spent on it, the limits of a skill that's undeveloped because of the way in which one has been working, or the limits of a skill that is undeveloped because of the constraints of the central nervous system. To the inexperienced ear and eye, these limits appear the same, but learning how to work better can help one override certain constraints of the central nervous system and is a distinctive feature of exceptional skill. When these differences are not understood, progress can become stalled and practice increasingly futile. When practice is viewed simply as know-how, it can become a confining checklist that reveals nothing of its origin, its value, or its purpose. By drawing parallels between the practices of legendary performers of the past and modern research, I hope to remove the opacity of how one develops the skill to create compelling artistic interpretations.

An approach such as this is cultivated *and* practical: cultivated because it opens a path to spacious thinking about practice; practical because practices are validated by their *efficacy*, as demonstrated by the outstanding careers and pedagogical successes of those from whom I draw. Too often, though, students confuse *efficacy* for *expediency*. In music study, the expedient should be linked to the highest levels of artistry. It takes years to grasp the boundlessness of artistic possibilities, and it's easy for one's concept of expediency to be shaped only by the