Introduction

Figured bass is a system of notation invented by European musicians around 1600 to indicate improvised harmony, typically within otherwise written-out music for an ensemble. It consists of numerals ("figures") as well as accidentals and sometimes other symbols placed above or below the notes of a bass line. In a score, figured bass notation is typically found on the bottom staff, which is designated the basso continuo (or just continuo). To execute a continuo part on a keyboard instrument, one plays the bass line with the left hand while realizing the figures with the right.

First used in Italy, figured bass was gradually adopted elsewhere and by 1700 was a nearly universal feature of European music for both instrumental and vocal ensembles. Composers continued to include figured basses in certain types of musical scores through the first decades of the nineteenth century. The ability to read figured bass notation and realize it on keyboards and other instruments—that is, to convert the symbols into sounding notes—was therefore an essential practical skill for European musicians until at least the mid-nineteenth century. It has continued to have a place in the teaching of tonal music theory, and it remains essential for understanding the music of the Baroque, Classical, and even early Romantic eras.

Modern editions of music often include written-out realizations of figured bass parts. Yet editorial realizations do not always follow the instructions or advice given in historical sources, and a player on harpsichord or lute will not be able to use a realization created with piano or organ in mind. Besides, many performers will wish to create their own realizations. Many authors, modern as well as historical, have offered guidance not only for the realization of figured bass notation but also for the related art of converting a theoretically correct realization into a stylish, idiomatic accompaniment for voices or for other instruments. Few writings, however, have focused on the specific skill of improvising two or three simple yet elegant parts above a figured bass.

That is the subject of the present guide, which comprises four elements:

the verbal text (Chapters 1–12);
musical examples (called Illustrations), which are interspersed within the verbal text;
the musical Exercises, which are meant to be printed separately from the verbal text;
and an Appendix containing written-out realizations of selected Exercises.

The Exercises consist of figured bass lines to be realized at the keyboard. There are about 120 Exercises, averaging about 12 measures in length. These are the central portion of the work, for which the text serves as instruction and commentary. The Exercises provide practice in the most common progressions found in Baroque music, beginning with simple ones and proceeding gradually to more complex, difficult ones.

Those already practiced in figured bass realization might proceed directly to the Exercises. Others will want to read the text, which provides detailed step-by-step instructions for realizing each Exercise. The text is best read with an instrument close at hand, so that one can play each

Illustration as it comes up in the text. It will also help to keep the Exercises handy, so that these can be tried out as one reads the verbal text.

Not every reader will have the time or patience to practice and perfect every Exercise. But just reading the text and playing the Illustrations and Appendix entries for the later chapters will deepen appreciation for the contrapuntal character of figured bass realization, as it is envisioned here. Not only performers of early music but anyone teaching tonal music theory or studying, performing, or editing Baroque and Classical music will benefit from becoming conversant with the progressions that form the basis of the Exercises. Right through the late nineteenth century, familiarity with these progressions was taken for granted by musicians trained in the European classical tradition.

For Practiced Readers

> No one can be content any longer with an accompanist who merely reads and plays figures in the manner of a born pedant, one who memorizes all of the rules and follows them mechanically.
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> —C. P. E. Bach, *Essay on the True Manner of Playing Keyboard Instruments,* vol. 2 (Berlin, 1762), introduction, para. 10

> Almost no one . . . is content to perform only the essential graces; the majority feel moved to invent variations or extempore embellishments. In itself this inclination is not to be condemned, but it cannot be realized without an understanding of composition, or, at least, of figured bass.
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> —Quantz, *Essay On Playing the Transverse Flute* (Berlin, 1752), chap. 13, para. 2

With these remarks, two influential composers and players noted how important it was for an eighteenth-century musician to be familiar with figured bass realization. Emanuel Bach, the second son of Johann Sebastian, was warning against a mechanical approach to realization in which players memorized a few simple chords and produced them automatically in response to a stereotyped set of symbols. Quantz, the leading flute-player of the late Baroque and court composer for King Frederick the Great, explained that knowledge of figured bass was as essential for composition and the improvisation of ornaments as it was for the playing of an accompaniment. Sebastian Bach commenced the teaching of composition with figured bass realization, and he may have used something like figured bass to *analyze* music, anticipating Heinrich Schenker by some 175 years.[1]

Readers eager to begin their study of figured bass realization might skip ahead to the Introduction and the numbered chapters. This preface sketches a background to the study of figured bass and explains the rationale underlying the present approach.

The expression *figured bass* refers to both a type of notation and a set of performance practices. As a form of notation, it consists of a bass line of whose notes are accompanied by numbers (figures) and other symbols such as accidentals, which are placed above or below the staff. Today these figures, as I shall term both types of symbol, are usually regarded as referring to chords. Indeed, the player—harpsichordist, organist, lutenist, or even pianist or cellist in some late examples—usually thinks of the figures as calling for sonorities added above the bass line.

Figured bass, however, originated as shorthand for the polyphonic music of the later sixteenth century. A keyboard player expected to double the vocal or instrumental parts could, instead of copying a complete score, might write out only the bass line. By the beginning of the seventeenth century, this copy might include figures, which therefore represented not so much chords as voices. Hence figured bass represents not harmony (in the modern sense) but

[1] See Alfred Dürr, “Ein Dokument aus dem Unterricht Bachs,” *Musiktheorie* 1 (1986): 163–70.

counterpoint. The modern idea of chords as the basis of harmony was fully articulated only by Rameau in the early eighteenth century. Before the nineteenth century, the word *harmony* usually meant something closer to what we would call counterpoint. Well before the end of the Baroque, around 1750, the original function of the keyboard as doubling the other voices of a composition had disappeared. Yet the polyphonic nature of harmony was not forgotten, at least not by thoughtful writers, players, and composers.

Players of the lute and other non-keyboard instruments may wish that the present work catered to their interests. The author, however, is a harpsichordist and could not have written usefully for other media. Besides, there is a reason why even singers and woodwind soloists were learning to play keyboard instruments by the eighteenth century: only on instruments of that type can one readily play in consistently good three- or four-part harmony. Other types of harmonic practice were cultivated during the Baroque. But to perform the Baroque repertories most commonly heard today, including the music of Bach, Corelli, and Rameau, it helps to master the more exacting skill of improvising harmony idiomatic to keyboard instruments.

As a performance practice, figured bass realization is relevant not only to the Baroque but to much of the music of the Classical and even the early Romantic periods. During more than two centuries, from around 1600 to after 1800, the instruments and the types of realization used for continuo parts varied enormously. Hence continuo playing is a very broad subject, and it would require a work of encyclopedic scope just to mention every aspect of it. Yet all music that uses figured bass is essentially tonal and uses the same types of voice leading. The same basic rules of counterpoint always apply, and certain progressions of chords or harmonies occur repeatedly. Thus one can speak of structures or procedures common to all compositions that include a figured bass.

This book aims at teaching those structures and procedures. It is a *practical* manual—a guide to what to *do* when confronted by particular combinations of notes and figures. It presents systematically all the most common chords and their progressions. Thus, in introducing the triad (5/3-chord), Chapter 1 deals separately with bass lines moving by fifth, by third, and by step, for each type of bass motion involves distinct types of voice leading in the realization. This in turn involves distinct physical movements of the hands and fingers that the player needs to internalize.

The conceptual framework of the book is limited to ideas that would have been familiar to a musician of the seventeenth or eighteenth centuries. This book does not rely on the modern theory of functional harmony, which analyzes chords in terms of roots and inversions. Instead it viewes harmonic progressions as products of counterpoint or voice leading. This may seem to make the already difficult skill of figured bass realization even more daunting. Yet continuo playing is actually easier when one thinks more along the lines documented by seventeenth- and eighteenth-century musicians. It is unnecessary and a waste of time, when one is trying to improvise a realization, to translate each figured-bass symbol into the notation of functional harmonic analysis, with its roman numerals (for roots, often equated with harmonic functions) and superscript arabic numerals (for chord inversions).

Not all musicians of the seventeenth and eighteenth centuries realized figured bass in the strict manner taught here. But most musicians of that period were not performing compositions by the likes of Scarlatti, Couperin, and, above all, J. S. Bach. Those three happened to be teachers as well as composers, and Bach, in particular, had pupils who continued his tradition of

training students in the playing of strict four-part harmony. That tradition became the basis of volume 2 in the *Essay on the True Manner of Playing Keyboard Instruments* by Bach's son Carl Philipp Emanuel, quoted earlier. After mastering strict realization in four parts, it is relatively easy to learn other types. Historically, most players were probably less strict than J. S. Bach and his pupils. Many probably realized the figured basses of Corelli—source of many of the present Exercises—in just three parts, while taking many liberties. Some, especially in France, may have entirely disregarded the rules of voice leading, using what some theorists called "transferred" preparation and resolution of dissonances—in effect, treating chords much as they are in modern jazz harmony.

The heart of this book are the Exercises, for which the text serves as commentary. Each Exercise provides practice in realizing a particular figured bass progression; the recommended method of study is presented in Chapter 1. In general, each progression is introduced in one or more newly composed Exercises. There follow selections from real music, especially that of Corelli. The exercises are to be realized at the keyboard in three or four parts as indicated in the commentary. Some readers will want to write out the Exercises, but dependence on written-out realization will hinder improvised realization. Nevertheless, all of the Exercises are available both in systems of a single staff and in systems of two staves with a blank upper staff. If one does write out realizations, this should be done as in the Appendix, where each note is written on a separate stem, making the voice leading absolutely clear.

The Exercises begin with the very simplest progressions and proceed to the most complex. Study begins with a chapter devoted to triads, leading eventually to unusual types of dissonance and pedal points. The final chapter discusses unfigured basses, continuo arias, and other special topics. The Exercises newly composed for this book are more or less "Baroque" in style, but because each one aims at providing intensive practice in a single type of progression, they may occasionally seem a bit contrived.

The aim here is to provide practce in four-part harmony, not stylish continuo playing or improvisation. The art of realizing a figured bass line in three or four properly led voices is distinct from that of playing a stylistically appropriate accompaniment to a recitative, a chamber sonata, or a concerto. Most harpsichord players learn to adapt a published figured bass realization by breaking chords, adding embellishments, and otherwise turning the printed notes into something idiomatic to the instrument and effective in performance. The bibliography lists several books that focus on the style of a continuo part. In fact, however, a properly realized figured bass in three or four correct parts, if elegantly played, is already an adequate continuo part for most purposes. For many types of music, the best figured bass realization is a simple, restrained one. A good realization should serve the music, not attract attention to itself.

In theory, the principles of voice leading taught here apply in all tonal music, not only that of the seventeenth and eighteenth centuries. It would not be impossible to use this book as an introduction to keyboard harmony. It is assumed, however, that most users of the book will be keyboard players interested in the performance of Baroque music.

This book originated in 1977 as a thesis for the M.A. degree at Stanford University. I remain grateful to the late Professor George Houle, my adviser at the time, for encouraging me to write a complete manual instead of a an introductory primer. I also owe thanks to students and fellow instructors who have used the Exercises and offered their suggestions.

A Word on Sources and Pitch Notation

The principles taught here are distilled from many sources (not limited to those listed in the Bibliography) and from the author's practical experience. The Exercises and Illustrations, when not newly composed, were mostly prepared on the basis of editions. Many of the Exercises extracted from compositions, especially in the first few chapters, have been simplified, usually by eliminating figures not yet explained in the text. Occasionally the original figures are supplemented or altered, especially where these seemed defective or incomplete.

Throughout the text, pitch-class names (notes not defined with respect to register) are given as capital letters in normal type. Pitch names referring to absolute pitches (of specific register) are given in italic type; middle C is *c1* and the scale above it is *d1, e1, f1, g1, a1, b1,* and *c2.* The note an octave below middle C is *c,* and the note an octave below that is *C.*