

2100.108

資料

147652

FUNDAMENTALS

of Western

MUSIC

M C K A Y

M C K A Y

Western Music

1

52)

Fundamentals of Western Music

Marion and Neil McKay
University of Hawaii at Manoa

Wadsworth Publishing Company
Belmont, California
A Division of Wadsworth, Inc.

Music Editor: Sheryl Fullerton
Production Editor: Deborah O. McDaniel
Managing Designer: Merle Sanderson
Print Buyer: Barbara Britton
Designer: Diane Hillier
Copy Editor: David Hathwell
Music Engraver: Ernie Mansfield
Cover: Merle Sanderson
Signing Representative: Lorenda Pezzola Phillips

© 1986 by Wadsworth, Inc. All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transcribed, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher, Wadsworth Publishing Company, Belmont, California 94002, a division of Wadsworth, Inc.

Printed in the United States of America

1 2 3 4 5 6 7 8 9 10—90 89 88 87 86

ISBN 0-534-05106-5

Library of Congress Cataloging in Publication Data

McKay, Marion.
Fundamentals of Western music.

Includes index.

1. Music—Theory, Elementary.

I. McKay, Neil. II. Title.

MT7.M4215 1985 781 85-6332

ISBN 0-534-05106-5

Also from Wadsworth . . .

**Basic Musicianship: An Introduction to Music Fundamentals
with Computer Assistance**

Raynold Allvin

**Foundations in Music Theory: With Programmed Exercises,
Second Edition**

Leon Dallin

Theoretical Foundations of Music

William Duckworth and Edward Brown

**Basic Musicianship for Classroom Teachers: A Creative Musical
Approach**

Charles R. Hoffer and Marjorie Hoffer

Basic Concepts in Music, Second Edition

Gary Martin

Harmony and Melody, Volumes 1 and 2

Elie Siegmeister

Workbooks for Harmony and Melody, Volumes 1 and 2

Elie Siegmeister

**Introduction to Music Reading, Concepts and Applications,
Second Edition**

William Thomson

Functional Harmony, Volumes 1 and 2

William Toutant

To Nancy and Ian

Preface

Music of the world is as diverse as the cultures that create it. Methods for transmitting musical ideas are equally varied. In Western civilization a system of notation has evolved that allows transmission of musical thought with utmost precision. The notation applies equally to all genres, whether symphony, folk music, popular music, or jazz.

This book is an introduction to reading and notating Western music. It is designed to serve as a textbook for a one-semester course at the college level. Students need no prior knowledge of music. The course of study will foster an understanding of and appreciation for the roles of composer, performer, and listener.

Beginning with a discussion of a musical tone and its characteristics, the text then discusses the notation of durations in metric and rhythmic groupings, the notation of pitch and its organization in scales, keys, and intervals, and finally combinations of duration and pitch culminating in melody and harmony. Later chapters deal with more advanced rhythmic and pitch organization and present an introduction to the forms of music. The book is arranged so that, as much as possible, chapters concerning pitch alternate with chapters dealing with duration. In the authors' experience, such alternation is essential in maintaining student interest and is more conducive to assimilation and retention. However, instructors who wish to present chapters in a different order will find that the book has the flexibility to accommodate them.

The book's course of study provides skills that enable students to read and sing music of folk-song difficulty. Exercises for each chapter test the student's progress. Musical examples with words, which makes music seem less abstract, culminate in the student's writing a melody and accompaniment for a short poem. For instructors who wish to use the piano as a laboratory instrument, piano exercises based on the material of each chapter are included.

The authors wish to acknowledge the assistance of colleagues at the University of Hawaii—Don Conover, Gary Danchenka, Dorothy Gillett, Marvin Greenberg, Marian Guck, Irene Levenson, Armand Russell, Allen Trubitt, Floyd Uchima, Byron Yasui—who, with helpful suggestions and encouragement, used this book as a text in its formative stages.

They also wish to thank the reviewers—Phillip Browne, California State Polytechnic College; Anthony Ginter, University of California, Riverside; Jeanne Knorr, Towson State University; and Fred Weber, American River College—whose thoughtful criticism and comments were useful and appreciated.

Contents

Preface / xii

Chapter 1

Musical Sound: Its Origin and Characteristics / 1

Tone / 1

Pitch / 2

1.1 Ear Exercises: Pitch / 2

1.2 Reading Exercises: Pitch / 3

Intensity / 4

1.3 Reading Exercises: Pitch and Intensity / 5

Duration / 5

1.4 Ear Exercises: Pitch, Intensity, and Duration / 6

1.5 Reading Exercises: Pitch, Intensity, and Duration / 6

Timbre / 6

1.6 Reading Exercise: Pitch, Intensity, Duration, and

Timbre / 7

Chapter Exercises / 7

Piano Exercises / 7

Chapter 2

Duration / 8

Notes / 8

2.1 Reading Exercises: Duration / 9

2.2 Writing Exercises: Duration / 11

Ties / 12

Dots / 12

Rests / 13

2.3 Reading Exercises: Ties, Dots, and Rests / 14
2.4 Exercises: Notating Durations / 15
2.5 Exercises: Calculating Durational Equivalents / 16
Piano Exercises / 18

Chapter 3

Pitch / 19
Staff / 19
Clef / 20
3.1 Exercises: Treble Staff / 22
3.2 Exercises: Bass Staff / 24
Grand Staff / 25
Octave / 26
Chapter Exercises / 27
Piano Exercises / 30

Chapter 4

Beat, Meter, Rhythm / 31
Beat / 31
Meter / 32
Measures, Bar Lines / 32
Meter Signatures / 32
4.1 Exercises: Meter Signatures / 33
Tempo and Tempo Markings / 34
Simple Meter / 35
4.2 Exercises: Simple Meter / 35
Conducting / 36
4.3 Exercises: Conducting / 36
Rhythm in Simple Meter / 36
Durations Shorter than the Beat / 37
4.4 Exercise: Durations Shorter than the Beat / 38
Durations Longer than the Beat / 39
4.5 Exercise: Durations Longer than the Beat / 40
The Quarter Note as Beat Unit / 40
Songs in Simple Meter / 40
4.6 Exercises: Songs in Simple Meter / 41

Common Time and Alla Breve / 42

4.7 Exercises: Common Time and Alla Breve / 42

Upbeat or Anacrusis / 43

Chapter Exercises / 43

Piano Exercises / 50

Chapter 5

Rhythm, *Continued* / 51

Division and Subdivision Combined / 51

5.1 Exercise: Division and Subdivision Combined / 52

Illustrations of Rhythm / 52

5.2 Exercise: Recurrence of Rhythm Units / 53

Triplet / 54

5.3 Exercises: Triplets in Simple Triple Meter / 54

Syncopation / 55

5.4 Exercises: Syncopation / 56

Rhythm Patterns / 57

Rhythm and Words / 58

5.5 Exercise: Rhythm and Words / 59

Chapter Exercises / 59

Piano Exercises / 67

Chapter 6

Accidentals and the Chromatic Scale / 68

Half Step and Whole Step / 68

Sharp, Flat, Natural / 69

Double Sharp and Double Flat / 70

Enharmonic Pitches / 70

Notating Accidentals / 71

Chromatic Scale / 72

Chapter Exercises / 73

Piano Exercises / 76

Chapter 7

Major Scales and Key Signatures / 78

Major Scale / 78

Tetrachords / 79

Key Signature / 80
Circle of Fifths / 82
Learning Aids / 82
7.1 Exercises: Identifying Key Signatures / 83
Scale Degrees / 84
Harmonic Series / 85
Transposition / 86
Chapter Exercises / 87
Piano Exercises / 92

Chapter 8

Intervals / 93
Numerical Intervals / 93
8.1 Exercises: Numerical Intervals / 94
Interval Quality / 95
Major and Minor Seconds / 98
Compound Intervals / 98
Inversion of Intervals / 98
Illustrations of Melodic Intervals / 99
Chapter Exercises / 100
Piano Exercises / 103

Chapter 9

Compound Meter and Rhythm / 104
Compound Meter / 104
Compound Meter Signatures / 105
9.1 Exercises: Compound Meter Signatures / 106
Meters and Rhythm Units / 107
9.2 Exercises: Meters and Rhythm Units / 108
Rhythm in Compound Meter; Combinations of Division / 109
9.3 Exercises: Combinations of Division / 109
Rhythm; Division and Subdivision Combined / 109
9.4 Exercises: Division and Subdivision Combined / 110
Durations Longer than the Beat / 111
9.5 Exercises: Durations Longer than the Beat / 111

Duplet / 112

9.6 Exercises: Duplets in Compound Duple Meter / 113

Tempo and Meter / 114

Hemiola / 115

Chapter Exercises / 116

Piano Exercises / 125

Chapter 10

Minor Scales and Keys and Tonality / 126

Minor Scales / 126

Minor Keys / 127

Tonality, Major or Minor / 129

Parallel Major and Minor / 129

Natural, Harmonic, and Melodic Minor / 130

Learning Aids for Minor Scales and Keys / 132

Chapter Exercises / 132

Piano Exercises / 139

Chapter 11

Melody / 140

Melodic Organization / 140

Further Illustrations of Melodic Organization / 145

Chapter Exercises / 148

Piano Exercise / 153

Chapter 12

Harmony / 154

Chord, Triad / 154

Primary Chords / 156

Inversions of Chords / 156

Dominant Seventh / 157

Chord Symbols / 158

Melody and Accompaniment / 159

Melody and Harmony / 160

Cadence / 162

Chapter Exercises / 164

Piano Exercises / 167

Chapter 13

Writing a Song / 168

Step-by-Step Procedure / 168

Chapter Exercise / 170

Piano Exercises / 173

Chapter 14

**Other Melodic, Harmonic, and Rhythmic
Concepts / 174**

Other Scales / 174

Other Chords / 179

Other Meters / 181

Chapter Exercises / 184

Piano Exercises / 187

Chapter 15

Form and Texture / 188

Binary Form / 188

Ternary Form / 189

Rondo Form / 190

Variation Form / 191

Texture / 194

Chapter Exercises / 196

Piano Exercise / 198

Appendix A

Syllables for Rhythmic Reading / 199

Appendix B

Syllables for Pitch Reading / 202

Appendix C

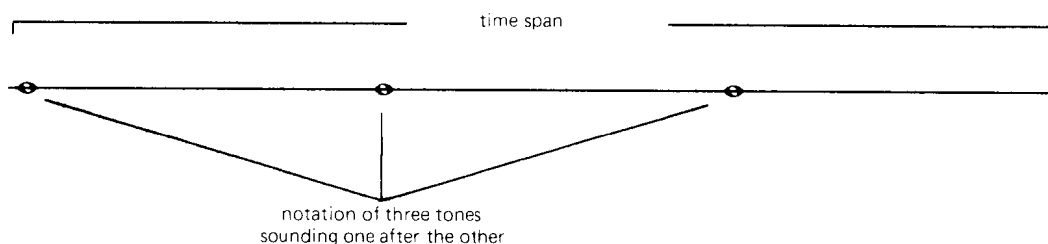
Piano Fingering / 204

Glossary/Index / 207

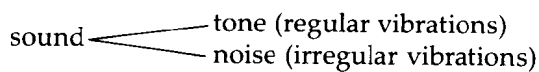
Musical Sound: Its Origin and Characteristics

TONE

Music is a series of tones experienced within a period of time. The representation of these tones on paper and how this musical **notation** is read and interpreted are fundamental to the study of Western music.



The term *tone* is to be distinguished from the term *sound*, as sound encompasses all aural impressions. Random sound is noise and is the result of irregular vibrations of a vibrating body. Tone is a refinement of sound as the result of regular vibrations.



Tone is initiated by a vibrating body. For instruments such as those of the violin family the vibrating body is a string that is plucked or bowed. A piano string is struck by a hammer. The vibrating body of drums is a taut membrane, also struck, and

for wind instruments it is a column of air within the hollow tube of the instrument itself. However the vibration is initiated, it causes waves to be set up in the air that eventually strike the eardrum as sound.

To understand musical sound a single tone must be examined. A single tone has four characteristics: **pitch**, **intensity**, **duration**, and **timbre**.

PITCH

Pitch is the location of the tone in a high-low sound spectrum. A high tone is the result of rapid vibration of the vibrating body. Conversely, slow vibration produces a low pitch. Pitch also depends upon the length and thickness of the vibrating body. A brief examination of the piano or harp reveals that the long, thick strings produce low pitches, whereas the short, thin strings produce high pitches. Larger wind instruments produce lower sounds than smaller ones because the air columns are longer and thicker. Pitch is also affected by air pressure. For example, because air pressure constantly fluctuates, string and wind instruments must constantly be adjusted to remain "in tune."

1.1 Ear Exercises: Pitch

Instructor:

1. *Matching pitches.* Play a pitch and its octave on the piano. Have students sing the pitch on a neutral syllable (such as *ah*, *la*, or *loo*).

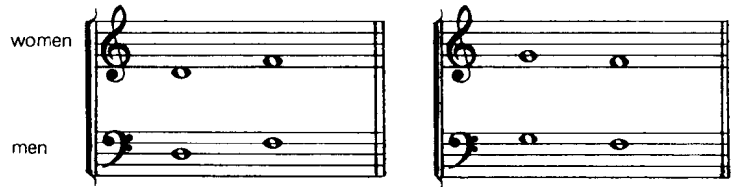
Example:



Repeat with other pitches.

2. *Differentiating higher and lower pitches.* Play consecutively two different pitches in octaves. Have students match the pitches and note whether the second pitch is higher or lower than the first.

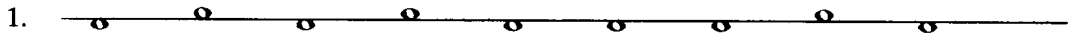
Examples:



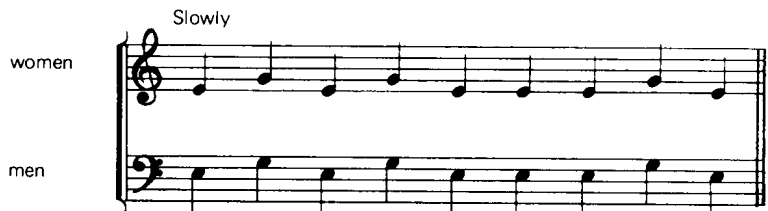
Repeat with other consecutive pitches.

1.2 Reading Exercises: Pitch

With two tones represented in space as lower, ♭, and higher, ♮, sing the following on a neutral syllable.¹

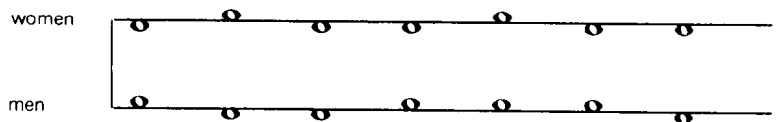


Instructor: Give first two pitches. Exercise 1 should sound as follows:



Indicate each tone with a hand signal. Repeat with other tones.

2. duet



¹ In this and following chapters use neutral syllables unless otherwise indicated.

Instructor: Give first two pitches. Exercise 2 should sound as follows:



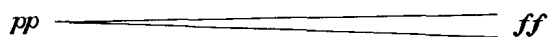
INTENSITY

Intensity or loudness is caused by the amplitude of the vibrating body. Force causes wide vibration. If vibrations are created with great force the resulting tone will be loud, and if vibrations are created with little force the tone will be soft.

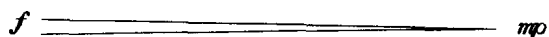
Intensity is represented in notation by symbols that are abbreviations of Italian words.

- *ff fortissimo* very loud
- *f forte* loud
- *mf mezzo forte* moderately loud
- *mp mezzo piano* moderately soft
- *p piano* soft
- *pp pianissimo* very soft

A gradual increase in intensity (*crescendo*, or *cresc.*) is indicated by diverging lines.



A gradual decrease in intensity (*decrescendo*, or *decresc.*; alternatively *diminuendo*, or *dim.*) is indicated by converging lines.



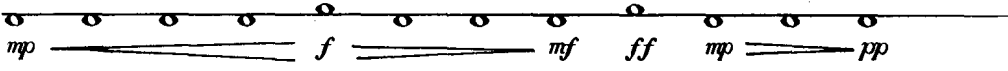
The terms signifying varying degrees of intensity are all relative. One performer's *piano* may be softer than another performer's, but however soft it is the *pianissimo* of each will be even softer.

All terms and symbols referring to intensity are called **dynamic markings** or simply **dynamics**.

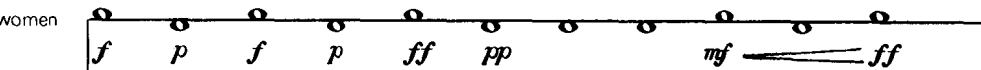
1.3 Reading Exercises: Pitch and Intensity

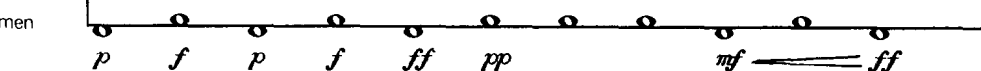
Sing the following.

Instructor: Give pitches and hand signals as in Exercises 1.2.

1. 

2. duet²

women 

men 

DURATION

Duration refers to how long a tone continues. Duration is limited by the instrument—for example, by the length of time a piano string vibrates or by the length of the bow of a string instrument. It is also limited by the performer—for example, by the breathing time of a singer or wind player. In notation, duration is mathematically measured, as one written tone has a duration directly proportionate to that of another.

2. Where no dynamic marking is present, the intensity level remains the same as last indicated.