

# THE TREASURY OF SCALES

## FOR BAND

BY

LEONARD B. SMITH, ASCAP

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### INSTRUMENTATION

Conductor

C Flute and Piccolo	3rd B $\flat$ Cornet
D $\flat$ Piccolo	1st F Horn
Oboe	2nd F Horn
Bassoon	3rd F Horn
E $\flat$ Clarinet	4th F Horn
1st B $\flat$ Clarinet	1st E $\flat$ Horn
2nd B $\flat$ Clarinet	2nd E $\flat$ Horn
3rd B $\flat$ Clarinet	3rd E $\flat$ Horn
E $\flat$ Alto Clarinet	4th E $\flat$ Horn
B $\flat$ Bass Clarinet	Baritone $\mathbb{1}$
1st E $\flat$ Alto Saxophone	Baritone $\mathbb{2}$
2nd E $\flat$ Alto Saxophone	1st Trombone
B $\flat$ Tenor Saxophone	2nd Trombone
E $\flat$ Baritone Saxophone	3rd Trombone
1st B $\flat$ Cornet	Basses
2nd B $\flat$ Cornet	String Bass
Percussion (Bells, Timpany and Drums)	

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## TO HELEN

### SUGGESTED LESSON PLANS FOR PROCEDURE PLAN A

For immediate use by **ELEMENTARY ORCHESTRAS**, the following **TREASURY OF SCALES** studies are recommended to be played in this order:

Numbers: 11, 12, 13, 14, 15, 19, 20, 29, 30, 38, 46, 53,  
68, 69, 73, 76, 77, 80, 81, 82, 85, 91, 92, 96

(When these are mastered, proceed to introduce those in Intermediate group)

For **INTERMEDIATE ORCHESTRAS**, the following **TREASURY OF SCALES** studies can be added to the foregoing group:

Numbers: 1, 5, 9, 22, 24, 26, 27, 34, 39, 42, 45, 47,  
50, 52, 56, 57, 59, 62, 66, 75, 78, 79, 87, 90

(When these are mastered, proceed to introduce those in Advanced group)

For **ADVANCED ORCHESTRAS**, all remaining **TREASURY OF SCALES** studies can be added to those in the foregoing two groups.

After all 96 are well under control, it is suggested that every rehearsal period commence with the playing of a selected group of from 4 to 6 **TREASURY OF SCALES** studies, in order to insure and maintain the all-key protection. In this manner, they also serve as warm-up material (functioning as chorales) and as a means for strengthening intonation and ensemble precision.

### SUGGESTED LESSON PLANS FOR PROCEDURE PLAN B

If, for example, you wish to rehearse a composition having a 3# key signature, it is suggested that you precede this composition with the playing of **TREASURY OF SCALES** studies Numbers: 6, 7, 16, 25, 51, 70, 86, 93.

By doing so, you give your orchestra the opportunity to first hear and play the harmonizations of the A Major scale four times, and its relative Minor (the F# Minor scale) four times. Thus, the tonality of and familiarity with the 3# key signature is firmly imbedded in the minds of the players — *before* commencing the actual rehearsal of the composition scheduled.

See Chart on Page 6 for **COMPLETE Key-Index**

## FOREWORD

It has been said that versatility is often the result of kaleidoscopic living plus, of course, the ability to remember what one has observed. For example, take Leonard Smith, the author of this treatise on scales. His qualifications for the writing of such a treatise are exceptional.

He is one of few musicians possessing a firm background as instrumentalist, conductor, composer, arranger and educator. His experiences in the instrumental field include six years as cornet soloist with the Goldman Band, six years as first trumpeter with the Detroit Symphony Orchestra besides numerous network radio and television programs. As conductor, he directs the band that bears his name, also the Belle Isle Concert Band and the Moslem Temple AAONMS Band. He is principal conductor for the Detroit Municipal Opera. He has taught at Wayne University, was Director of Bands at the University of Detroit and has lectured in more than twenty colleges and universities throughout the nation. His compositions and arrangements are represented in six publishing houses. He is a writer-member of the American Society of Composers, Authors and Publishers (ASCAP).

The Treasury of Scales reflects a studied and experienced insight into the practical problems confronting all players, both young and old. His treatise should prove to be invaluable for it is, by far, the most comprehensive collection of its kind in existence. The structure of the work is designed in simplicity in order to give authoritative help in the most expedient manner.

This is the way Leonard Smith has trained his own bands—and their performances are greeted with acclaim everywhere. The adoption of this means of training other bands will be of inestimable value toward assuring their constant improvement.

That it can likewise become a handy reference guide for composers is additional recommendation for its use.

LEONARD V. MERETTA,  
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## PREFACE

In my opinion, scale mastery is the basis and only lasting foundation for true musicianship. Since many of the student's difficulties in sight-reading, ear-training and technical proficiency stem directly from his lack of familiarity with *all* of the scales, both major and minor, it follows that the principle is wrong which places demands upon the performer in excess of his ability.

Such an inability on the part of the individual performer reflects upon and shackles the ability of any ensemble. It is therefore essential that the performer possess complete knowledge and mastery of the tools with which he works before the artistic approach can begin.

There does not seem to be any indication that composers did, do or will choose key signatures merely for the sake of convenience for players. The exploitation of many keys, arising from modulation, compels the player to be thoroughly equipped to perform as well in one key as another.

While it is true there is no formula for the development of genius, there is a road for the development of craftsmanship. Knowledge of this craftsmanship can serve to unlock the door for the performer's future development. However, nothing that is lasting and worthwhile comes easily. All skill depends upon exercise.

Before being offered for publication, this work was subjected to a series of intensive and exhaustive tests. It is a proven guide. From my personal experience as professional musician and educator, I have reached the conclusion that no other approach yields more effective results.

To the ambitious bandmaster, I can say that if the studies herein contained are mastered, your ensemble's musical horizon will expand beyond your fondest expectations. Its efficiency will improve 100 percent. Indeed, it is my sincere belief that this monograph will prove to be your most practical guide.

For his interest and useful suggestions, as well as his kind assistance in proof-reading this work, I am indebted to my good friend and colleague, Edgar L. Barrow.

Detroit, Michigan—1952

LEONARD B. SMITH

## ON PERFORMANCE

The manner in which the scales are scored makes possible their performance by bands or orchestras of any size, or by string choirs, reed choirs or brass choirs as units.

It will be observed that the scale-solo, in each of the 12 major keys and 12 minor keys,<sup>1</sup> is represented in every instrumental part, thereby affording the individual performer an opportunity to play the scale-solo 24 times. (See chart on page 6 for division of instruments.)

It is important to note that although each of the 96 scales is harmonized differently, each starts and ends on the tonic chord *in root position*. Thus the player may observe and identify the correct tonality by hearing it firmly established and ultimately concluded. This feature should not only materially aid in developing ear-training and in strengthening intonation but should provide and sustain interest on the part of the player.

The scale-solo is always given in whole notes. This has been by direct intention, to minimize the rhythm factor. Also, tempi and dynamic markings have been purposely omitted, to allow such employment at the conductor's discretion. The scales are not graded according to degree of difficulty, simply because that which is easy for one instrument is not so easy for another. However, it will be found that the concert keys of 2 $\flat$ , 3 $\flat$  and 4 $\flat$  pose the fewest problems for all instruments.

In band, the concert key signatures of 6 $\sharp$  and 7 $\sharp$  are illogical, for an exact diatonic transposition would result in 8 $\sharp$  and 9 $\sharp$  respectively for B $\flat$  instruments, 9 $\sharp$  and 10 $\sharp$  respectively for E $\flat$  instruments and 7 $\sharp$  and 8 $\sharp$  respectively for F instruments. Obviously the enharmonic counterparts, 6 $\flat$  and 5 $\flat$  respectively, are the preferable ones for concert key. In the B $\flat$ , E $\flat$ , F and D $\flat$  instrumental parts, the 6 $\sharp$  signature is preferred since it is brought about by direct diatonic transposition from concert key. The chart below makes this readily understood and shows the key signatures as they are written for each instrumental part. Note that the enharmonic simplification is written wherever possible. In the orchestra edition, the same procedure is followed.

Concert (C) Instruments	F Instruments	B $\flat$ Instruments	E $\flat$ Instruments	D $\flat$ Instruments
0	1 $\sharp$	2 $\sharp$	3 $\sharp$	5 $\sharp$
1 $\sharp$	2 $\sharp$	3 $\sharp$	4 $\sharp$	6 $\sharp$
2 $\sharp$	3 $\sharp$	4 $\sharp$	5 $\sharp$	5 $\flat$ *
3 $\sharp$	4 $\sharp$	5 $\sharp$	6 $\sharp$	4 $\flat$ *
4 $\sharp$	5 $\sharp$	6 $\sharp$	5 $\flat$ *	3 $\flat$ *
5 $\sharp$	6 $\sharp$	5 $\flat$ *	4 $\flat$ *	2 $\flat$ *
6 $\flat$	5 $\flat$	4 $\flat$	3 $\flat$	1 $\flat$
5 $\flat$	4 $\flat$	3 $\flat$	2 $\flat$	0
4 $\flat$	3 $\flat$	2 $\flat$	1 $\flat$	1 $\sharp$
3 $\flat$	2 $\flat$	1 $\flat$	0	2 $\sharp$
2 $\flat$	1 $\flat$	0	1 $\sharp$	3 $\sharp$
1 $\flat$	0	1 $\sharp$	2 $\sharp$	4 $\sharp$

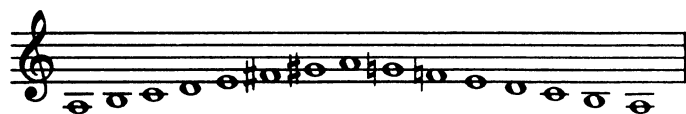
(\*Indicates the enharmonic simplification)

<sup>1</sup> Since some question might arise as to the author's choice in harmonizing the melodic minor scale in preference to the harmonic form, it can be pointed out that this decision was reached in the following manner and it is hoped that such reasoning will justify its exclusive employment:

The harmonic minor scale contains the same form ascending as descending whereas the melodic minor form utilizes the raised 6th and 7th degrees ascending and the lowered 6th and 7th degrees descending. Obviously, the latter form affords more variety.



HARMONIC FORM



MELODIC FORM

## DIVISION OF INSTRUMENTS PLAYING THE SCALE-SOLO BY GROUPS

GROUP I	GROUP II	GROUP III	GROUP IV
C Flute and Piccolo D $\flat$ Piccolo E $\flat$ Clarinet 1st B $\flat$ Clarinet 1st E $\flat$ Saxophone 1st B $\flat$ Cornet (Trumpet) Bells *	Oboe 2nd B $\flat$ Clarinet 2nd E $\flat$ Alto Saxophone 2nd B $\flat$ Cornet (Trumpet) 3rd B $\flat$ Cornet (Trumpet) 1st F Horn, 2nd F Horn 3rd F Horn, 4th F Horn 1st E $\flat$ Horn, 2nd E $\flat$ Horn 3rd E $\flat$ Horn, 4th E $\flat$ Horn	3rd B $\flat$ Clarinet E $\flat$ Alto Clarinet B $\flat$ Tenor Saxophone Baritone (Treble) Baritone (Bass) 1st Trombone 2nd Trombone	Bassoon B $\flat$ Bass Clarinet E $\flat$ Baritone Saxophone 3rd Trombone Basses String Bass

NB. It is important to understand that the chart indicates the division of instruments when employed as SOLO. It does not hold, necessarily, that the parts are divided in this manner when not labeled SOLO.

\* The indication for Percussion is given in the Conductor's Score in first measure of each scale. The rhythm pattern illustrated (in Drums) is constant throughout the entire scale, until the last measure.

## INDEX FOR SCALE-SOLO

The groups of instruments having the scale-solo are designated in the conductor's book by Roman Numerals. In the individual parts, when the scale-solo appears, it is labeled SOLO.

Concert Key	Group I	Group II	Group III	Group IV
C Major	79	5	59	45
D $\flat$ Major	1	57	27	39
D Major	55	83	63	31
E $\flat$ Major	85	81	73	19
E Major	65	33	89	3
F Major	9	47	75	87
G $\flat$ Major	37	23	17	49
G Major	41	71	21	35
A $\flat$ Major	77	15	91	11
A Major	25	7	93	51
B $\flat$ Major	29	69	13	53
B Major	43	95	67	61
C Minor	76	30	38	92
C $\sharp$ Minor	74	60	4	28
D Minor	50	78	34	24
E $\flat$ Minor	94	44	72	58
E Minor	88	64	48	8
F Minor	80	20	82	14
F $\sharp$ Minor	16	6	86	70
G Minor	68	12	46	96
G $\sharp$ Minor	32	54	10	18
A Minor	22	90	52	66
B $\flat$ Minor	62	42	56	26
B Minor	2	36	40	84

There is also an index in each instrumental part showing the location of the scale-solo by key signature.

# THE TREASURY OF SCALES

## Conductor

FOR BAND

### D $\flat$ MAJOR - GROUP I

LEONARD B. SMITH

1 (BELLS)

Musical score for D $\flat$  Major - Group I. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes, with some notes beamed together. The key signature has two flats.

### B MINOR - GROUP I

2 (BELLS)

Musical score for B Minor - Group I. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes. The key signature has two sharps.

### E MAJOR - GROUP IV

3

Musical score for E Major - Group IV. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes. The key signature has four sharps.

### C# MINOR - GROUP III

4 (TIMP.)

Musical score for C $\sharp$  Minor - Group III. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes. The key signature has three sharps. The piece ends with a *div.* marking.

### C MAJOR - GROUP II

5 (BELLS)

Musical score for C Major - Group II. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes. The key signature has no sharps or flats.

### F# MINOR - GROUP II

6 (TIMP.)

Musical score for F $\sharp$  Minor - Group II. It consists of two staves, Treble and Bass clef, with a common time signature. The music features chords and single notes. The key signature has three sharps.