

# THE BORNOFF APPROACH

A COMPREHENSIVE CURRICULUM FOR STRING ORCHESTRA

## Patterns in Position

George Bornoff

### **The Foundation for the Advancement of String Education Mission**

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*The Foundation for the Advancement of String Education seeks to promote new orchestral opportunities worldwide. We believe music programs can transform the lives of students and their communities.*

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# *A Word to the Teacher*

*By George Bornoff*

May I express to the string teachers of the United States and Canada my thanks for the extensive reception given my first series of books. FINGER PATTERNS and FUN FOR FIDDLE FINGERS complete the first level of instruction.

The pupil has now acquired good right arm control, fine left hand facility, a good tonal base and has made the transition from rote to note.

He has been introduced to the elementary stages of shifting and has completed the spatial to aural adjustment. The pattern adjustments made through this process solve the problem of intonation.

PATTERNS IN POSITION opens up the second level. Now the pupil's basic skills, already established, are developed on a higher level. This is accomplished by transforming the original finger patterns into double stops, artificial harmonics and more advanced forms of shifting. When the student completes these two levels of instruction, he is ready to enter the field of advanced study.

My hope is that *Patterns in Position* will help many more teachers to streamline their teaching methods and thus enrich the musical experience of many thousands of promising young lives among the youth of today.

—GEORGE BORNOFF

## INTEGRATION

When PATTERNS IN POSITION is used with violins, violas, 'cellos and basses playing together, the violas and 'cellos will begin playing the complete pattern on the C string before the violins and basses enter on the G string, unless otherwise indicated. The basses are the only instruments that vary. The violas and 'cellos must therefore rest while the basses and violins play the complete pattern on the E string. Thereafter all instruments enter together on the A string. This procedure is indicated by an asterisk.\*

In playing harmonics touch string  
lightly only with finger indicated.

# SECTION ONE

## NATURAL HARMONICS

Open String Cycle Using the Second Harmonic

①

(a)

etc.

(b)

etc.

(c)

etc.

(d)

etc.

②

2nd time

(a)

etc.

(b)

etc.

Shifting from the First Position to the Second Harmonic

③

## SECTION 1 (Continued)

⑤

0 1 1 0 1 2 2 0 2 3 3 0 3 4 4 0 0 1 1 0 1 2 2 0 2 3 3 0 3 4 4 0

0 1 1 0 1 2 2 0 2 3 3 0 3 4 4 0 0 1 1 0 1 2 2 0 2 3 3 0 3 4 4 0

3 4 4 0 2 3 3 0 1 2 2 0 0 1 1 0 3 4 4 0 2 3 3 0 1 2 2 0 0 1 1 0

3 4 4 0 2 3 3 0 1 2 2 0 0 1 1 0 3 4 4 0 2 3 3 0 1 2 2 0 0 1 1 0

⑥

0 4 1 4 2 4 0 3 4 1 3 4 0 2 3 4 0 4 0 1 4 0

2 4 0 1 4 0 2 4 0 2 4 0 1 4 0 0 4 0 2 4 0

1 4 0 0 4 0 2 4 0 1 4 0 0 4 0 1 4 0 0 4 0

**2nd time**

## Open String Cycle Using the Third Harmonic

5

# SECTION 1 (Continued)

## Open String Cycle Using the Fourth Harmonic

⑫

(a) etc. (b) etc. (c) etc.

## The Second, Third and Fourth Harmonic in String Cycle Form

Producing harmonics by fingering on the lower half of string.

⑬

2nd time

# SECTION 1 (Continued)

(11)

2nd time

Producing harmonics by fingering on the upper half of string.

(14)

on C

on G

on D

2nd time

on A

on D

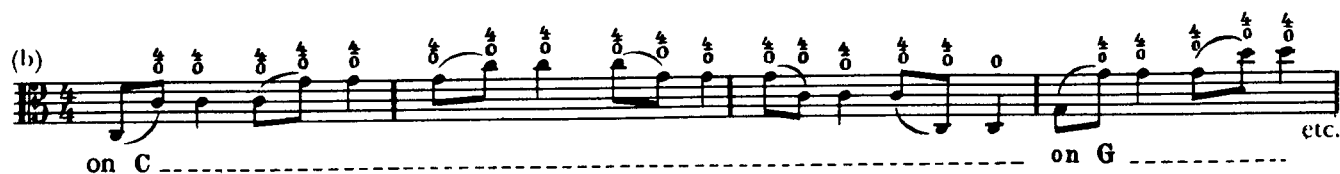
on G

on C

(15)

on C

# SECTION 1 (Continued)



The one octave scale and the first four harmonics on the lower octave of string.



The one octave scale and the first four harmonics on the upper octave of string.



# SECTION TWO

## STACCATO AND SPICCATO

### ① STACCATO

Use full length of the bow.  
Apply to the five finger patterns.

(a) Practice in the complete string cycle as in No. 1. Use full length of the bow.

(b) Use full bows and practice in the complete cycle as in No. 1.

(c) Use full bows and practice in the complete string cycle as in No. 1.

(d) Additional bowing exercises to be applied to [1, 1a, 1b and 1c].

- (1) Beginning with an up bow, using the extreme upper part of the bow.
- (2) Beginning with a down bow, using the extreme upper part of the bow.
- (3) Beginning with an up bow, using the extreme lower part of the bow.
- (4) Beginning with a down bow, using the extreme lower part of the bow.

(e) Alternating the notes, practice in the complete string cycle as in No. 1. Use full bows.

## SECTION 2 (Continued)

(f) Use full bows and practice in the complete string cycle as in No. 1.



(g) Use full bows and practice in the complete string cycle as in No. 1.



(h) Use full bows and practice in the complete string cycle as in No. 1.



(i) Additional bowing exercises to be applied to [1c, 1f, 1g and 1h].

- (1) Beginning with an up bow, using the extreme upper part of the bow.
- (2) Beginning with a down bow, using the extreme upper part of the bow.
- (3) Beginning with an up bow, using the extreme lower part of the bow.
- (4) Beginning with a down bow, using the extreme lower part of the bow.

## ② SPICCATO

Use the upper quarter of the bow and apply this bowing to the five finger patterns.

(a) Practice exercise (No. 1) using flying spiccato at the point of the bow. The sound produced should be crisp and clear.

- (1) Begin with an up bow.
- (2) Begin with a down bow.

(b) Practice 1a, 1b, and 1c, using flying spiccato at the point of the bow.

- (1) Begin with an up bow.
- (2) Begin with a down bow.

(c) Practice 1e, 1f, 1g and 1h, using flying spiccato at the point of the bow.

- (1) Begin with an up bow.
- (2) Begin with a down bow.

# SECTION THREE

## TONAL PATTERNS

Preparation for Artificial Harmonics of a 4th.

1st Tonal Pattern

①

2nd time

2nd Tonal Pattern

2nd time

SECTION 3 (Continued)

3rd Tonal Pattern

3rd Tonal Pattern

12-string guitar, 3/4 time, key of D major (one sharp).

Staff 1: Melodic line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 2: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 3: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 4: Melodic line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 5: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 6: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 7: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

2nd time

4th Tonal Pattern

4th Tonal Pattern

12-string guitar, 3/4 time, key of Bb major (two flats).

Staff 1: Melodic line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 2: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 3: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 4: Melodic line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 5: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 6: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

Staff 7: Bass line with fret numbers 0, 1, 4 and fingerings 1, 4, 3.

2nd time

# SECTION 3 (Continued)

## 5th Tonal Pattern

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

2nd time 1 4 1 4 1 4 1 4 1 4 1 4 1 4 0 3 \*

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

0 3 1 4 1 4 1 4 1 4 1 4 1 4 0 3

Practise the preceding 5 tonal patterns (No.1) using the following rhythmic and finger variants.

(a)

(1) 0 2 2 1 3 3 1 3 3 1 3 3 1 3 3 1 3 3 0 2 2 etc.

(2) 0 2 2 1 3 3 2 4 4 2 4 4 2 4 4 2 4 4 2 4 4 1 3 3 0 2 2 etc.

(3) 0 2 2 1 3 3 2 4 4 1 3 3 2 4 4 1 3 3 2 4 4 1 3 3 0 2 2 etc.

## SECTION 3 (Continued)

(b)



- (2) Use (1-3) fingering as in example **a 1**.
- (3) Use (2-4) fingering as in example **a 2**.
- (4) Use (1-3)(2-4) fingering as in example **a 3**.

(c)



- (2) Use (1-3) fingering as in example **a** 1.
- (3) Use (2-4) fingering as in example **a** 2.
- (4) Use (1-3)(2-4) fingering as in example **a** 3.

(d)



- (2) Use (1-3) fingering as in example **a 1**.
- (3) Use (2-4) fingering as in example **a 2**.
- (4) Use (1-3)(2-4) fingering as in example **a 3**.

(e)



- (2) Use (1-3) fingering as in example **a 1**.
- (3) Use (2-4) fingering as in example **a 2**.
- (4) Use (1-3)(2-4) fingering as in example **a 3**.

**(f)**



- (2) Use (1-3) fingering as in example **a** 1.
- (3) Use (2-4) fingering as in example **a** 2.
- (4) Use (1-3)(2-4) fingering as in example **a** 3.

(g)



- (2) Use (1-3) fingering as in example **a** 1.
- (3) Use (2-4) fingering as in example **a** 2.
- (4) Use (1-3)(2-4) fingering as in example **a** 3.

(h)



- (2) Use (1-3) fingering as in example **a** 1.
- (3) Use (2-4) fingering as in example **a** 2.
- (4) Use (1-3)(2-4) fingering as in example **a** 3.


### SECTION 3 (Continued)

(i)  etc.

(1) 

- (2) Use (1-3) fingering as in example a 1.
- (3) Use (2-4) fingering as in example a 2.
- (4) Use (1-3)(2-4) fingering as in example a 3.

### Seven Variants of the Tonal Patterns in Artificial Harmonics (4th)

1st Tonal Pattern 

(2) 





*2nd time* 











## SECTION 3 (Continued)

2nd Tonal Pattern      ♪ ♪ ♪ ♪ ♪

The image shows a musical score for the song "The Rose Tree". It consists of eight staves of music. The first staff is the vocal melody, written in a treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The lyrics "The Rose Tree" are written below the first staff. The second staff is the piano accompaniment, written in a bass clef. The third staff is the piano accompaniment, written in a bass clef. The fourth staff is the piano accompaniment, written in a bass clef. The fifth staff is the piano accompaniment, written in a bass clef. The sixth staff is the piano accompaniment, written in a bass clef. The seventh staff is the piano accompaniment, written in a bass clef. The eighth staff is the piano accompaniment, written in a bass clef. The score includes various musical notations such as notes, rests, and bar lines. There are also some markings above the staves, possibly indicating fingerings or other performance instructions.

3rd Tonal Pattern      ♪ ♪ ♪ ♭ ♭

The image shows a musical score for the song "The Rose Tree". It consists of six staves of music. The first staff is the vocal melody, starting with a treble clef and a key signature of one sharp (F#). The subsequent five staves are for piano accompaniment, each starting with a bass clef. The music is in 3/4 time. The score includes various musical notations such as notes, rests, and accidentals. There are also some performance instructions like "2nd time" and "3rd time" written above the staves. The score ends with a double bar line and a repeat sign.

SECTION 3 (Continued)

4th Tonal Pattern 



5th Tonal Pattern 



# SECTION 3 (Continued)

Practice the preceding five tonal patterns (No. 2) using the following rhythmic and finger variants.

**(a)**

(1) 

(2) 

(3) 

**(b)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 2 3 3 4 3 3 3 4 3 3 3 4 3 4 4 3 4 3 4 3 4 3 etc.  
0 1 0 1 1 2 1 1 1 2 1 1 1 2 1 2 2 1 2 1 2 1 2 1

**(c)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 2 3 3 4 3 4 3 3 4 3 4 3 3 4 3 4 4 1 3 4 3 3 4 3 4 3 etc.  
0 1 0 1 1 2 1 2 1 1 2 1 2 1 2 2 2 1 2 1 1 2 1 2 1 1

**(d)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 2 3 4 3 3 4 3 3 4 3 1 3 4 4 3 4 4 3 4 3 3 2 3 2 3 4 3 etc.  
0 1 0 1 2 1 1 2 1 1 2 1 2 1 2 2 2 1 2 1 1 1 0 1 1 0 1 2 1

**(e)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 2 3 3 4 3 4 3 1 3 4 3 1 3 4 3 4 4 3 4 3 4 3 4 3 3 2 3 2 etc.  
0 1 0 1 1 2 1 2 1 2 1 2 1 2 1 2 2 1 2 1 2 1 2 1 1 0 1 0 1 0

**(f)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 4 3 3 4 3 3 4 4 3 3 4 3 3 1 3 2 2 1 0 etc.  
0 1 2 1 1 2 1 1 2 2 1 1 2 1 1 2 1 0

**(g)**

(1) 

(2) Use (1-3) fingering as in example **a**<sub>1</sub>.

(3) Use (2-4) fingering as in example **a**<sub>2</sub>.

(4) Use (1-3) (2-4) fingering, e.g. 2 3 3 4 3 4 3 4 4 3 4 3 4 3 3 2 2 1 0 etc.  
0 1 1 2 1 2 1 2 1 2 1 2 1 2 1 0

## SECTION 3 (Continued)

## ARTIFICIAL HARMONICS (5th)

Preparation for Artificial Harmonics of a 5th

1st Tonal Pattern

③

2nd Tonal Pattern

3rd Tonal Pattern

SECTION 3 (Continued)

2nd time

4th Tonal Pattern

2nd time

5th Tonal Pattern

2nd time

## SECTION 3 (Continued)

Practice the preceding 5 tonal patterns (No. 3) using the following rhythmic variants.

## Seven Variants of the Tonal Patterns in Artificial Harmonics (5th)

1st Tonal Pattern ♪ ♪ ♪ ♪ ♪

1st Tonal Pattern

④

3 0 4 1 4 1

4 3 1 0

3 0 4 1 4 1

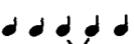
4 1 3 0

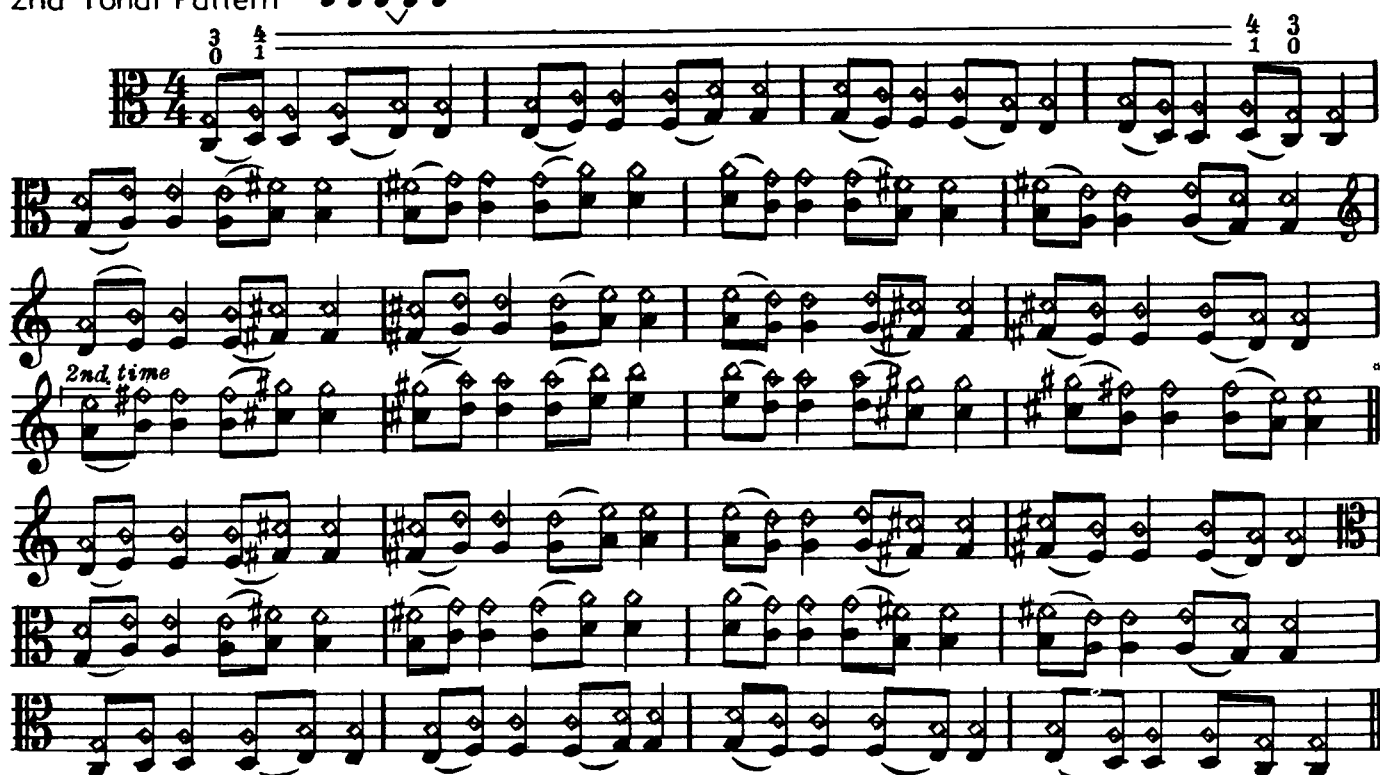
3 0 4 1 4 1

4 1 3 0

2nd time

SECTION 3 (Continued)

2nd Tonal Pattern 



3rd Tonal Pattern 



4th Tonal Pattern 



# SECTION 3 (Continued)

*2nd time*

5th Tonal Pattern

Practice the preceding 5 tonal patterns (No. 4) using the following rhythmic variants.

(a)

(b)

(c)

(d)

(e)

(f)

## SECTION 3 (Continued)

## OCTAVES

## Preparatory Double Stops in Octaves

## 1st Tonal Pattern

⑤

## 2nd Tonal Pattern

## 3rd Tonal Pattern

# SECTION 3 (Continued)

## 4th Tonal Pattern

## 5th Tonal Pattern

Practise the preceding 5 tonal patterns using the following rhythmic and finger variants.

(a)

(b)

**SECTION 3 (Continued)**

(3) Musical notation for exercise (3) in 4/4 time. It consists of two staves. The first staff has a treble clef and the second has a bass clef. The melody is in the treble staff, and the bass staff provides a simple accompaniment. The exercise is divided into three measures, each with a different key signature: C major, F major, and C major. Above the first staff, there are fingerings: 2 0 for the first measure, 3 1 for the second, and 4 2 for the third. The exercise ends with "etc.".

(4) Musical notation for exercise (4) in 4/4 time. It consists of two staves. The first staff has a treble clef and the second has a bass clef. The melody is in the treble staff, and the bass staff provides a simple accompaniment. The exercise is divided into six measures, each with a different key signature: C major, F major, C major, F major, C major, and F major. Above the first staff, there are fingerings: 2 0 for the first measure, 3 1 for the second, 4 2 for the third, 3 1 for the fourth, 4 2 for the fifth, and 3 1 for the sixth. The exercise ends with "etc.".

## Seven Variants of the 5 Tonal Patterns in Solid Octaves

1st Tonal Pattern ●  ● ● ●

[illegible]

2nd Tonal Pattern ●●<sup>^</sup>●●●

2nd Tonal Pattern

The musical score for the 2nd Tonal Pattern consists of four staves. The first staff begins with a treble clef and a key signature of one sharp (F#). The music is written in a 4/4 time signature. The first staff contains the following notes and fingerings: (F#4, G4) with fingerings 3 0 and 4 1; (A4, B4) with fingerings 4 1 and 3 0; (C5, D5) with fingerings 4 1 and 3 0; (E5, F#5) with fingerings 4 1 and 3 0; (G5, A5) with fingerings 4 1 and 3 0; (B5, C6) with fingerings 4 1 and 3 0; (D6, E6) with fingerings 4 1 and 3 0; (F#6, G6) with fingerings 4 1 and 3 0; (A6, B6) with fingerings 4 1 and 3 0; (C7, D7) with fingerings 4 1 and 3 0; (E7, F#7) with fingerings 4 1 and 3 0; (G7, A7) with fingerings 4 1 and 3 0; (B7, C8) with fingerings 4 1 and 3 0; (D8, E8) with fingerings 4 1 and 3 0; (F#8, G8) with fingerings 4 1 and 3 0; (A8, B8) with fingerings 4 1 and 3 0; (C9, D9) with fingerings 4 1 and 3 0; (E9, F#9) with fingerings 4 1 and 3 0; (G9, A9) with fingerings 4 1 and 3 0; (B9, C10) with fingerings 4 1 and 3 0; (D10, E10) with fingerings 4 1 and 3 0; (F#10, G10) with fingerings 4 1 and 3 0; (A10, B10) with fingerings 4 1 and 3 0; (C11, D11) with fingerings 4 1 and 3 0; (E11, F#11) with fingerings 4 1 and 3 0; (G11, A11) with fingerings 4 1 and 3 0; (B11, C12) with fingerings 4 1 and 3 0; (D12, E12) with fingerings 4 1 and 3 0; (F#12, G12) with fingerings 4 1 and 3 0; (A12, B12) with fingerings 4 1 and 3 0; (C13, D13) with fingerings 4 1 and 3 0; (E13, F#13) with fingerings 4 1 and 3 0; (G13, A13) with fingerings 4 1 and 3 0; (B13, C14) with fingerings 4 1 and 3 0; (D14, E14) with fingerings 4 1 and 3 0; (F#14, G14) with fingerings 4 1 and 3 0; (A14, B14) with fingerings 4 1 and 3 0; (C15, D15) with fingerings 4 1 and 3 0; (E15, F#15) with fingerings 4 1 and 3 0; (G15, A15) with fingerings 4 1 and 3 0; (B15, C16) with fingerings 4 1 and 3 0; (D16, E16) with fingerings 4 1 and 3 0; (F#16, G16) with fingerings 4 1 and 3 0; (A16, B16) with fingerings 4 1 and 3 0; (C17, D17) with fingerings 4 1 and 3 0; (E17, F#17) with fingerings 4 1 and 3 0; (G17, A17) with fingerings 4 1 and 3 0; (B17, C18) with fingerings 4 1 and 3 0; (D18, E18) with fingerings 4 1 and 3 0; (F#18, G18) with fingerings 4 1 and 3 0; (A18, B18) with fingerings 4 1 and 3 0; (C19, D19) with fingerings 4 1 and 3 0; (E19, F#19) with fingerings 4 1 and 3 0; (G19, A19) with fingerings 4 1 and 3 0; (B19, C20) with fingerings 4 1 and 3 0; (D20, E20) with fingerings 4 1 and 3 0; (F#20, G20) with fingerings 4 1 and 3 0; (A20, B20) with fingerings 4 1 and 3 0; (C21, D21) with fingerings 4 1 and 3 0; (E21, F#21) with fingerings 4 1 and 3 0; (G21, A21) with fingerings 4 1 and 3 0; (B21, C22) with fingerings 4 1 and 3 0; (D22, E22) with fingerings 4 1 and 3 0; (F#22, G22) with fingerings 4 1 and 3 0; (A22, B22) with fingerings 4 1 and 3 0; (C23, D23) with fingerings 4 1 and 3 0; (E23, F#23) with fingerings 4 1 and 3 0; (G23, A23) with fingerings 4 1 and 3 0; (B23, C24) with fingerings 4 1 and 3 0; (D24, E24) with fingerings 4 1 and 3 0; (F#24, G24) with fingerings 4 1 and 3 0; (A24, B24) with fingerings 4 1 and 3 0; (C25, D25) with fingerings 4 1 and 3 0; (E25, F#25) with fingerings 4 1 and 3 0; (G25, A25) with fingerings 4 1 and 3 0; (B25, C26) with fingerings 4 1 and 3 0; (D26, E26) with fingerings 4 1 and 3 0; (F#26, G26) with fingerings 4 1 and 3 0; (A26, B26) with fingerings 4 1 and 3 0; (C27, D27) with fingerings 4 1 and 3 0; (E27, F#27) with fingerings 4 1 and 3 0; (G27, A27) with fingerings 4 1 and 3 0; (B27, C28) with fingerings 4 1 and 3 0; (D28, E28) with fingerings 4 1 and 3 0; (F#28, G28) with fingerings 4 1 and 3 0; (A28, B28) with fingerings 4 1 and 3 0; (C29, D29) with fingerings 4 1 and 3 0; (E29, F#29) with fingerings 4 1 and 3 0; (G29, A29) with fingerings 4 1 and 3 0; (B29, C30) with fingerings 4 1 and 3 0; (D30, E30) with fingerings 4 1 and 3 0; (F#30, G30) with fingerings 4 1 and 3 0; (A30, B30) with fingerings 4 1 and 3 0; (C31, D31) with fingerings 4 1 and 3 0; (E31, F#31) with fingerings 4 1 and 3 0; (G31, A31) with fingerings 4 1 and 3 0; (B31, C32) with fingerings 4 1 and 3 0; (D32, E32) with fingerings 4 1 and 3 0; (F#32, G32) with fingerings 4 1 and 3 0; (A32, B32) with fingerings 4 1 and 3 0; (C33, D33) with fingerings 4 1 and 3 0; (E33, F#33) with fingerings 4 1 and 3 0; (G33, A33) with fingerings 4 1 and 3 0; (B33, C34) with fingerings 4 1 and 3 0; (D34, E34) with fingerings 4 1 and 3 0; (F#34, G34) with fingerings 4 1 and 3 0; (A34, B34) with fingerings 4 1 and 3 0; (C35, D35) with fingerings 4 1 and 3 0; (E35, F#35) with fingerings 4 1 and 3 0; (G35, A35) with fingerings 4 1 and 3 0; (B35, C36) with fingerings 4 1 and 3 0; (D36, E36) with fingerings 4 1 and 3 0; (F#36, G36) with fingerings 4 1 and 3 0; (A36, B36) with fingerings 4 1 and 3 0; (C37, D37) with fingerings 4 1 and 3 0; (E37, F#37) with fingerings 4 1 and 3 0; (G37, A37) with fingerings 4 1 and 3 0; (B37, C38) with fingerings 4 1 and 3 0; (D38, E38) with fingerings 4 1 and 3 0; (F#38, G38) with fingerings 4 1 and 3 0; (A38, B38) with fingerings 4 1 and 3 0; (C39, D39) with fingerings 4 1 and 3 0; (E39, F#39) with fingerings 4 1 and 3 0; (G39, A39) with fingerings 4 1 and 3 0; (B39, C40) with fingerings 4 1 and 3 0; (D40, E40) with fingerings 4 1 and 3 0; (F#40, G40) with fingerings 4 1 and 3 0; (A40, B40) with fingerings 4 1 and 3 0; (C41, D41) with fingerings 4 1 and 3 0; (E41, F#41) with fingerings 4 1 and 3 0; (G41, A41) with fingerings 4 1 and 3 0; (B41, C42) with fingerings 4 1 and 3 0; (D42, E42) with fingerings 4 1 and 3 0; (F#42, G42) with fingerings 4 1 and 3 0; (A42, B42) with fingerings 4 1 and 3 0; (C43, D43) with fingerings 4 1 and 3 0; (E43, F#43) with fingerings 4 1 and 3 0; (G43, A43) with fingerings 4 1 and 3 0; (B43, C44) with fingerings 4 1 and 3 0; (D44, E44) with fingerings 4 1 and 3 0; (F#44, G44) with fingerings 4 1 and 3 0; (A44, B44) with fingerings 4 1 and 3 0; (C45, D45) with fingerings 4 1 and 3 0; (E45, F#45) with fingerings 4 1 and 3 0; (G45, A45) with fingerings 4 1 and 3 0; (B45, C46) with fingerings 4 1 and 3 0; (D46, E46) with fingerings 4 1 and 3 0; (F#46, G46) with fingerings 4 1 and 3 0; (A46, B46) with fingerings 4 1 and 3 0; (C47, D47) with fingerings 4 1 and 3 0; (E47, F#47) with fingerings 4 1 and 3 0; (G47, A47) with fingerings 4 1 and 3 0; (B47, C48) with fingerings 4 1 and 3 0; (D48, E48) with fingerings 4 1 and 3 0; (F#48, G48) with fingerings 4 1 and 3 0; (A48, B48) with fingerings 4 1 and 3 0; (C49, D49) with fingerings 4 1 and 3 0; (E49, F#49) with fingerings 4 1 and 3 0; (G49, A49) with fingerings 4 1 and 3 0; (B49, C50) with fingerings 4 1 and 3 0; (D50, E50) with fingerings 4 1 and 3 0; (F#50, G50) with fingerings 4 1 and 3 0; (A50, B50) with fingerings 4 1 and 3 0; (C51, D51) with fingerings 4 1 and 3 0; (E51, F#51) with fingerings 4 1 and 3 0; (G51, A51) with fingerings 4 1 and 3 0; (B51, C52) with fingerings 4 1 and 3 0; (D52, E52) with fingerings 4 1 and 3 0; (F#52, G52) with fingerings 4 1 and 3 0; (A52, B52) with fingerings 4 1 and 3 0; (C53, D53) with fingerings 4 1 and 3 0; (E53, F#53) with fingerings 4 1 and 3 0; (G53, A53) with fingerings 4 1 and 3 0; (B53, C54) with fingerings 4 1 and 3 0; (D54, E54) with fingerings 4 1 and 3 0; (F#54, G54) with fingerings 4 1 and 3 0; (A54, B54) with fingerings 4 1 and 3 0; (C55, D55) with fingerings 4 1 and 3 0; (E55, F#55) with fingerings 4 1 and 3 0; (G55, A55) with fingerings 4 1 and 3 0; (B55, C56) with fingerings 4 1 and 3

3rd Tonal Pattern ● ● ● ● ●

5th Tonal Pattern

3 4 1 0 4 1 3 0 3 4

2nd time

3 4 1 0

# SECTION 3 (Continued)

4th Tonal Pattern

5th Tonal Pattern

Practice the preceding 5 tonal-patterns (No. 6), using the following rhythmic and finger-variants.

(a)

(1)

(2)

(3)

## SECTION 3 (Continued)

(b)

(1)

(2)

(3)

(1)

(c)

(1)

(2)

(3)

(4)

(d)

(1)

(3)

(1)

(e)

(1)

(2)

(3)

(f)

(1)

(2)

(3)

(g)

(1)

(2)

(3)

## SECTION 3 (Continued)

## UNISONS

## Preparatory Double Stops in Unisons

## 1st Tonal Pattern

⑦

## 2nd Tonal Pattern

## 3rd Tonal Pattern

## 4th Tonal Pattern

SECTION 3 (Continued)

5th Tonal Pattern

Practice the preceding 5 tonal patterns (No. 7) as in example (a).

(a)

Seven Variants of the Tonal Patterns on Solid Unisons

1st Tonal Pattern

⑧

2nd Tonal Pattern

# SECTION 3 (Continued)

## 3rd Tonal Pattern

## 4th Tonal Pattern

## 5th Tonal Pattern

Practise the preceding 5 tonal patterns (No. 8) using the following rhythmic and finger variants.

# SECTION 3 (Continued)

d) e) f) etc.

## SECTION FOUR

### SCALES AND BROKEN CHORDS

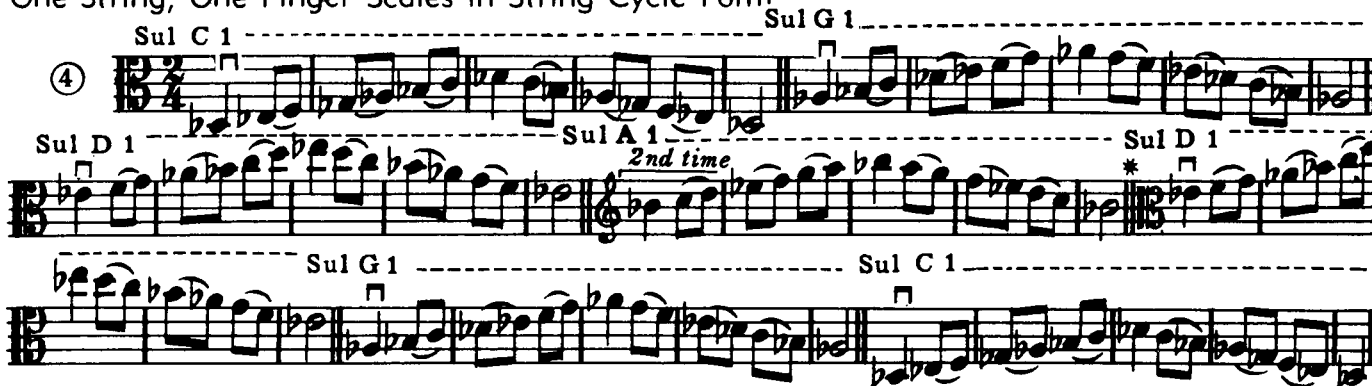
#### Broken Chords

① 2nd time   
 ② 2nd time   
 ③ 2nd time

SECTION 4 (Continued)



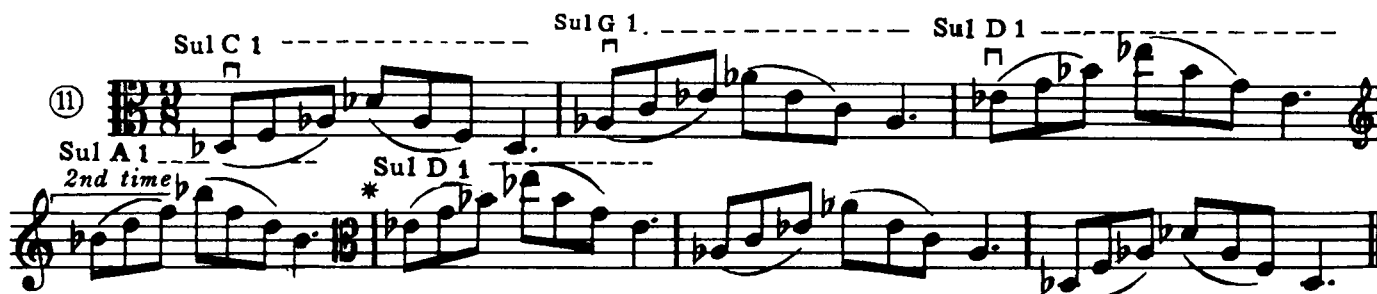
One String, One Finger Scales in String Cycle Form



The following exercises (5, 6, 7, 8, 9 and 10) are to be practiced in the complete string cycle as shown in No. 4.



One String, One Finger Major Arpeggios in String Cycle Form



The following exercises (No. 12, 13, 14, 15, 16 and 17) are to be practiced in complete string cycle form as shown in figure No. 11



SECTION 4 (Continued)

One String, One Finger Minor Arpeggios in String Cycle Form

Exercise 18: One String, One Finger Minor Arpeggios in String Cycle Form. The exercise is shown in two staves. The first staff (bass clef) shows the first time through the cycle, with labels Sul C 1, Sul G 1, and Sul D 1. The second staff (treble clef) shows the second time through the cycle, with labels Sul A 1 and Sul D 1. The exercise is marked with a 2nd time repeat sign and an asterisk.

The following exercises (19, 20, 21, 22, 23 and 24) are to be practiced in complete string cycle form as shown in No. 18.

Exercises 19-24: One String, One Finger Minor Arpeggios in String Cycle Form. These exercises are shown in two staves. The first staff (bass clef) shows the first time through the cycle, and the second staff (treble clef) shows the second time through the cycle. The exercises are marked with a 2nd time repeat sign and an asterisk.

One String, One Finger 7th Chords in String Cycle Form

Exercise 25: One String, One Finger 7th Chords in String Cycle Form. The exercise is shown in two staves. The first staff (bass clef) shows the first time through the cycle, with labels Sul C 1, Sul G 1, and Sul D 1. The second staff (treble clef) shows the second time through the cycle, with labels Sul A 1 and Sul D 1. The exercise is marked with a 2nd time repeat sign and an asterisk.

The following exercises (26, 27, 28, 29, 30 and 31) are to be practiced in complete string cycle form as shown in No. 25.

Exercises 26-31: One String, One Finger 7th Chords in String Cycle Form. These exercises are shown in two staves. The first staff (bass clef) shows the first time through the cycle, and the second staff (treble clef) shows the second time through the cycle. The exercises are marked with a 2nd time repeat sign and an asterisk.

One Finger Major Scale and Broken Chords in String Cycle Form

Exercise 32: One Finger Major Scale and Broken Chords in String Cycle Form. The exercise is shown in two staves. The first staff (bass clef) shows the first time through the cycle, with labels Sul C 1 and Sul G 1. The second staff (treble clef) shows the second time through the cycle, with labels Sul A 1 and Sul D 1. The exercise is marked with a 2nd time repeat sign and an asterisk.

## SECTION 4 (Continued)

Sul D 1

2nd time

Sul A 1

Sul D 1

Sul G 1

Sul C 1

- (a) Using the 1st finger, practice the scales of (D, A, E, B, E, A, D) in consecutive order (as in the string cycle No. 32).

When practicing one finger scales with the 2nd, 3rd or 4th finger be sure that the first finger is down on the string at all times.

- (b) Using the 2nd finger, practice the scales of (E<sub>b</sub>, B<sub>b</sub>, F, C, F, B<sub>b</sub>, E<sub>b</sub>) in consecutive order (as in No. 32).

- (c) Using the 2nd finger, practice the scales of (E, B, F $\sharp$ , C $\sharp$ , F $\sharp$ , B, E) in consecutive order (as in No. 32).

- (d) Using the 3rd finger, practice the scales of (F, C, G, D, G, C, F) in consecutive order (as in No. 32).

- (e) Using the 3rd finger, practice the scales of (F $\sharp$ , C $\sharp$ , G $\sharp$ , D $\sharp$ , G $\sharp$ , C $\sharp$ , F $\sharp$ ) in consecutive order (as in No. 32).

- (f) Using the 4th finger, practice the scales of (G, D, A, E, A, D, G) in consecutive order (as in No. 32).

## Preparation for Fingered Scales

**To be practised on all Strings in the Complete String Cycle using the following fingering**

(33) (a) 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 1 2 1 1 2 1 1 etc.  
  
(b) 2 3 3 2 3 3 etc. 2 3 3 3 2 2 3 2 2 3 2 2 etc.  
(c) 3 4 4 3 4 4 3 4 4 4 3 3 4 3 3 4 3 3

(34) (a) 1 2 1 2 1 2 1 2 etc.  
  
(b) 2 3 2 3 2 3 2 3 etc. 2 3 2 3 2 3 2 3 etc.  
(c) 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4  
1 2 1 2 2 1 2 1 etc.  
  
2 3 2 3 3 2 3 2 etc. 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4

# SECTION 4 (Continued)

(a) 1 2 1 2 2 1 2 1 2 2 etc.  
 (b) 2 3 2 3 3 2 3 2 3 3 etc.  
 (c) 3 4 3 4 4 3 4 3 4 4 etc.

(a) 1 2 1 1 2 1 2 1 2 1 2 etc.  
 (b) 2 3 2 2 3 2 3 2 3 2 3 etc.  
 (c) 3 4 3 4 3 4 3 4 3 4 3 etc.

(a) 1 2 1 2 1 2 1 2 1 2 2  
 (b) 2 3 2 3 2 3 2 3 2 3 3  
 (c) 3 4 3 4 3 4 3 4 3 4 4

(a) 2 1 2 1 2 1 2 1 2 1 2  
 (b) 3 2 3 2 3 2 3 2 3 2 3  
 (c) 4 3 4 3 4 3 4 3 4 3 4

(38)

The following scales should also be practiced in the complete Cycle Form using the rhythmic variants as outlined in

Nos. 33, 34, 35, 36, and 37. Scale of D $\flat$  } using (1-2) fingering.  
 Scale of D } using (1-2) fingering.  
 Scale of E $\flat$  } using (1-2) fingering.  
 Scale of E } using (2-3) fingering.

## FINGERED SCALES

### Major Scales in String Cycle Form

Sul C 1 2 1 2 1 2 3 4 4 3 2 1 3 2 1

(39) Each scale to be practiced in the regular sequence (see example No. 4).

### Minor Arpeggios in String Cycle Form

Sul C 1 3 1 4 1 3 1

(40) To be practiced on one string in the regular string sequence (as in No. 18).

### Major Arpeggios in String Cycle Form

Sul C 1 3 1 4 1 3 1

(41) To be practiced on one string in the regular string sequence (as in No. 11).

### Seventh Chord in String Cycle Form

Sul C 1 3 1 3 4 3 1 3 1

(42) To be practiced on one string in the regular string sequence (as in No. 25).

# SECTION 4 (Continued)

## Major Scales and Broken Chords in String Cycle Form

④③ Sul C 1 2 1 2 1 2 3 4 4 3 2 1 3 2 1 3 1 4 1 3 1 3 1 4 1 3 1 3 1 3 4 3 1 3 1

This progression should be practiced on one string in the regular string sequence (as in No. 32).

## SCALES IN POSITIONS

④④

④⑤

**SECTION 4 (Continued)**

46

0 3 0 3 1 4 4 1

1 4 1 4 1 1 1 1 1 1 1 1

0 2 0 2 0

1 3 1 4 1 1 1 1 1 1 1 1

1 3 1 4 1 1 1 1 1 1 1 1

46

1 4 1 4 1 1 1 1 1 1 1 1

1 4 1 4 1 1 1 1 1 1 1 1

1 3 1 4 1 1 1 1 1 1 1 1

1 3 1 4 1 1 1 1 1 1 1 1

47

1 4 1 4 1 1 1 1 1 1 1 1

1 4 1 4 1 1 1 1 1 1 1 1

1 3 1 4 1 1 1 1 1 1 1 1

1 3 1 4 1 1 1 1 1 1 1 1

48

1(c) 2 3 4 1(g) 2 3 4 3 2 1 4(c) 3 2 1

1(g) 2 3 4 1(d) 2 3 4 3 2 4(g) 3 2 1

1 1(a) 4 4(d) 1 1(g)

# SECTION 4 (Continued)

④ 9

1(c) 3 1 4

1(g) 3 1 4

1(d) 3 1 4

1(c)

1(g) 2 3 4 1(d) 2 3 4 3 2 4(g) 3 2 1

1(c)

1(d)

1(c)

1(g) 3 1 4

1(c) 3 1 4

## TWO OCTAVE SCALES

Practice both sets of fingering.

⑤ 0

3 0 3 0 3 0 1 0 2 3 0 3 0 3

0 3 0 3 0 3 0 3 0 3 0 3 0 3

0 0 3 2 3 0 0 0 3 2 3 0 0 0 3 1 2 3 0 0

0 1 1 4 1 0 2 0 2 0 1 1 4 1 0 2 0 2 0 3 1 3 4 3 1 1 3

# SECTION 4 (Continued)

51

52

53

54

## SECTION FIVE

### POSITION SHIFTS

Changing Positions in Single Notes Using the Principle of the Adjacent Finger Shift

①

SECTION 5 (Continued)

1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1

2nd time

1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 \*

1 2 2 1 1 2 2 1 etc.

Apply (1-3) fingering as shown in example (a) to No. 1.

a) 1 3 3 1 1 3 3 1 1 3 3 1 etc.

②

1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1

2nd time

1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 \*

1 2 2 1 1 2 2 1 etc.

Exercise (No. 2) should also be practised with the following fingering.

a) 1 3 3 1 1 3 3 1 etc.

③

**Exercise (No.3) should also be practised with the following fingering.**

b) etc.

**Apply the (1-3) and the (2-3) fingering as shown in example (a) and (b) to No.4.**

b)  etc.

# SECTION 5 (Continued)

⑤

Exercise 5 consists of five staves of music. The first staff is in 12/16 time, with a key signature of one flat (Bb). It features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The second staff is in 4/4 time, with a key signature of one flat, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The third staff is in 4/4 time, with a key signature of one sharp (F#), and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The fourth staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The fifth staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, and etc. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

Apply the (1-3) and the (2-3) fingering as shown in example (a) and (b) to No. 5.

a)

Example (a) shows two staves of music. The first staff is in 12/16 time, with a key signature of one flat, and features a sequence of eighth notes with fingerings 1 3 3 1 and 1 3 3 1. The second staff is in 4/4 time, with a key signature of one flat, and features a sequence of eighth notes with fingerings 1 3 3 1 and 1 3 3 1. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

b)

Example (b) shows two staves of music. The first staff is in 12/16 time, with a key signature of one flat, and features a sequence of eighth notes with fingerings 2 3 3 2 and 2 3 3 2. The second staff is in 4/4 time, with a key signature of one flat, and features a sequence of eighth notes with fingerings 2 3 3 2 and 2 3 3 2. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

⑥

Exercise 6 consists of five staves of music. The first staff is in 12/16 time, with a key signature of one sharp (F#). It features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The second staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The third staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The fourth staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, 1 2 2 1, and 1 2 2 1. The fifth staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 2 2 1, 1 2 2 1, and etc. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

Apply the (1-3) and the (2-3) fingering as shown in example (a) and (b) to No. 6.

a)

Example (a) shows two staves of music. The first staff is in 12/16 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 3 3 1 and 1 3 3 1. The second staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 1 3 3 1 and 1 3 3 1. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

b)

Example (b) shows two staves of music. The first staff is in 12/16 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 2 3 3 2 and 2 3 3 2. The second staff is in 4/4 time, with a key signature of one sharp, and features a sequence of eighth notes with fingerings 2 3 3 2 and 2 3 3 2. The notation includes various musical symbols such as treble and bass clefs, time signatures, key signatures, and fingerings.

## CHANGING POSITIONS IN OCTAVES

⑦

4 1

2nd time

4 1

etc.

Apply the (1-3) and the (1-3) (2-4) fingering as shown in example (a) and (b) to No. 7.

3 4 4 3 3 4 4 3 3 4 4 3

1 2 2 1 1 2 2 1 1 2 2 1

a) etc.

b) etc.

⑧

4 1

2nd time

4 1

etc.

Apply the (1-3) and the (1-3) (2-4) fingering as shown in example (a) and (b) to No. 8.

3 4 4 3 3 4 4 3 3 4 4 3

1 2 2 1 1 2 2 1 1 2 2 1

a) etc.

b) etc.

⑨

4 1

SECTION 5 (Continued)

4  
1

2nd time 4  
1

4  
1

etc.

a) Apply the (1-3) fingering.  
b) Apply the (1-3)(2-4) fingering.

⑩

4  
1

4  
1

2nd time 4  
1

4  
1

etc.

a) Apply the (2-4) fingering  
b) Apply the (1-3)(2-4) fingering

⑪

4  
1

4  
1

2nd time 4  
1

4  
1

etc.

a) Apply the (1-3) fingering  
b) Apply the (1-3)(2-4) fingering

## CHANGING POSITIONS IN ARTIFICIAL HARMONICS

⑬ Sul C - - - - -  
  
 Sul G - - - - -

 etc.

To be practised on the C and G strings only.

(a) Practise as in (figure No. 13) on the C and G strings using (1-3) fingering.

(b) Practise as in (figure No. 13) on the C and G strings using (1-3) (2-4) fingering.


⑭ Sul C - - - - -  
  
 Sul G - - - - -

 etc.

To be practised on the C and G strings only.

(a) Practise as in (figure No. 14) on the C and G strings using (1-3) fingering.

(b) Practise as in (figure No. 14) on the C and G strings using (1-3) (2-4) fingering.

⑮ Sul C - - - - -  
  
 Sul G - - - - -

 etc.

To be practised on the C, G and D strings only.

⑯ Sul C - - - - -  
  
 Sul G - - - - -

To be practised on the C, G and D strings only.

 etc.

To be practised on the C, G and D strings only.

## CHANGING POSITIONS IN UNISONS

⑰   
 etc.

Practise in the complete string cycle.

⑱  etc.

Practise in the complete string cycle.

# SECTION SIX

## FIGURES IN VARIOUS POSITIONS

Half tones between [B-C and F#-G]

①

(a) 0 1 1 2 3 0 1 1 2 3 0  
 (b) 0 1 2 1 2 2 1(d) 2 1 2 2

1 1 2 1 2 3 4 4 3 2 1 2 1 2 1 3  
 1(a) 2 1 2 3 4 4 3 2 1 2 1 2

3 1 3 3 1 3 3 1 3 3 1 3 3 2  
 0 2 1 2 1 2 0 2 1 2 1 2 0

Half tones between [F#-G and C#-D]

②

1 1 2 0 1 1 2 0 1  
 1 1 2 3 0 1(g) 1 2 3 0 1(d)

1 2 0 1 1 3 1 3  
 1 2 3 0 1(a) 3 1 1 0 2 1 2 1 2

1 3 1 3 1 3 1 3  
 1 1 0 2 1 2 1 1 0 2 1 2 1 2

Half tones between [C#-D and G#-A]

③

1 1 2 0 1 2 0 1  
 1 1 2 3 1(d) 1 2 3 1(a)

1 2 1 2 1 2 3 3 3 4 2 2 1 2 1 3 2  
 2 1 2 1 2 1 2 3 3 4 2 2 1 2 1 3 2

1 3 1 3 1 3 1 3  
 2 1 1 0 2 1 2 1 1 0 2 1 2 1 2

Half tones between [E-F and B-C]

④

0 1 1 2 3 0 1 1 2 3 (d)  
 0 1 2 1 2 2 1(g) 2 1 2 3

1 1 2 3 0 1(a) 2 1 3 3 0 1 3 3 1 3  
 1(d) 2 1 2 3 4 2 3 1 2 1 2 1 1

3 1 3 3 1 3 3 1 3 3 2 1  
 0 2 1 2 1 2 0 2 1 2 1 2 2

SECTION 6 (Continued)

Half tones between [A-B $\flat$  and E-F]

⑤

Half tones between [D-E $\flat$  and A-B $\flat$ ]

⑥

Half tones between [B-C and F $\sharp$ -G]

⑦

Half tones between [F $\sharp$ -G and C $\sharp$ -D]

⑧

## SECTION 6 (Continued)

Half tones between [E-F and B-C]

⑨

Half tones between [D-E $\flat$  and A-B $\flat$ ]

⑩

1 2 1 2 1(d) 2 1

1 2 1(a) 2 1 2 1 2

1(a) 3 1 2(a) 1 2 1 2 1 2 1 2(d)

1 2 1 2 1 2(g) 1 2 1 2 2 3

Half tones between [C#-D and G#-A]

SECTION 6 (Continued)

Half tones between [C-D $\flat$  and G-A $\flat$ ]

⑫

Exercise 12 consists of four staves of music in 2/4 time, key of B-flat major. The exercise is designed to practice half-tone intervals between C-D $\flat$  and G-A $\flat$ . The first staff shows an ascending pattern with fingerings 1, 2, 1, 2, 1, 2, 1, 2. The second staff shows a descending pattern with fingerings 1, 2, 1, 2, 1, 2, 1, 2. The third staff shows a more complex pattern with fingerings 3, 2, 1, 3, 2, 1, 3, 2, 1, 2, 1, 2. The fourth staff shows a descending pattern with fingerings 3, 1, 3, 1, 3, 1, 3, 1, 3, 1, 3, 1. Some notes are marked with '1(d)' and '2(g)'.

Half tones between [B-C and F $\sharp$ -G]

⑬

Exercise 13 consists of four staves of music in 4/4 time, key of D major. The exercise is designed to practice half-tone intervals between B-C and F $\sharp$ -G. The first staff shows an ascending pattern with fingerings 0, 1, 1, 2, 2, 3, 3, 3, 2, 2, 2, 2, 1, 2. The second staff shows a descending pattern with fingerings 1, 2, 2, 3, 3, 3, 2, 2, 2, 2, 3, 3, 3, 4. The third staff shows a more complex pattern with fingerings 4, 4, 1, 3, 3, 2, 2, 1, 3, 0, 2, 2, 1, 3, 3, 2, 2. The fourth staff shows a descending pattern with fingerings 2, 2, 1, 3, 3, 0, 0, 2, 1, 4, 3, 3, 2, 2, 1, 3. Some notes are marked with '1(a)', '2(d)', and '2(g)'.

Half tones between [E-F and B-C]

⑭

Exercise 14 consists of four staves of music in 4/4 time, key of E major. The exercise is designed to practice half-tone intervals between E-F and B-C. The first staff shows an ascending pattern with fingerings 0, 1, 1, 1, 0, 2, 3, 1, 2. The second staff shows a descending pattern with fingerings 1, 2, 3, 2, 3, 1, 2, 2, 3, 3, 4. The third staff shows a more complex pattern with fingerings 4, 4, 1, 3, 3, 2, 2, 1, 3, 0, 2, 2, 1, 3, 3, 2, 2. The fourth staff shows a descending pattern with fingerings 2, 2, 1, 3, 3, 0, 0, 2, 1, 4, 3, 3, 2, 2, 1, 3. Some notes are marked with '2(c)' and '1(g)'.

SECTION 6 (Continued)

Half tones between [D-E $\flat$  and A-B $\flat$ ]

⑮

Half tones between [A-B $\flat$  and E-F]

⑯

Half tones between [E-F and B-C]

⑰

Half tones between [B-C and F $\sharp$ -G]

⑱

The sign x indicates a lower or a higher finger extension with no change of hand position.

19

1 1 3 1 2 1(d) 1 1 2

2 1(a) 1 1 2 3x 3 2 1 3x 4 3 3

1(a) 2 1 1 2 1 1 3 2 2 3 2 1 1 1 3x 4 3 2

4 3 2 3 1 2 3 1 2 1 1 2 2 3 1

22

3 0 1 1 1 2 0 1 1 2 1

1 2 1(g) 2 1 2 1(a) 2

2 0 1 1 2 1 2 2 4 3 3 2 3 4 3 2 2 2

1 2 1(a) 2 1 3 2 1 2 3 2 0

3 2 1 2 3 4 3 3 4 2 2 3 4 3 3 4 2 3

3 2 1 2 3 1 2 0 3 2 2 3 1 2 0 3

SECTION 6 (Continued)

Half tones between [E-F and B-C]

②③

Exercise 23 consists of three staves of music in 12/8 time. The first staff uses a treble clef and a key signature of one sharp (F#). It contains two measures of eighth-note patterns with fingerings 0, 1, 2, 3, 4, 0, 1, 2, 3, 4. The second and third staves use a bass clef and a key signature of one flat (Bb). They continue the eighth-note patterns with various fingerings including 0, 1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4.

Half tones between [F#-G and C#-D]

②④

Exercise 24 consists of three staves of music in 12/8 time. The first staff uses a treble clef and a key signature of two sharps (F# and C#). It contains two measures of eighth-note patterns with fingerings 1, 0, 1, 2, 3, 1, 0, 1, 2, 3. The second and third staves use a bass clef and a key signature of two sharps. They continue the eighth-note patterns with various fingerings including 1, 0, 1, 2, 3, 1, 2, 3, 4, 3, 2, 1, 0.

Half tones between [D-Eb and A-Bb]

②⑤

Exercise 25 consists of three staves of music in 12/8 time. The first staff uses a treble clef and a key signature of two flats (D and A). It contains two measures of eighth-note patterns with fingerings 1, 2, 3, 1(d), 2, 2, 3, 1a, 2. The second and third staves use a bass clef and a key signature of two flats. They continue the eighth-note patterns with various fingerings including 1(a), 1, 2, 3, 1, 2, 3, 3(d), 3, 2, 3(g), 2, 3, 2, 3, 3(d), 3(g), 2, 3, 2, 3.

Half tones between [A-Bb and E-F]

②⑥

Exercise 26 consists of three staves of music in 12/8 time. The first staff uses a treble clef and a key signature of two flats (A and E). It contains two measures of eighth-note patterns with fingerings 1, 2, 1(g), 2, 1, 2, 1(d), 2. The second and third staves use a bass clef and a key signature of two flats. They continue the eighth-note patterns with various fingerings including 1(a), 2, 1, 3, 3(a), 2, 3(d), 3(g), 2, 3, 2, 3(c), 2, 3, 3(d), 3(g), 2, 3, 2, 3.

SECTION 6 (Continued)

Half tones between [C-D $\flat$  and G-A $\flat$ ]

②7

Half tones between [D-E $\flat$  and A-B $\flat$ ]

②8

Half tones between [C $\sharp$ -D and G $\sharp$ -A]

②9

SECTION 6 (Continued)

Half tones between [A-B $\flat$  and E-F]

③①

Half tones between [B-C and F $\sharp$ -G]

③②

Half tones between [C $\sharp$ -D and G $\sharp$ -A]

③③

Half tones between [E-F and B-C]

③④

SECTION 6 (Continued)

Half tones between [D-E $\flat$  and A-B $\flat$ ]

34

Half tones between [A-B $\flat$  and E-F]

35

Half tones between [C-D $\flat$  and G-A $\flat$ ]

36

Half tones between [G-A $\flat$  and D-E $\flat$ ]

37

SECTION 6 (Continued)

Half tones between [D-E $\flat$  and A-B $\flat$ ]

38

Half tones between [F $\sharp$ -G and C $\sharp$ -D]

39

Half tones between [C $\sharp$ -D and G $\sharp$ -A]

40

SECTION 6 (Continued)

Half tones between [B-C and F#-G]

41

Half tones between [F#-G and C#-D]

42

Half tones between [C#-D and G#-A]

43

Half tones between [B-C and F#-G]

44

Half tones between [C#-D and G#-A]

45

SECTION 6 (Continued)

Half tones between [F#-G and C#-D]

(46)

Exercise 46 is a guitar exercise in 2/4 time, featuring half tones between F#-G and C#-D. The notation is written for guitar, with a treble staff and a bass staff. The key signature has two sharps (F# and C#). The exercise consists of two staves of music. The first staff has a treble clef and a key signature of two sharps. The second staff has a bass clef and a key signature of two sharps. The exercise includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for both hands. The exercise is marked with a circled number 46.

Half tones between [C-D $\flat$  and G-A $\flat$ ]

(47)

Exercise 47 is a guitar exercise in 4/4 time, featuring half tones between C-D $\flat$  and G-A $\flat$ . The notation is written for guitar, with a treble staff and a bass staff. The key signature has two flats (B $\flat$  and E $\flat$ ). The exercise consists of two staves of music. The first staff has a treble clef and a key signature of two flats. The second staff has a bass clef and a key signature of two flats. The exercise includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for both hands. The exercise is marked with a circled number 47.

Half tones between [G-A $\flat$  and D-E $\flat$ ]

(48)

Exercise 48 is a guitar exercise in 4/4 time, featuring half tones between G-A $\flat$  and D-E $\flat$ . The notation is written for guitar, with a treble staff and a bass staff. The key signature has two flats (B $\flat$  and E $\flat$ ). The exercise consists of two staves of music. The first staff has a treble clef and a key signature of two flats. The second staff has a bass clef and a key signature of two flats. The exercise includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for both hands. The exercise is marked with a circled number 48.

Half tones between [A-B $\flat$  and E-F]

(49)

Exercise 49 is a guitar exercise in 4/4 time, featuring half tones between A-B $\flat$  and E-F. The notation is written for guitar, with a treble staff and a bass staff. The key signature has two flats (B $\flat$  and E $\flat$ ). The exercise consists of two staves of music. The first staff has a treble clef and a key signature of two flats. The second staff has a bass clef and a key signature of two flats. The exercise includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for both hands. The exercise is marked with a circled number 49.

SECTION 6 (Continued)

Half tones between [B-C and F#-G]

⑤0

Half tones between [F#-G and C#-D]

⑤1

Half tones between [C#-D and G#-A]

⑤2

SECTION 6 (Continued)

Half tones between [G#-A and D#-E]

53

Exercise 53 is a three-staff musical piece in 2/4 time with a key signature of three sharps (F#, C#, G#). It consists of 16 measures. The notation includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for a guitar or fretted instrument. The piece is marked with a circled '53' at the beginning.

Half tones between [E-F and B-C]

54

Exercise 54 is a three-staff musical piece in 2/4 time with a key signature of two sharps (F#, C#). It consists of 16 measures. The notation includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for a guitar or fretted instrument. The piece is marked with a circled '54' at the beginning.

Half tones between [D-Eb and A-Bb]

55

Exercise 55 is a three-staff musical piece in 2/4 time with a key signature of two flats (Bb, Eb). It consists of 16 measures. The notation includes various fret numbers (0, 1, 2, 3, 4) and fingerings (1, 2, 3, 4) for a guitar or fretted instrument. The piece is marked with a circled '55' at the beginning.

SECTION 6 (Continued)

Half tones between [A-B $\flat$  and E-F]

(56)

Half tones between [C-D $\flat$  and G-A $\flat$ ]

(57)

## *Notes*

## *Notes*

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