

# James Tenney

## BRIDGE

two pianos, eight hands

1982-84

### TUNING INSTRUCTIONS STIMMPLAN

spelled out in the 'Extended Helmholtz-Ellis JI Pitch Notation' (devised by Marc Sabat & Wolfgang von Schweinitz)  
notiert in der von Marc Sabat und Wolfgang von Schweinitz konzipierten 'Extended Helmholtz-Ellis JI Pitch Notation'

Legend of microtonal signs:  
Die mikrotonalen Vorzeichen:

♭♭ ♭ ♯ \*

Pythagorean Series of 3:2 Fifths  
Pythagoreische Quintenreihe

♭̣ ♯̣ \*̣ ♭̣̣ ♯̣̣

Lowers / raises the pitch by a Syntonic Comma  
Erniedrigung / Erhöhung um ein Syntonisches Terzkomma  
81:80 = circa 21.5 cent

♭̣̣̣ ♯̣̣̣ \*̣̣̣ ♭̣̣̣̣ ♯̣̣̣̣

Lowers / raises the pitch by two Syntonic Commas  
Erniedrigung / Erhöhung um zwei Syntonische Terzkommas  
circa 43 cent

~  
Enharmonic alteration by a Schisma (above = raises ; below = lowers)  
Enharmonische Alterierung um ein Schisma (32805:32768 = circa 2 cent)

# James Tenney : BRIDGE

## REPERTORY OF INTERVALS INTERVALLREPERTOIRE

PIANO 1  
 $128/125 = \text{Lesser Diesis (circa 41 c)}$        $2048/2025 = \text{Diaschisma (circa 20 c)}$

PIANO 2  
 $128/125 = \text{Kleine Diesis (circa 41 c)}$        $2048/2025 = \text{Diaschisma (circa 20 c)}$

<i>Diatonischer Halbton</i> (112 c)	<i>Großes Chroma</i> (92 c)	<i>Kleines Chroma</i> (71 c)	<i>Minor Chroma</i> (71 c)	<i>Diatonic Semitone</i> (112 c)	<i>Major Chroma</i> (92 c)
16 / 15	16 / 15	<b>135 / 128</b>	16 / 15	<b>25 / 24</b>	16 / 15
16 / 15	16 / 15	<b>135 / 128</b>	16 / 15	<b>25 / 24</b>	16 / 15

25 / 24   16 / 15   **135 / 128**   16 / 15   16 / 15   **135 / 128**   16 / 15   25 / 24   16 / 15   **135 / 128**   16 / 15   16 / 15

256 / 225   9 / 8   9 / 8   10 / 9   10 / 9   256 / 225   9 / 8   9 / 8   10 / 9   10 / 9   9 / 8   9 / 8

10 / 9   9 / 8   9 / 8   **256 / 225**   9 / 8   9 / 8   10 / 9   10 / 9   9 / 8   9 / 8   **256 / 225**   10 / 9

10 / 9   9 / 8   9 / 8   **256 / 225**   9 / 8   9 / 8   10 / 9   10 / 9   9 / 8   9 / 8   **256 / 225**   10 / 9

6 / 5 6 / 5 75 / 64 32 / 27 32 / 27 6 / 5 6 / 5 75 / 64 32 / 27 75 / 64 6 / 5 6 / 5

First system of musical notation. It consists of four staves. The top two staves are treble clef, and the bottom two are bass clef. Fret numbers are indicated above and below notes. Accidentals (sharps and naturals) are used to indicate specific pitches. The notes are: Treble 1: +18, +29, 0, +12, +23, +16, +27, +10, +2, +14, +25; Treble 2: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10; Bass 1: 0, +4, +2; Bass 2: -23, -12, -8, -25, -14, -22, -10, -27, -16.

75 / 64 6 / 5 6 / 5 6 / 5 6 / 5 75 / 64 32 / 27 75 / 64 6 / 5 6 / 5 32 / 27 32 / 27

32 / 25 5 / 4 5 / 4 512 / 405 5 / 4 32 / 25 5 / 4 5 / 4 5 / 4 5 / 4 32 / 25 81 / 64

Second system of musical notation. It consists of four staves. Fret numbers and accidentals are used. The notes are: Treble 1: +29, 0, +12, +23, +16, +27, +10, +2, +14, +25, +18; Treble 2: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10; Bass 1: 0, +4, +2; Bass 2: -12, -8, -25, -14, -22, -10, -27, -16, -23.

5 / 4 32 / 25 81 / 64 32 / 25 5 / 4 5 / 4 5 / 4 5 / 4 32 / 25 5 / 4 512 / 405 5 / 4

4 / 3 4 / 3 4 / 3 4 / 3 4 / 3 4 / 3 4 / 3 675 / 512 4 / 3 4 / 3 27 / 20 27 / 20

Third system of musical notation. It consists of four staves. Fret numbers and accidentals are used. The notes are: Treble 1: 0, +12, +23, +16, +27, +10, +2, +14, +25, +18, +29; Treble 2: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10; Bass 1: 0, +4, +2; Bass 2: -8, -25, -14, -22, -10, -27, -16, -23, -12.

4 / 3 27 / 20 27 / 20 4 / 3 4 / 3 675 / 512 4 / 3 4 / 3 4 / 3 4 / 3 4 / 3 4 / 3

64 / 45 64 / 45 45 / 32 64 / 45 **25 / 18** 64 / 45 45 / 32 45 / 32 64 / 45 45 / 32 **36 / 25** 45 / 32

First system of musical notation. It consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The notation includes various accidentals (sharps, flats, naturals) and fret numbers (e.g., +12, +23, +16, +27, +10, +2, +14, +25, +18, +29, 0, -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10, -2, +4, -8, -25, -14, -22, -10, -27, -16, -23, -12, +2, 0, +4, -27, -16, -23, -12, -8, -25, -14, -22, -10). Some notes have 'x' over them, indicating natural harmonics.

45 / 32 **36 / 25** 45 / 32 64 / 45 45 / 32 45 / 32 64 / 45 **25 / 18** 64 / 45 45 / 32 64 / 45 64 / 45

**1024 / 675** 3 / 2 3 / 2 **40 / 27** **40 / 27** 3 / 2 3 / 2 3 / 2 3 / 2 3 / 2 3 / 2 3 / 2

Second system of musical notation. It consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The notation includes various accidentals and fret numbers (e.g., +23, +16, +27, +10, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10, -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10, -2, +4, -25, -14, -22, -10, -27, -16, -23, -12, -8, +2, 0, +4, -27, -16, -23, -12, -8, -25, -14, -22, -10). Some notes have 'x' over them, indicating natural harmonics.

3 / 2 3 / 2 3 / 2 3 / 2 3 / 2 3 / 2 **40 / 27** **40 / 27** 3 / 2 3 / 2 **1024 / 675** 3 / 2

8 / 5 8 / 5 **25 / 16** **128 / 81** **25 / 16** 8 / 5 8 / 5 **405 / 256** 8 / 5 **25 / 16** 8 / 5 8 / 5

Third system of musical notation. It consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The notation includes various accidentals and fret numbers (e.g., +16, +27, +10, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10, -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10, -2, +4, -25, -14, -22, -10, -27, -16, -23, -12, -8, +2, 0, +4, -27, -16, -23, -12, -8, -25, -14, -22, -10). Some notes have 'x' over them, indicating natural harmonics.

**25 / 16** 8 / 5 **405 / 256** 8 / 5 8 / 5 **25 / 16** **128 / 81** **25 / 16** 8 / 5 8 / 5 8 / 5 8 / 5

128 / 75 5 / 3 5 / 3 5 / 3 5 / 3 128 / 75 27 / 16 27 / 16 5 / 3 5 / 3 128 / 75 27 / 16

Treble staff: +27, +10, +2, +14, +25, +18, +29, 0, +12, +23, +16  
 Bass staff: -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Treble staff: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Bass staff: -14, -22, -10, -27, -16, -23, -12, -8, -25  
 Treble staff: +2, 0, +4, -2, +4  
 Bass staff: -27, -16, -23, -12, -8, -25, -14, -22, -10

5 / 3 27 / 16 27 / 16 128 / 75 5 / 3 5 / 3 5 / 3 5 / 3 128 / 75 27 / 16 128 / 75 5 / 3

16 / 9 16 / 9 225 / 128 16 / 9 16 / 9 9 / 5 9 / 5 225 / 128 16 / 9 16 / 9 9 / 5 9 / 5

Treble staff: +10, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Bass staff: -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Treble staff: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Bass staff: -22, -10, -27, -16, -23, -12, -8, -25, -14  
 Treble staff: +2, 0, +4, -2, +4  
 Bass staff: -27, -16, -23, -12, -8, -25, -14, -22, -10

225 / 128 9 / 5 9 / 5 16 / 9 16 / 9 225 / 128 16 / 9 16 / 9 9 / 5 9 / 5 16 / 9 16 / 9

256 / 135 15 / 8 15 / 8 256 / 135 15 / 8 48 / 25 15 / 8 15 / 8 256 / 135 15 / 8 48 / 25 15 / 8

Treble staff: +10, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Bass staff: -2, +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Treble staff: +2, +14, +25, +18, +29, 0, +12, +23, +16, +27, +10  
 Bass staff: -10, -27, -16, -23, -12, -8, -25, -14, -22  
 Treble staff: +2, 0, +4, -2, +4  
 Bass staff: -27, -16, -23, -12, -8, -25, -14, -22, -10

15 / 8 48 / 25 15 / 8 256 / 135 15 / 8 15 / 8 256 / 135 15 / 8 48 / 25 15 / 8 256 / 135 15 / 8