LOU HARRISON’S GARLAND OF PENTATONICS (p.26-33 of Lou Harrison’s Music Primer)

File name: **P01.scl**

Notes of scale in ratios and cents from C (or whatever fundamental you choose)

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 5/3 884.359 major sixth, BP sixth

5: 2/1 1200.000 octave

**P02.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 9/5 1017.596 just minor seventh, BP seventh

5: 2/1 1200.000 octave

**P03.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P04.scl**

0: 1/1 0.000 unison, perfect prime

1: 5/4 386.314 major third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P05.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 9/5 1017.596 just minor seventh, BP seventh

5: 2/1 1200.000 octave

**P06.scl**

0: 1/1 0.000 unison, perfect prime

1: 16/15 111.731 minor diatonic semitone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P07.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P08.scl (Fibonacci Numbers)**

0: 1/1 0.000 unison, perfect prime

1: 5/4 386.314 major third

2: 21/16 470.781 narrow fourth

3: 3/2 701.955 perfect fifth

4: 13/8 840.528 tridecimal neutral sixth

5: 2/1 1200.000 octave

**P09.scl (“Slendro” types – pentatonics without semitones)**

0: 1/1 0.000 unison, perfect prime

1: 7/6 266.871 septimal minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 7/4 968.826 harmonic seventh

5: 2/1 1200.000 octave

**P10.scl**

0: 1/1 0.000 unison, perfect prime

1: 8/7 231.174 septimal whole tone

2: 9/7 435.084 septimal major third, BP third

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P11.scl**

0: 1/1 0.000 unison, perfect prime

1: 8/7 231.174 septimal whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 7/4 968.826 harmonic seventh

5: 2/1 1200.000 octave

**P12.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 7/4 968.826 harmonic seventh

5: 2/1 1200.000 octave

**P13.scl**

0: 1/1 0.000 unison, perfect prime

1: 8/7 231.174 septimal whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P14.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P15.scl**

0: 1/1 0.000 unison, perfect prime

1: 7/6 266.871 septimal minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P16.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 7/4 968.826 harmonic seventh

5: 2/1 1200.000 octave

**P17.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P18.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 5/3 884.359 major sixth, BP sixth

5: 2/1 1200.000 octave

**P19.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 5/3 884.359 major sixth, BP sixth

5: 2/1 1200.000 octave

**P20.scl**

0: 1/1 0.000 unison, perfect prime

1: 8/7 231.174 septimal whole tone

2: 4/3 498.045 perfect fourth

3: 8/5 813.686 minor sixth

4: 16/9 996.090 Pythagorean minor seventh

5: 2/1 1200.000 octave

**P21.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 21/16 470.781 narrow fourth

3: 3/2 701.955 perfect fifth

4: 9/5 1017.596 just minor seventh, BP seventh

5: 2/1 1200.000 octave

**P22.scl (“Pelog” types – pentatonics with semitones)**

0: 1/1 0.000 unison, perfect prime

1: 16/15 111.731 minor diatonic semitone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P23.scl**

0: 1/1 0.000 unison, perfect prime

1: 12/11 150.637 3/4-tone, undecimal neutral second

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P24.scl**

0: 1/1 0.000 unison, perfect prime

1: 5/4 386.314 major third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P25.scl**

0: 1/1 0.000 unison, perfect prime

1: 16/15 111.731 minor diatonic semitone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P26.scl**

0: 1/1 0.000 unison, perfect prime

1: 16/15 111.731 minor diatonic semitone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P27.scl**

0: 1/1 0.000 unison, perfect prime

1: 16/15 111.731 minor diatonic semitone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P28.scl**

0: 1/1 0.000 unison, perfect prime

1: 28/27 62.961 Archytas' 1/3-tone

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 14/9 764.916 septimal minor sixth

5: 2/1 1200.000 octave

**P29.scl**

0: 1/1 0.000 unison, perfect prime

1: 5/4 386.314 major third

2: 45/32 590.224 diatonic tritone

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P30.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 7/6 266.871 septimal minor third

3: 3/2 701.955 perfect fifth

4: 63/40 786.422 narrow minor sixth

5: 2/1 1200.000 octave

**P31.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 14/9 764.916 septimal minor sixth

5: 2/1 1200.000 octave

**P32.scl**

0: 1/1 0.000 unison, perfect prime

1: 11/10 165.004 4/5-tone, Ptolemy's second

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 14/9 764.916 septimal minor sixth

5: 2/1 1200.000 octave

**P33.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 75/64 274.582 classic augmented second

3: 3/2 701.955 perfect fifth

4: 25/16 772.627 classic augmented fifth

5: 2/1 1200.000 octave

**P34.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 25/16 772.627 classic augmented fifth

5: 2/1 1200.000 octave

**P35.scl**

0: 1/1 0.000 unison, perfect prime

1: 11/10 165.004 4/5-tone, Ptolemy's second

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 9/5 1017.596 just minor seventh, BP seventh

5: 2/1 1200.000 octave

**P36.scl “Mixed Types” (have a variety of interval successions)**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 4/3 498.045 perfect fourth

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P37.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 9/7 435.084 septimal major third, BP third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P38.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 9/7 435.084 septimal major third, BP third

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P39.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 9/7 435.084 septimal major third, BP third

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 2/1 1200.000 octave

**P40.scl**

0: 1/1 0.000 unison, perfect prime

1: 15/14 119.443 major diatonic semitone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P41.scl**

0: 1/1 0.000 unison, perfect prime

1: 15/14 119.443 major diatonic semitone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 15/8 1088.269 classic major seventh

5: 2/1 1200.000 octave

**P42.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 7/5 582.512 septimal or Huygens' tritone, BP fourth

3: 3/2 701.955 perfect fifth

4: 8/5 813.686 minor sixth

5: 2/1 1200.000 octave

**P43.scl**

0: 1/1 0.000 unison, perfect prime

1: 15/14 119.443 major diatonic semitone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 12/7 933.129 septimal major sixth

5: 1/1 0.000 unison, perfect prime

**P44.scl**

0: 1/1 0.000 unison, perfect prime

1: 12/11 150.637 3/4-tone, undecimal neutral second

2: 6/5 315.641 minor third

3: 3/2 701.955 perfect fifth

4: 13/8 840.528 tridecimal neutral sixth

5: 2/1 1200.000 octave

**P45.scl**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 13/8 840.528 tridecimal neutral sixth

5: 2/1 1200.000 octave

**P46.scl**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 5/4 386.314 major third

3: 3/2 701.955 perfect fifth

4: 7/4 968.826 harmonic seventh

5: 2/1 1200.000 octave

**P47.scl Harmonics 5-10 – WB addition**

0: 1/1 0.000 unison, perfect prime

1: 6/5 315.641 minor third

2: 7/5 582.512 septimal or Huygens' tritone, BP fourth

3: 8/5 813.686 minor sixth

4: 9/5 1017.596 just minor seventh, BP seventh

5: 2/1 1200.000 octave

**P48.scl SubHarmonics 5-10 – WB addition**

0: 1/1 0.000 unison, perfect prime

1: 10/9 182.404 minor whole tone

2: 5/4 386.314 major third

3: 10/7 617.488 Euler's tritone

4: 5/3 884.359 major sixth, BP sixth

5: 2/1 1200.000 octave

**S1.scl Harrison’s “middle” diatonic**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 6/5 315.641 minor third

3: 4/3 498.045 perfect fourth

4: 3/2 701.955 perfect fifth

5: 5/3 884.359 major sixth, BP sixth

6: 7/4 968.826 harmonic seventh

7: 2/1 1200.000 octave

**S2.scl** **Harrison’s variation diatonic**

0: 1/1 0.000 unison, perfect prime

1: 9/8 203.910 major whole tone

2: 6/5 315.641 minor third

3: 4/3 498.045 perfect fourth

4: 3/2 701.955 perfect fifth

5: 12/7 933.129 septimal major sixth

6: 9/5 1017.596 just minor seventh, BP seventh

7: 2/1 1200.000 octave

**S3.scl Harrison’s “lovely soft diatonic”**

0: 1/1 0.000 unison, perfect prime

1: 21/20 84.467 minor semitone

2: 6/5 315.641 minor third

3: 4/3 498.045 perfect fourth

4: 3/2 701.955 perfect fifth

5: 63/40 786.422 narrow minor sixth

6: 9/5 1017.596 just minor seventh, BP seventh

7: 2/1 1200.000 octave