

## Non-rational Tunings

Tunings whose component intervals are not defined by whole number ratios

Not related to, derived from, or approximations to some rational tuning (at least on a conscious/intentional level)

Non-systematic (e.g. 12-tet is non-rational but systematic)

## Examples

Javanese gamelan tunings consist of 'families' of tunings rather than precisely defined interval sizes

'Octave' is usually not a 2/1 – usually stretched or compressed

*Slendro*

Anhemitonic (no semitones)

Often referred to as 'similar to 5-tet' (240 cent steps)

Wide seconds, narrow thirds – Lou Harrison

Small, equal, and large intervals – Larry Polansky

Related to bonang dissonance curve – William Sethares

*Pelog*

Hemitonic (includes semitones)

Narrow seconds, wide thirds – Harrison

Related to saron dissonance curve – Sethares

Many tunings are tuned 'by ear' in order to embody desired aesthetic qualities, rather than to fit a predetermined model of 'perfect' interval sizes