

six instruments

for any six instruments in extended just intonation
ben kaya december 2025

notes

there are individual lines for each player. players play their lines and loop to the beginning.
each note is to be sustained for a minimum of 10 seconds and a maximum of 25 seconds.
one entire cycle of the piece should last between 15 to 20 minutes. however you can perform as many cycles as wished. players should try to not to actively switch notes together, naturally it will happen and this is appropriate for the piece however in general it should not coincide.
all six instruments should blur and meld into a harmonic mass.

the first of the six players begins the piece. after the first player has played their first note then player two begins their cycle. once player two has gone through a cycle player three begins. this then continues until all six players are playing at once. once player six has played their cycle twice player one can then begin fading away, then in sequence until only player six remains, where then the second page begins with player five then coming in, and continues in the same fashion until all players are playing together. repeat this cycle as many times as you wish.

when all players are playing together, everyone should be at their loudest, around a metzo forte, when there is less players at once, it is quieter, almost illegible. creshendo and decreshendo accordingly.

any instrument that can play a sustained tone can play the piece. any octave is acceptable. within a single loop you are welcome to transpose the notes to various octaves regardless of what is written. take into account tuning restraints. ideally a blend of strings, brass and woodwinds can be used. the piece can be translated for 12 players, with two playing each part individually.

make your best effort to sustain a steady, soft tone. tuck yourself into the layer. this piece is a social effort as much as a structured sonic environment. your own part is a link in the chain and addition to a temporary environment.

versions of the score in bass clef and alto clef are available.

tuning

this piece is written in helmholtz-ellis just intonation, originally created by wolfgang von schweintz and marc sabat. it uses a set of alternative accidentals that align with prime number partials of the harmonic series to indicate deviations from equal temperament. these accidentals provide a baseline and a cent deviation is provided for all pitches. stability of tuning is incredibly important, do your best to keep your tone sustained.

below is a tuning table of the accidentals used in this composition, up to the 7th partial

bb b b# x

pythagorean series of 3:2 fifths

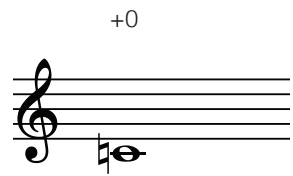
b b# x x b b# b#

lowers / raises the pitch to alter the pythagorean thirds 81:64 & 32:27 by a syntonic comma to represent the ptolemaic thirds 5:4 & 6:5 deviated by circa 21.5¢

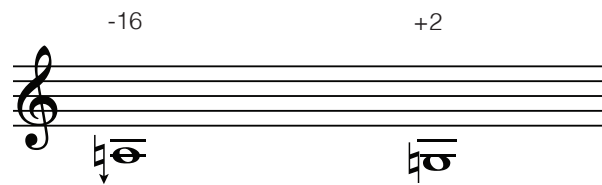
L r

lowers / raises the pitch to diminish the 16:9 pythagorean minor seventh by a septimal comma to represent the 7:4 natural seventh deviated by circa 27.3¢

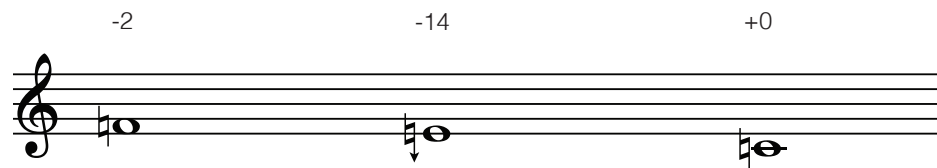
+0



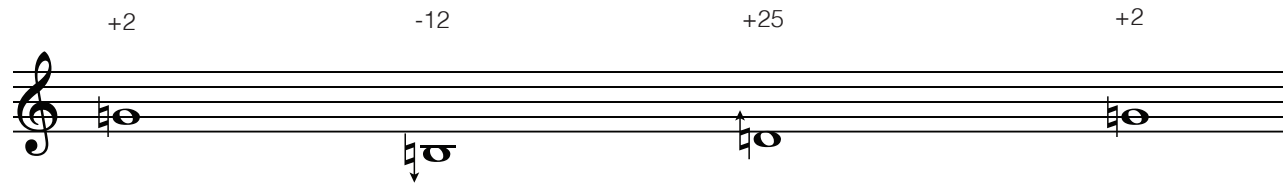
-16 +2



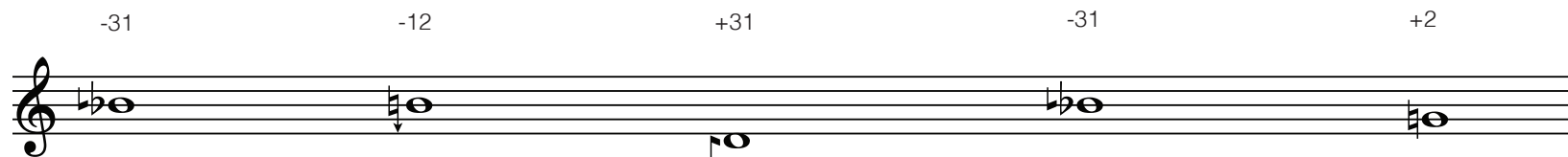
-2 -14 +0



+2 -12 +25 +2



-31 -12 +31 -31 +2



+0 +31 -25 -14 +4 +0

