

8 fermentations
(on a sketch by Charles Dodge)

2 guitars

Larry Polansky
2015/2016

8 fermentations (on a sketch by Charles Dodge)

2 guitars

Larry Polansky
2015/2016

Played in order, no pause between *fermentations* unless indicated.

Tuning and Retuning

The fundamental pitch of *8 fermentations* is $A = 440$, or any agreed upon A . All tunings are derived from that fundamental, either as octaves or odd harmonics of A , or as octaves or odd harmonics of two of its harmonics, E and E_b (3^{rd} and 11^{th}).

Guitars I and II are initially tuned to odd harmonics of E . Over the course of the piece, both guitars gradually retune, so that by *Sketch 2*, Guitar 1 is tuned to harmonics of $E_b (=A_{11})$, a tritone about a semitone flat of 12TET). Guitar 2 is tuned to harmonics of A .

Retuning is usually done one string at a time. Often tunings do not change between *fermentations* (see tuning chart). Retuning is “built in,” accomplished as part of the performance. Guitarists should learn to do it by ear, with the visual aid of tuning peg positions.

Cents deviations (ϵ) from 12TET are given in the tuning chart and the score, but generally only when the difference to 12TET is significant (greater than $5-10\epsilon$). Tuning differences less than that are considered equivalent.

Written pitches are “sounding” pitches on the instrument, as retuned. For example, if the III string is tuned to G_b , and the written pitch is C , it is played on the 6^{th} fret. Accidentals and fingerings generally hold thru the measure, unless changed.

The tunings for the 10 sections — *Sketch, 8 fermentations, Sketch 2* — are shown in the following chart.

Note that because of the retuning, and because the guitar is fretted in equal-temperament, the same note played on different strings generally results in different pitches. These “cognate” pitches will also differ between guitars and the 10 sections of the piece.

Larry Polansky
Northampton, MA/Gallaudet U. Library/Santa Cruz, CA
Rev. 7/16/18, Fairlee, VT

[Thanks to Sarang Kim for assistance in engraving; Giacomo Fiore, Elliot Simpson, James Moore and Cristián Alvear for proofreading, editing and invaluable suggestions; Amy Beal for invaluable support.]

8 fermentations

(on a sketch by Charles Dodge)

Sketch. (Tuning)

E1 (E5) E9 E3 E1
 (+2 -12 -29 +6 +4 +2)
 VI V IV III II I

Guitars 1 and 2 (same tuning to begin)
 Eb = A11

Sketch

Slow, quiet, free. Either guitar solo, freely, or both together, not exactly, but closely.

p

II III I III V
 IV

I II III I
 (VI) (VI) III VI V II (VI)

II VI II II I III II
 III V IV V VI

I VI II (gt.1 only)
 IV IV I

Gt.2 tune V → A(+0)
 retune Gt.1 VI to Eb1=A11 (-49)

14

(p.o) (p.o) 3x

III II III II III III II III I IV VI VI

I II III IV V VI

I II III IV III II V V IV V

18

I IV I (p.o) (p.o)

Back to beginning dynamic (gliss. dyads)

louder!

VI VI VI

VI VI VI

III I II III I II III I III I IV I IV I

III I IV I II VI V

III II I VI II (alt. fingering, lower octaves, no harm.)

22

III II III II III I III V IV IV V III V

IV III II I II III IV III IV V IV V IV V IV

26

(V IV VI V IV VI)

6

6

5

V IV VI

V IV VI V IV VI

V IV VI V IV VI

VI V IV

VI IV III

8va

V IV VI V IV VI

III IV VI V VI

ff

snap with rh. off string

30

V III IV V IV III

I 3 III II II III II II III

V VI

V

V III IV V IV III

V IV V IV IV V IV

I 3 IV III II I II III IV

V

34

(2nd x)

V VI

V VI

I IV V I V

V II I IV I III

II III II III II III

I IV I V I I

I II I

IV I V I III I III

7:6

6

V IV III I IV

38

I II III IV V VI

II VI 5 II III VI II 5 II III I III 5 VI II VI II 5 II I III II 5 II I

5 [6,5,6] 5 [1x, 2x, 3x]

6 [5,6,7] 6 [1x, 2x, 3x]

bend freely

III II III II III

I II I II I

(alt. VI V, lower octaves, throughout this passage) (see m. 19)

41

3X

IV V VI V

III III III

(fingering as before) (opens ring)

V IV III II I I II III I II (?) II III IV III II I

45

I II I I II I VI

V VI V VI IV III IV

(art.)

IV VI II I II I I III II I III I II I II I II

49

2X

5X

loud!!

gradually get loud over 5 repeats

Guitar I: quietly tune II down to Bb (=Eb3) →

9th fr. art. δ^{va} 9th fr. RH δ^{va}

(IV, quiet) II III V VI VI V I I (10"/15")

(behind nut) δ^{va} (not harm.) δ^{va} and back up

II III I IV VI (or II) IV I II III IV fingered, no strike IV I II III I II I II I II IV V I (14"/21")

(hold as long as possible) VI I II III IV 7th harm. V VI

(bend behind nut) δ^{va} (I-IV) δ^{va}

IV III I RH V IV RH I II IV *Tune quietly (I-IV, 7th fr.) (10"/15")

VI I III A5

* or, tune in 1st measure of V, and play chord here

** If this piece is played by itself, use this chord, not the D->C# event.

V. Tuning

Gt. 1 Gt. 2 *

(same as IV) C# = A5 (-14)

V. Simply (as a folk song, not slow)

(anywhere in measure) (anywhere)

quietly

(if not tuning, finger D on IV)

III IV I V I I III IV II III —
IV — I V I V II IV II III IV II IV V

--- (anywhere) ---

6

(in time)

III IV IV V IV V IV V IV II

(III) V II V II V II I II I II II III III II III V

(when a note can be sustained, do so for as long as possible)

11

(II) II III IV IV II IV II II III IV

III II III I I II III I I II III V III II V

(Sustain as long as possible)

(N.B If high notes not available on III, play passage as art. harmonics)

16

II III IV II IV I II I III III II I II III II III II II I IV I II I IV I II III V III II IV II IV I IV I IV I V VI II IV IV

21

Guitar 1 melody, with a lot of rhythmic freedom

I IV III IV I IV II IV V IV IV III I V VI V IV (art.) II III I

27

RH

IV V VI IV IV V I IV I IV I IV II V IV I IV II III V VI

VI. Tuning

Gt. 1 * (P4th) Gt. 2

Eb9 (+45) (same as V)

Repeated measures any number of times, change on cue.

VI.

(harmonics or fretted, same string, any combination)

I *etc.* *etc.* *etc.*

5 (Eb17) 17:16 17:16 17:16

I (Eb1) (16) III

Eb17

5 *etc.* 17:16 17:20 17:20 15:20

tune down to Eb9 (+45) 9:8 9:10 9:10 9:8

I III I III

(Eb3) 3 3 3 6:5

[Any arpeggio note can be played as a natural harmonic (in various places) or fretted (occasionally on different strings), register should not change. Fingerings given to be used at least once]

X3 or more

11:10

5th or 12th fr.

(opt. slide)

(arpeggio not strictly metered)

[Repeat several times]

(opt. slide)

(Guitar 1 keeps playing arpeggio)

I (harmonics or fretted on same string)

(or fretted)

Repeat each measure above several times, this section can be long. Freely vary order of tuplets under changing Gt. 1 arpeggio.

on cue → VII.

Gt. 1: Gradually, over several repeats, replace notes in arpeggio.

(even 16ths)

(either pitch)

(may be stopped +)

When Gt. 1 has almost completed its substitutions, Gt. 2, over several repeats, replaces its previous 16th patterns with the above. May retune G to G (A7 -31) here, or in VII.

VII. Tuning

Gt. 1 (same as VI)
Gt. 2 (A harmonics complete) *
A7 (-31)

VII. very fast, loud

3X strum, damp a bit 3X unison
Harmonics may be used freely.
Gradually tune Gb → G_n (A7, -31)

Fingerings given for Gt. 2 in VII are notated at pitch. Guitar 1 work out hisr fingering for cognate pitches.

(Guitar II fingerings only)
5
8
11
11:8
17

(C#s may also be played as art. harmonics)
(or IV harmonic)
(or harmonic)
(p.o. Gt. 1 only) (p.o. Gt. 2 only)

14

I — II I — (II) I — (II) I — (II)

IV III V — VI

IV/V/VI
(vary string over three indicated strings)

3X

17

VI — V — IV — III

II — I — II — I

19

(I) II III I II III IV

II IV H.O P.O tap H.O P.O tap

II IV H.O P.O tap

→ VIII.

21

II I — 5 — II IV II I 5 IV II II IV

II IV H.O P.O tap H.O P.O tap (same as beat 2)

III IV — III IV — III IV — II

III II III II 5 III II

(alt. B natural, harm., II)

several repeats

(loud and hard to end)

VIII. Tuning

Gt. 1 * Eb7 (-80, or D +20) Gt. 2 (same as VII)

[Note: VIII may be played as a separate piece.]

Note: The riffs may be played in any sequence, but Gt. 2 starts with its first 5/8 pattern. Gt. 1 ends with its 5/8. Riffs may be stylized: bending, different sounds, dampings, slides. But always in time, fingered as written, no pauses between repeats or new riffs.

In tempo, the # of total beats in Gt. 1 = Gt. 2

VIII. Riffs

Tempo: fast, constant.

Intro Tune D → Db(-80), audibly

Loud, bluesy repeat until cue when ready cue guitar 2

[Guitar 1 riffs]

(end with Riff 8)

After 3 or more repeats, on cue, go to *Ending Riff* (unison 5/8 m. w/ Guitar 2)

Sketch II

Same as beginning **Sketch**, but first quietly retune Gt. 1 V, M3rd to Gt. 2 Eb. Then, play **Sketch**. Use any fingerings for cognate pitches in guitar tuning.

Gt.1 * Gt. 2

Eb1 Eb5 Eb7 Eb9 Eb3 Eb17(=A11) A3 A1 A5 A7 A9 A11 (=Eb1)
 (=A11) -62 -44

Gt. 2 or

Gt. 2 sounds quietly, using volume pedal.
 Gt. 1 audibly tunes 5/4 M3rd to Gt. 2 Eb

Guitar Tunings

(8 Fermentations on a sketch by Charles Dodge)

Guitar 1
Sketch

Guitar 2

Guitar 1

Guitar 2

<p>I</p> <p>E1=A3 E5 E7 E9 E3 E1=A3 -12 -29 +6</p>	<p>I</p> <p>E1=A3 E5 E7 E9 E3 E1=A3 -12 -29 +6</p>	<p>I *</p> <p>Eb1=A11 E5 E7 E9 E3 E1=A3 -49</p>	<p>I *</p> <p>E1=A3 A1 E7 E9 E3 E1=A3 +0</p>
<p>II <i>(same as I)</i></p> <p>(same as I)</p>	<p>II <i>(same as I)</i></p> <p>(same as I)</p>	<p>III <i>(same as I, II)</i></p> <p>(same as I, II)</p> <p>A11=(Eb1) -49</p>	<p>III *</p> <p>(same as I, II)</p> <p>A11=(Eb1) -49</p>
<p>IV</p> <p>Eb3 -47</p>	<p>IV <i>(same as III)</i></p> <p>(same as III)</p> <p>E1=A3</p>	<p>V *</p> <p>Eb1=A11 -49</p>	<p>V *</p> <p>A5 -14</p>
<p>VI</p> <p>Eb9 (E1) -45</p>	<p>VI <i>(same as V)</i></p> <p>(same as V)</p> <p>Eb9 (E1) -45</p>	<p>VII <i>(same as VI)</i></p> <p>(same as VI)</p> <p>E1=A3 (A5) A7 A11=Eb1 -49</p>	<p>VII *</p> <p>(same as VI)</p> <p>E1=A3 (A5) A7 A11=Eb1 -49</p>
<p>VIII</p> <p>Eb7 -80</p>	<p>VIII <i>(A harmonics complete)</i></p> <p>(A harmonics complete)</p> <p>A3 A1 A5 A7 A9 A11</p>	<p>sketch 2 *</p> <p>Eb1(=A11) Eb5 Eb7 Eb9 Eb3 -49 -62 -80 -45 -47 <i>(Eb harmonics complete)</i></p>	<p>sketch 2 *</p> <p>Eb17 -44</p>