

Six Moving Guitars

Wandering

Circling

Circling, Alternating

Running

Pendulating

Fredrik Rasten (2018)

About the piece and overview of the sections

Six Moving Guitars investigates how the sound from several acoustic guitars can comprise a sounding choreography by means of rotation, pendulating, running and slow walking while activating the strings of the instruments. It is also a study in how people, without necessarily being trained musicians, can act together in a musical situation based on awareness of listening and spatial orientation. The performers move around in the performance space, each playing a guitar in various ways using open strings (with or without capos) in specific 5- or 7-limit just intonation tunings. The music is organized in three duos, with each duo playing patterns in rhythmic unison.

1. Wandering - standing in a row, the performers play a gradually developing motif as they slowly move forward, after a while spreading out, and wandering where they like.

2. Circling - The section starts with a solo where the soloist occasionally strums the strings while rotating around their own axis. The guitar body is pointing out from the performer / centre of the axis, held up horizontally by the centrifugal force. The duo companion joins in similarly, following the chord impulses of the former while the two of them start to move in a big circle, continuing to rotate around their respective axes.

3. Circling, Alternating - The second duo joins in with their open chords, echoing the first duo.

The third duo eventually joins in with a third echo, sometimes also transposed upwards using capos. The different duos play alternating chord patterns.

4. Running - The third duo starts to run / march in unison at a moderate tempo. After a while they strum chords relating to a $7/4$ meter to the established running pulse.

The second duo starts running as well in the established tempo, adding their open chord on another beat in the $7/4$ -meter. The music ends with the two duos running out of the room while still playing for a while, eventually coming to an end.

5. Pendulating - All performers stand in a slightly curved row, holding their guitars by the nut (top string bridge) while swinging their instruments with simultaneous movements from one side to the other. On every 8th cycle of this coordinated pendulating movement (also directed with one of the performer's cue) they are strumming all the strings together, collectively sounding a cluster chord containing almost all of the chords from the rest of the piece. Now and then, also on a cue, they let the chord ring for 16 cycles instead of 8, allowing for a longer decay of the chord.

Notes on performing

In 'Wandering' the left hand and arm holds / embraces the guitar's body while the right hand thumb or index finger plucks the strings.

For the other sections, the guitars are either held by the nut (where the strings enter the headstock) with the left hand and plucked with the right hand, or, for some of the performers, played in a normal position while sitting on the floor, plucking with the thumb of the right hand.

Throughout, the strings should be played with the "flesh" (i.e. not with a nail) of either thumb or index finger, to make the tone as round and full as possible.

Also, for similar reasons, the strings should *generally* be struck around the 12th fret / around the middle of the string, but allow for variation. Activating the strings closer to the sound hole or between the sound hole and the bridge will make the higher frequencies and partials ring out more, while the fullness of the bass and midrange become less prominent.

The dynamic is quite consistent throughout - not very soft, not very loud, but resonant and clear.

The sounds of footsteps and other movements are natural parts of the music, but should not take too much focus. Thus, for instance, wearing socks instead of shoes is preferred.

For most of this music it will be impossible to read the score in a normal way, therefore the score will need to be learnt by heart and / or through practice.

Notation

Wandering is the only section that utilizes normal staff notation to some extent, namely for the rhythmic unfolding of the music. Instead of showing the pitches in a staff, each instrument has one line each where the note heads indicate the rhythmic aspect, and where **the numbers** written over each notehead shows which string(s) to play.

For each new element introduced (identified by roman numerals), only the instruments and the place in the bar where the change takes place are notated. The rest of the ensemble continue without changing. Text boxes connected to each of these variations also describe the changes involved.

Circling is notated with instructions and illustrations.

Circling, Alternating is notated with information-boxes looking like math-symbols / fractions (each identified by numbers in a circle) and arrows showing the succession of each variation.

Here is a description of the notation:

On the top the total number of instances of the specific part is written

'3&4' - means 'guitarist 3 and 4'

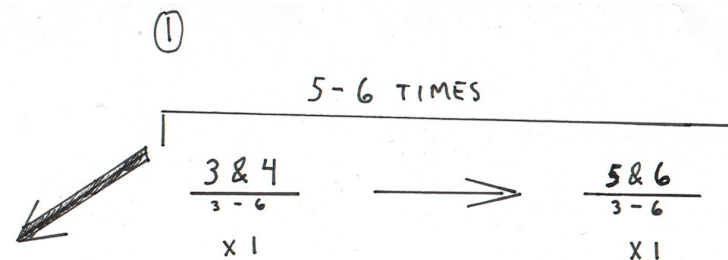
'3-6' - means string 3-6

'x 1' - means that this duo plays their chord **once** before the next duo plays their material

'---->' (**thin arrow**) shows the succession of the duos within a specific variation

'--->' (**thick arrow**) shows the succession of the different variations

('1') - also shows the temporal succession of the different variations



Running is notated with instructions and illustrations as well as the 'fractions' from 'Circling, Alternating' showing which duo play which combination of strings, and where capos are used.

Pendulating is notated with instructions and illustrations.

SIX MOVING GUITARS

TUNING CHART

GUITAR 1

STR.	HZ.	RATIO (D)	NOTE/CENT
1	275	15/8	C# -14
2	220	3/2	A
3	165	9/8	E +2
4	146,7	4/4	D -2
5	110	3/4	A
6	91,7	5/8	F# -16

GUITAR 3*

STR.	HZ.	RATIO (E)	NOTE/CENT
1	371,2	9/4	F# +6
2	247,5	3/2	H +4
3	185,6	9/8	F# +6
4	165	4/4	E +2
5	123,8	3/4	H +4
6	82,5	2/4	E +2

GUITAR 5

STR.	HZ.	RATIO (D)	NOTE/CENT
1	330	9/4	E +2
2	256,7	7/4	C -33
3	183,4	5/4	F# -16
4	146,7	4/4	D -2
5	110	3/4	A
6	73,3	2/4	D -2

GUITAR 2

STR.	HZ.	RATIO (D)	NOTE/CENT
1	275	15/8	C# -14
2	220	3/2	A
3	165	9/8	E +2
4	110	3/4	A
5	110	3/4	A
6	73,3	2/4	D -2

GUITAR 4*

STR.	HZ.	RATIO (E)	NOTE/CENT
1	309,4	15/8	D# -10
2	247,5	3/2	H +4
3	185,6	9/8	F# +6
4	165	4/4	E +2
5	123,7	3/4	H +4
6	103,1	5/8	G# -12

GUITAR 6

STR.	HZ.	RATIO (D)	NOTE/CENT
1	330	9/4	E +2
2	256,7	7/4	C -33
3	183,4	5/4	F# -16
4	146,7	4/4	D -2
5	110	3/4	A
6	73,3	2/4	D -2

* GUITAR 3 & 4 IS TUNED AND PLAYED WITH CAPO ON 2ND FRET

Wandering (Ca 13-15 minutes)

Choreography for Wandering:

Starting in one row in one end of the room, the performers move slowly forward, walking in the pulse of the music. After a while they are spreading out from the row, wandering where they like. In the end, the performers sit down in the middle of the room while continuing to play, either together or a little spread out.

Timings in Wandering:

Approximate timings for when new variations are introduced are noted by every variation. These are not to be followed strictly, but can be used as a guide for where to dwell longer, and where the changes can unfold faster. The timings are based on the recording of the piece (released as SOFA 573)

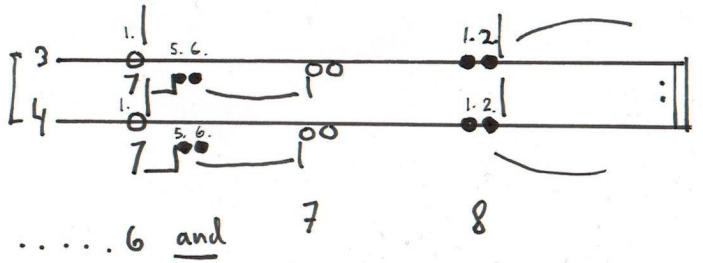
A more basic principle to keep in mind regarding the timings for Wandering is that the 'main parts' to dwell in for a longer time are the first part (I), the part where all of the off beat chords are introduced (VI), and the very end parts (XV, XVI). The other parts are simply processes of gradually adding or removing new elements, and can proceed faster

Collectively, the three duos play a slowly pulsating 8-beat bar repeatedly

COUNT/PULSE: 1 2 3 4 5 6 7 8

♩ = ca 31

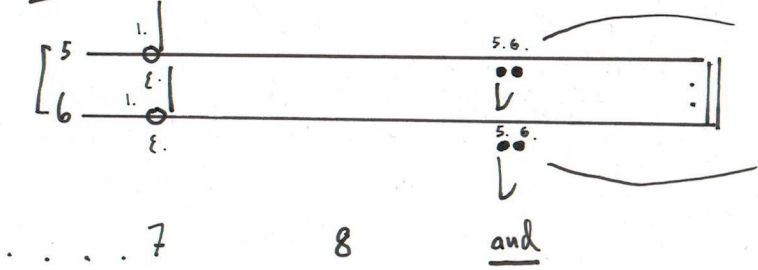
II



ca 2'20

The duo consisting of guitarist 3 and 4 introduce an offbeat chord with their 5. and 6. string, between the 6th and 7th beat of the bar / loop

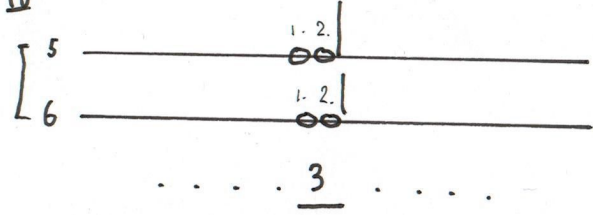
III



ca 3'

The duo consisting of guitarist 5 and 6 introduce an offbeat chord with their 5. and 6. string, between the 8th and the recurring 1st beat of the bar / loop

IV



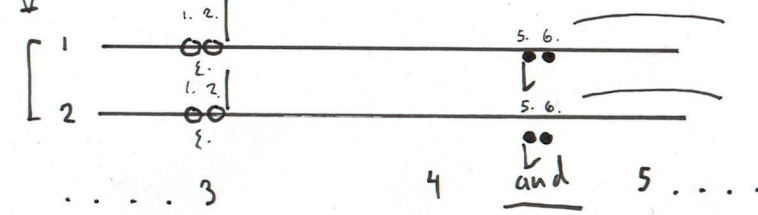
ca 3'50

The duo consisting of guitarist 5 and 6 introduce their 2nd string to the 3rd beat of the bar / loop

ca 4'

The duo consisting of guitarist 1 and 2 introduce an offbeat chord with their 5. and 6. string, between the 4th and the 5th beat of the bar / loop

V



VI

NOTES PLAYED
ONLY FIRST TIME.
LET RING OUT

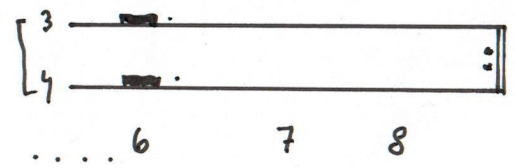
The musical notation is organized into six staves, numbered 1 to 6 from top to bottom. The first two staves (1 and 2) are grouped together with a bracket on the left. The next two staves (3 and 4) are also grouped with a bracket. The last two staves (5 and 6) are grouped with a bracket. The notation spans eight measures, numbered 1 to 8 at the bottom. In measure 1, staves 1 and 2 have notes with a slash and a vertical line. Staves 3 and 4 have notes with a slash and a vertical line, and a slur above them. Staves 5 and 6 have notes with a slash and a vertical line. In measure 2, staves 3 and 4 have notes with a slash and a vertical line. In measure 3, staves 5 and 6 have notes with a slash and a vertical line, and a slur above them. In measure 4, staves 1 and 2 have notes with a slash and a vertical line, and a slur above them. Staves 3 and 4 have notes with a slash and a vertical line. In measure 5, staves 1 and 2 have notes with a slash and a vertical line, and a slur above them. Staves 3 and 4 have notes with a slash and a vertical line. In measure 6, staves 1 and 2 have notes with a slash and a vertical line, and a slur above them. Staves 3 and 4 have notes with a slash and a vertical line. In measure 7, staves 1 and 2 have notes with a slash and a vertical line, and a slur above them. Staves 3 and 4 have notes with a slash and a vertical line. In measure 8, staves 1 and 2 have notes with a slash and a vertical line, and a slur above them. Staves 3 and 4 have notes with a slash and a vertical line. Staves 5 and 6 have notes with a slash and a vertical line, and a slur above them. The notation includes various symbols such as notes, rests, slurs, and performance instructions like '5. 6.' and '1. 2.'.

ca 5'50

The top string material comes to an end after playing the notes occurring on the 1st beat once

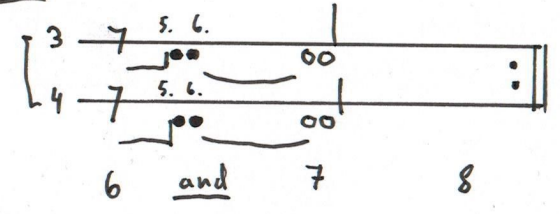
However, guitarist 5 & 6 keep their 1st and 2nd string material on the 3rd beat, and the differing offbeat chords of all three duos continue

VII ca 7'20



Guitarist 3 and 4 take a break in their offbeat for a few rounds, before reintroducing it

VIII ca 7'40



IX

Handwritten musical notation for guitarists 3 and 4, measures 1-8. The notation shows rhythmic patterns and fingerings (1, 2, 5, 6, 7) on the strings. A double bar line with repeat dots is at the end of measure 8.

ca 8'30

Guitarist 3 and 4 reintroduce their top string material

1 2

PAUSE ONLY
FIRST TIME.
NOTES HANG
OVER FROM
FIRST REPETITION ON

X

ca 9'20

Handwritten musical notation for guitarists 1 and 2, measures 1-8. The notation shows rhythmic patterns and fingerings (1, 2, 5, 6, 7) on the strings. A double bar line with repeat dots is at the end of measure 8.

Guitarist 1 and 2 reintroduce their top string material

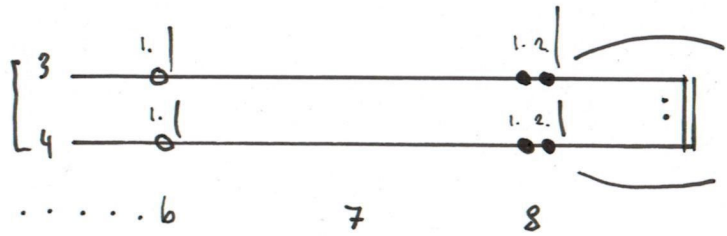
ca 9'30

XI

Guitarist 5 and 6 reintroduce their top string material

Handwritten musical notation for guitarists 5 and 6, measures 1-8. The notation shows rhythmic patterns and fingerings (1, 2, 5, 6, 7) on the strings. A double bar line with repeat dots is at the end of measure 8.

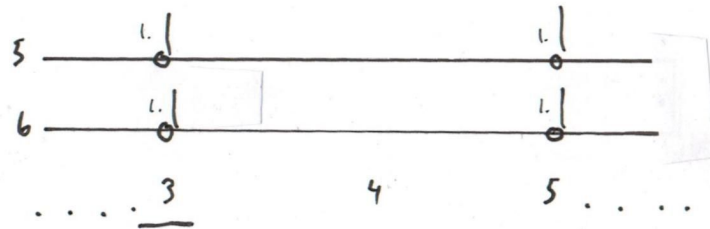
XII



ca 10'20

Guitarist 3 and 4 cease to play their offbeat chord

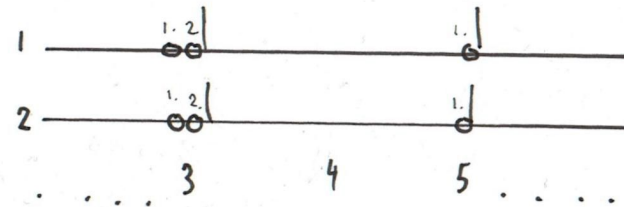
XIII



ca 10'40

Guitarist 5 and 6 cease to play their 2nd string on the 3rd beat

XIV



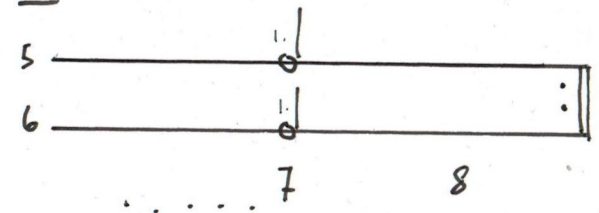
ca 10'50

Guitarist 1 and 2 cease to play their offbeat chord

ca 11'20

Guitarist 5 and 6 cease to play their offbeat chord

XV



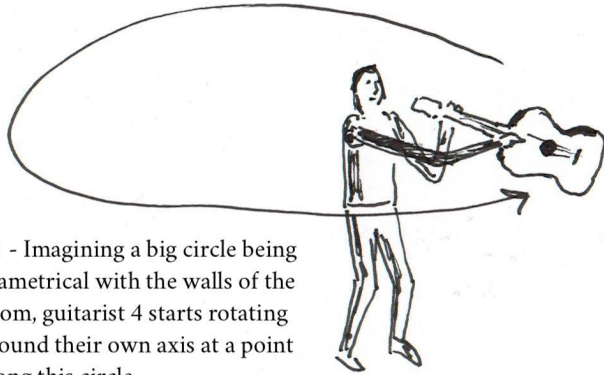
Everyone sit down carefully while continuing to play..

Guitarist 4 ceases to play, stands up and walk a little away from the rest of the performers

4

Everyone except guitarist 4 continues to play the loop for a few more rounds / another 40-60 seconds into the 'Circling'- chords introduced by guitarist 4

CIRCLING (I)



I.1 - Imagining a big circle being diametrical with the walls of the room, guitarist 4 starts rotating around their own axis at a point along this circle.

I.2 - Holding the guitar with one hand by the nut (where the strings enter the headstock), they start to strum all the strings in a slow, free pulse - approximately 6 to 10 seconds between each chord,

I.3 - After a while (around one minute) the chords should occur more frequently, ca 3 to 5 seconds between each chord, clustering in groups of 5 chords. The last chord in each group rings out into silence or almost so, before another chord group is played.

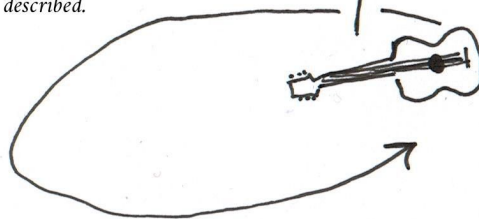
This process of groups of chords alternating with silence continues throughout the whole section.

Playing instructions / technique:

Vary freely between chords with strings 1-6 and 3-6, but be consistent within each chord group.
When guitarist 3 joins in, they try to follow guitarist 4's choice of string set.

Strings are strummed from top to bottom strings (1 to 6 or 3 to 6) with the flesh of the index finger, close to the 12th fret for a full and rounded tone,

The strings should produce chords that sound more or less as a single impact, however, a rapid arpeggiation is a natural part of the strumming in the way described.



CIRCLING (II)

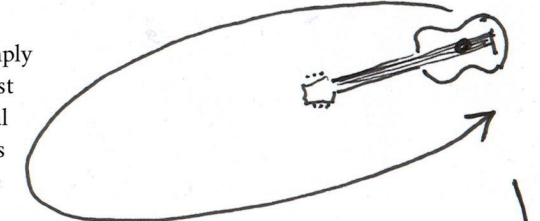
II.1 - Guitarist 3 also begins an axial rotation, in the diametrical opposite end of the imagined circle filling the room.

Guitarist 3 starts playing - simply mimicking / following guitarist 4's strumming, aiming for total unison. Inevitable slight delays will occur and make for subtle echoes.

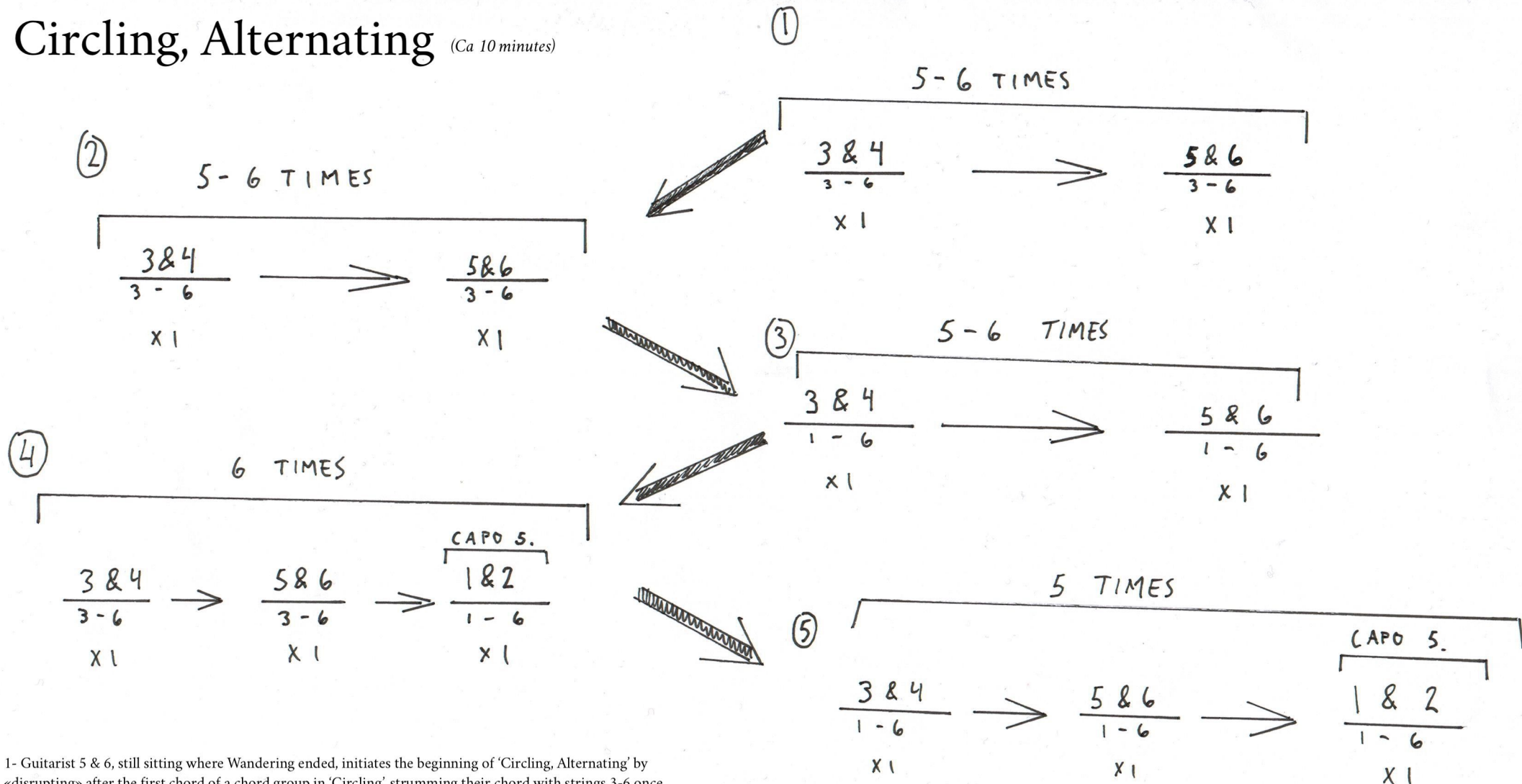
II.2 - Soon, both start orbiting the circle, keeping their positions diametrical to each other while continuing their axial rotation and the unison strummed chord groups.

Towards the end of 'Circling', omit the top strings, using only strings 3-6.

This marks a subtle transition into 'Circling, Alternating'



Circling, Alternating (Ca 10 minutes)



1- Guitarist 5 & 6, still sitting where Wandering ended, initiates the beginning of 'Circling, Alternating' by «disrupting» after the first chord of a chord group in 'Circling', strumming their chord with strings 3-6 once. This creates a new «loop», alternating between the chord of guitarist 3 & 4 struck once (playing strings 3-6) and the chord of guitarist 5 & 6 (playing strings 3-6) also struck once. This loop is played 5 - 6 times before fading into some seconds of silence.

2 - The '1-loop' is repeated, again played 5-6 times before fading into silence.

3 - The same loop is repeated again, also 5-6 times before fading into silence, but now with everyone playing all strings (1-6)

4 - Guitarist 1 & 2, also sitting where Wandering ended, joins in as a third part of the repeated chain of chords, playing all strings (1-6) with a capo on their 5th fret. Guitarist 3 & 4 and 5 & 6 play strings 3 - 6 again. This loop goes six times.

5 - The same arrangement as '4', but now with everyone playing all strings (1-6). The loop is played 5 times.

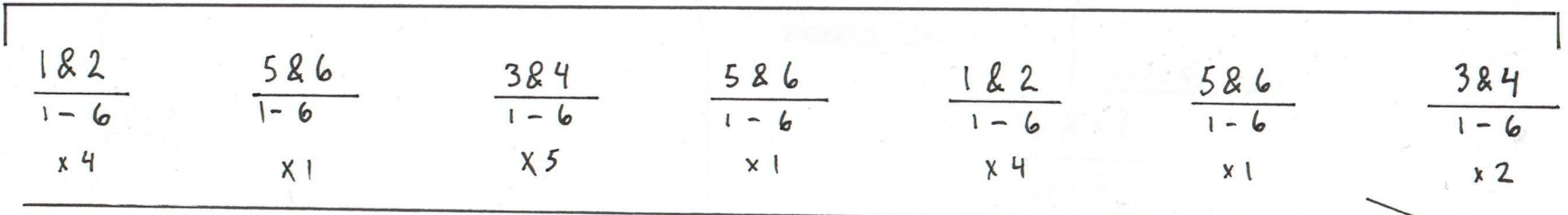
Playing instructions / technique for guitarist 1-2 and 5-6:

Guitars are held in a normal position. Chords are strummed with the flesh of the thumb, from bottom to top (6-3 or 6-1, depending on the part), with one quite rapid movement.

The chords should generally be strummed close to the 12th fret, which is the middle of the string, for a bassy and rounded tone, but for subtle timbral variation one can sometimes strum closer to the sound hole of the guitar. The latter will give a brighter sound /activate higher partials.

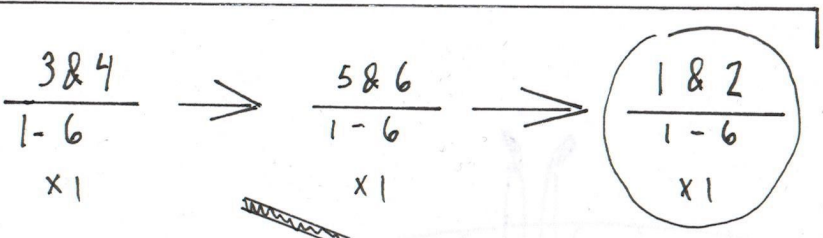
6

2 TIMES (SILENCE IN BETWEEN)



7

5 TIMES



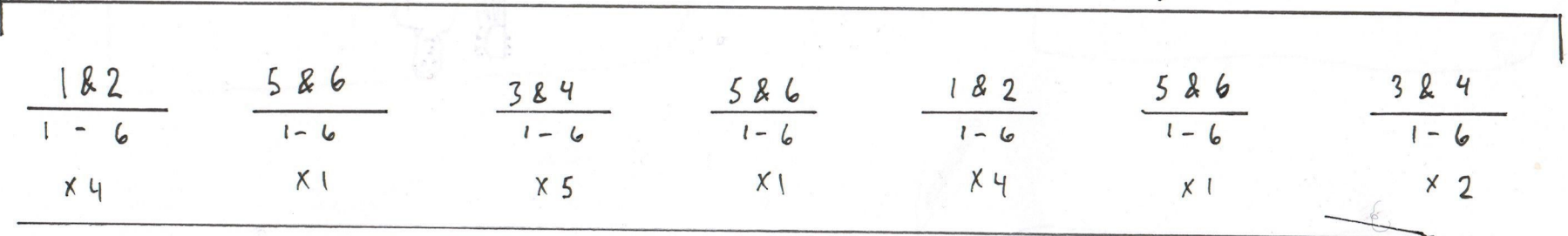
CAPO FOR 1&2:

1ST TIME	2ND TIME	3RD TIME	4TH TIME	5TH TIME
1: CAPO 5.	CAPO 5.	CAPO 5.	CAPO 7.	CAPO 5.
2: CAPO 5.	CAPO 7.	CAPO 5.	CAPO 7.	CAPO 5.

8

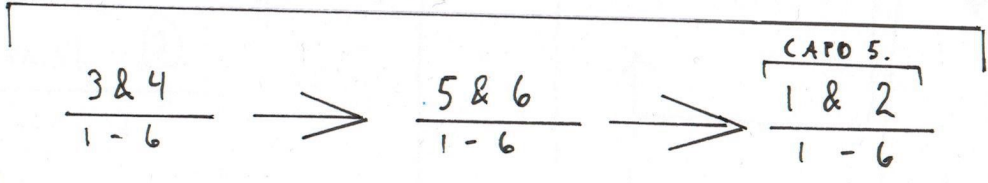
(SAME AS 6)

2 TIMES (SILENCE IN BETWEEN)



5 TIMES

9



Note:

There should always be a longer pause between each chord group / duo, than between each individual chord within a chord group.

'6' introduces a new loop where each duo plays their chords in specific repetition-patterns (see figure 6)

7 - Same as '5', but with guitarist 1 & 2 following a specific configuration with capos (see figure 7)

8 - Same as '6'

9 - Same as '5'

Ending of 'Circling, Alternating':

A little while after the last chords have rung out, the section comes to an end by guitarist 4 and 5 stopping their orbiting and rotating, waiting for a while at their respective positions.

Running (Ca 6-7 minutes)

CAPO 5.
1 & 2
1-6

'RUNNING' ①

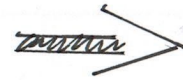
Guitarist 1 removes the capo from their guitar, while guitarist 2 keeps it on 5th fret.

1 & 2 gets up from their sitting position in the middle of the room and starts jogging in the same tempo (approx. 136 bpm), either side by side or one after the other, first to one of the walls, then around the entire room as shown in the illustration.

The guitar is held by the nut with one hand, the other hand ready to strum a full chord. But both guitarists restrain from playing for a while, just paying attention to jogging in a steady pulse, in unison with each other.

After a while, for instance after a whole round around the room, one of them initiates a first chord (all strings strummed from 1 to 6), on one of the down steps / in the pulse of the jogging, while the other guitarist follows / echoes this impulse as unison as possible.

This impulse introduces a 7/4 meter in the pulse of the jogging, where a chord is struck, first on every second 'one'-beat of this meter (in other words, every 14th step), then, after a while, on every 'one'-beat of the meter (in other words, every 7th step).



'RUNNING' ②

CAPO 5.
1 & 2
1-6
|
5 & 6
1-6

Ending of 'Running':

If possible - 'Running' ends with both duos jogging out of the room, continuing to play for a while, making an organic fade out. Otherwise, simply stop playing and eventually stop jogging.

After a while, for instance 2 minutes or so, guitarist 5 & 6 join jogging in the same tempo and in the same 'path' as the other duo, either side by side, or one after the other, in close proximity to guitarist 1 & 2.

Soon guitarist 5 & 6 start striking a full chord on the 'four'-beat in every second 7/4 bar.

Described in a slightly different way - if counting to 7, they play on every second 'four'-beat of the 7-cycle,

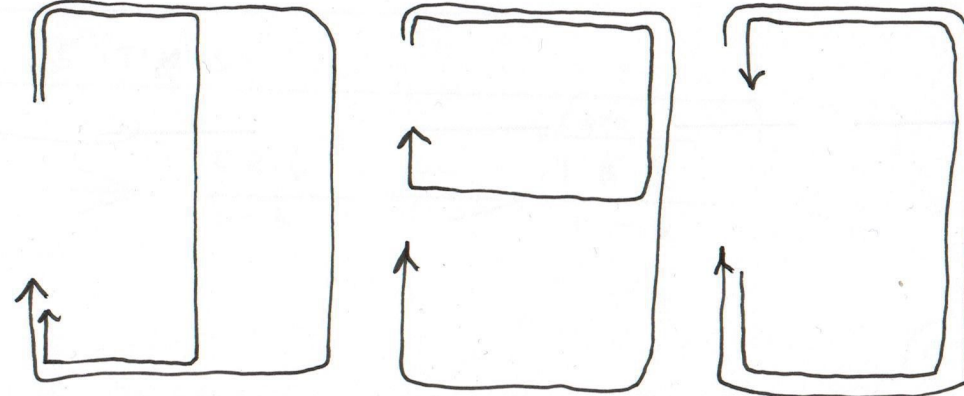
if counting to 14, they play on every 'four'-beat of the 14-cycle.



After a while (in the sections' 4th minute or so), guitarist 5 & 6 break out of the path, and start following one of the paths illustrated below, or an improvised path relating more spontaneously to the features of the room.

The music continues as before, but the increased distance between the duos will make for a bigger challenge in keeping a common pulse, which effects will be a natural part of the music.

'RUNNING' ③



Pendulating (Ca 5-6 minutes)

All the performers stand in a line or curve with some meters distance to each other, facing the crowd (or a part of the crowd, if the crowd is spread out in the room)

On the cue of one the performers, they start to pendulate their guitars in a coordinated movement, holding the guitars by the nut.

Guitarist 2 keeps their capo on the 5th fret, as on 'Running'

Starting with another cue, a full chord is struck on every 8th cycle of the pendulum movement, on the point where the instrument reaches a peak /turning point of the movement. The point where the chord is struck should be visually cued as well, to help the chords sound as unison as possible.

These unison chords will create a massive roaring cluster consisting of most of the chords occurring through the piece, here sounding at once.

A few times throughout the section, the performer responsible for cueing the chords skip a cue / chord, making the distance between two chords 16 pendulum movements instead of 8. These longer intervals between chords should occur ca 3 - 4 times and be quite evenly distributed over the span of the section.

A last visual cue marks that section should come to an end. The last chord rings out and the pendulating movements gradually stop.

