Jeremy Woodruff

Sonic Envelope 2

for Flute, Violin, Gong, Flash Photographer and meditator with EEG sensors

"…how does this line of sound lead me into an altered sense of space?
how does this circular motion of frequencies position the body?
Sound space expands and contracts, pulled up and rolled down,
wrapping an existing room with its sonic envelope only to peel it away,
exposing hidden cavities where one sound folds over another…"

- Brandon LaBelle, on Bernhard Leitner

The Flute and Violin provide a shifting, kaleidescopic harmonic soundscape onto which the live EEG readings transformed into sound of a listening subject, are superimposed. A photographer simultaneously documents the piece and also stimulates the brainwaves of the subject involuntarily with the camera flash. A gong functions as an additional sonic contrast, marker and stimulus.

FLUTE AND VIOLIN:

Where a glissando is noted, a very gradual slide through all subsequent bars should be performed until the next noted frequency ratio is reached. A line with an arrow is added to show exactly where this occurs. The ratio of the interval is in relation to the note either steadily sounded in the other instrument or, in the case of both instruments glissandoing in octaves, to the note that was last heard steadily sounding for a long time. Below the frequency ratio notation, the cents alteration to be applied to the equal tempered pitch is added. The symbol of a particular note type is used when the actual glissandoing pitch to be played is within -50 to +50 cents around that pitch.

A line across the staves shows where one instrument takes the current pitch level from the other so that they can continue together exactly at an octave doubling. A grace note shows that the instrument breaks off from the octave doubling pitch level, to go to the next pitch, i.e., not performing a glissando through to their next note, but rather following the other instrument's pitch up until that point. The violin and flute should try to be exactly in tune with each other where they have octave doubling. This will naturally result in some push and pull as they gradually negotiate how to slide to the next pitch while staying together.

The flutist may take breaths as necessary and the breath marks in parenthesis are just suggestions. If possible it would be best to avoid taking breaths while a glissando is in process. And also to avoid taking a breath immediately after the glissando has reached its goal, but to first allow the stability of the pitch to really set in before taking a breath.

dynamics should proceed from a musical sensitivity to bringing out the frequency beating versus the qualities of the just intonated intervals which is a result of the counterpoint.

The flute and violin should be positioned in the left and right isles (or generally on two sides of the audience) and towards the back.

GONG:

Preferrable is a kempul (medium) gong of a gamelan ensemble. The pitch is irrelevent. Otherwise some other sort of pitched long-decaying gong, The gong should be positioned in front of the audience and approximately 5-7 feet behind the meditator. The gong follows a timeframe notation but one that is mediated by the flashes of the photographer. The gong player will give a large downbeat at the beginning of the piece to indicate the start of the stopwatches.

PHOTOGRAPHER:

The photographer follows the timeframe notation. There are one to three numbers of shots listed in any given frame of time. For each number of shots the photographer should take that many flash photographs in rapid succession (as rapid as the recharging of the flash will allow.) There should be a pause of indeterminate length between the number of shots listed. If possible itwill be preferrable if the camera flash can also trigger another flash that is always focused on the EEG subject. In any case the photographer should go around the room documenting the event normallyas in any photoshoot.

MEDITATOR:

Attempt to meditate. Focus on the sound in the room. The Meditator should be positioned in front of the audience.

There is a timeline notated in seconds at the end of every bar. The performers should use stopwatches to coordinate.

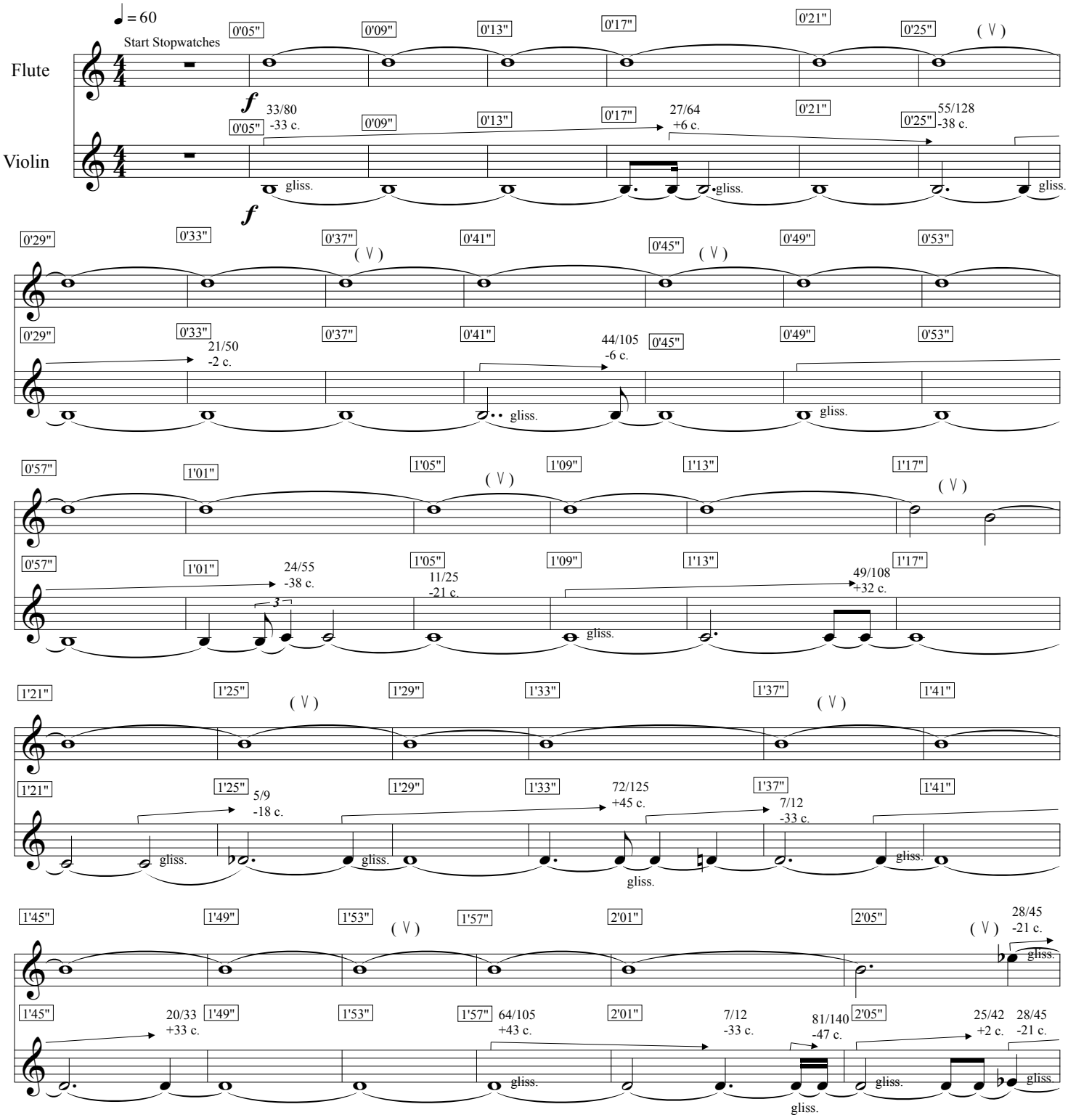
Thanks to Luke Loeffler for artistic inspiration and help with video. Thanks to Felipe Castelblanco, who was the photographer in the premeire performance. Thanks to IonSound Project at the University of Pittsburgh.

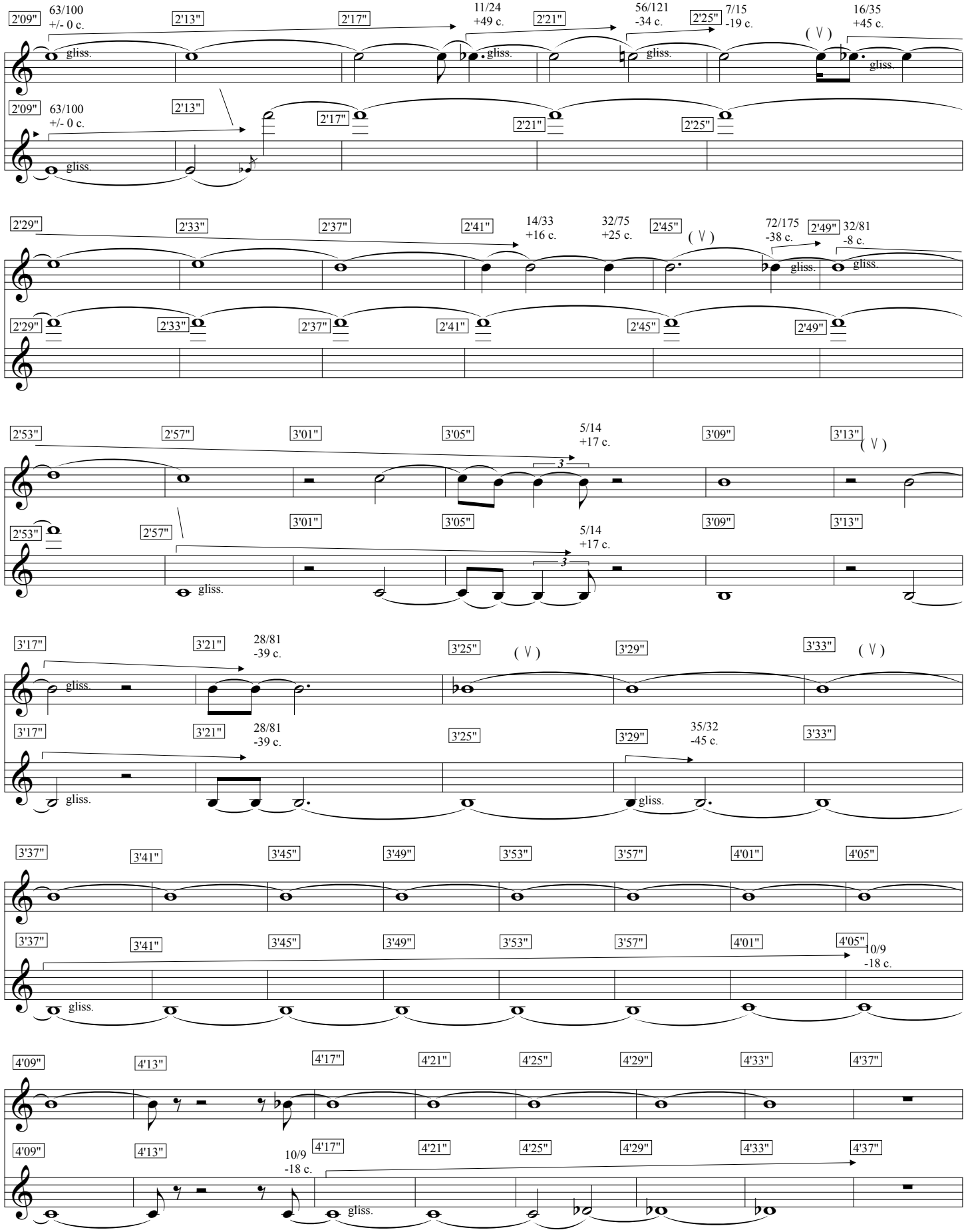
Flute and Violin

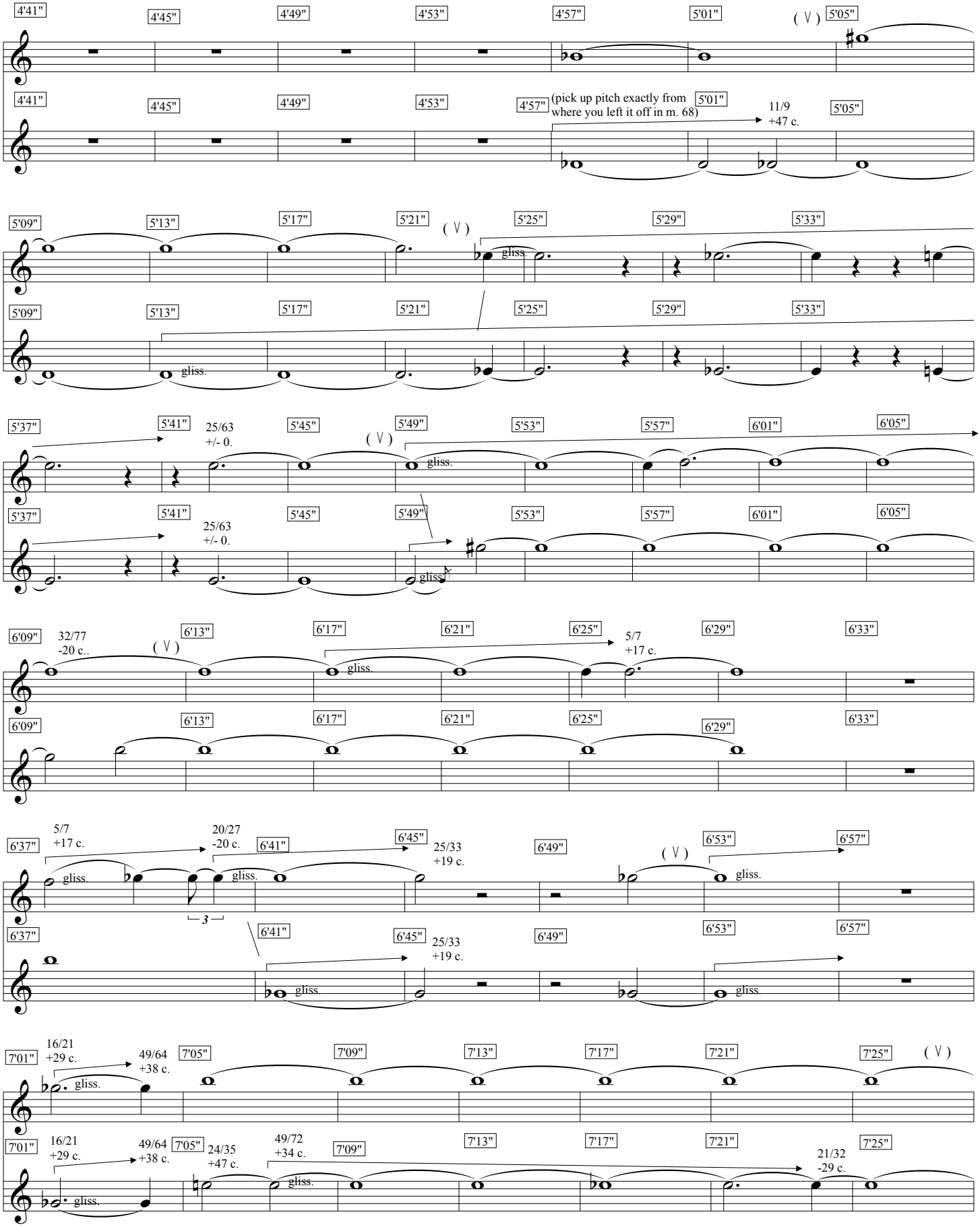
Sonic Envelope 2

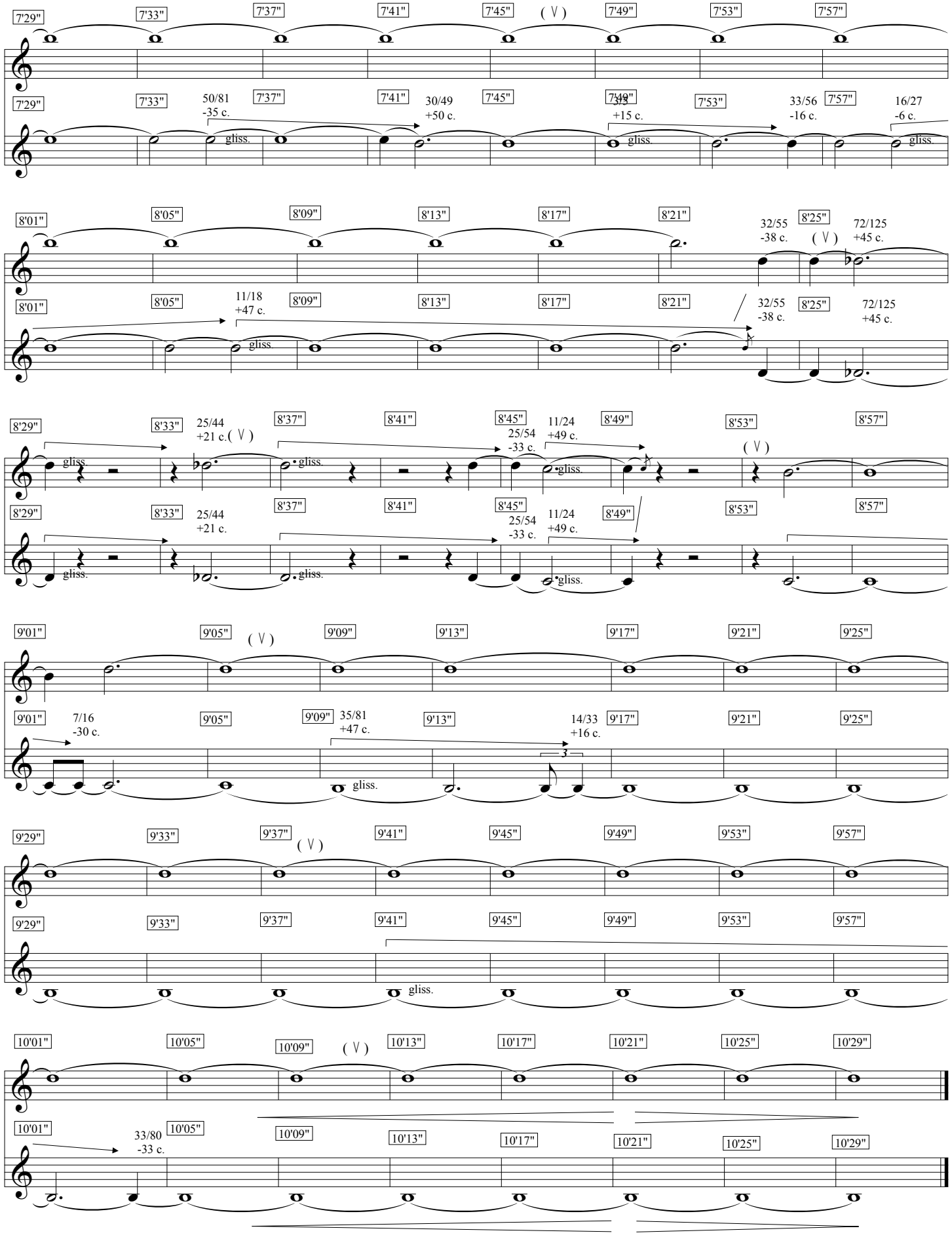
to Luke Loeffler

Jeremy Woodruff




2'09"
63/100
+/- 0 c.
2'13"
2'17"
11/24
+49 c.
2'21"
56/121
-34 c.
2'25"
7/15
-19 c.
16/35
+45 c.
gliss.
2'29"
2'33"
2'37"
2'41"
14/33
+16 c.
32/75
+25 c.
2'45"
72/175
-38 c.
2'49"
32/81
-8 c.
2'53"
2'57"
3'01"
3'05"
5/14
+17 c.
3'09"
3'13"
3'17"
3'21"
28/81
-39 c.
3'25"
3'29"
35/32
-45 c.
3'33"
3'37"
3'41"
3'45"
3'49"
3'53"
3'57"
4'01"
4'05"
10/9
-18 c.
4'09"
4'13"
4'17"
4'21"
4'25"
4'29"
4'33"
4'37"


4'41"
4'45"
4'49"
4'53"
4'57"
5'01"
5'05"
(pick up pitch exactly from where you left it off in m. 68)
11/9
+47 c.
5'09"
5'13"
5'17"
5'21"
5'25"
5'29"
5'33"
gliss.
5'37"
5'41"
25/63
+/- 0.
5'45"
5'49"
5'53"
5'57"
6'01"
6'05"
6'09"
32/77
-20 c..
6'13"
6'17"
6'21"
6'25"
5/7
+17 c.
6'29"
6'33"
6'37"
5/7
+17 c.
20/27
-20 c.
6'41"
6'45"
25/33
+19 c.
6'49"
6'53"
6'57"
3
7'01"
16/21
+29 c.
49/64
+38 c.
7'05"
7'09"
7'13"
7'17"
7'21"
7'25"
24/35
+47 c.
49/72
+34 c.
21/32
-29 c.


7'29"
7'33"
7'37"
7'41"
7'45"
(V)
7'49"
7'53"
7'57"
50/81
-35 c.
gliss.
30/49
+50 c.
33/56
-16 c.
16/27
-6 c.
8'01"
8'05"
8'09"
8'13"
8'17"
8'21"
8'25"
32/55
-38 c.
72/125
+45 c.
11/18
+47 c.
8'29"
8'33"
8'37"
8'41"
8'45"
8'49"
8'53"
8'57"
25/44
+21 c.
25/54
-33 c.
11/24
+49 c.
9'01"
9'05"
9'09"
9'13"
9'17"
9'21"
9'25"
7/16
-30 c.
35/81
+47 c.
14/33
+16 c.
9'29"
9'33"
9'37"
9'41"
9'45"
9'49"
9'53"
9'57"
10'01"
10'05"
10'09"
10'13"
10'17"
10'21"
10'25"
10'29"
33/80
-33 c.

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The flute and violin should be positioned in the left and right isles (or generally on two sides of the audience) and towards the back.

GONG:

Preferrable is a kempul (medium) gong of a gamelan ensemble. Any pitch.
Otherwise some other sort of pitched long-decaying gong, The gong should be positioned in front of the audience and approximately 5-7 feet behind the meditator. The gong follows a timeframe notation, plays only four times and each time it must coincide with a photographic flash. The gong player will give a large downbeat at the beginning of the piece to indicate the start of the stopwatches.

PHOTOGRAPHER:

The photographer follows the timeframe notation. There are one to three numbers of shots listed in any given frame of time. For each number of shots the photographer should take that many flash photographs in rapid succession (as rapid as the recharging of the flash will allow.) If possible it will be preferrable if the camera flash can be linked to a second flash that is always focused on the EEG subject. In any case the photographer should go around the room documenting the event normally as in any photoshoot.

MEDITATOR:

Attempt to meditate. Focus on the sound in the room. The Meditator should be positioned in front of the audience. An EEG Brain Computer Interface is connected to the scalp to trigger sounds.

There is a timeline notated in seconds at the end of every bar. The performers should use stopwatches to coordinate.

Thanks to Luke Loeffler for artistic inspiration.

Photographer and Gong

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to Luke Loeffler

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