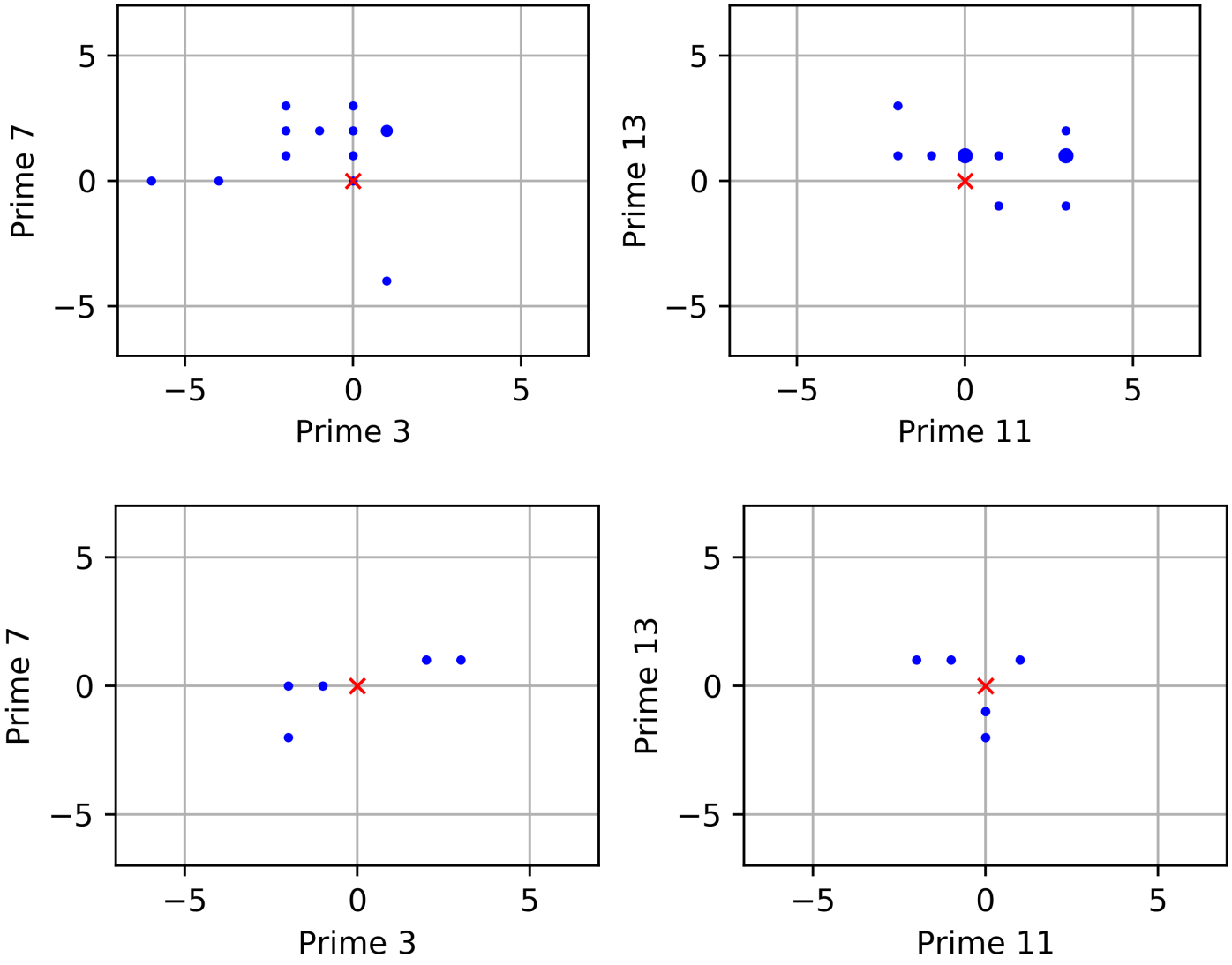
ohne Titel (o)

for fretless electric guitar, electric monochord & 2-channel tape



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29.12.2019

Explanations

General remarks

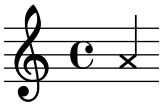
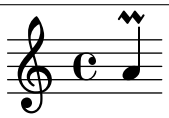
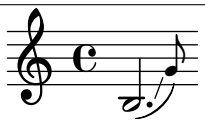
The approximate duration of the whole composition is 13 minutes. At the premiere the signal of each instrument was send to a computer, slightly processed and then send to the PA. Different amplification setups could be tried though. The most crucial aspect is to add enough reverb and a strong compressor to the sound of each instrument so that the intervals have enough time to evolve in the ears of the listeners. The tape is split into several segments that have to be triggered manually by the sound director. The cues for the particular samples are indicated in the score with circled numbers.

Fretless electric guitar

For the premiere an electric guitar from Gretsch has been used. Its frets has been removed by a guitar builder. As it can be seen in the photography the former positions of the frets are still visible. The guitar part is written in a $\frac{1}{8}$-tone scale. An explanation of the used microtonal accidentals can be found in the table below.

Notation	Explanation
	$\frac{1}{8}$-tone too deep a-flat
	a-flat
	$\frac{1}{8}$-tone too high a-flat
	$\frac{1}{4}$-tone too deep a
	$\frac{1}{8}$-tone too deep a
	a
	$\frac{1}{8}$-tone too high a
	$\frac{1}{4}$-tone too high a
	$\frac{1}{8}$-tone too deep a-sharp
	a-sharp
	$\frac{1}{8}$-tone too high a-sharp

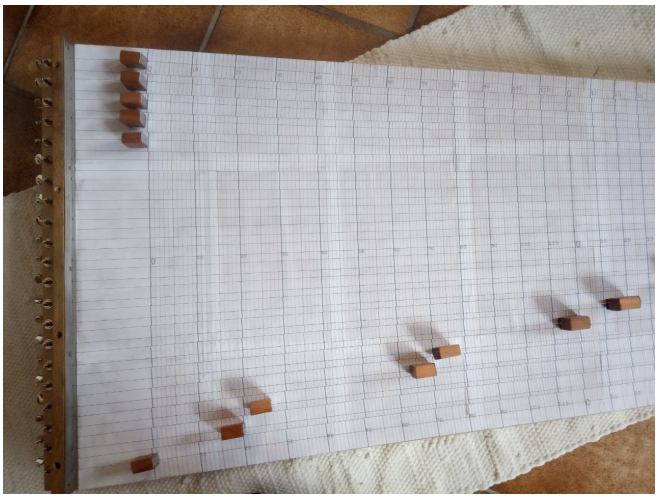
Playing techniques for the left hand

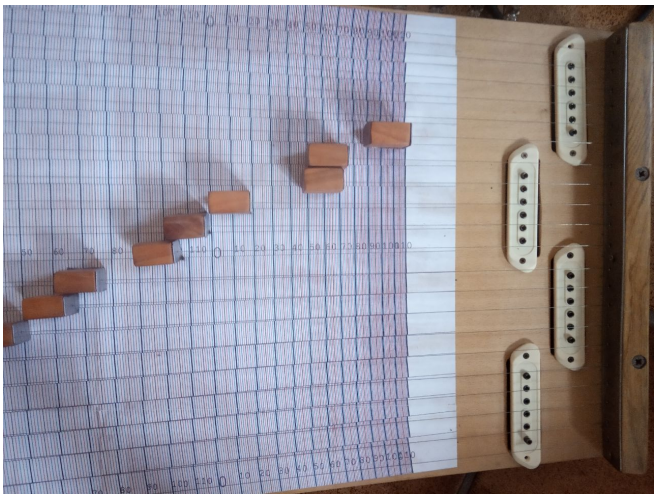
	Bend the string after plucking it. The glissando caused by the bending shall be heard.		Press the fret board only slightly so that the plucked sound is mostly percussive with only little amount of detectable pitch.
	Move the string up and down so that there is a clearly audible vibrato sound.		Make a glissando on one string over the complete duration of the main note.

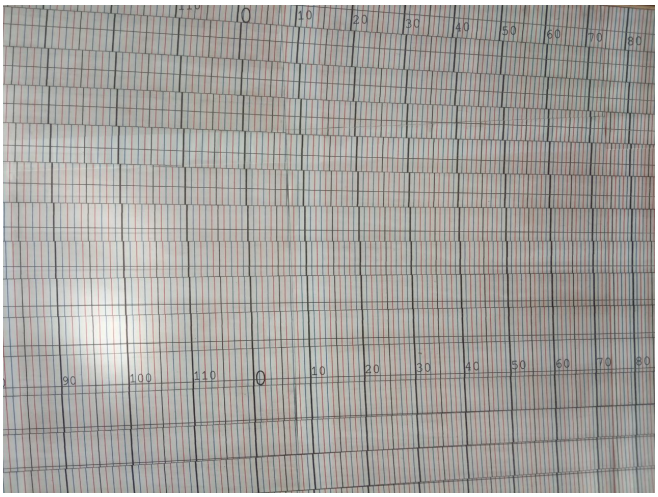
For the right hand finger plucking is recommended for getting a soft timbre.

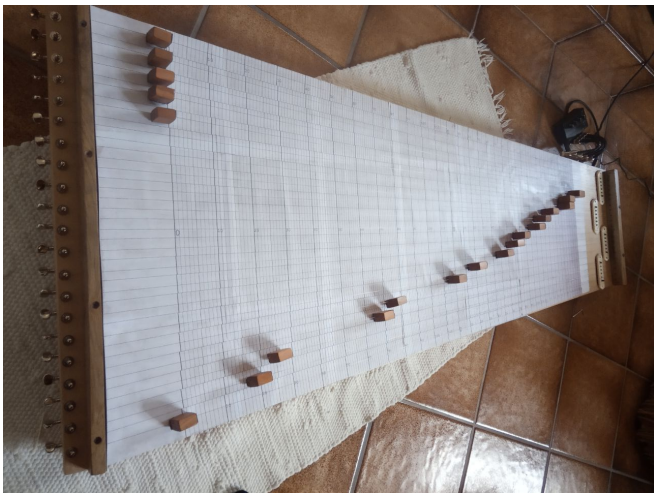
Electric monochord

For this composition a zither-like instrument has been build [1]. In the following text this instrument will be called monochord. The monochord has 21 strings although only 20 of them are used in this work. All of them are tuned to A2 (~ 110 Hertz). Every string is attached to a small moveable bridge. Through those bridges the pitches of the strings can be manipulated. There are 120 fret marks per octave that give an orientation where to move the bridges. One of those fret marks ideally represent a 5 cents deviation towards the previous fret mark. Due to an unexpected behavior of the bridges the fret marks aren't very precise. Therefore the approximate distance in cents between two frets has been re-evaluated empirically. The instrument has fret marks for roughly three octaves (3 times 120 marks). Fret marks are identified by two numbers where the second one represents the octave (I, II or III) and the first one the precise position in this octave (from 0 to 119). For electric amplification four passive magnetic pick-ups has been installed close to the right bridge. At the premiere the player used cimbalom mallets.

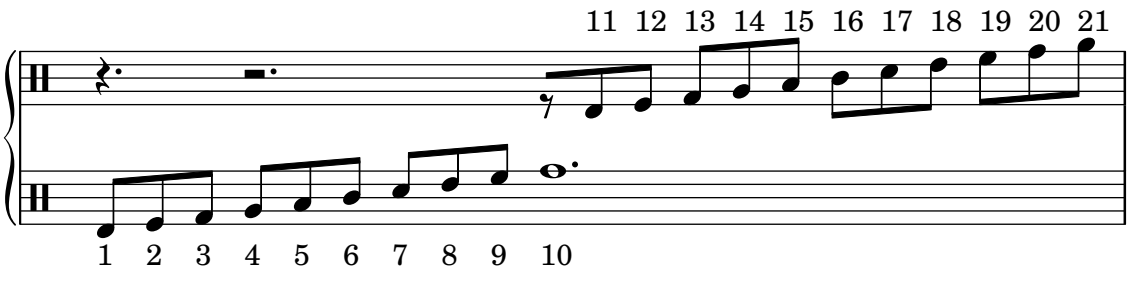






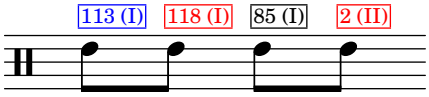


The pitch notation of the monochord is an action notation that connects each pitch to one particular string of the instrument. Since the bridges are moveable, the same pitch symbol doesn't necessarily indicate the same sounding pitch. The notation uses two staves. The numbers next to the pitches denote the respective string.

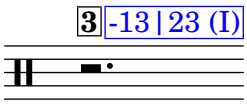


[1] This has been possible due to the friendly help of the antique dealer Harry Reichmann who provided his workshop in the black forest for the building process and whose knowledge of wood was crucial for the whole development.

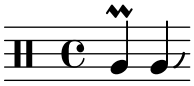
The movement of a bridge is indicated through small boxes above the staves. There are two different kind of movements. In the first type the box above the played note indicates the position of the bridge for the particular string that is played in that very moment. Typically this type of bridge movement occurs multiple times with the same string and within the same bar so that (intended) glissandi between two consecutive pitches result.



The second type of bridge movement is notated with two boxes. The first box indicates the string whose bridge shall be moved and the second box denotes the fret mark positon where the bridge should be moved to, as well as the distance towards the previous position. This action should make as little sound as possible.



Further playing techniques include vibrato and pitch bending. Both shall be archived through touching and moving the respective string behind its moveable bridge on the left side with the left hand (similar to, for instance, the technique that is used by gayageum player).



In the following tables the positions of the bridges are displayed. Every row of those tables represent one string. The numbers in the left columns signify the concerned string. The numbers in the right columns indicate the positions of the respective bridges. Because some bridges have to be moved within one movement there are multiple tables for the same movement. Within the score those movements are also notated through the boxes that has been mentioned above.

bridge positions for bar 1

20	0 (I)
19	0 (I)
18	0 (I)
17	0 (I)
16	0 (I)
15	0 (I)
14	9 (II)
13	2 (II)
12	113 (I)
11	105 (I)
10	97 (I)
9	90 (I)
8	85 (I)
7	68 (I)
6	63 (I)
5	47 (I)
4	42 (I)
3	36 (I)
2	21 (I)
1	17 (I)

bridge positions for bar 78

20	0 (I)
19	0 (I)
18	0 (I)
17	0 (I)
16	0 (I)
15	0 (I)
14	9 (II)
13	2 (II)
12	113 (I)
11	105 (I)
10	97 (I)
9	90 (I)
8	88 (I)
7	68 (I)
6	63 (I)
5	47 (I)
4	42 (I)
3	36 (I)
2	21 (I)
1	16 (I)

bridge positions for bar 139

20	0 (I)
19	0 (I)
18	0 (I)
17	0 (I)
16	0 (I)
15	0 (I)
14	9 (II)
13	2 (II)
12	109 (I)
11	105 (I)
10	97 (I)
9	90 (I)
8	83 (I)
7	68 (I)
6	63 (I)
5	47 (I)
4	42 (I)
3	23 (I)
2	21 (I)
1	16 (I)

ohne Titel (0)

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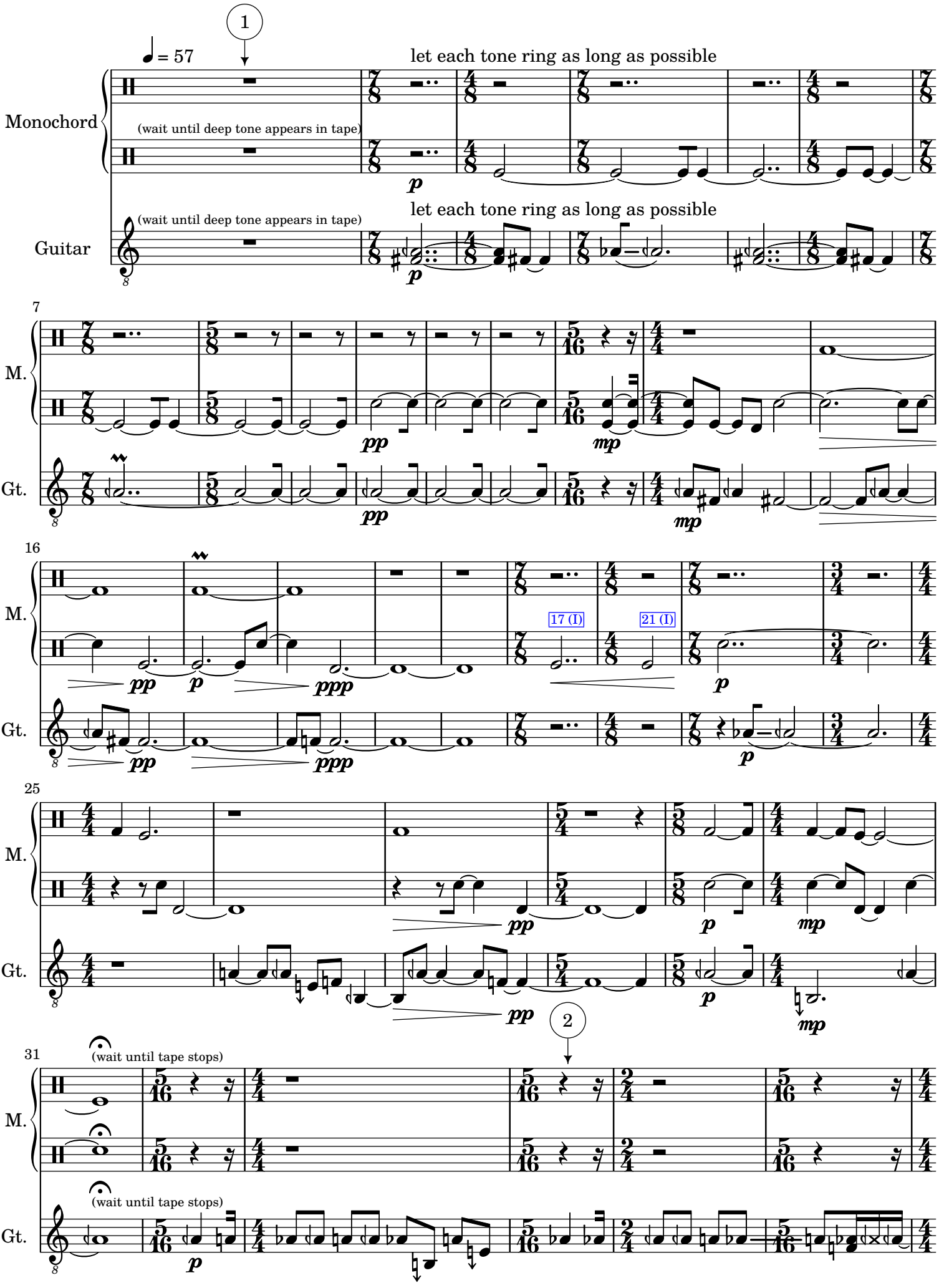
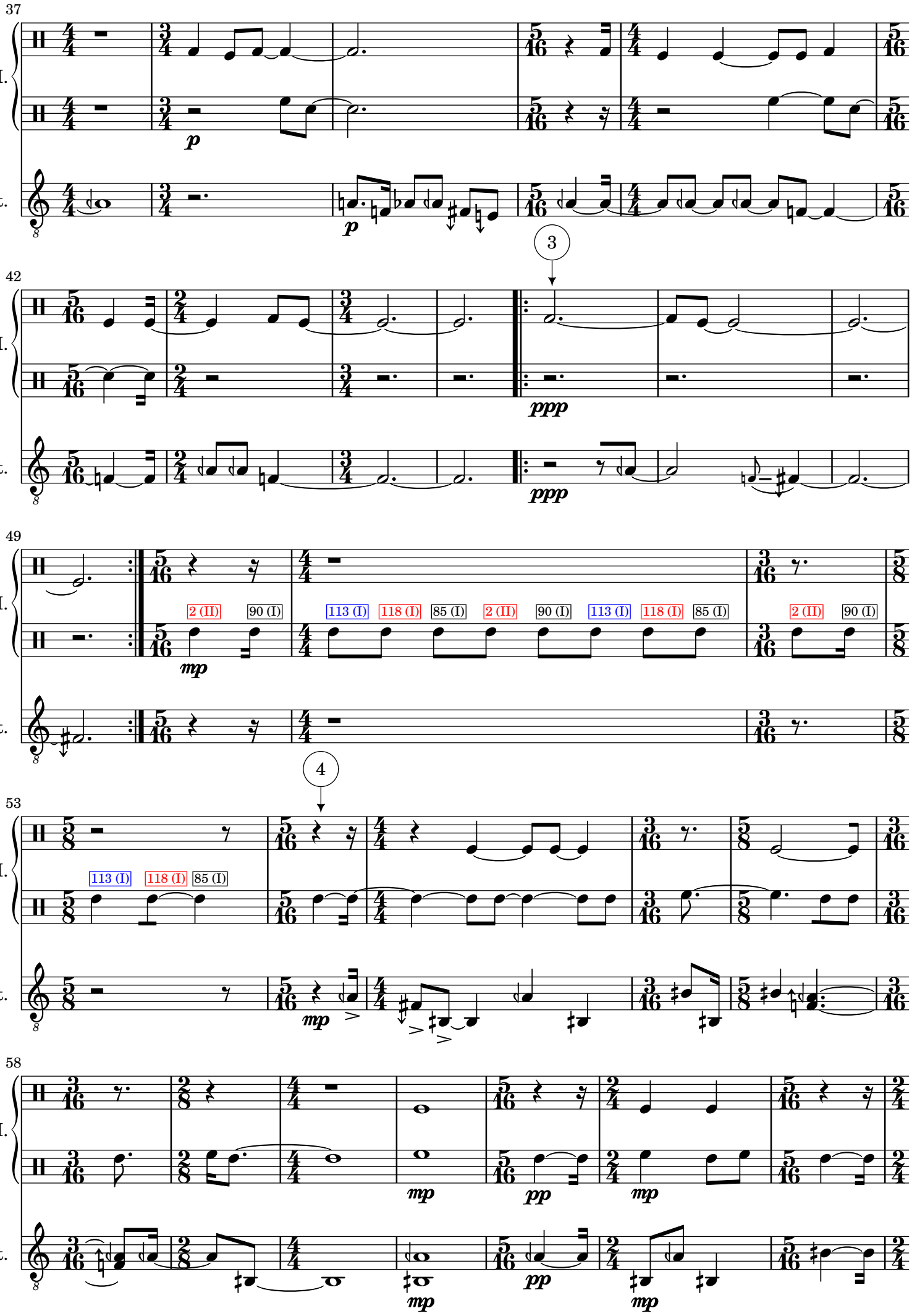
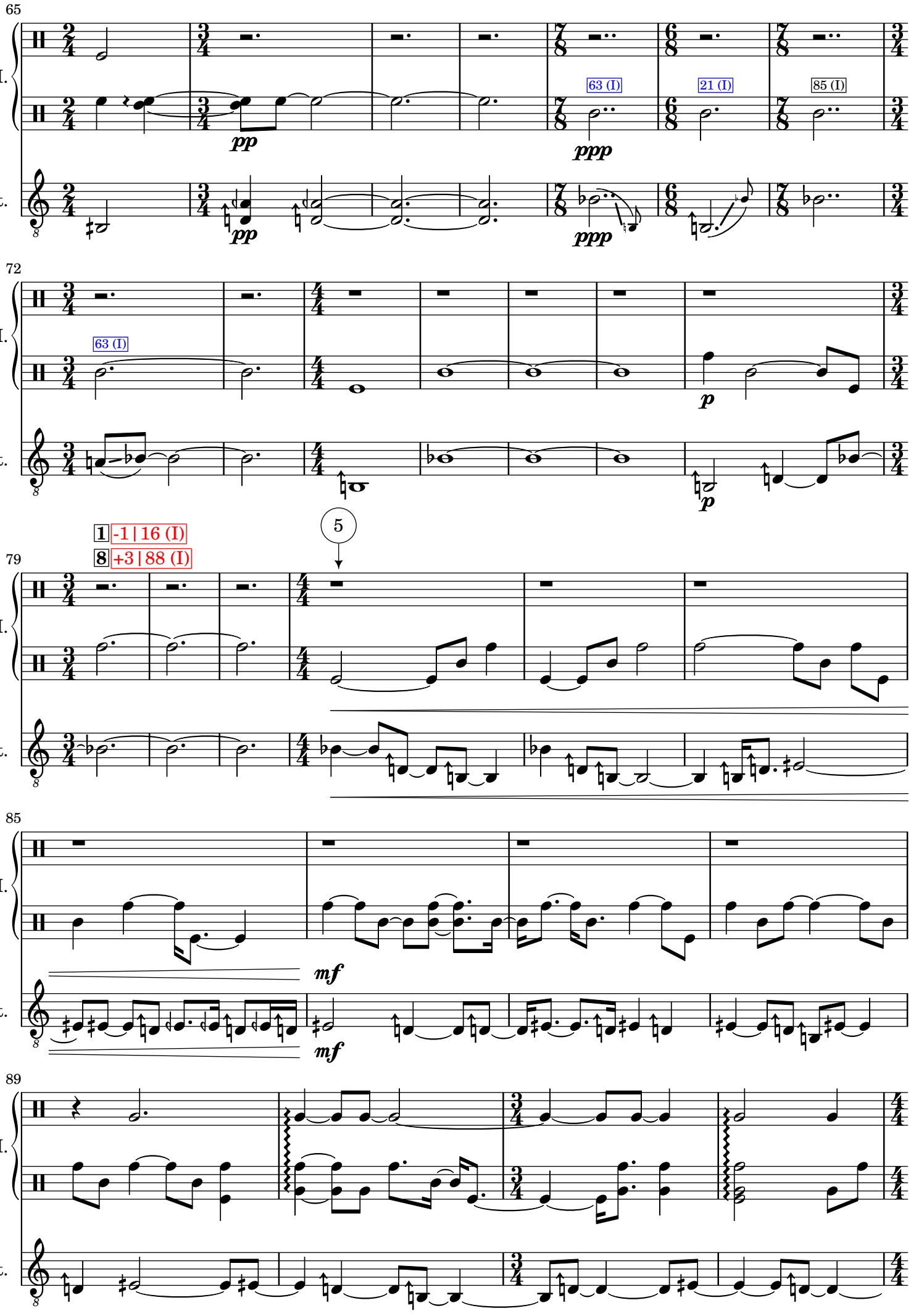
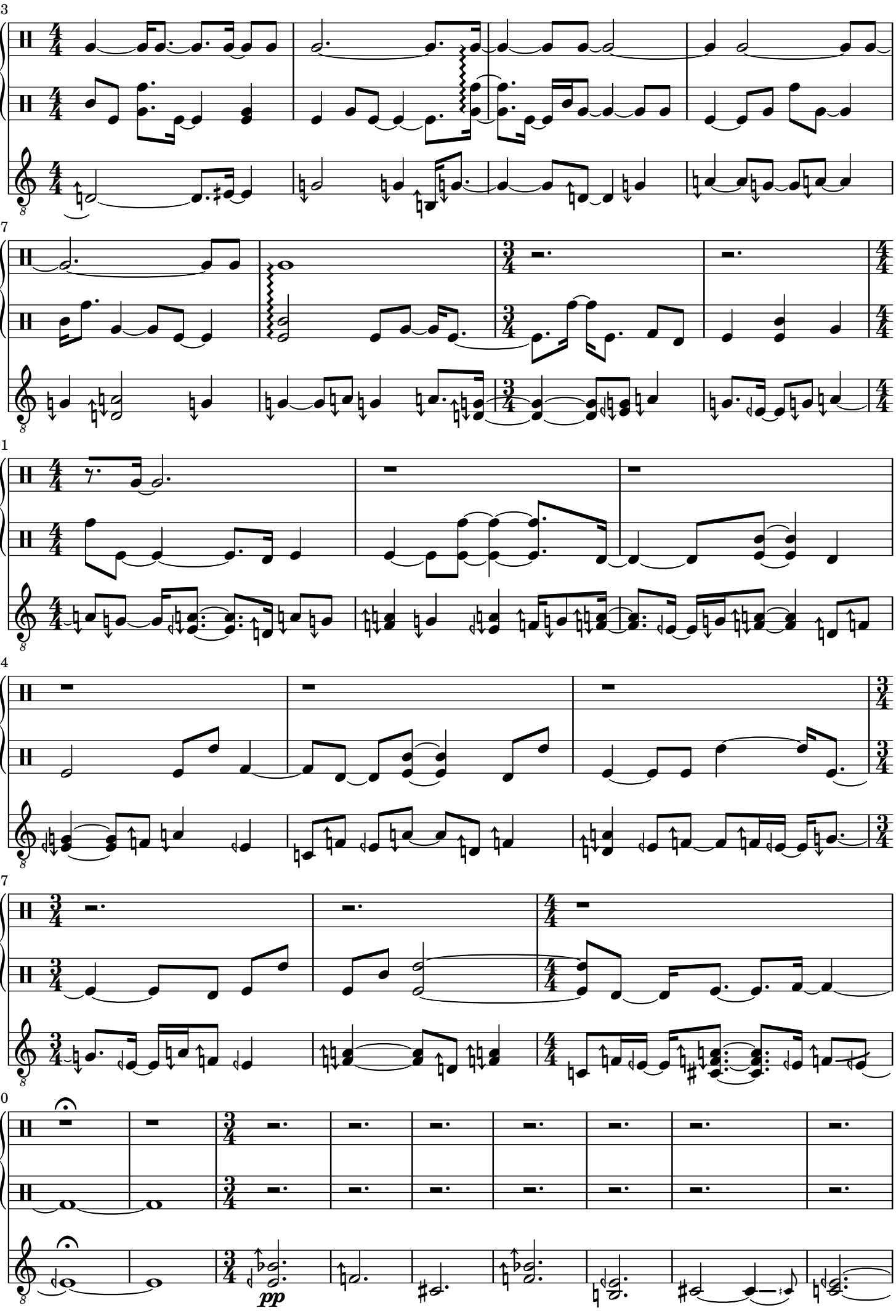
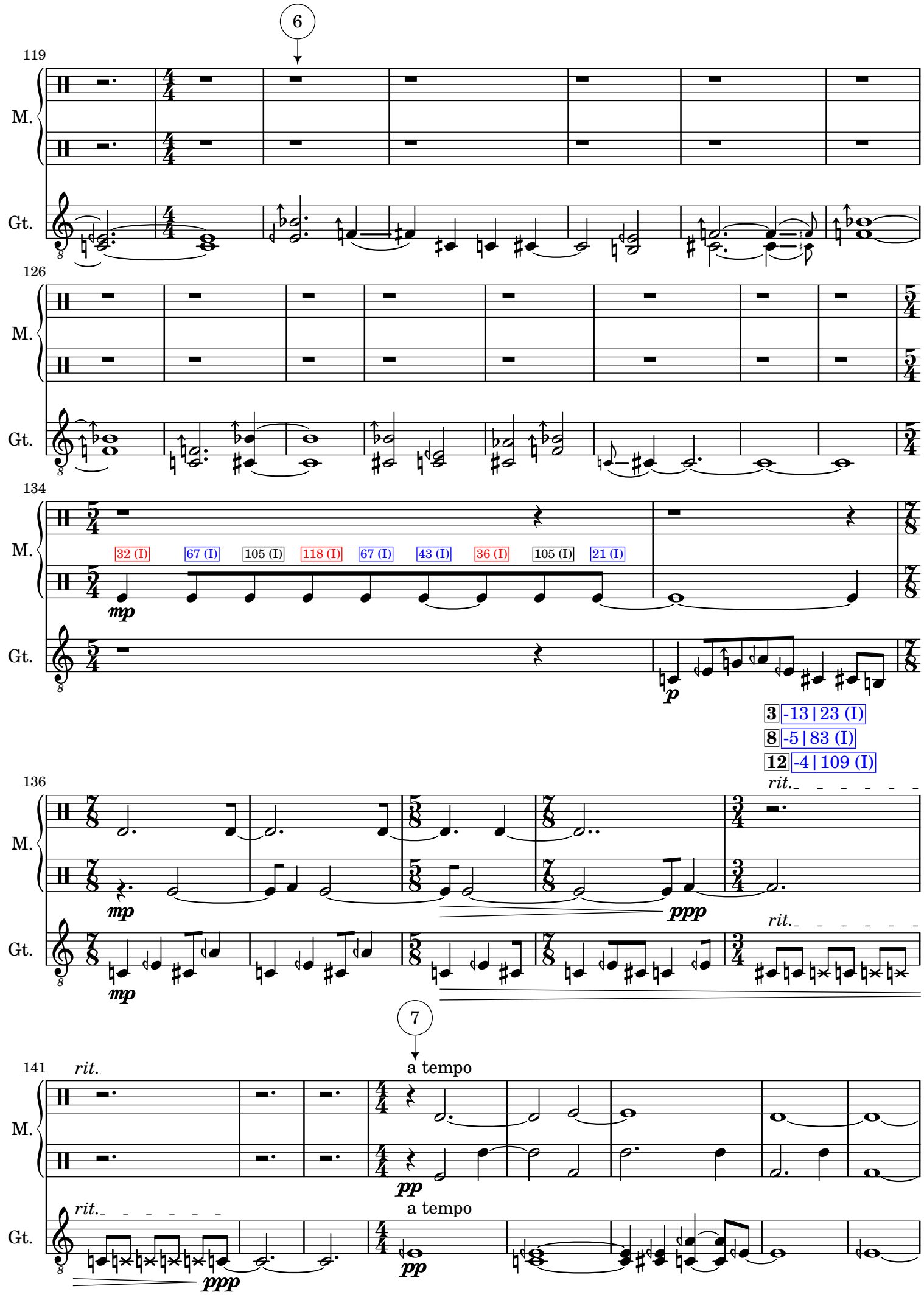
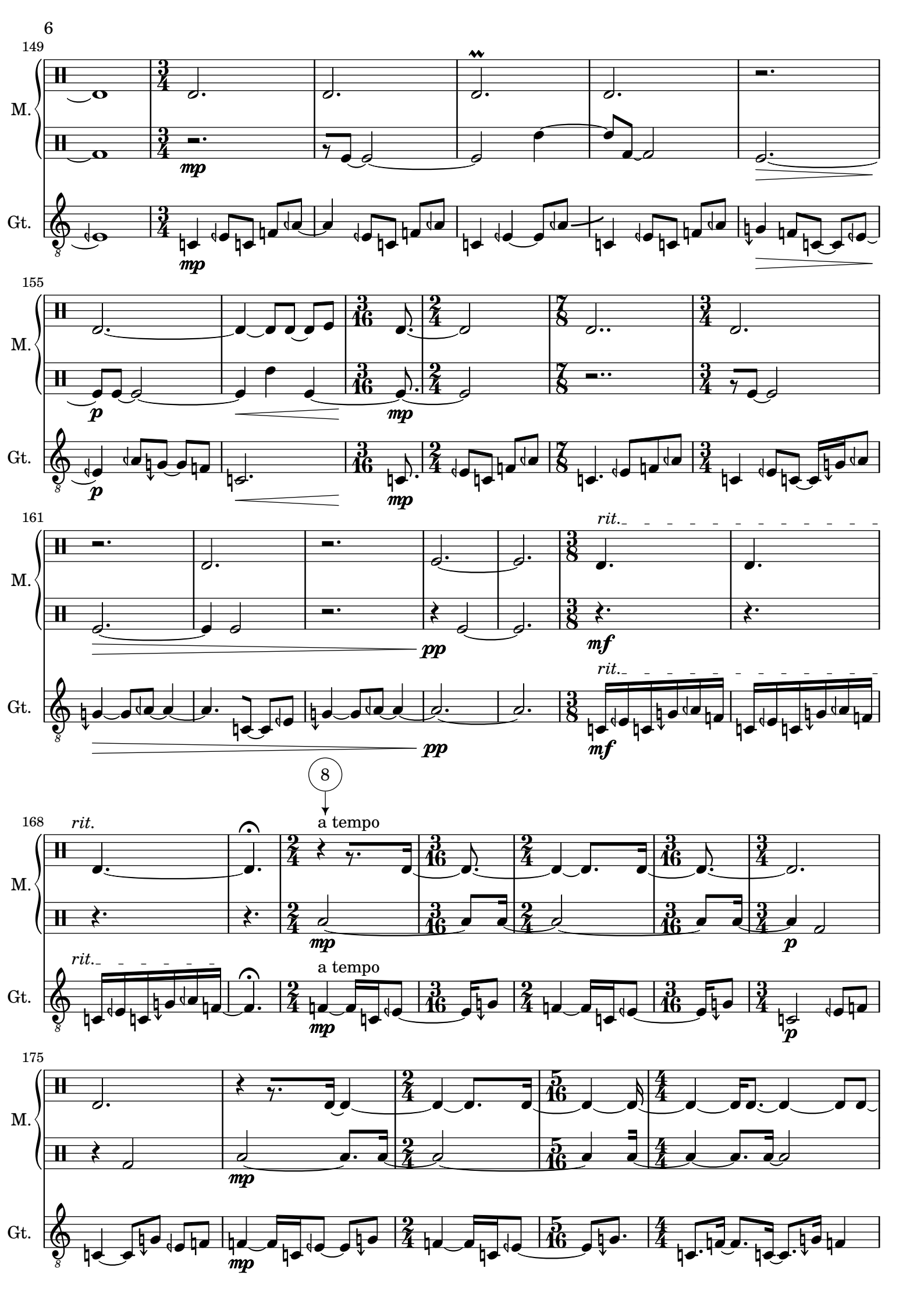


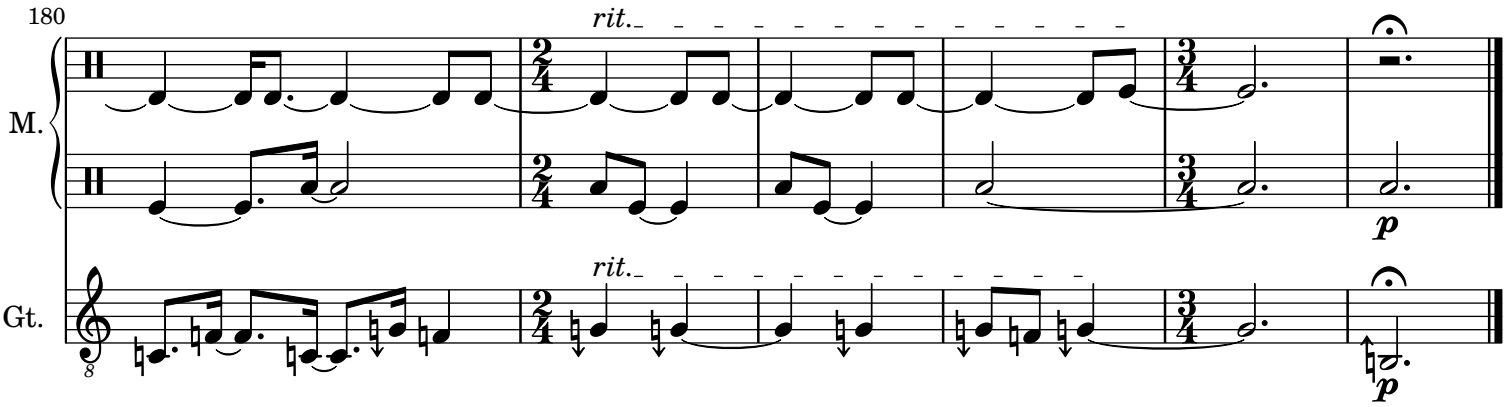

37
M.
Gt.
p
p
42
3
ppp
ppp
49
2 (II)
90 (I)
113 (I)
118 (I)
85 (I)
2 (II)
90 (I)
113 (I)
118 (I)
85 (I)
2 (II)
90 (I)
mp
4
53
113 (I)
118 (I)
85 (I)
mp
58
mp
pp
mp
mp
pp
mp


65
M.
Gt.
63 (I)
21 (I)
85 (I)
pp
ppp
72
63 (I)
p
1 -1 | 16 (I)
8 +3 | 88 (I)
5
79
85
mf
89


93
M.
Gt.
97
M.
Gt.
101
M.
Gt.
104
M.
Gt.
107
M.
Gt.
110
M.
Gt.
pp


6
119
M.
Gt.
126
134
32 (I)
67 (I)
105 (I)
118 (I)
67 (I)
43 (I)
36 (I)
105 (I)
21 (I)
mp
p
3 -13 | 23 (I)
8 -5 | 83 (I)
12 -4 | 109 (I)
136
rit.
ppp
7
a tempo
141
pp
ppp


149
M.
Gt.
mp
155
p
mp
161
rit.
pp
mf
8
168
a tempo
175


180
rit.
M.
rit.
Gt.
p
p