Flo Menezes

Quaderno

(May/June 2005)

for marimba and electronics

[version for acoustic guitar and electronics: 2007]

II

for Eduardo Leandro and Ricardo Bologna [marimba version]
for Daniel Murray [acoustic guitar version]

Flo Menezes – *Quaderno*

General introduction

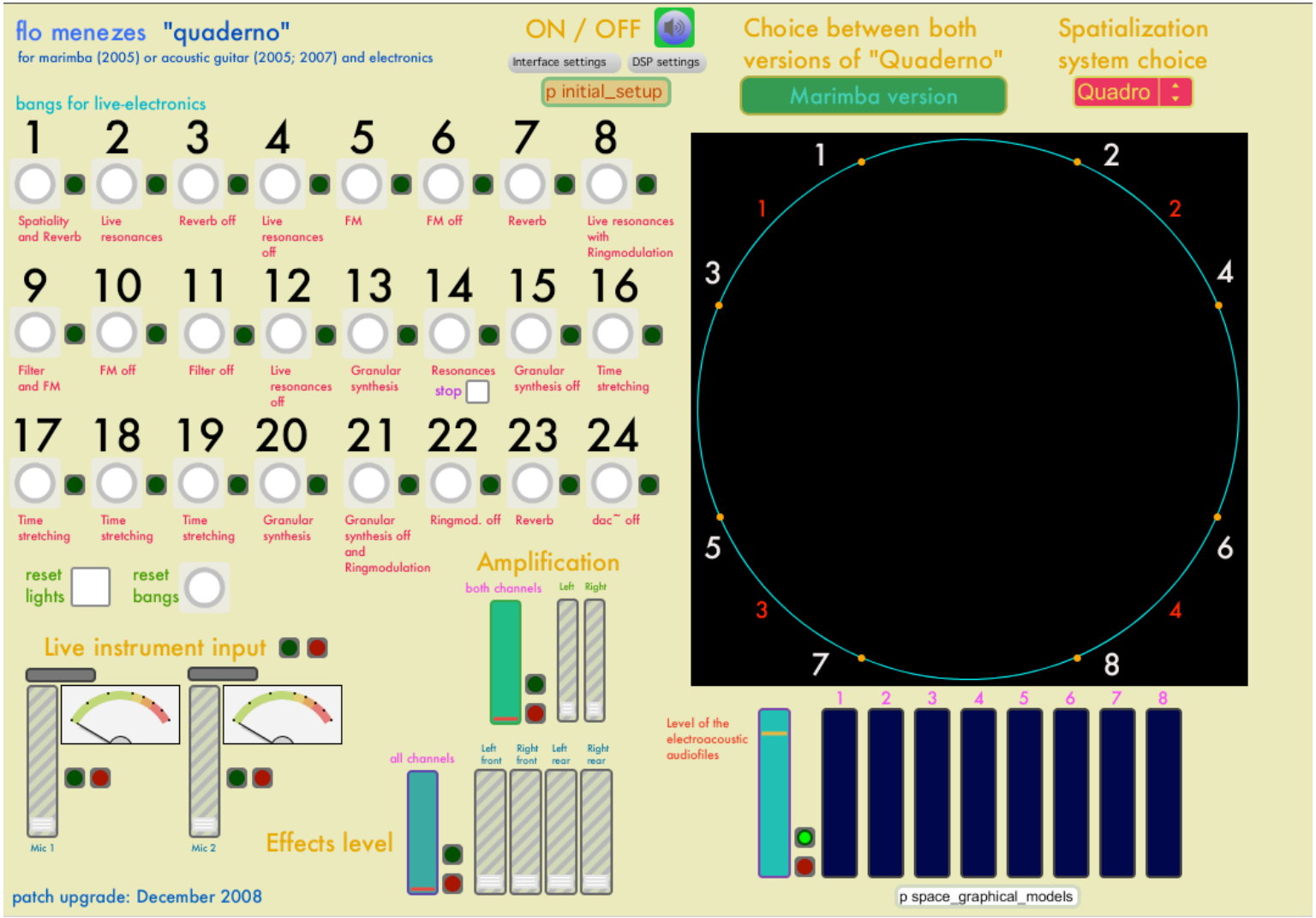
Quaderno is a commission of the Brazilian percussion players Eduardo Leandro and Ricardo Bologna and was originally written for solo marimba (5 octaves) and live-electronics. In 2007 I prepared also a version for acoustic guitar and live-electronics for the Brazilian guitar player Daniel Murray.

The electronics is based on Max/MSP and is conceived in such a way that one deal with both live-transforming of the instrumental sound, synthesis in real time, re-synthesis by way of granular synthesis based both on a pre-recorded sound and a live-recorded sound, and finally also with the performance of a stereophonic, in studio pre-realized sound layer, which begin depends on how the instrumentalist plays his/her part in a given moment of the score.

In this sense, I pursued the research I began with *ATLAS FOLISIPELIS* (1996-97) for one oboist, two percussion players and electronics, *Pulsares* (1998-2000) for one pianist, chamber orchestra and electronics, and *Mahler in Transgress* (2002-03) for two pianos and electronics, a tribute to Mahler lasting about 1 hour, works in which I try to integrate the possibilities of the real time based composition with the elaborated sounds that are realized in advance in studio (thus in *differed time* instead of *real time*). I believe that in its actual stage of development, the program Max/MSP can allow us the conjunction of these two ways of composing in the field of electroacoustic music.

Electronics

In May/June 2005 I conceived a *patch* on Max/MSP for *Quaderno*, which can be eventually upgraded for furtherer performances in the coming years. In December 2008 I made substantial changes in the patch and all the functions are practically automatic according to the live performance. The performer must use a MIDI-device (such as a pedal or similar) in order to give program-change messages to Max/MSP and control in real time all procedures. For the performance it is necessary to contact the composer (or the Studio PANaroma) in order to receive all requested files (patch, soundfiles). The figure bellow illustrates the actual appearance of the main patch of *Quaderno*:



Main patch of *Quaderno*

The whole structure of this 2008-upgrade is based exclusively on Max 5 objects (compatible with old and new, Intel processors). The only object (external) that should be added to the original package of Max externals is the *fiddle~* external. Special thanks may be given to my assistant André Perrotta, who has been responsible for the mathematical calculations and implementation of the spatial trajectories of *Quaderno*.

How to use the patch

The instrument (either marimba or acoustic guitar) should be amplified by two microphones (both for low and high frequencies). Both mics arrive in the audio interface.

After opening the patch, choose which version of *Quaderno* will be played (which instrument will be processed, if the marimba or the acoustic guitar) and the spatialization system as well. *Quaderno* was conceived for four channels, but it can also be performed in an octophonic sound system. (The stereo version is conceived just for private rehearsals and **not** for the concert hall). For the spatial disposition of the loudspeakers in each concert setup, please see the graphics inside the subpatch "space_graphical_models".

Through the subpatch "initial_setup" one can get all necessary instructions to initialize the patch as well as its levels (for amplification and input of the instrument, and output of the effects and of the electroacoustic sounds).

The performer must use his/her MIDI-device – preferably a MIDI-pedal, which should transmit **program change messages** to the patch – exactly in the right moments as pointed out in the score. If so, all the rest will be played automatically.

Simultaneous performance of both version of *Quaderno*

Both versions of *Quaderno* can be played **simultaneously** in the same concert hall. In this very radical, experimental way to perform the work, both instruments should involve the audience: the instrument that will be processed by the patch must be on stage (as if a normal performance would take place); the other one must be placed **behind** the audience and must be just amplified in the rear loudspeakers

(loudspeakers 3 and 4 in a quadraphonic sound system; loudspeakers 7 and 8 in an octophonic sound system), independently of the necessary connections as requested by the patch.

Even John Cage had never thought about such a possibility. With his *Atlas Eclipticalis* distinct pieces of him can be played simultaneously, but in the case of *Quaderno* one deals with **the same piece** being performed simultaneously in its both versions, thus by two distinct interpreters and with two distinct sound qualities. In this case both performers must begin their respective parts at the same time (although not necessarily in absolute synchronism) and go on totally independently one from the other. The "acoustic" version of *Quaderno*, which is performed behind the audience, sounds as a kind of "shadow" of the electroacoustic version (performed on stage), a shadow that can eventually produce an echo or even anticipate the "original" image of the piece on stage, since it is highly improbable that both performers will play with exactly the same timing during the whole performance.

Could you figure out going to a concert and listening to the same Beethoven-Sonata played simultaneously, on two pianos distributed in distinct spaces, by two performers? It should be a rather interesting experiment…

Flo Menezes – São Paulo, June 2005

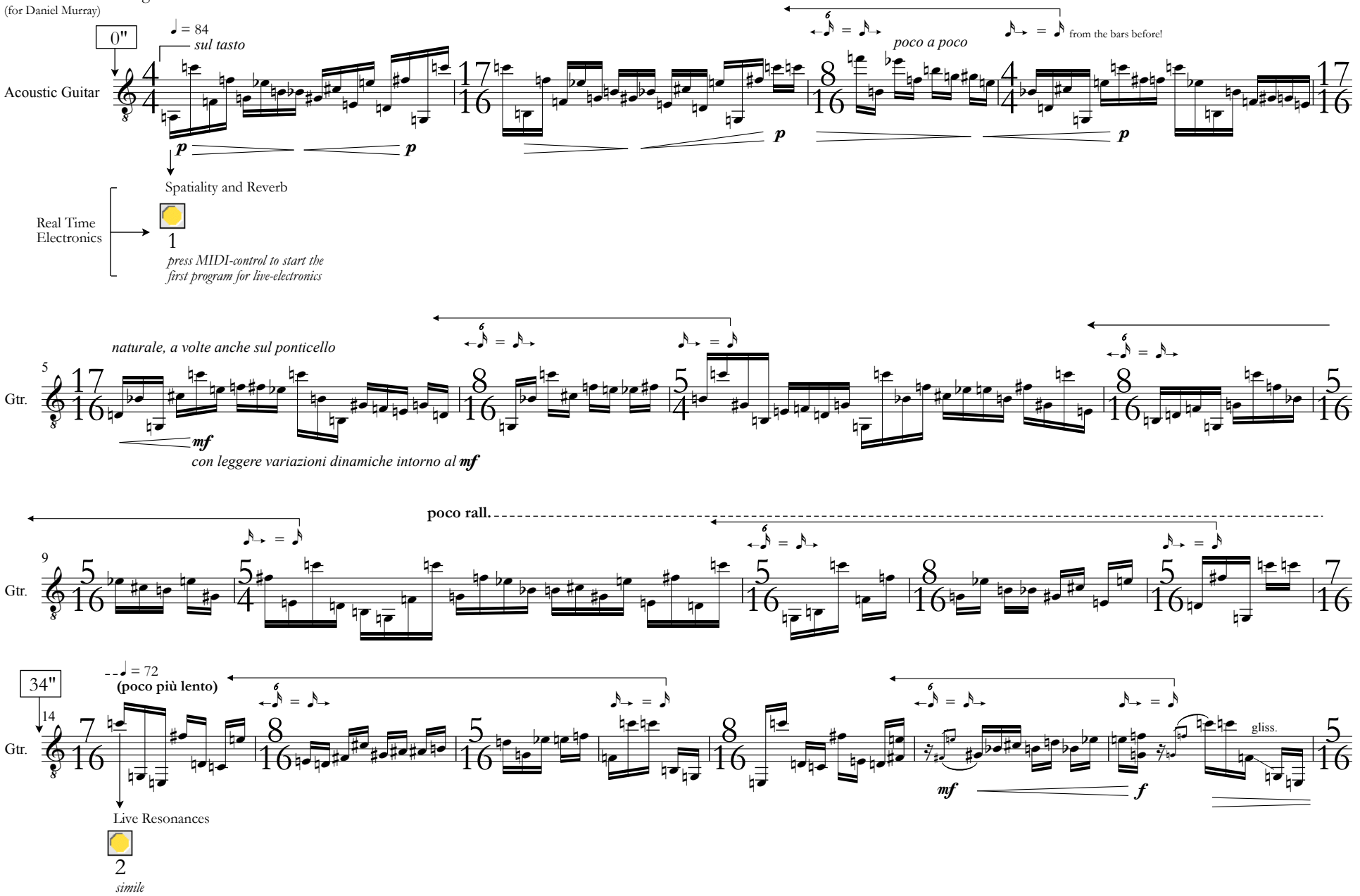
(revision: December 2008)

Quaderno

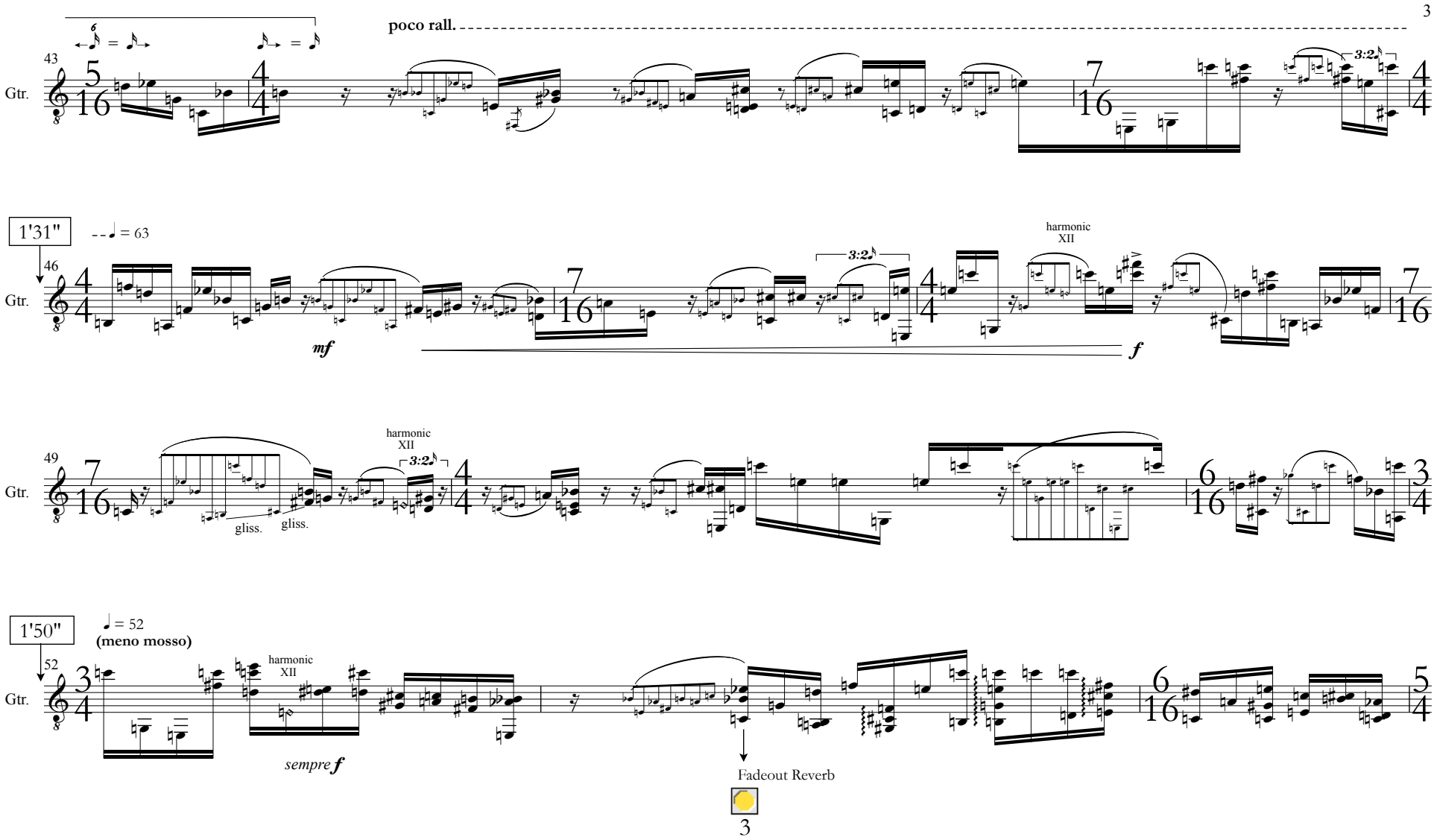
version for acoustic guitar and electronics

(for Daniel Murray)

Flo Menezes

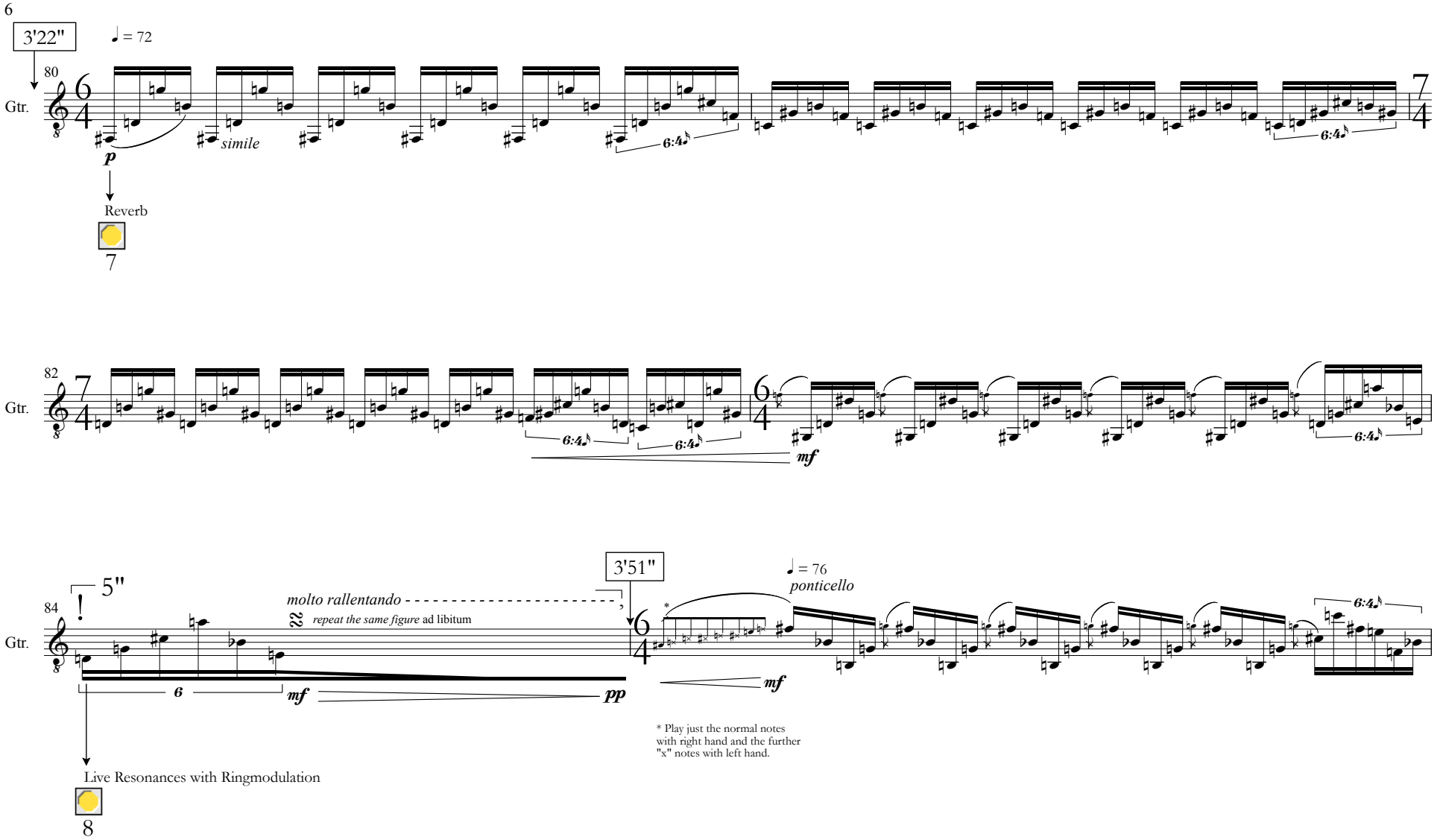



21
Gtr.
mf
p
f
27
Gtr.
p
mp
f
p
* Take the necessary time for the bigger *appoggiature*, regardless of the general time development.
poco rall.
32
Gtr.
p
f
p
mf
f
♩ = 66
(sempre più lento)
1'13"
36
Gtr.
mf

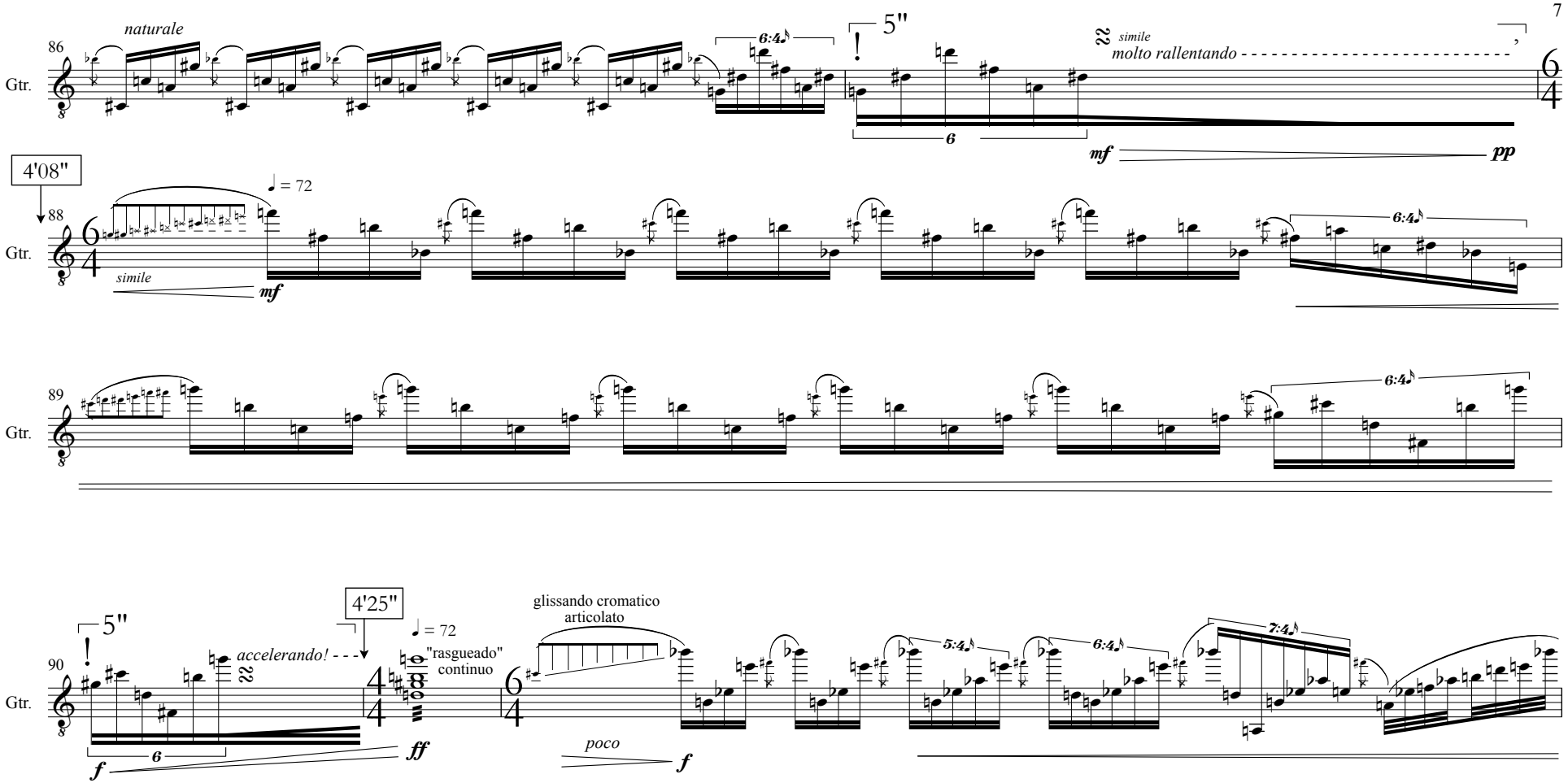

poco rall.
43
Gtr.
3:2
1'31"
♩ = 63
46
Gtr.
mf
harmonic
XII
f
49
Gtr.
harmonic
XII
3:2
gliss.
gliss.
1'50"
♩ = 52
(meno mosso)
52
Gtr.
harmonic
XII
sempre f
Fadeout Reverb
3

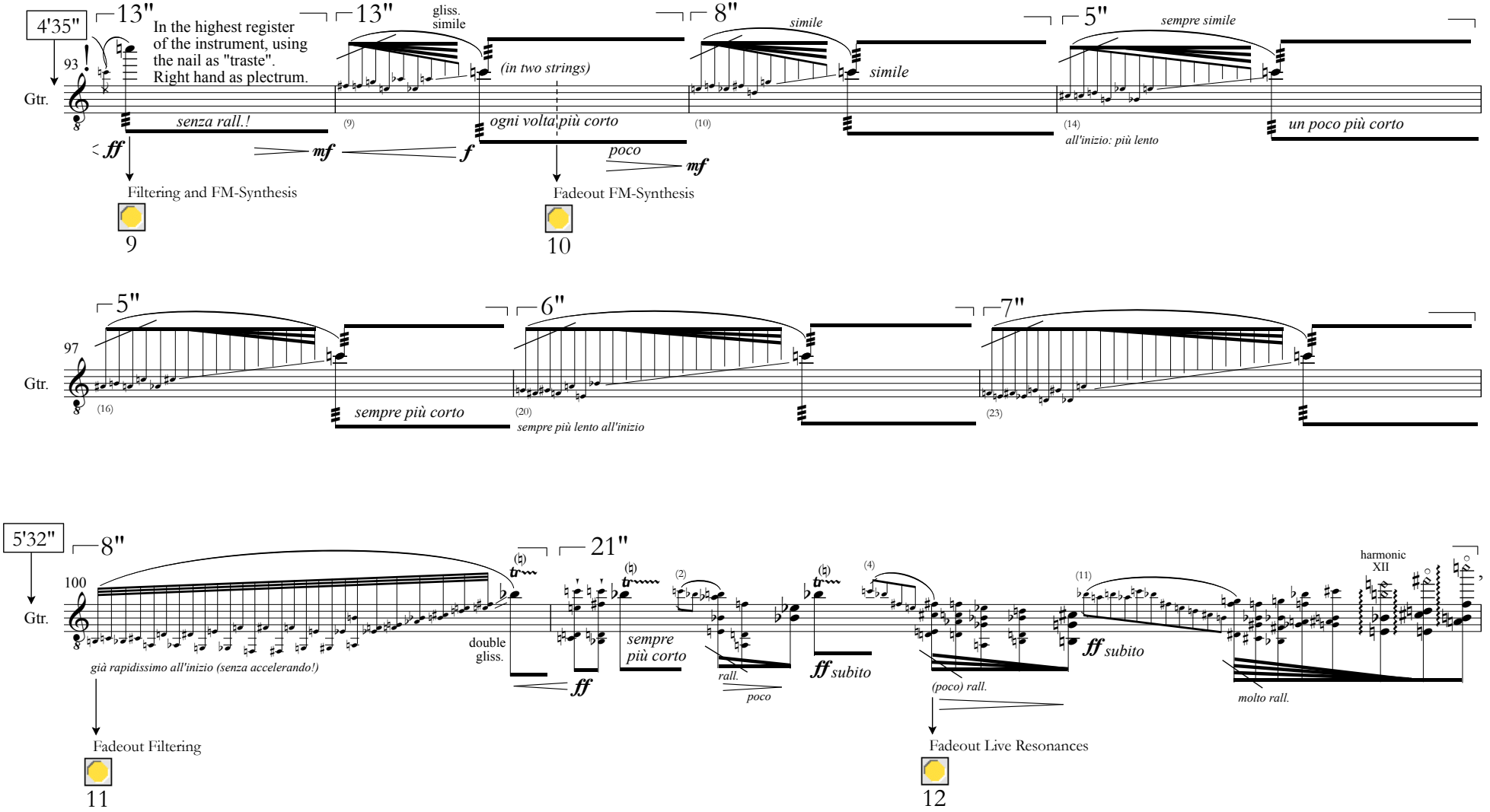

55
Gtr.
P↑ *
harmonic
XII
gliss.
poco
f
* With the thumb finger.
2'08"
♪ = 88
(ancora meno mosso)
57
Gtr.
gliss.
P↑
lasciar vibrare
60
Gtr.
p
f
Fadeout Live Resonances
4
2'29"
♩ = 80
(più lento e regolare)
63
Gtr.
ff
con variazioni

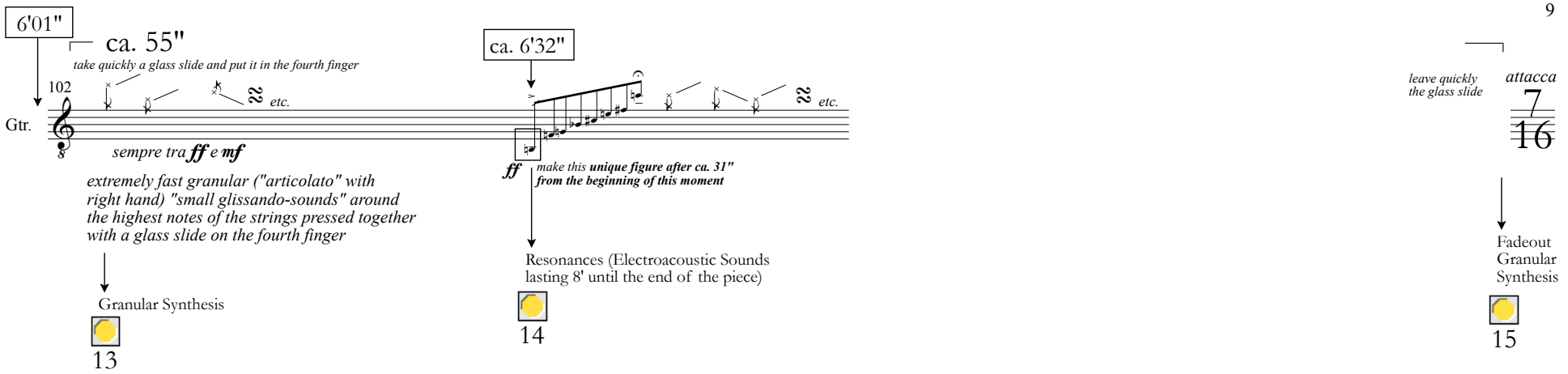

68
Gtr.
73
Gtr.
attacca
FM-Synthesis
5
2'52"
13"
78
Gtr.
poco rallentando
ff
mf
attacca
* ! = Bars in proportional notation.
17"
tremolo rapidissimo
molto rallentando
poco accelerando
79
Gtr.
fff
pp
Fadeout FM-Synthesis
6

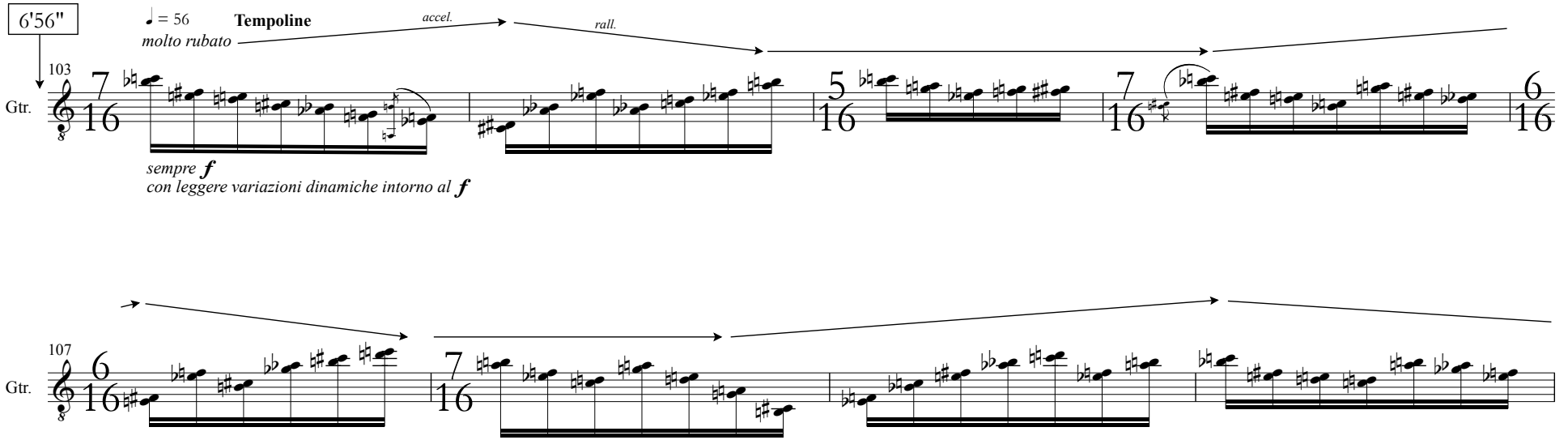


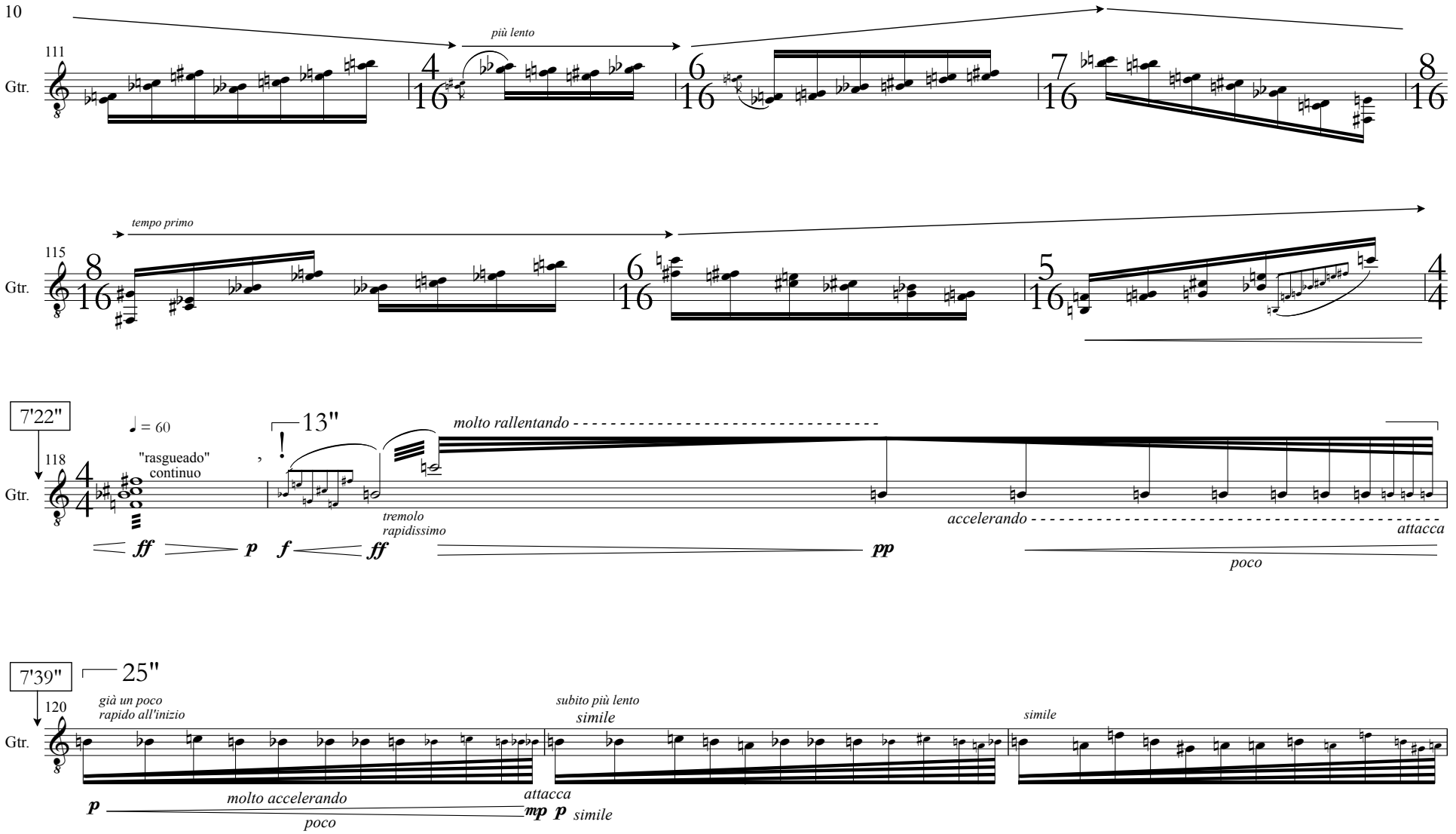
* Play just the normal notes with right hand and the further "x" notes with left hand.

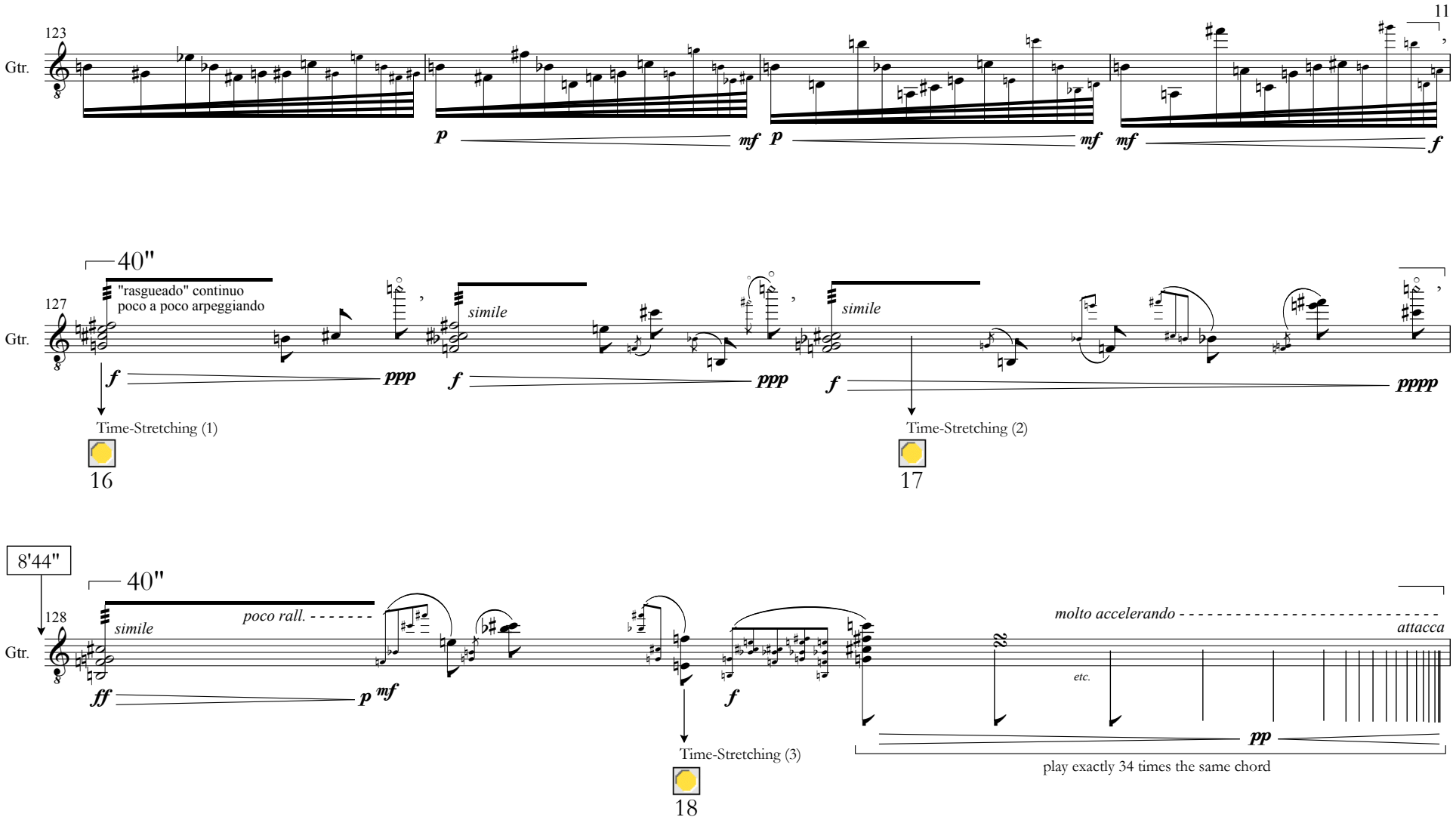

naturale
86
Gtr.
6:4
5"
simile
molto rallentando
6
mf
pp
4'08"
88
♩ = 72
simile
mf
6:4
89
6:4
5"
90
accelerando!
4'25"
♩ = 72
"rasgueado"
continuo
ff
f
glissando cromatico
articolato
poco
f
5:4
6:4
7:4

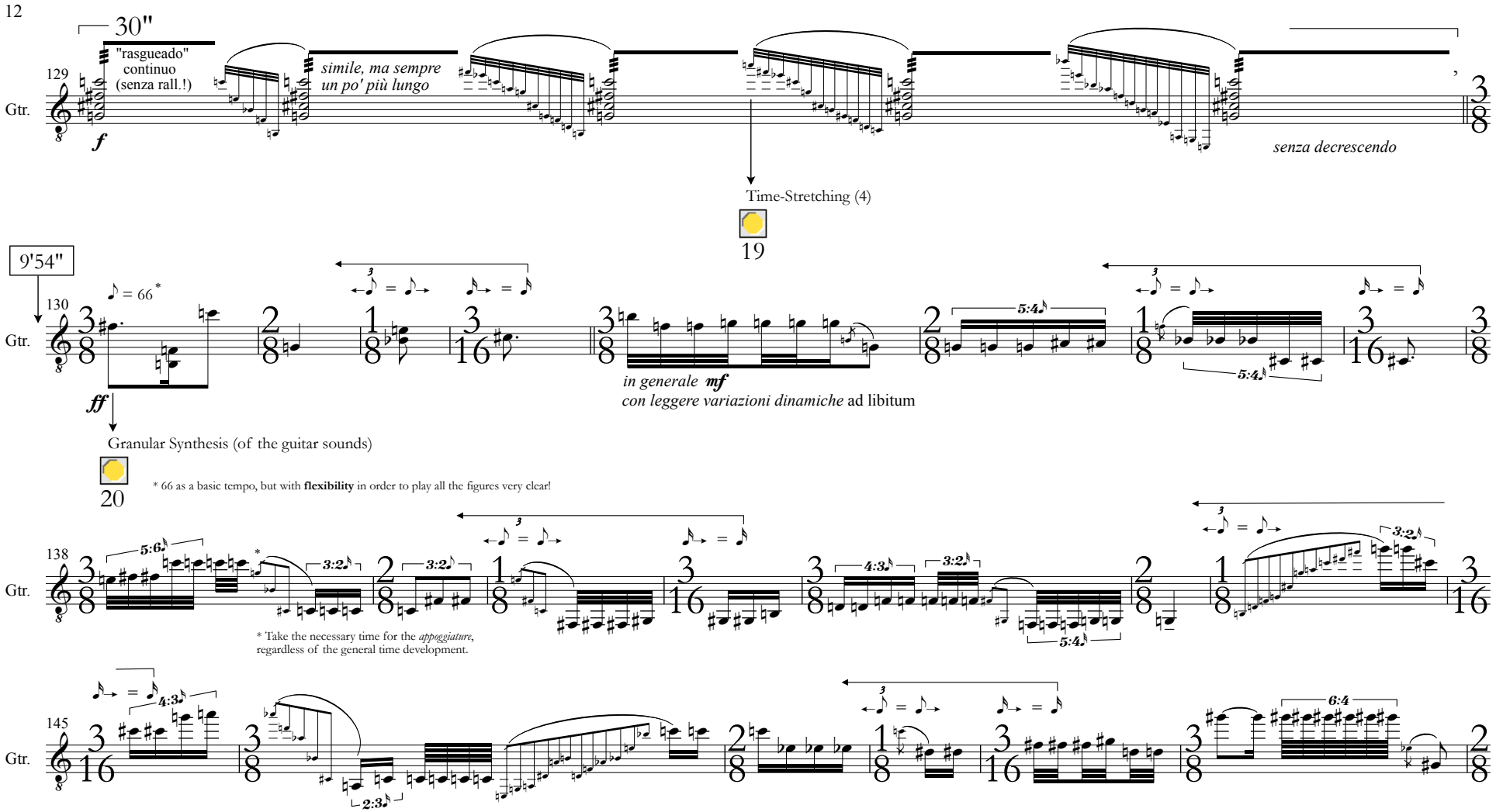

4'35"
13"
In the highest register of the instrument, using the nail as "traste". Right hand as plectrum.
93
Gtr.
senza rall.!
ff
Filtering and FM-Synthesis
9
13"
gliss.
simile
(in two strings)
(9)
mf
f
ogni volta più corto
poco
mf
Fadeout FM-Synthesis
10
8"
simile
simile
(10)
5"
sempre simile
(14)
all'inizio: più lento
un poco più corto
5"
97
Gtr.
(16)
sempre più corto
6"
(20)
sempre più lento all'inizio
7"
(23)
5'32"
8"
100
Gtr.
già rapidissimo all'inizio (senza accelerando!)
Fadeout Filtering
11
double gliss.
21"
ff
sempre più corto
(2)
rall.
poco
ff subito
(4)
(poco) rall.
Fadeout Live Resonances
12
(11)
ff subito
harmonic XII
molto rall.

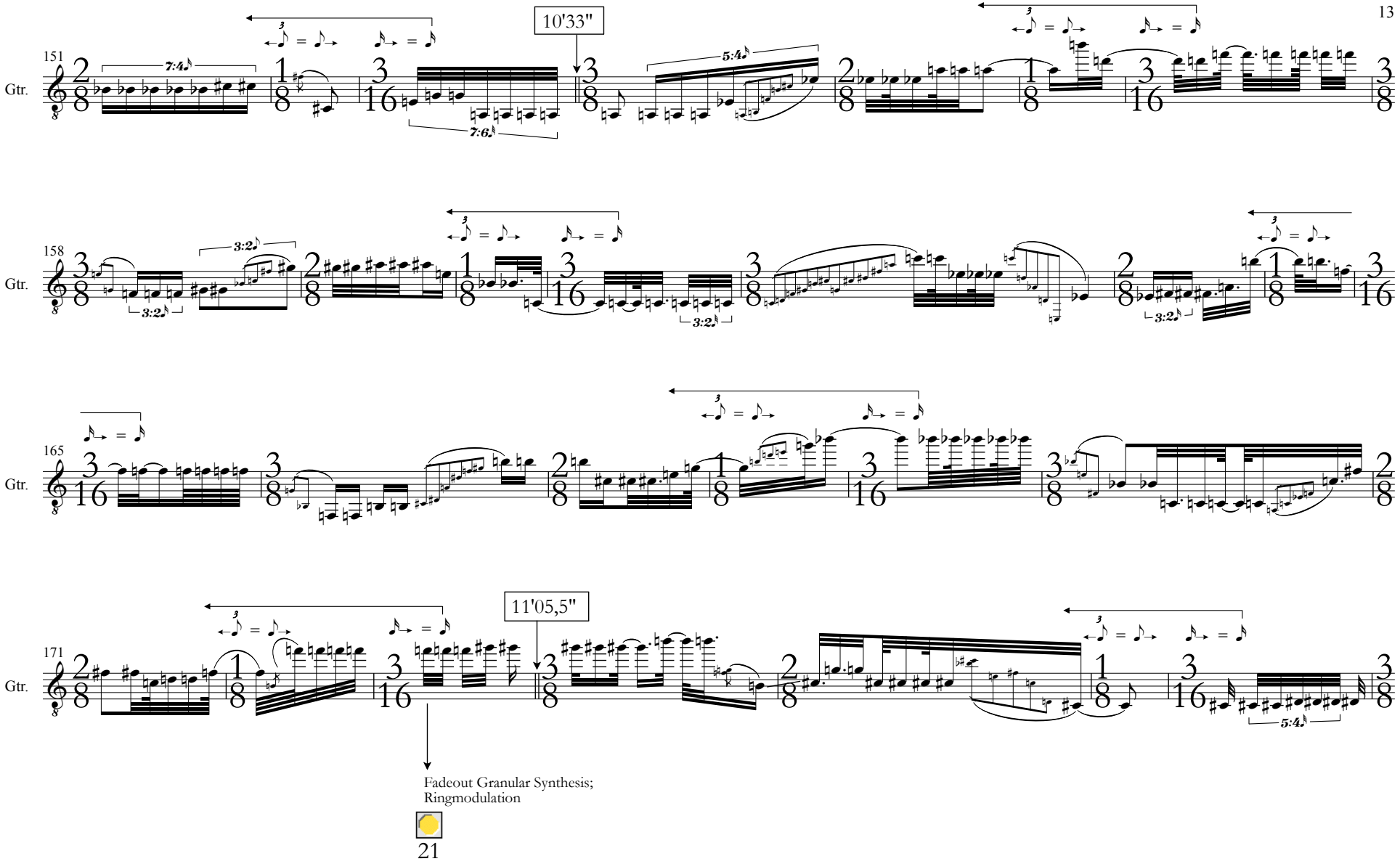

6'01"
ca. 55"
take quickly a glass slide and put it in the fourth finger
102
Gtr.
etc.
sempre tra ff e mf
extremely fast granular ("articolato" with right hand) "small glissando-sounds" around the highest notes of the strings pressed together with a glass slide on the fourth finger
Granular Synthesis
13
ca. 6'32"
ff
make this unique figure after ca. 31" from the beginning of this moment
Resonances (Electroacoustic Sounds lasting 8' until the end of the piece)
14
leave quickly the glass slide
attacca
7/16
Fadeout Granular Synthesis
15

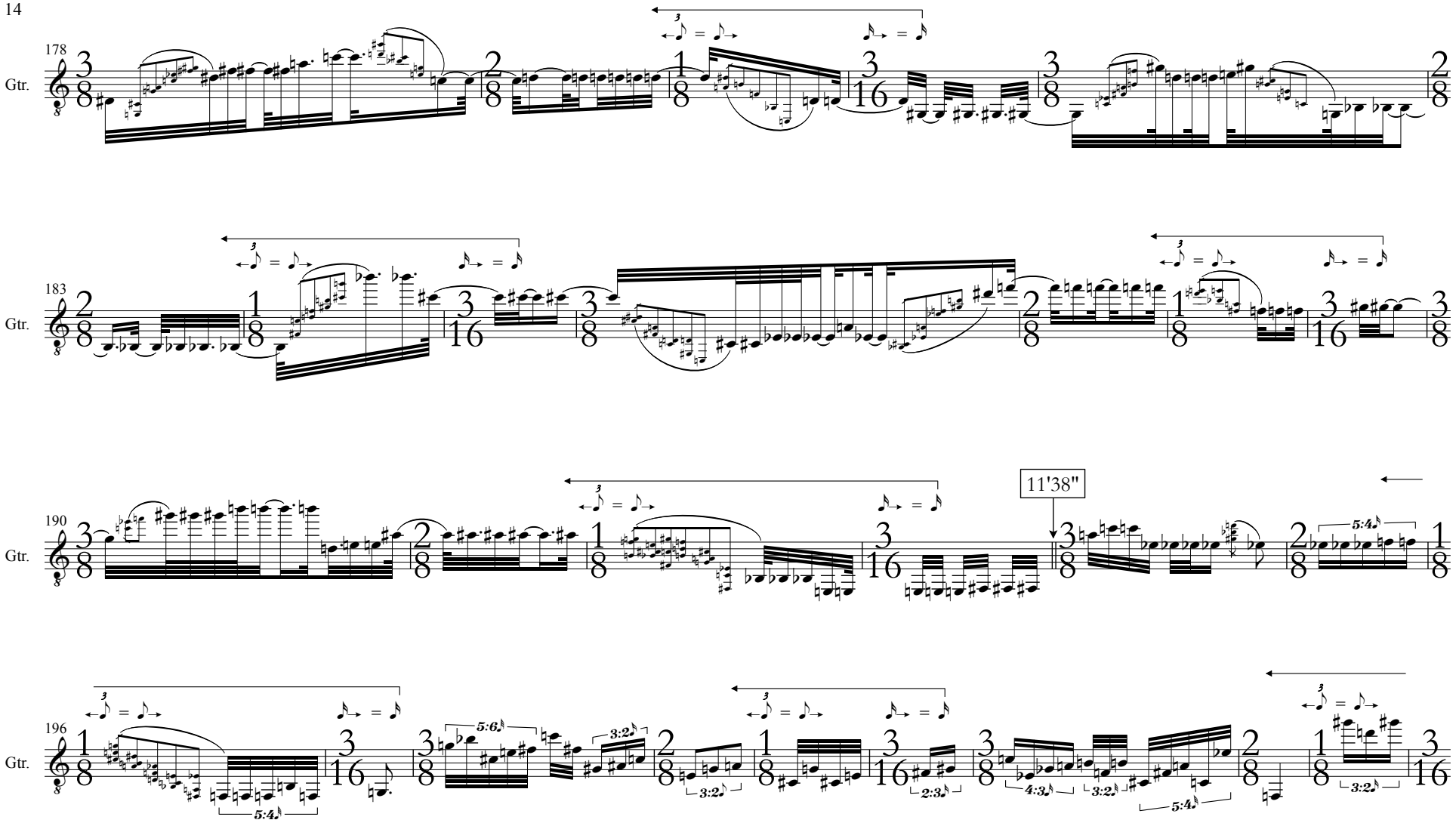

6'56"
♩ = 56
Tempoline
molto rubato
accel.
rall.
103
Gtr.
sempre f
con leggere variazioni dinamiche intorno al f
107
Gtr.

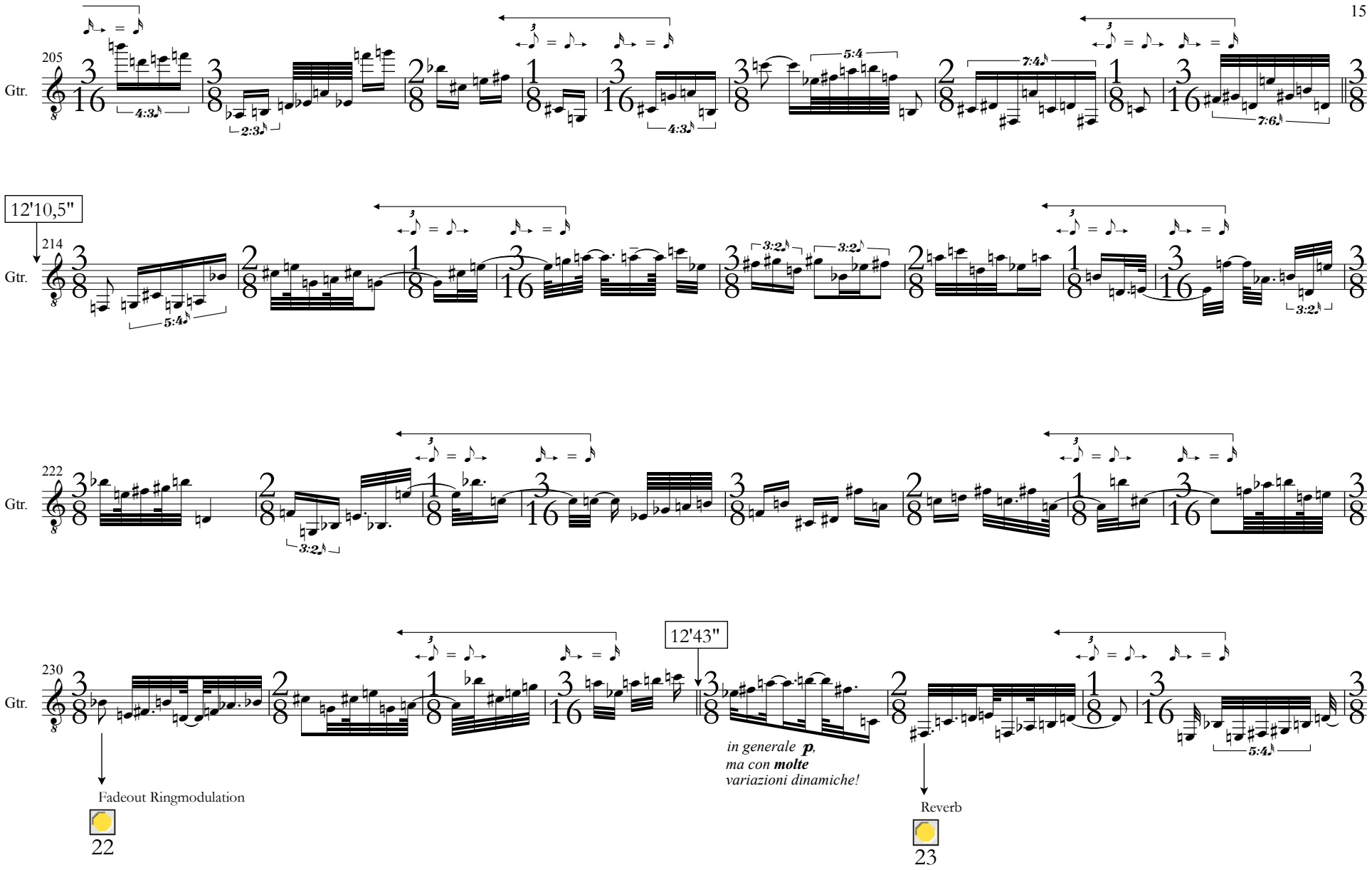

111
Gtr.
più lento
tempo primo
115
Gtr.
7'22"
13"
♩ = 60
"rasgueado"
continuo
118
Gtr.
molto rallentando
tremolo
rapidissimo
accelerando
attacca
poco
ff
p
f
ff
pp
7'39"
25"
già un poco
rapido all'inizio
120
Gtr.
subito più lento
simile
simile
molto accelerando
poco
attacca
p
mp
p
simile

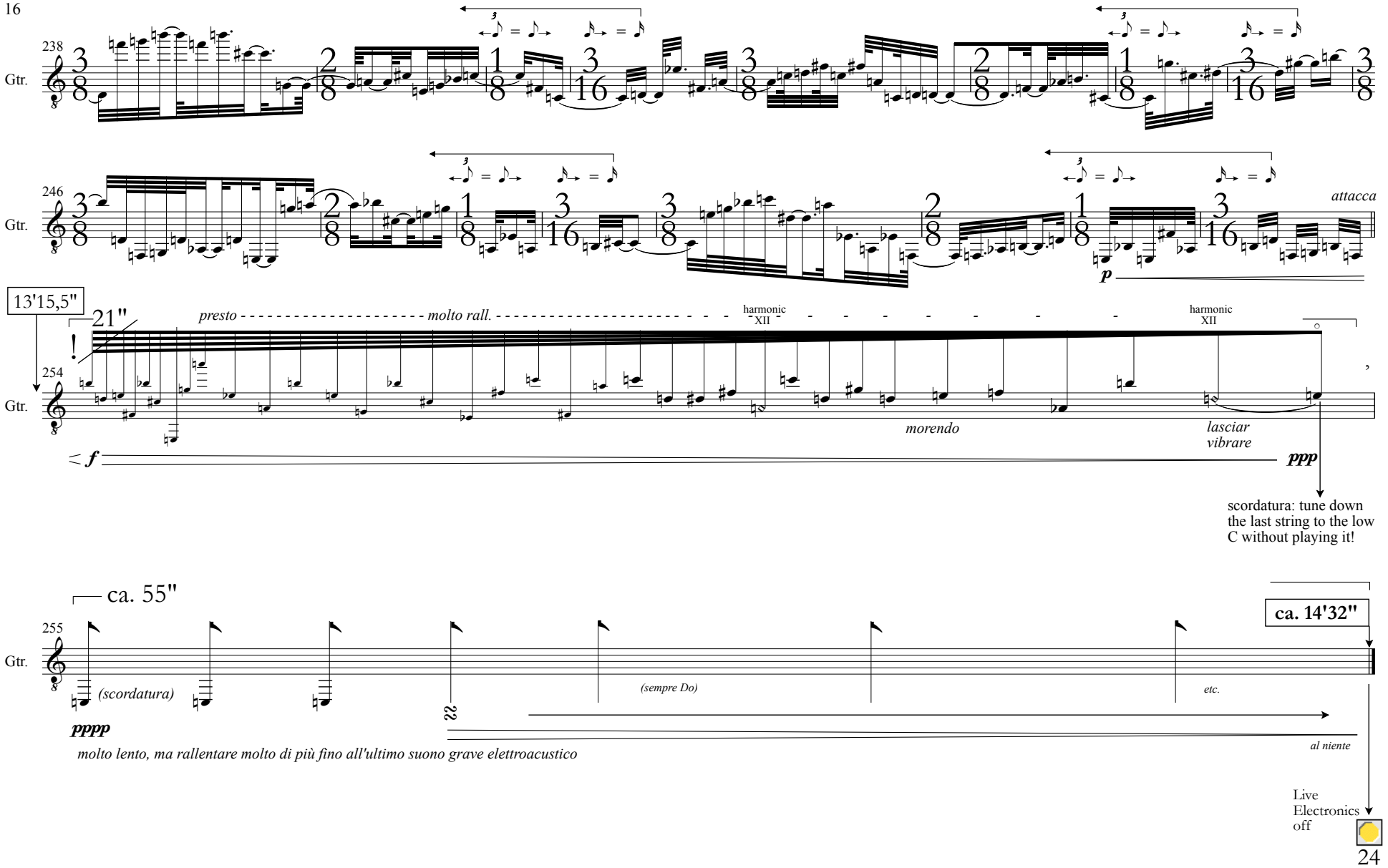

11
123
Gtr.
p
mf
p
mf
mf
f
40"
"rasgueado" continuo
poco a poco arpeggiando
127
Gtr.
simile
simile
f
ppp
f
ppp
f
pppp
Time-Stretching (1)
16
Time-Stretching (2)
17
8'44"
40"
128
Gtr.
simile
poco rall.
molto accelerando
attacca
etc.
ff
p
mf
f
pp
Time-Stretching (3)
18
play exactly 34 times the same chord


30"
"rasgueado"
continuo
(senza rall.!)
simile, ma sempre
un po' più lungo
senza decrescendo
Gtr.
129
f
Time-Stretching (4)
19
9'54"
130
♪ = 66 *
ff
in generale mf
con leggere variazioni dinamiche ad libitum
5:4
Granular Synthesis (of the guitar sounds)
20
* 66 as a basic tempo, but with flexibility in order to play all the figures very clear!
138
5:6
3:2
4:3
* Take the necessary time for the appoggiature,
regardless of the general time development.
145
2:3
6:4


151
Gtr.
7:4
7:6
10'33"
5:4
158
Gtr.
3:2
3:2
3:2
165
Gtr.
171
Gtr.
11'05,5"
5:4
Fadeout Granular Synthesis;
Ringmodulation
21


178
Gtr.
183
Gtr.
190
Gtr.
11'38"
196
Gtr.


205
Gtr.
12'10,5"
214
Gtr.
222
Gtr.
230
Gtr.
12'43"
Fadeout Ringmodulation
22
in generale p,
ma con molte
variazioni dinamiche!
Reverb
23


238
Gtr.
246
Gtr.
attacca
p
13'15,5"
21"
254
Gtr.
presto
molto rall.
harmonic XII
harmonic XII
morendo
lasciar vibrare
f
ppp
scordatura: tune down the last string to the low C without playing it!
ca. 55"
255
Gtr.
(scordatura)
(sempre Do)
etc.
ca. 14'32"
pppp
molto lento, ma rallentare molto di più fino all'ultimo suono grave elettroacustico
al niente
Live Electronics off