Per Bloland

Elsewhere is a Negative Mirror

for piano with electromagnets

Explanation of Electronics:

In addition to the performer playing the piano, a rack of 12 electomagnets is placed over the piano frame, each electromagnet positioned over a string. These are controlled by a Max/MSP patch, each magnet serving to resonate its respective string at variable frequencies. The dampers for these strings are held with the sostenuto pedal, thus forcing the performer to move with care around these resonating pitches.

The electromagnets are responsible for the performance of a "supertheme", distinct from the careful structure of the material played by the performer. As mentioned above, these electromagnets are controlled by a Max/MSP patch. It should be stressed that neither the computer running the patch nor the electromagnets themselves produce any sound. **All sounds heard are strictly acoustic, emanating directly from the piano strings as they are excited by the electromagnets**, or by the performer at the keyboard in the normal fashion.

A note about the Electromagnet staff:
This staff is provided only to give a general indication of the various types of sounds emanating from the piano, and should not be used for cuing purposes. At the beginning of each section a pitch pool is notated, though the order in which these pitches occur, as well as their durations and envelopes, are all randomized.

Legend

①	Electronic cue. Indicates that the control pedal - pedal III (*una cord∂a*) - should be depressed and released, advancing the electronics to the next section.
Ped I	Right (damper) pedal.
Ped II	Middle (sostenuto) pedal.
Ped III	Left (una corda) pedal.
	Inside piano notation:
△	Coin tremolo: hold coin **perpendicular** to string and rapidly scrape back and forth **(left to right)** repeatedly on all 3 strings of indicated pitch.
×	Knock on casting beam (metal strut above piano strings).
ø	Tap strings of indicated pitch with fingertip.

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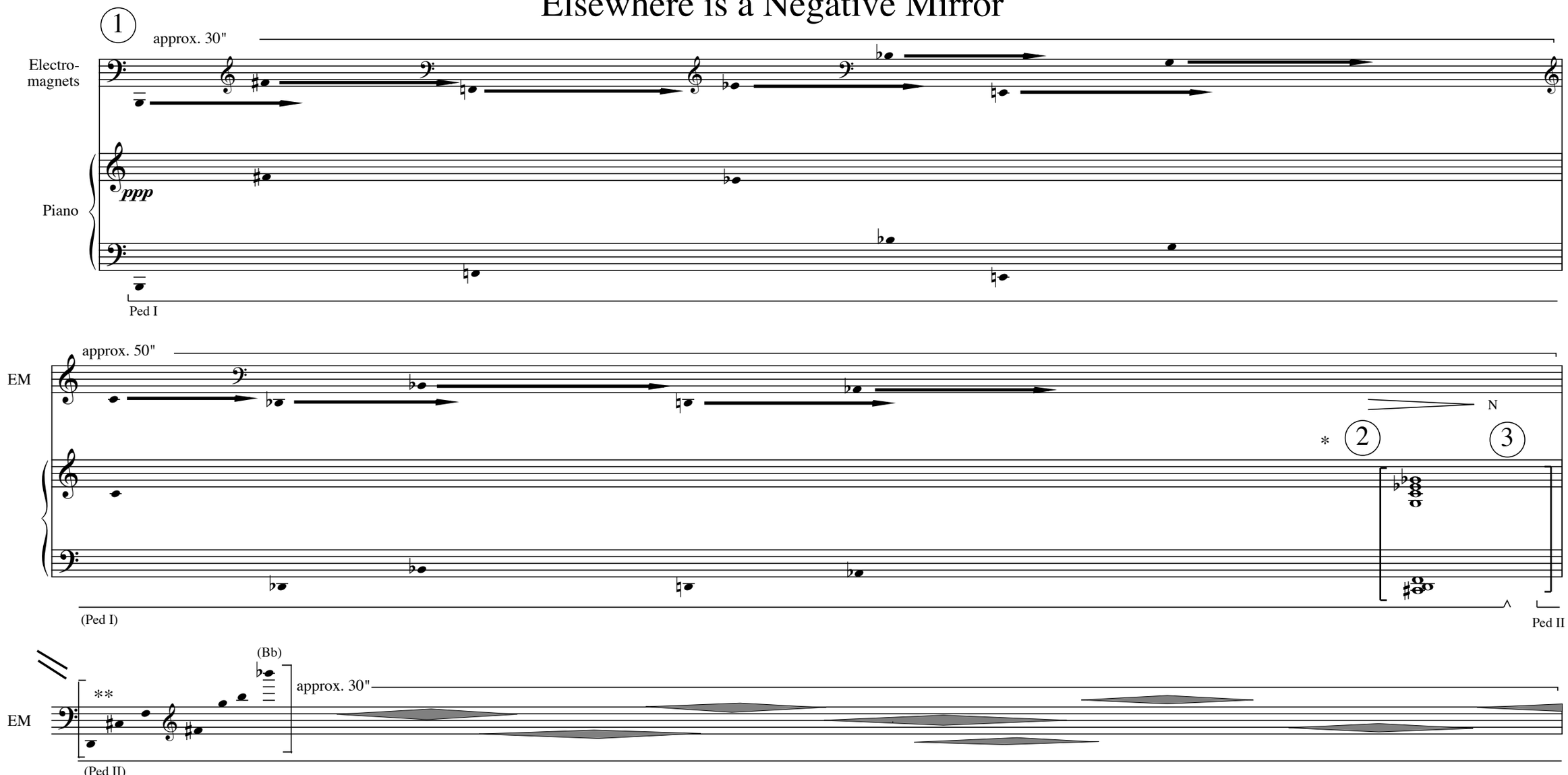
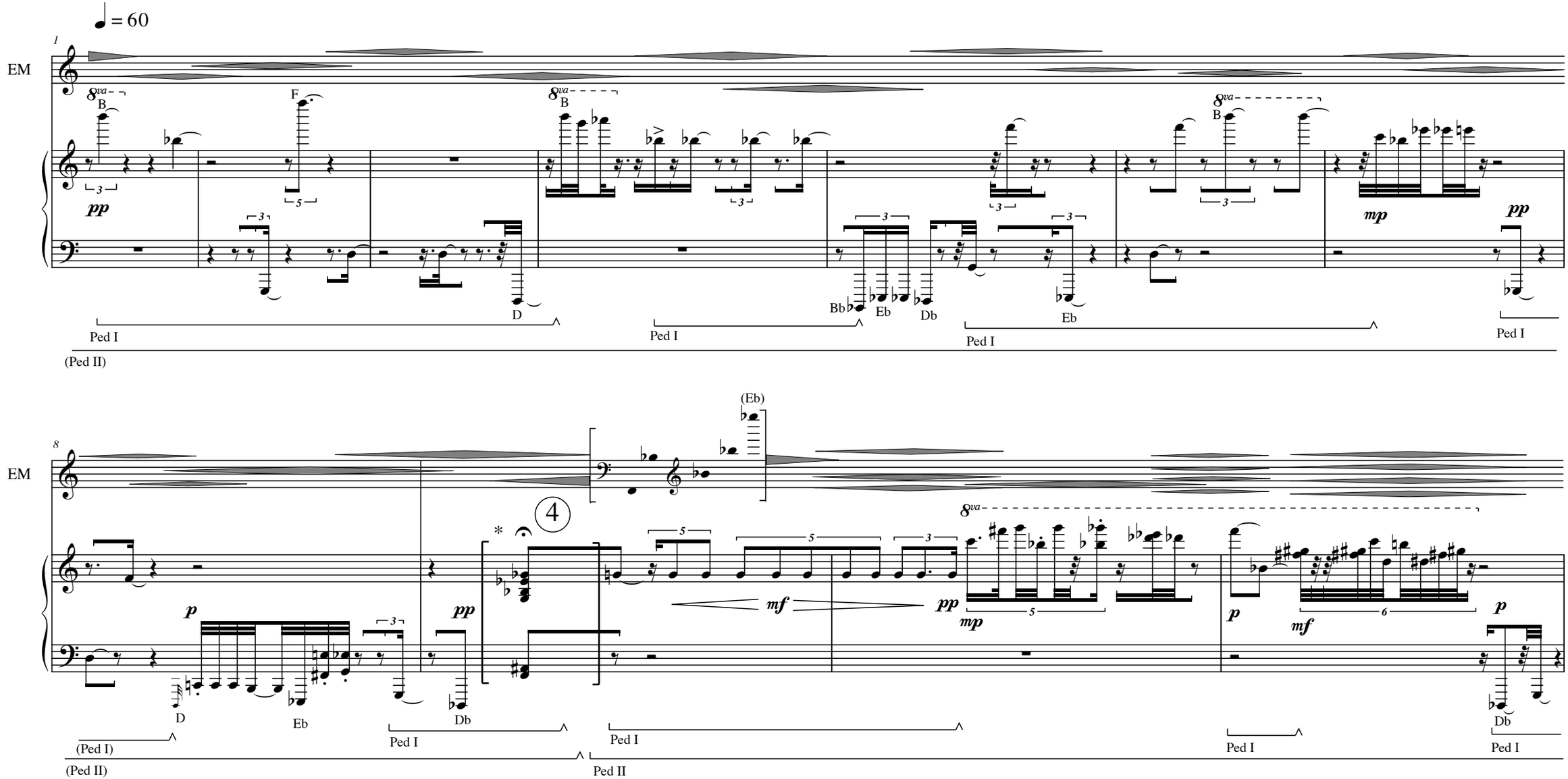
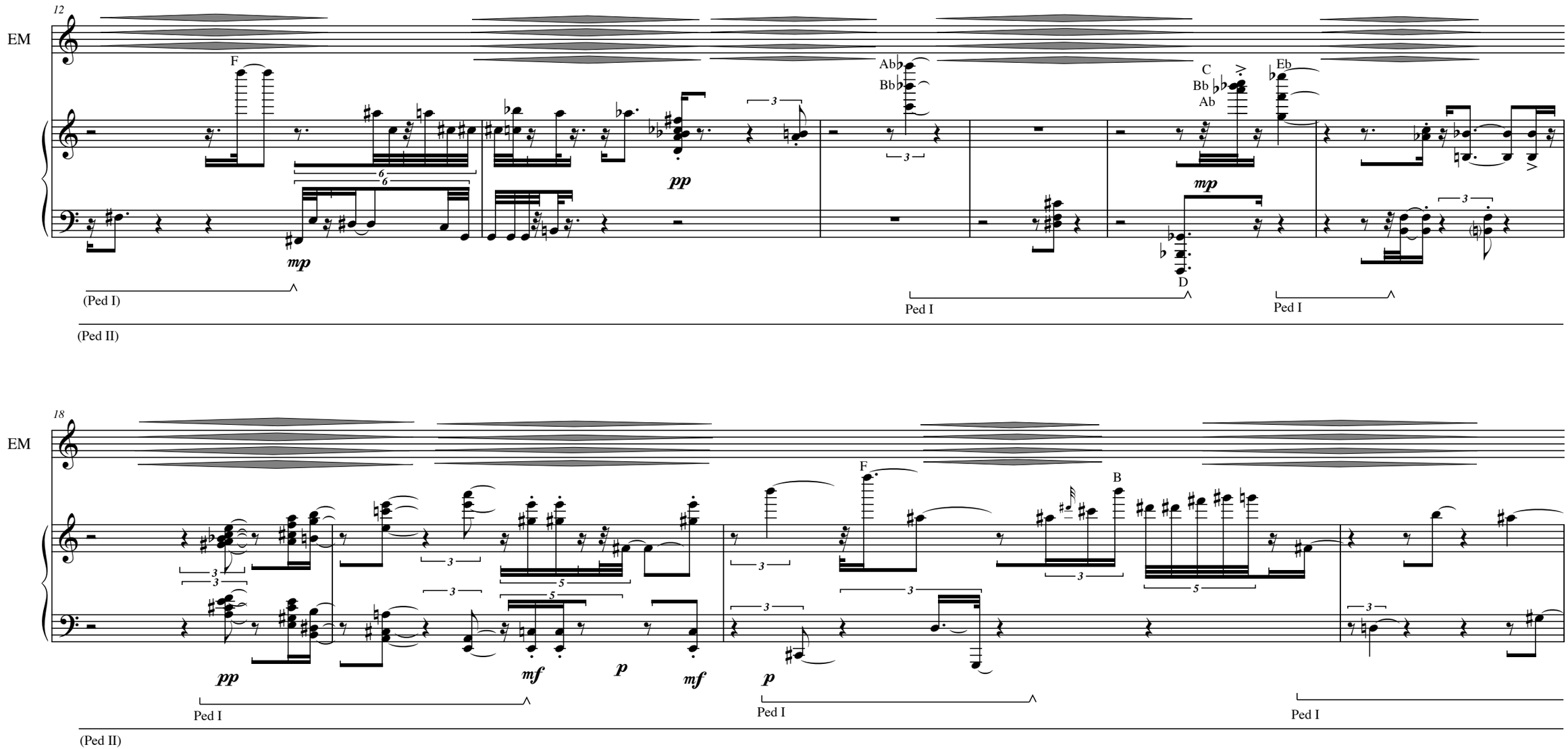


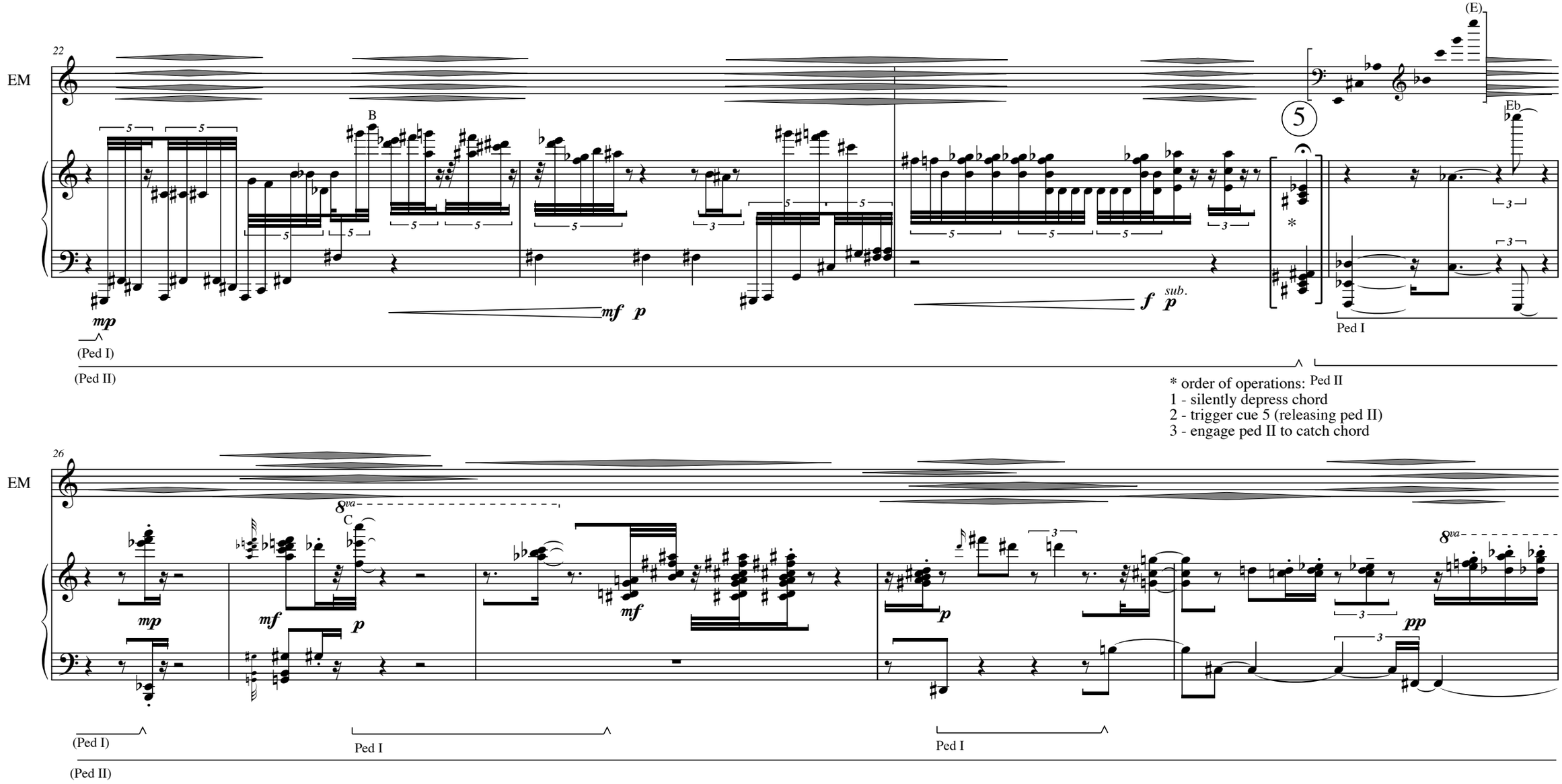
** Pitch pool for electronics. Actual order of occurrence is randomized. Graphic notations on this staff should not be used for cuing purposes.

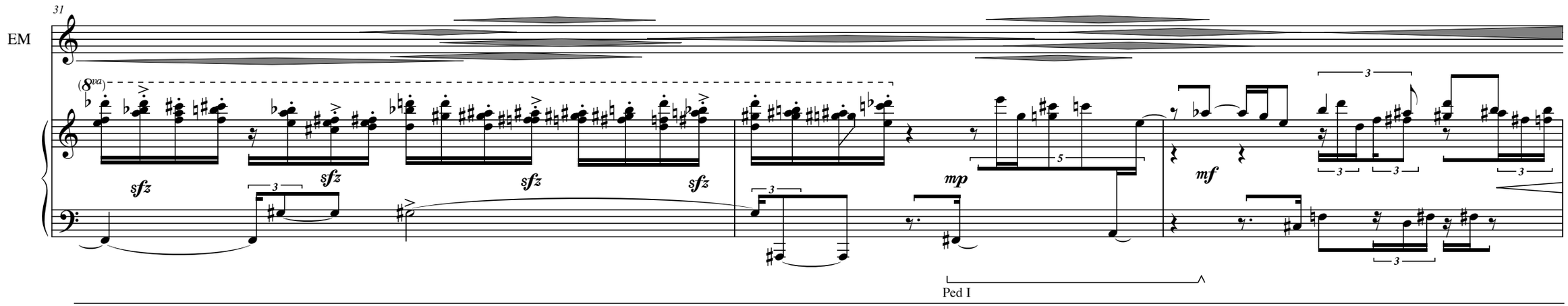
* Note that the order of operations here is crucial:
1 - depress and release Ped III, triggering cue 2
2 - silently depress chord
3 - after electronics have died away, trigger cue 3
4 - release ped I
5 - engage pedal II to catch notes of chord

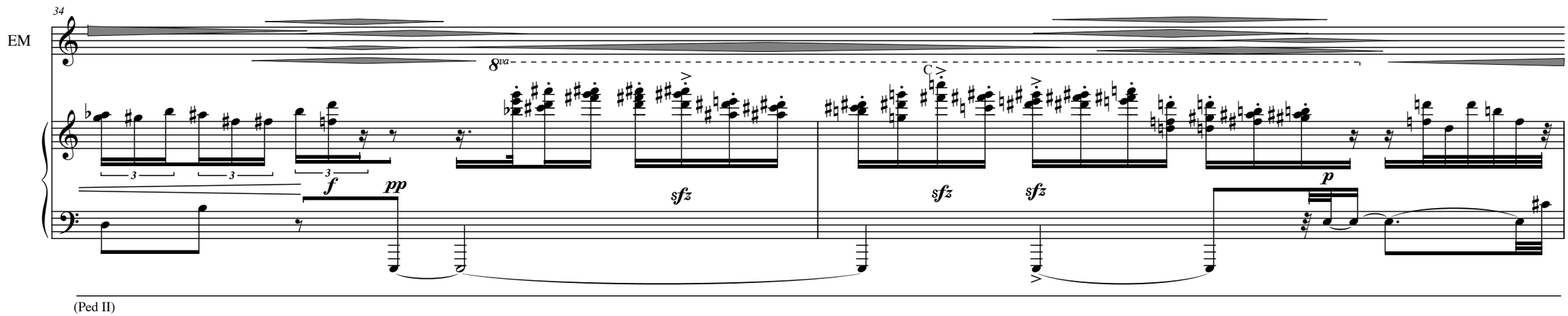


* order of operations (need not occur at tempo):
1 - silently depress chord
2 - trigger cue 4 with left foot (releasing ped II)
3 - release ped I
4 - engage ped II catching chord
5 - engage ped I


12
EM
F
Ab
Bb
C
Bb
Ab
Eb
D
mp
pp
mp
(Ped I)
Ped I
Ped I
(Ped II)
18
EM
F
B
pp
mf
p
mf
p
Ped I
Ped I
Ped I
(Ped II)

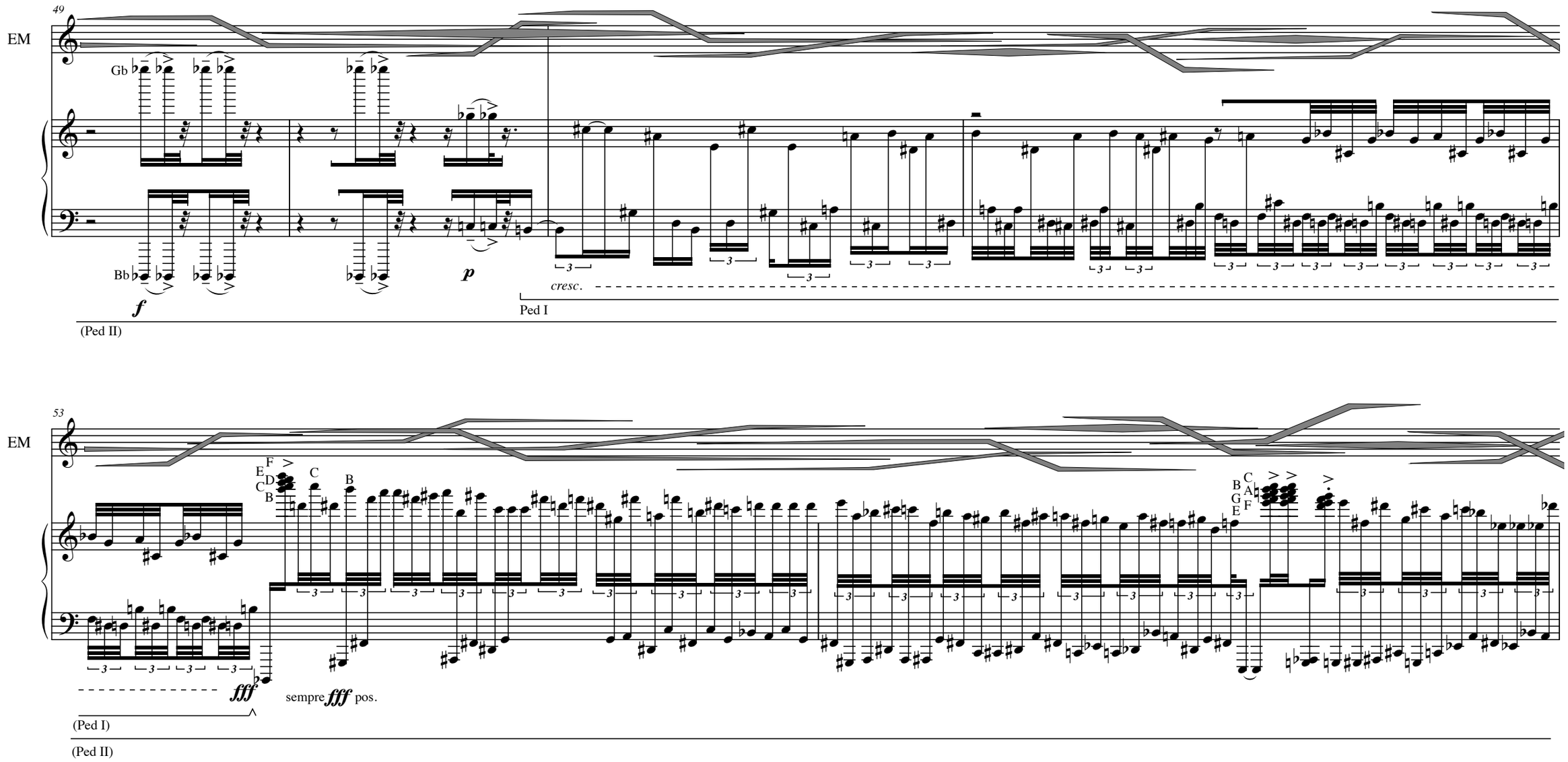

22
EM
B
(E)
Eb
mp
mf
p
f
sub.
p
(Ped I)
(Ped II)
Ped I
* order of operations: Ped II
1 - silently depress chord
2 - trigger cue 5 (releasing ped II)
3 - engage ped II to catch chord
26
EM
8va
C
mp
mf
p
mf
p
8va
pp
(Ped I)
Ped I
Ped I
(Ped II)

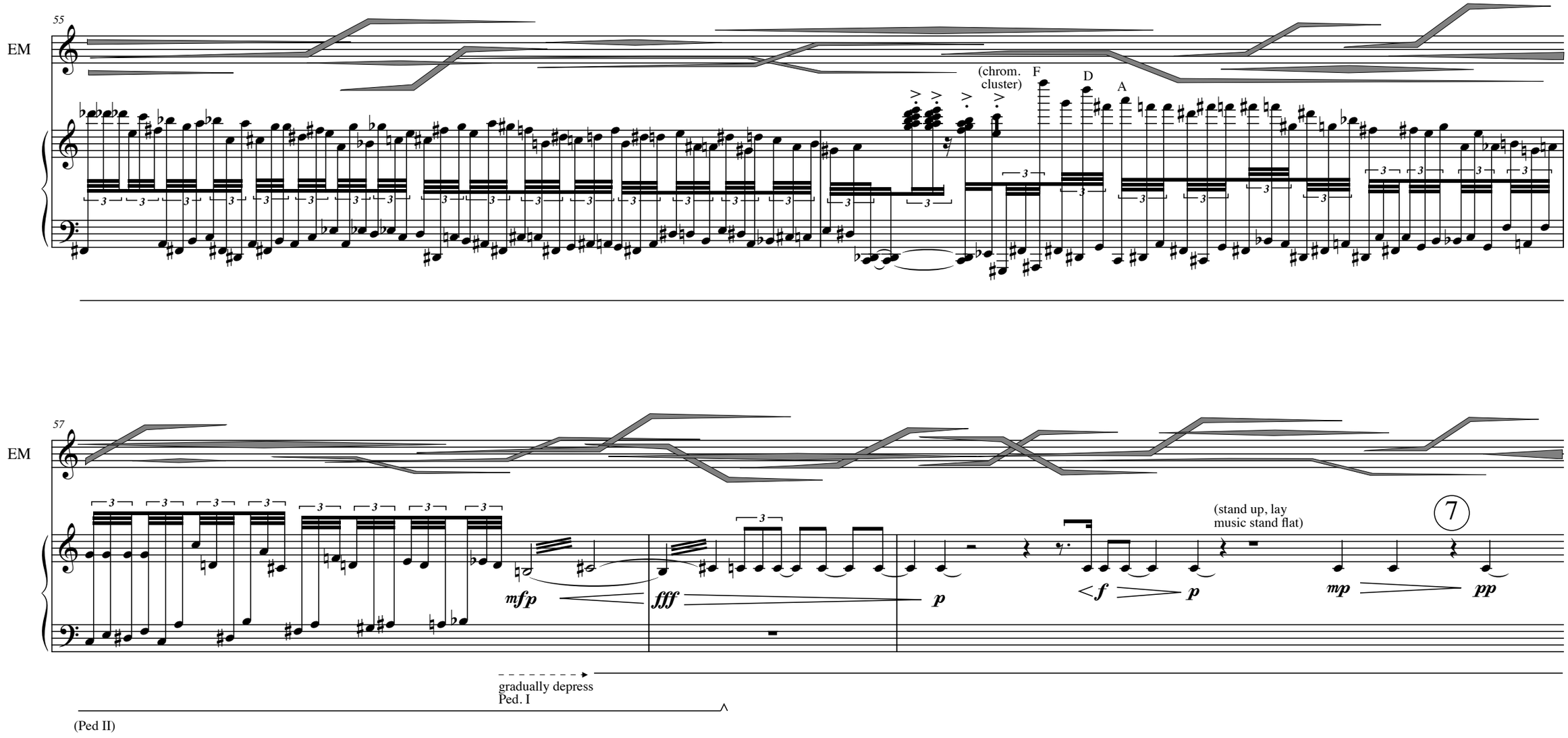

31
EM
(8va)
sfz
sfz
sfz
sfz
mp
mf
Ped I
(Ped II)

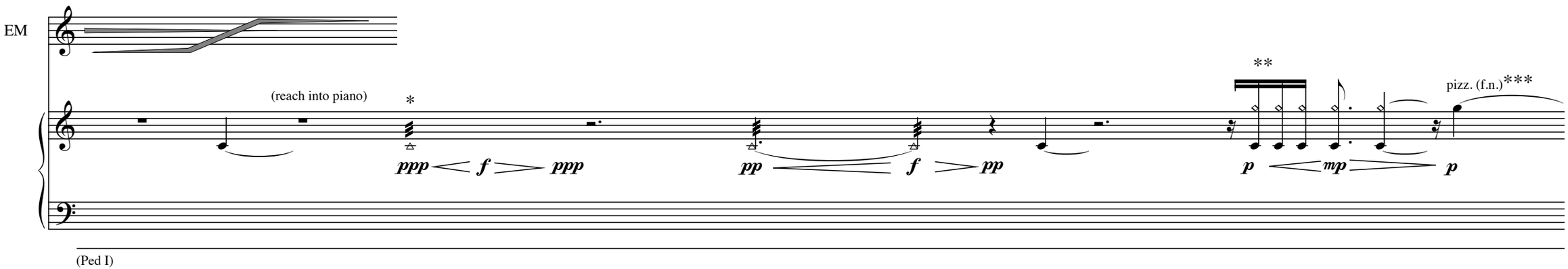

34
EM
8va
C
f
pp
sfz
sfz
sfz
p
(Ped II)


36
EM
C#
mf
f
sub.
p
mp
sub.
p
Ped I
(Ped II)
38
EM
C#
6
mf
(Ped I)
f
sub.
p
Ped I
Ped I
(Ped II)
Ped II
* order of operations:
1 - silently depress chord
2 - trigger cue 6 (releasing ped II)
3 - engage ped II to catch chord


42
EM
8va
5:4
5:4
sfz
sfz
mp
pp
mp
f
(Ped I)
Ped I
(Ped II)
46
EM
8va
sfz
sub.
pp
mf
pp
f
ff
(Ped II)


49
EM
Gb
Bb
f
p
cresc.
Ped I
(Ped II)
53
EM
F
E
D
C
B
C
B
C
A
G
F
fff
sempre fff pos.
(Ped I)
(Ped II)

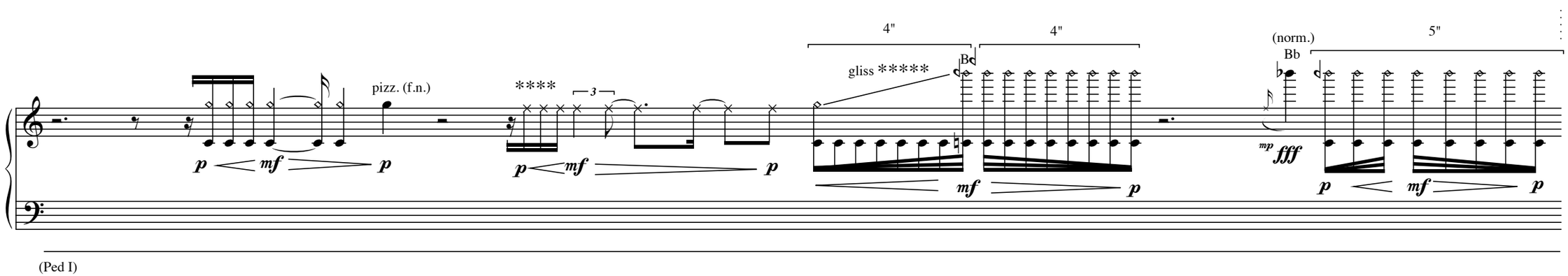

55
EM
(chrom. cluster)
F
D
A
57
EM
mfp
fff
p
<f
p
(stand up, lay music stand flat)
mp
pp
7
gradually depress Ped. I
(Ped II)



* △ coin tremolo (see legend)

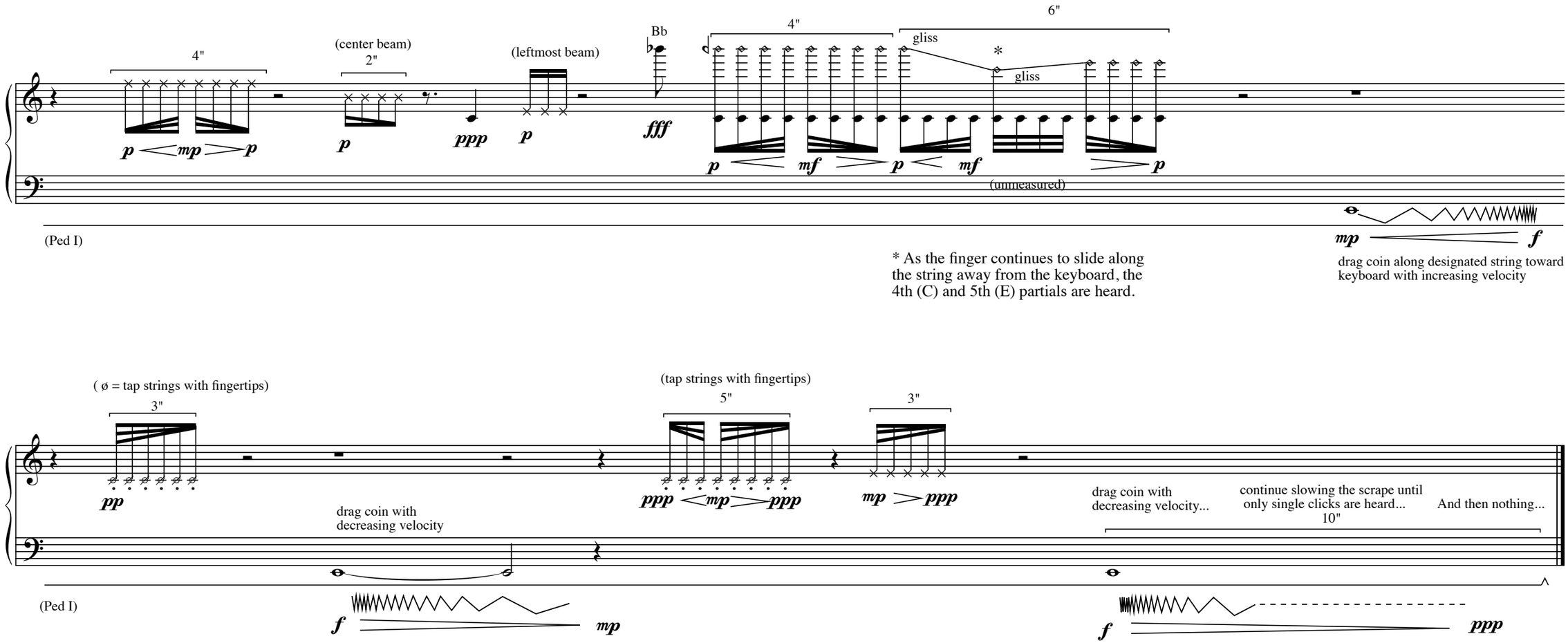
** 3rd partial harmonic should be marked with chalk. Note that there is more than 1 node for this partial. The node on the far side of the string, slightly past the halfway point should be utilized in this case.

*** right hand fingernail pluck.



**** knock on rightmost casting beam.

***** the 7th partial harmonic may be marked with chalk as well. It is immediately adjacent to the 3rd partial (G) - in the opposite direction from the keyboard.


4"
(center beam)
2"
(leftmost beam)
Bb
4"
6"
gliss
*
gliss
p mp p
p
ppp
p
fff
p mf p mf p
(unmeasured)
(Ped I)
mp f
drag coin along designated string toward keyboard with increasing velocity
* As the finger continues to slide along the string away from the keyboard, the 4th (C) and 5th (E) partials are heard.
(ø = tap strings with fingertips)
3"
(tap strings with fingertips)
5"
3"
pp
ppp mp ppp
mp ppp
drag coin with decreasing velocity
drag coin with decreasing velocity...
continue slowing the scrape until only single clicks are heard...
10"
And then nothing...
(Ped I)
f mp
f ppp