reflections on the nature of light

1997

Clifton Callender

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reflections on the nature of light—16:10
refractions—2:40
sfumato—4:30
la Sainte-Chapelle—9:00

Program notes—

reflections on the nature of light is a set of three piano pieces which are inspired by recent preoccupations with the nature of light, sparked by Leonard Shlain's *Art and Physics* and Richard P. Feynman's *QED: The strange theory of light and matter*. While not intended as programmatic depictions of light, I have no doubt that the ideas inspired by these books were an indirect influence on the composition of, and my subsequent reaction to, these pieces.

refractions is a musical analogy for the way in which light gives way to numerous, previously imperceptible, colors when passed through a prism. At times, all of the musical material is drawn from partials of a single fundamental, while in other passages the two hands separate into independent streams yielding multiple spectra.

Leonardo da Vinci used the term "sfumato" to describe the phenomenon in which shadows and outlines of objects become less crisp and increasingly blurred as they recede into the distance. In *sfumato*, as in Impressionistic paintings, blurring becomes one of the most prominent features as melodies blur into harmony, harmonies into resonance, and successive phrases blur into one another in a continually and gradually evolving improvisational architecture.

la Sainte-Chapelle opens with a series of slow, sustained chords—a progression of harmonic colors with each sonority leaving its distinctive mark on the cumulative resonance. The slight variations in harmonic color from one chord to the next may be likened to the various shadings of natural light by the magnificent stained-glass windows at la Sainte-Chapelle and other cathedrals. Just as the color of this transformed light is an integral part of the cathedral's architecture, the resonance of these chords is central to the design of the movement, gradually coalescing into a peal of bells near the end.

These three movements may be viewed as musical metaphors for the physical, perceptual, and spiritual natures of light, respectively.

refractions

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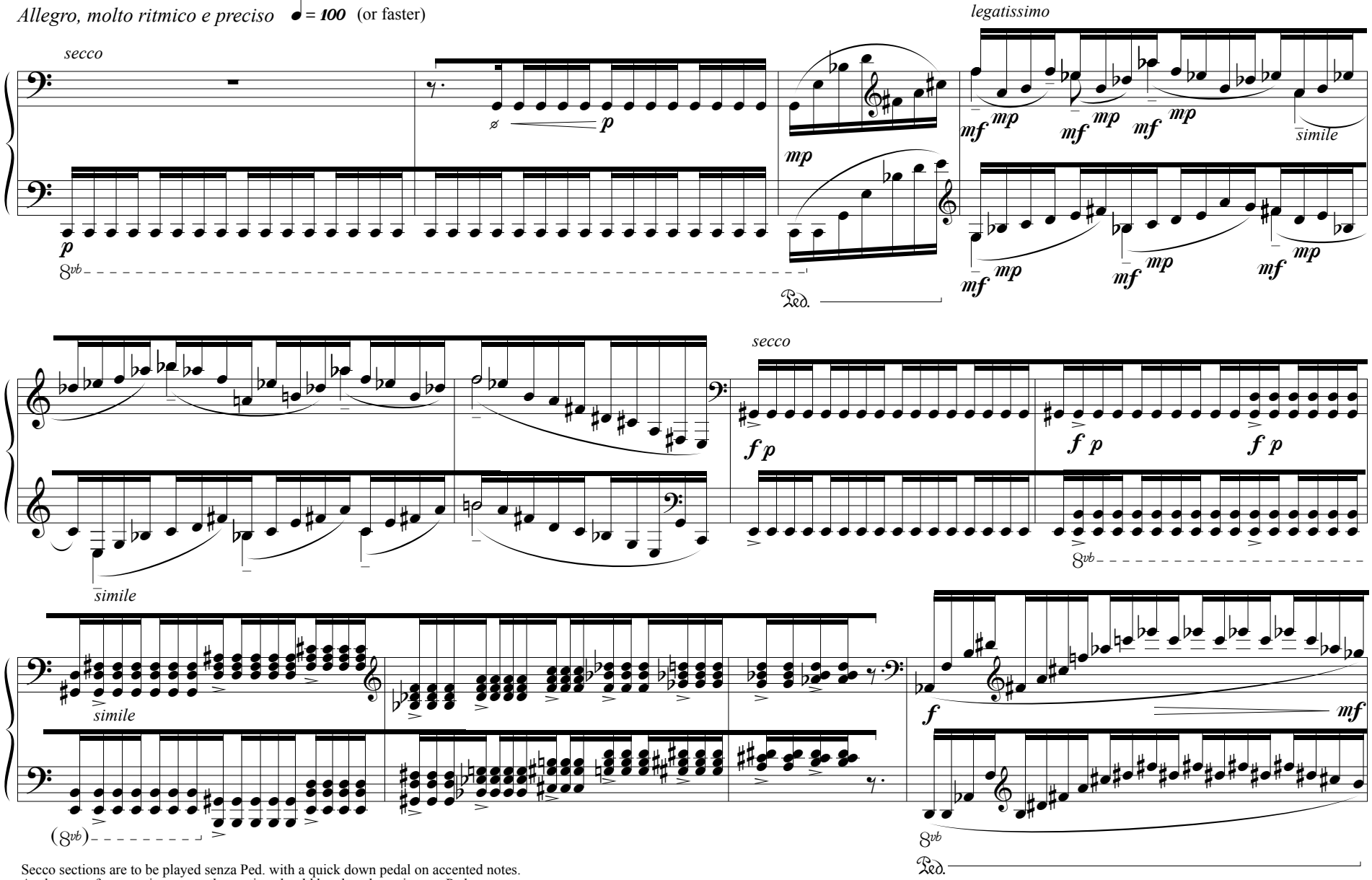

Secco sections are to be played senza Ped. with a quick down pedal on accented notes.
As the rate of accents increases, the section should be played quasi senza Ped.

Legatissimo sections should be played molto Ped. ad lib.
The pedal should only be lifted completely where Ped. is specifically marked.
Otherwise, the pedal should remain between fully and half depressed.

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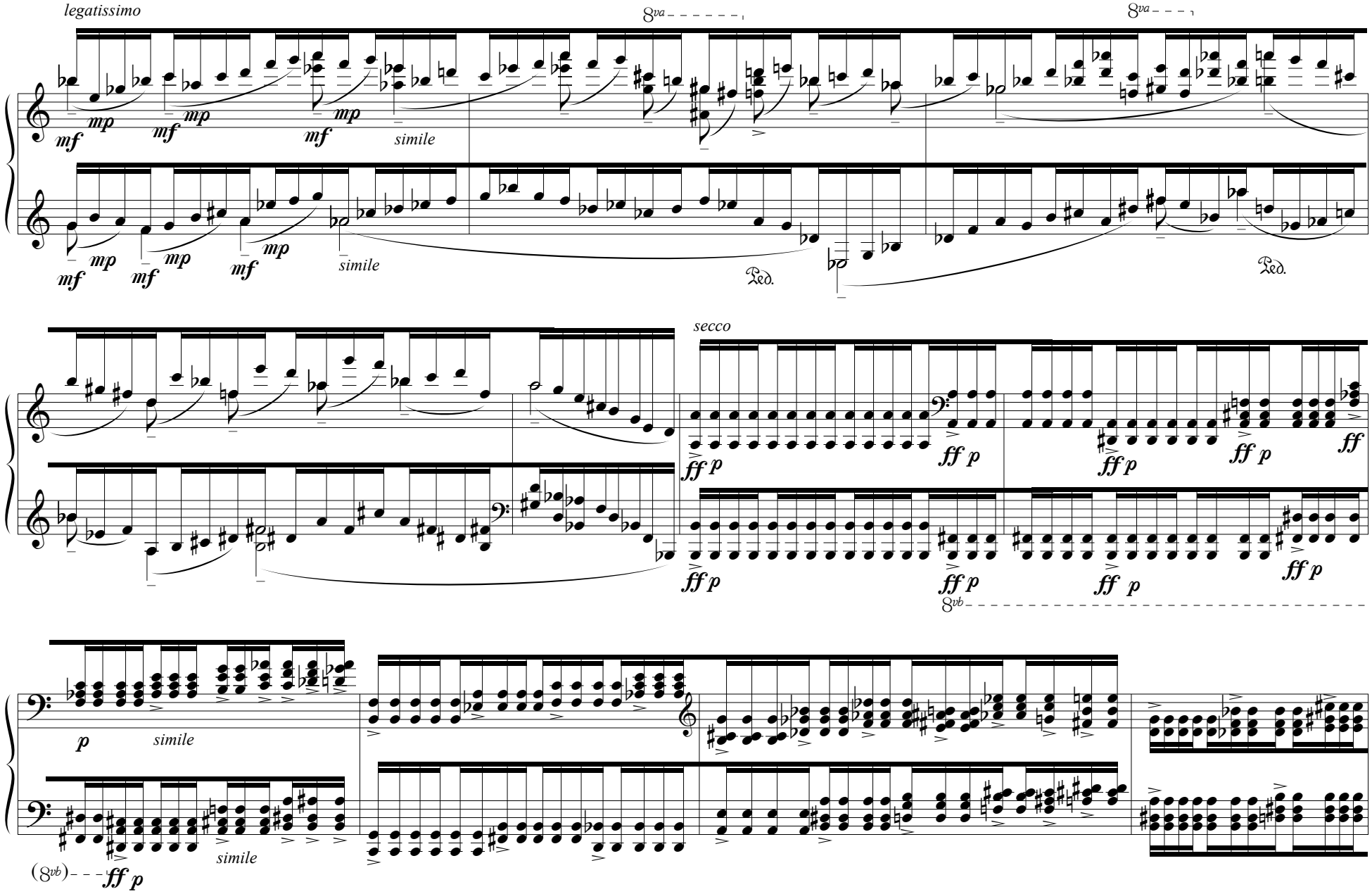
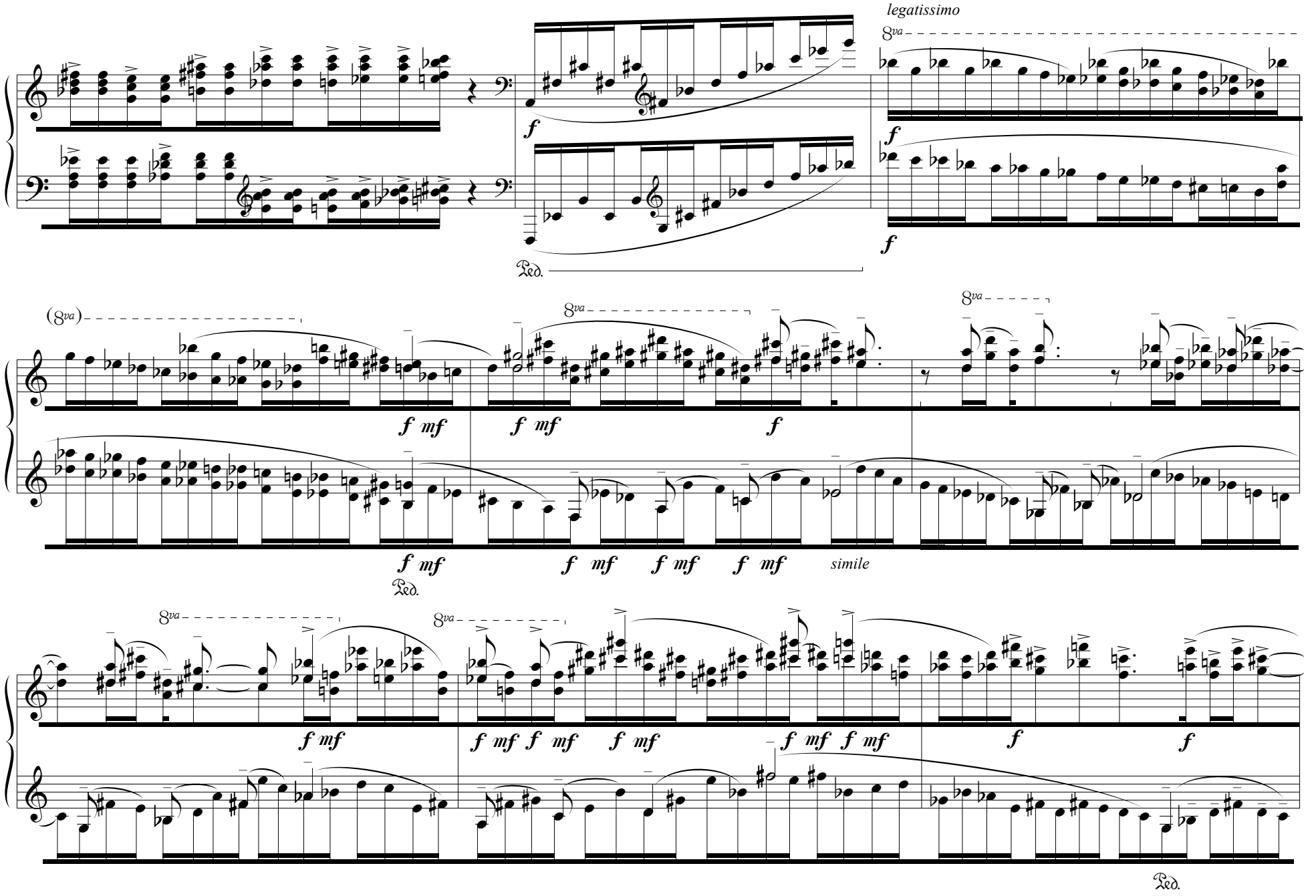
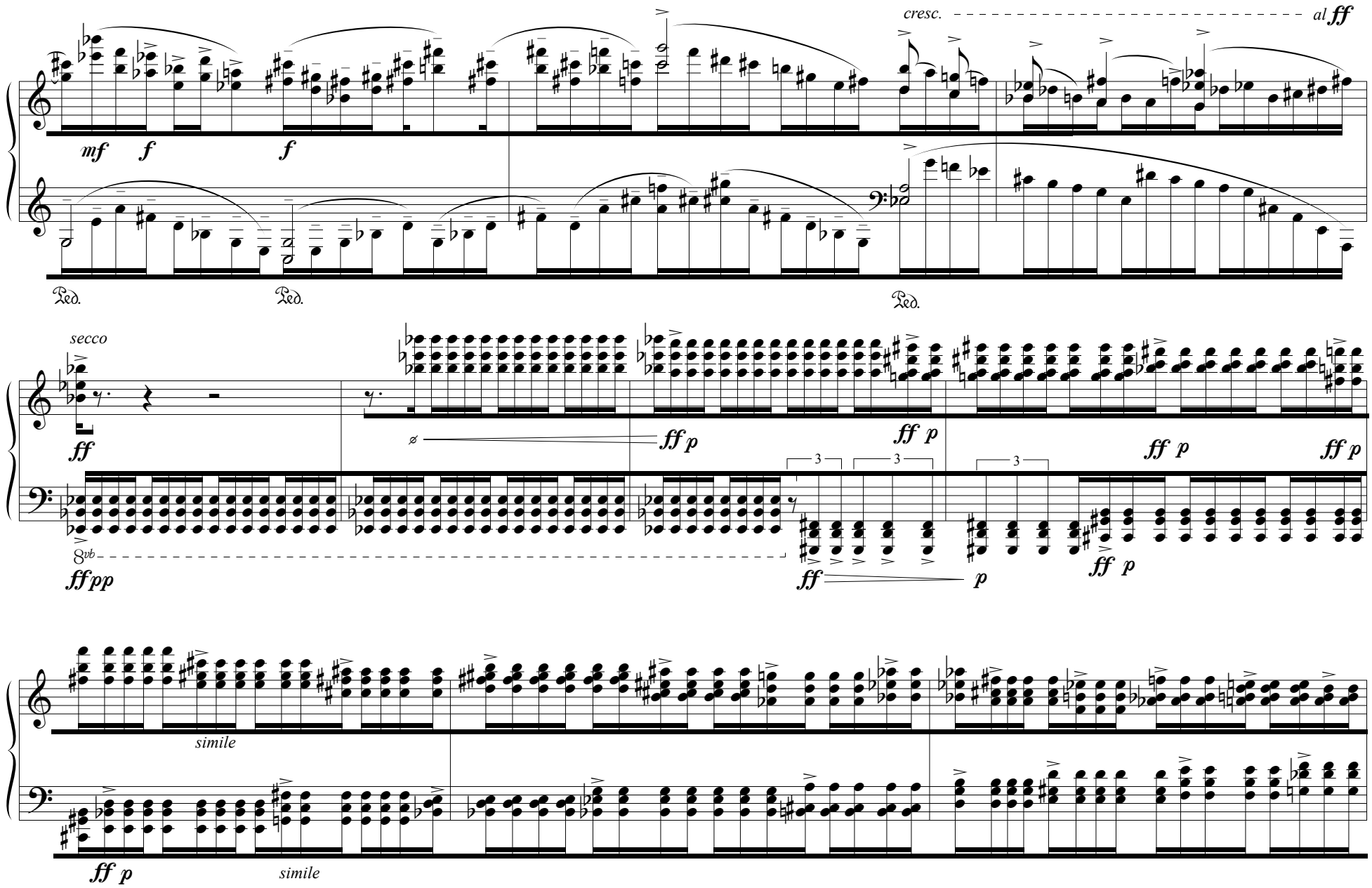
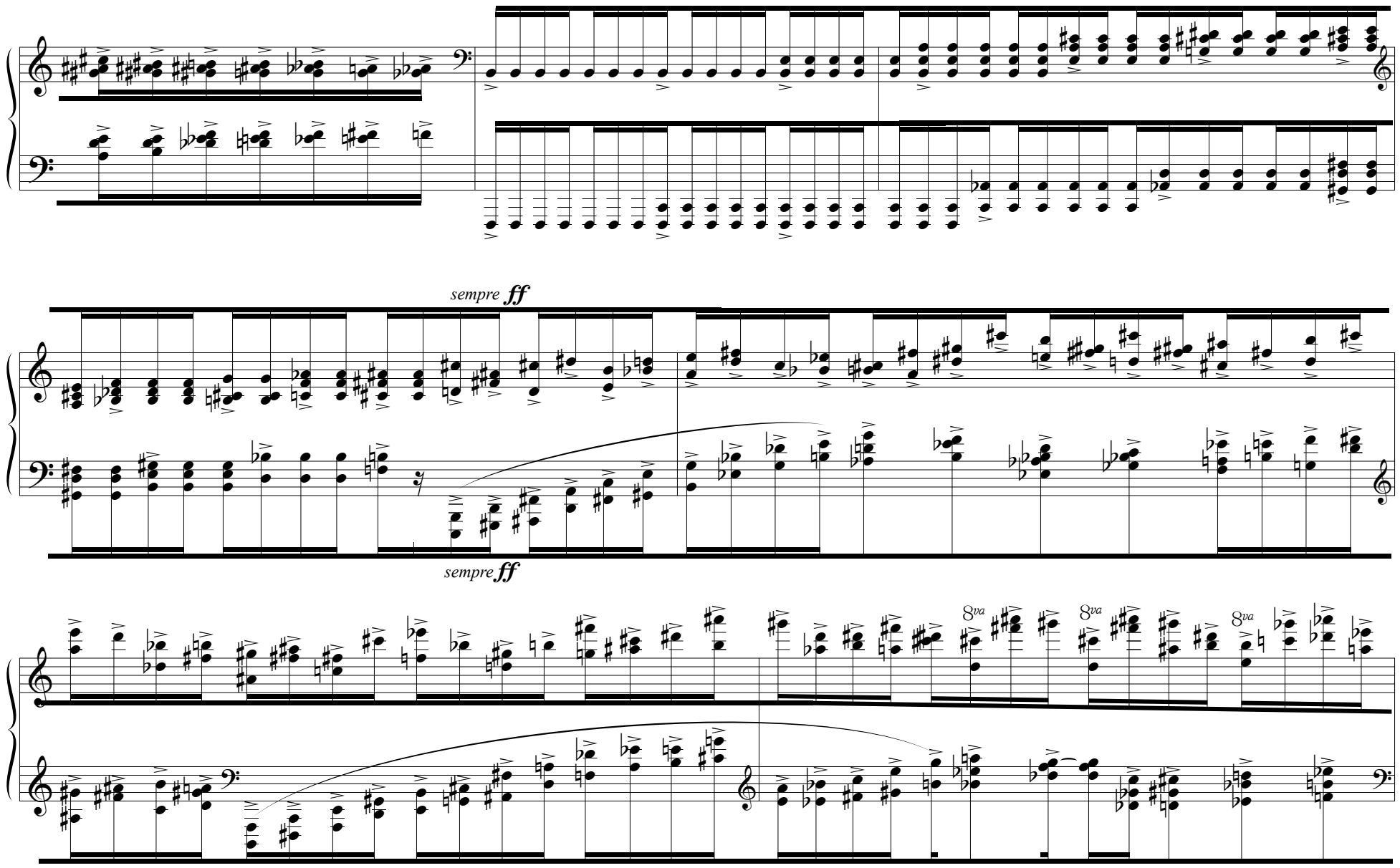
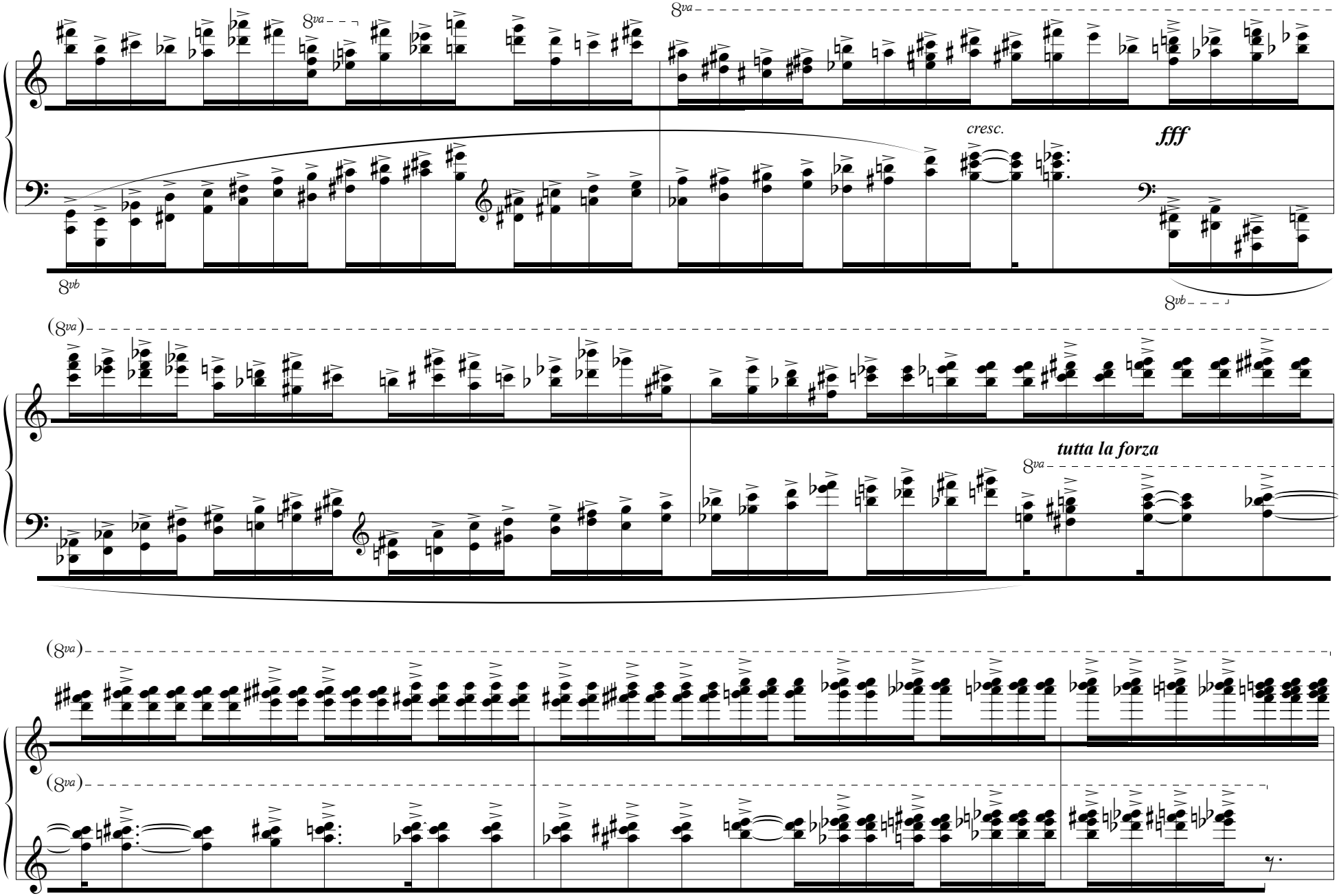
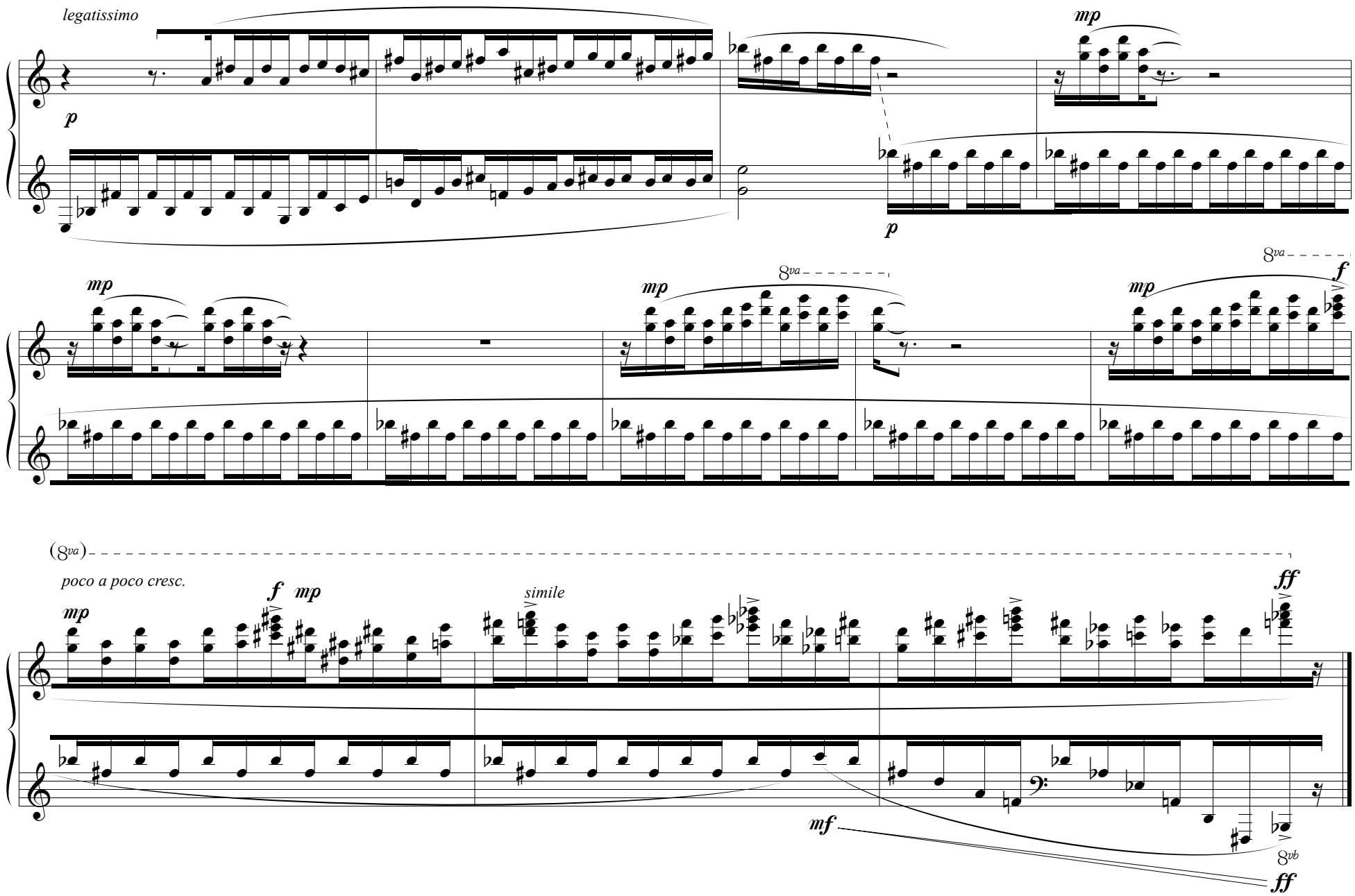

legatissimo
8va
8va
mf
mp
simile
Ped.
Ped.
secco
ff p
ff
8vb
p
simile
(8vb)
ff p


legatissimo
8va
f
Ped.
(8va)
f mf
simile

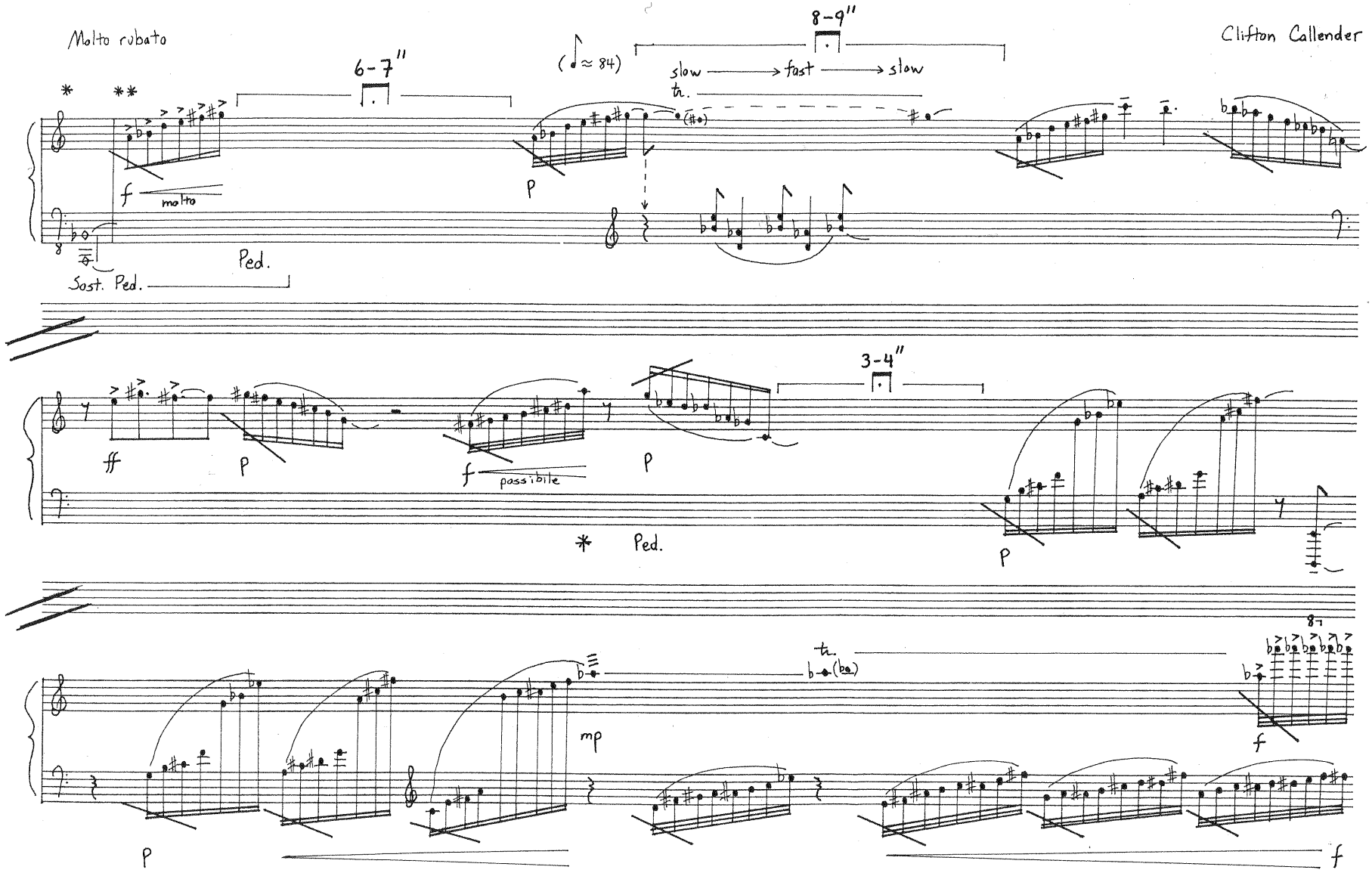

cresc.
al ff
mf
f
f
Ped.
Ped.
Ped.
secco
ff
ff p
ff p
ff p
ff p
8vb
ff pp
ff
p
ff p
simile
ff p
simile


sempre ff
sempre ff
8va
8va
8va


8va
8va
cresc.
fff
8vb
8vb
(8va)
tutta la forza
8va
(8va)
(8va)

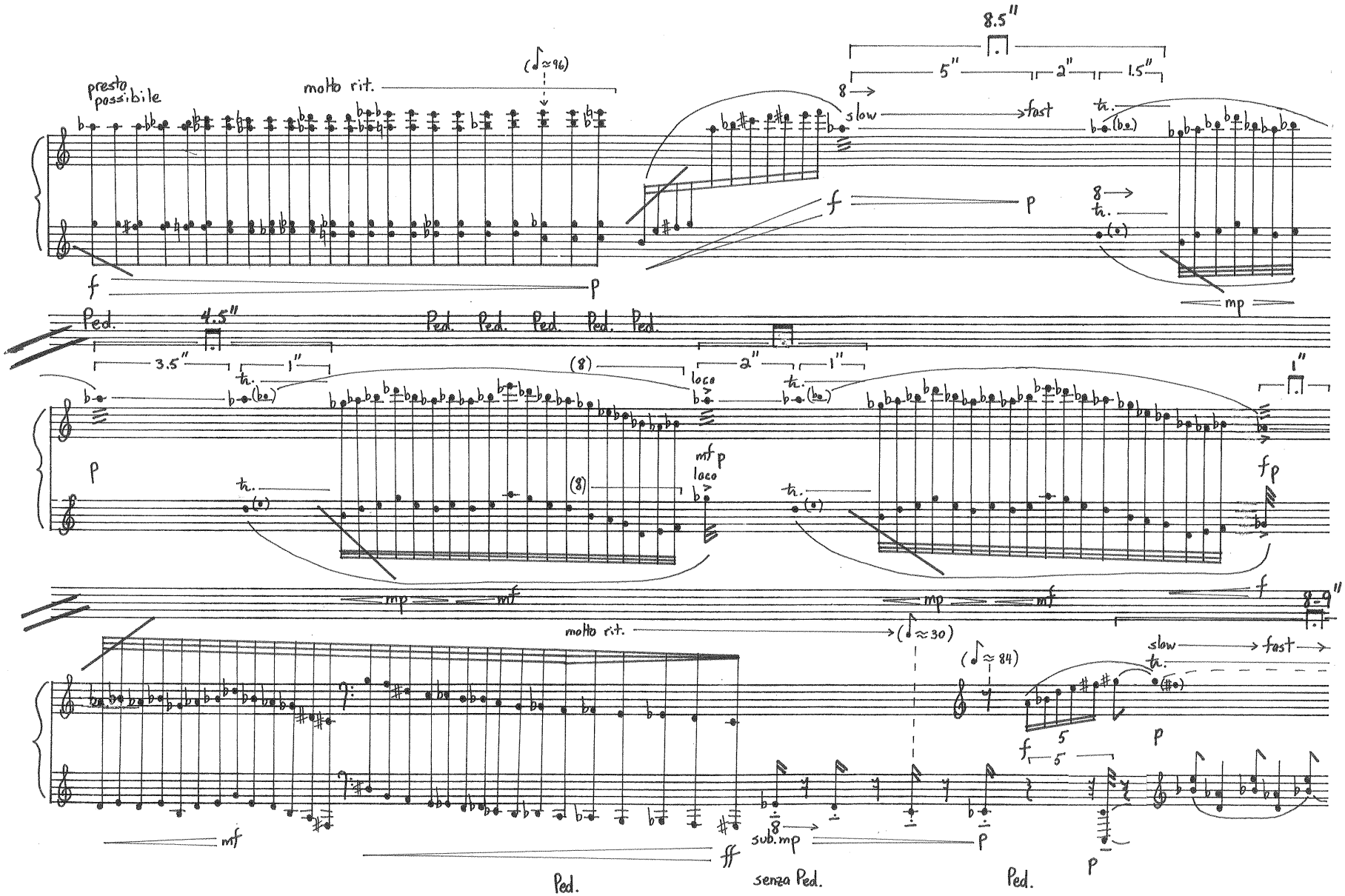

legatissimo
p
mp
p
mp
8va
mp
8va
f
mp
(8va)
poco a poco cresc.
mp
f
mp
simile
ff
mf
8vb
ff

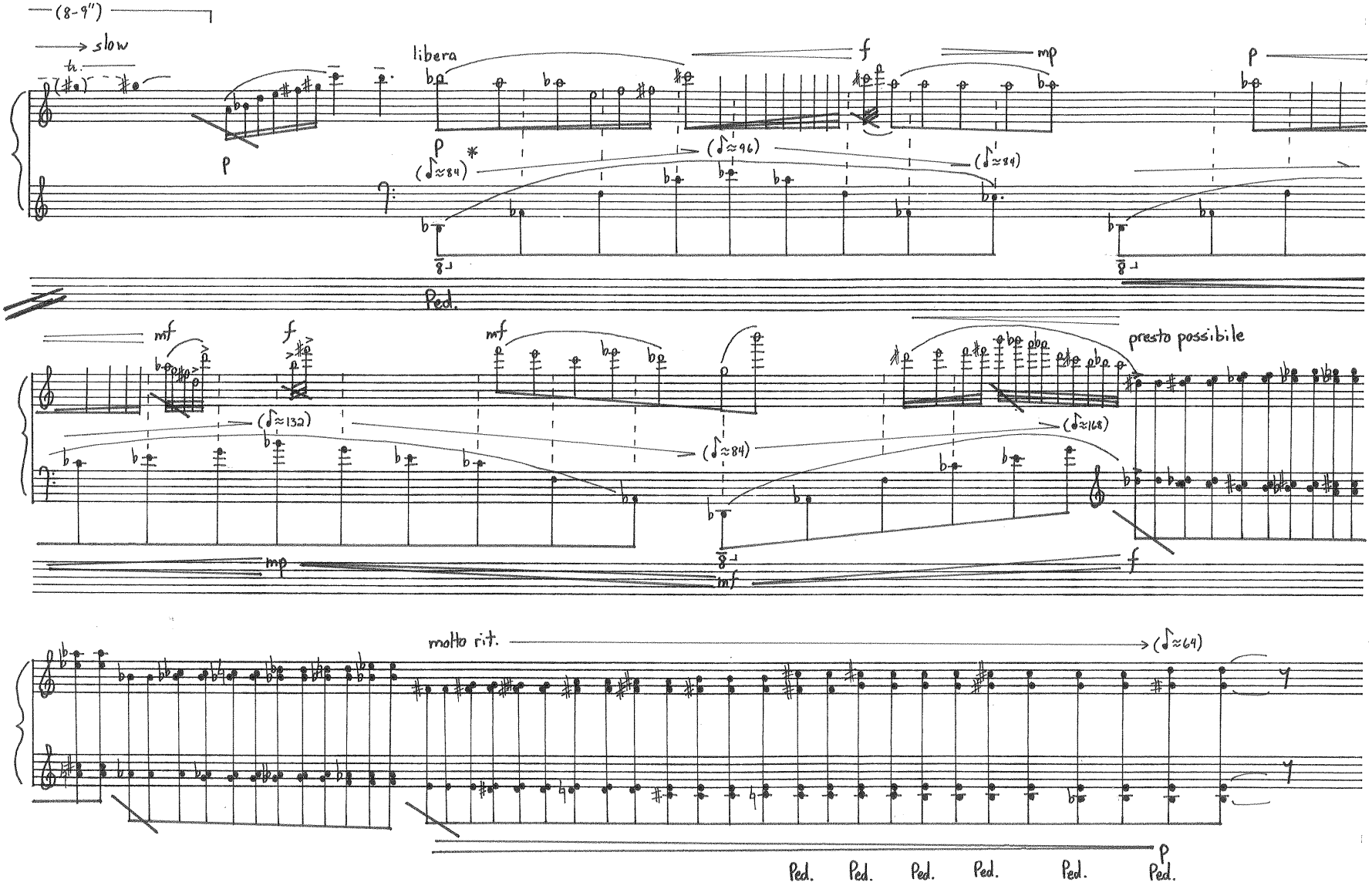
sfumato



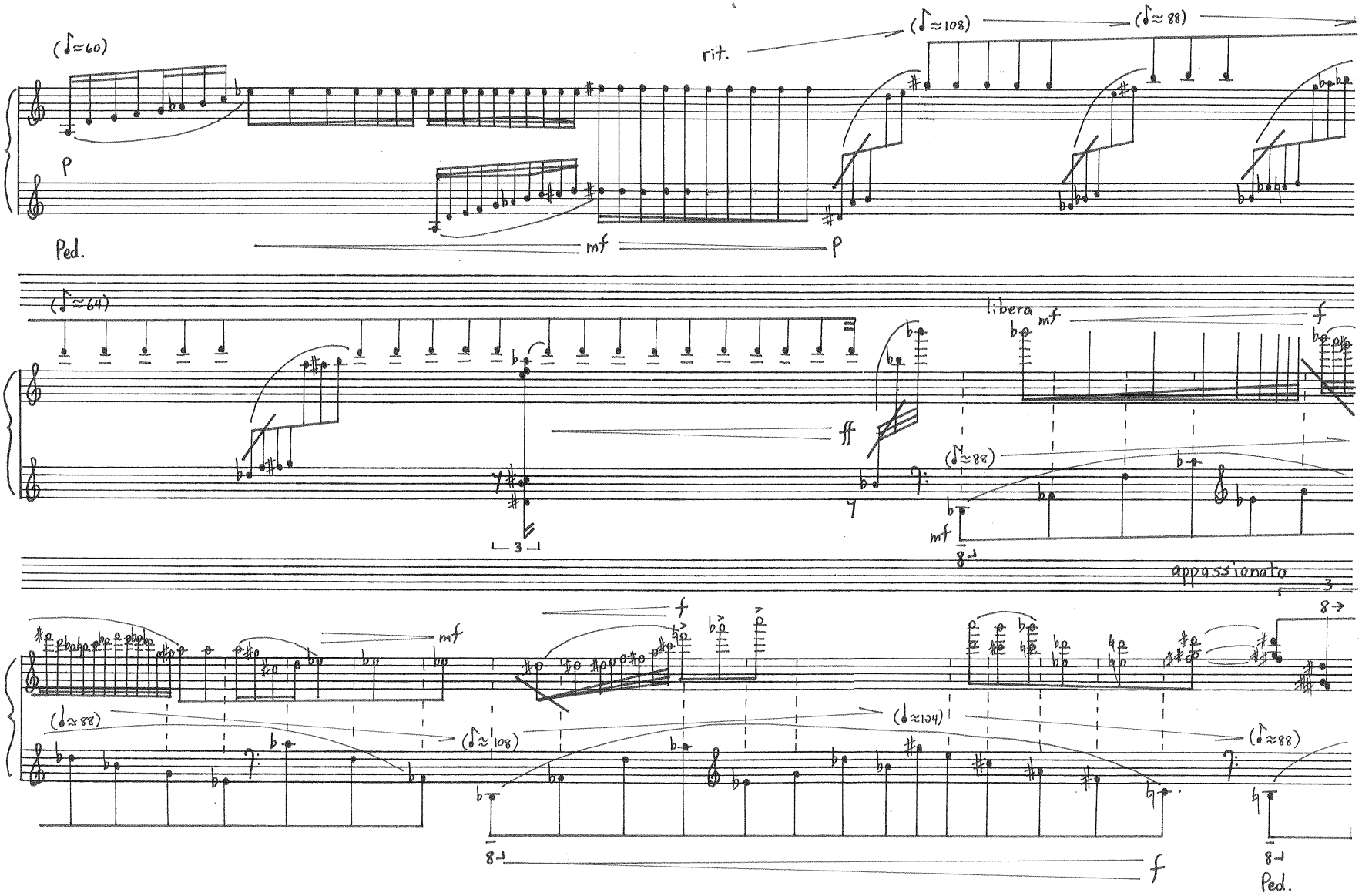
* An accidental applies only to the immediately following pitch or repeated pitches.

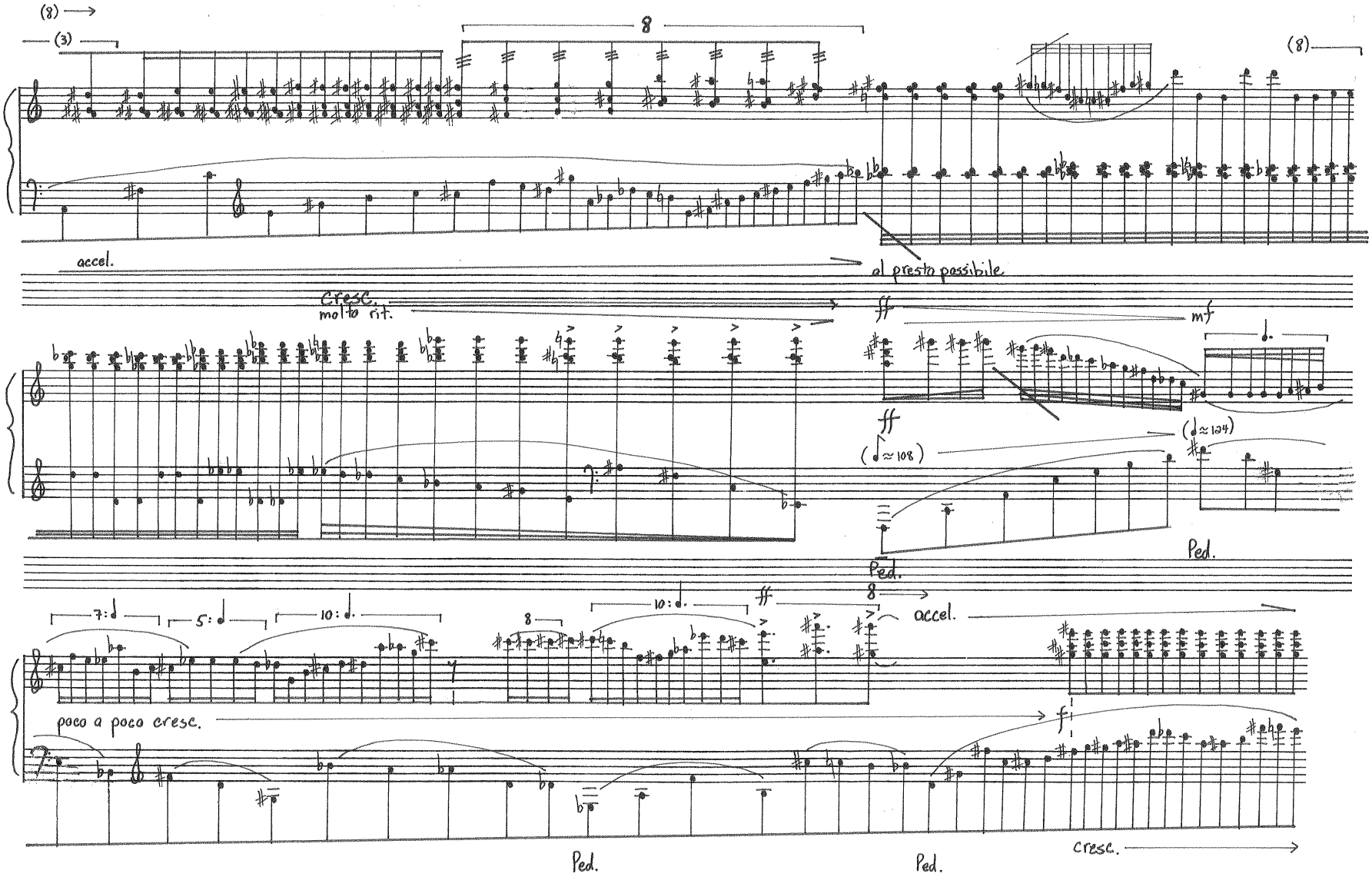
= as fast as possible = fast = moderately fast

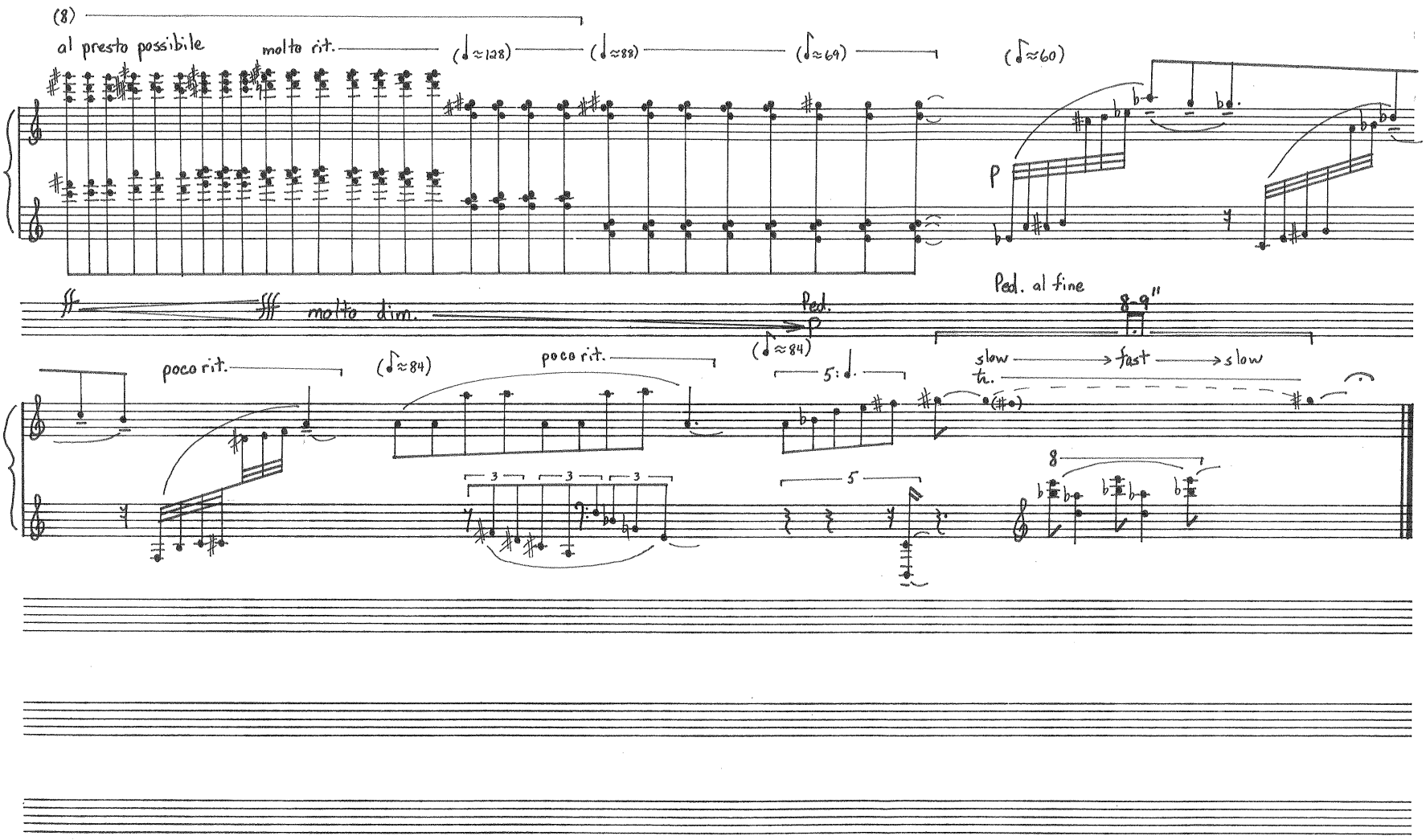

presto possibile
molto rit.
(♩≈96)
8.5"
5"
2"
1.5"
slow
fast
Ped.
4.5"
3.5"
1"
2"
loco
molto rit.
(♩≈30)
(♩≈84)
sub. mp
senza Ped.


(8-9")
slow
libera
f
mp
p
(♪≈84)
(♪≈96)
(♪≈84)
Ped.
mf
f
mf
presto possibile
(♪≈132)
(♪≈84)
(♪≈168)
mp
mf
f
molto rit.
(♪≈64)
p
Ped.
Ped.
Ped.
Ped.
Ped.
Ped.

* → = accel.
→ = rit.

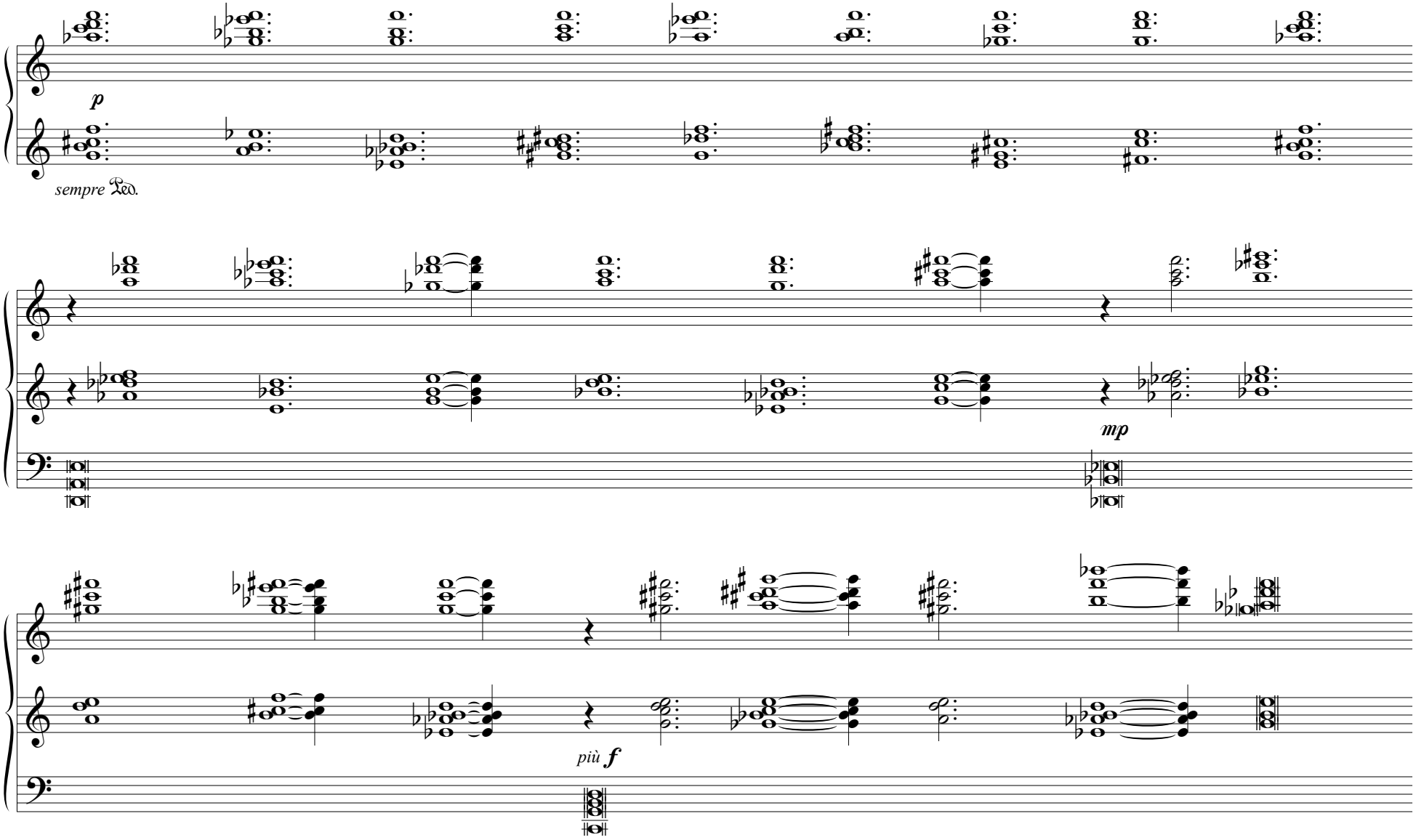

(♪≈60)
rit.
(♪≈108)
(♪≈88)
p
Ped.
mf
p
(♪≈64)
ff
libera
mf
f
(♪≈88)
mf
3
appassionato
3
8→
mf
f
(♪≈88)
(♪≈108)
(♪≈124)
(♪≈88)
8
f
8
Ped.


(8)
(3)
8
(8)
accel.
al presto possibile
Cresc.
molto rit.
ff
mf
ff
(♩≈108)
(♩≈124)
Ped.
Ped.
7:
5:
10:
8
10:
ff
8
accel.
poco a poco cresc.
f
Ped.
Ped.
cresc.

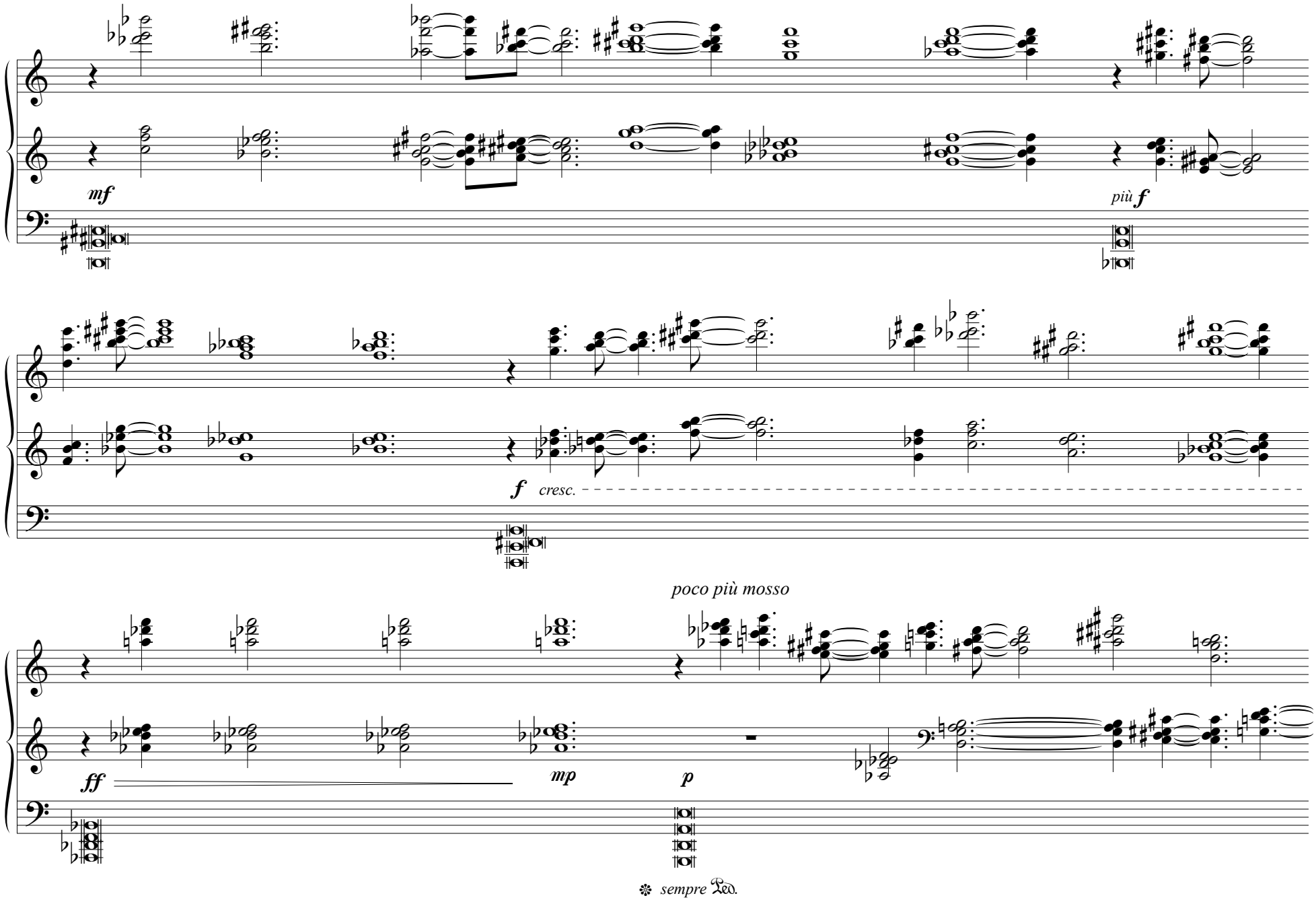

(8)
al presto possibile
molto rit.
(♩≈128)
(♩≈88)
(♩≈69)
(♪≈60)
p
ff
fff
molto dim.
Ped.
p
(♩≈84)
Ped. al fine
8-9"
poco rit.
(♪≈84)
poco rit.
5:♩.
slow → fast → slow
th.
3
3
3
5
8

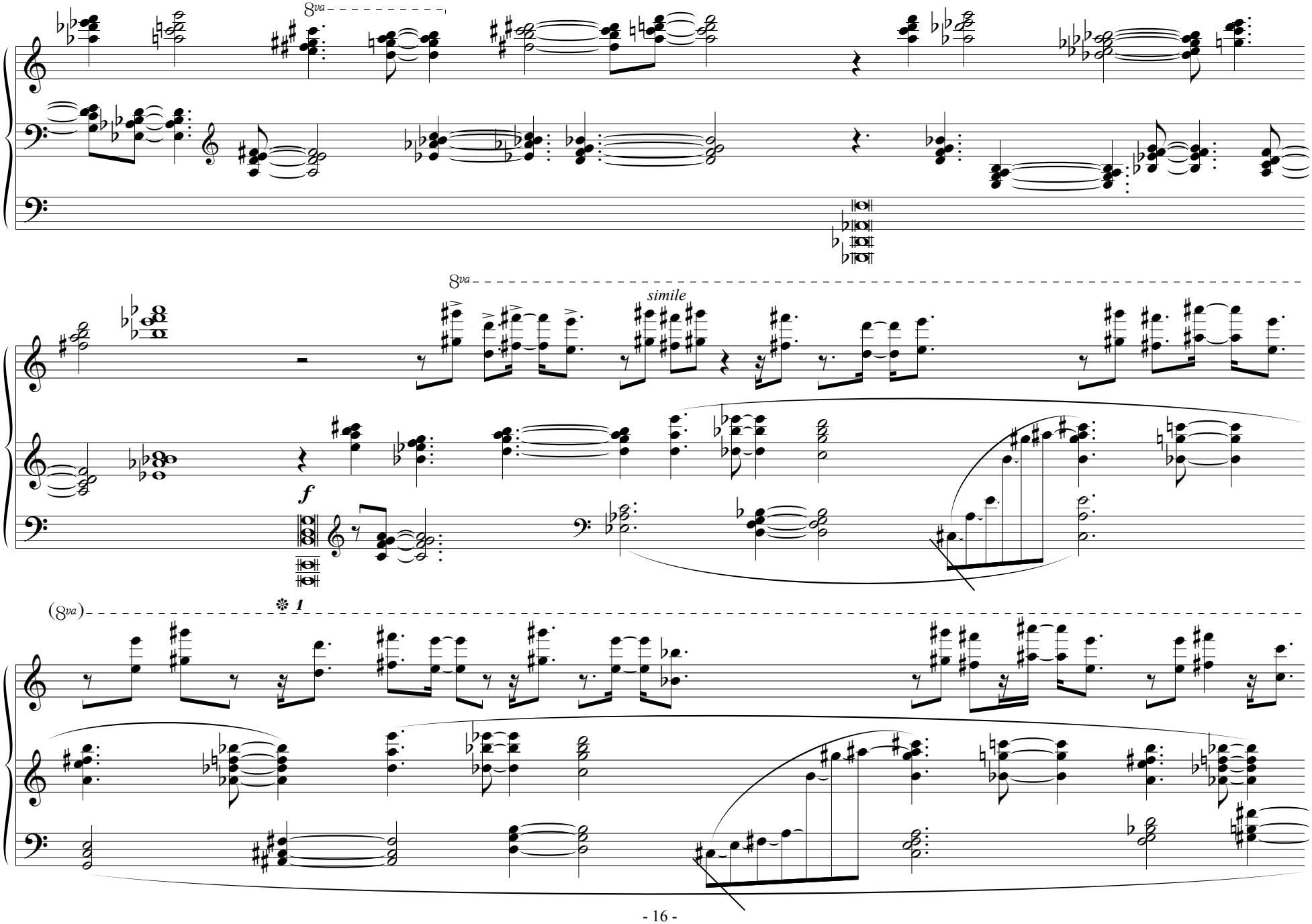
Lento e immobile

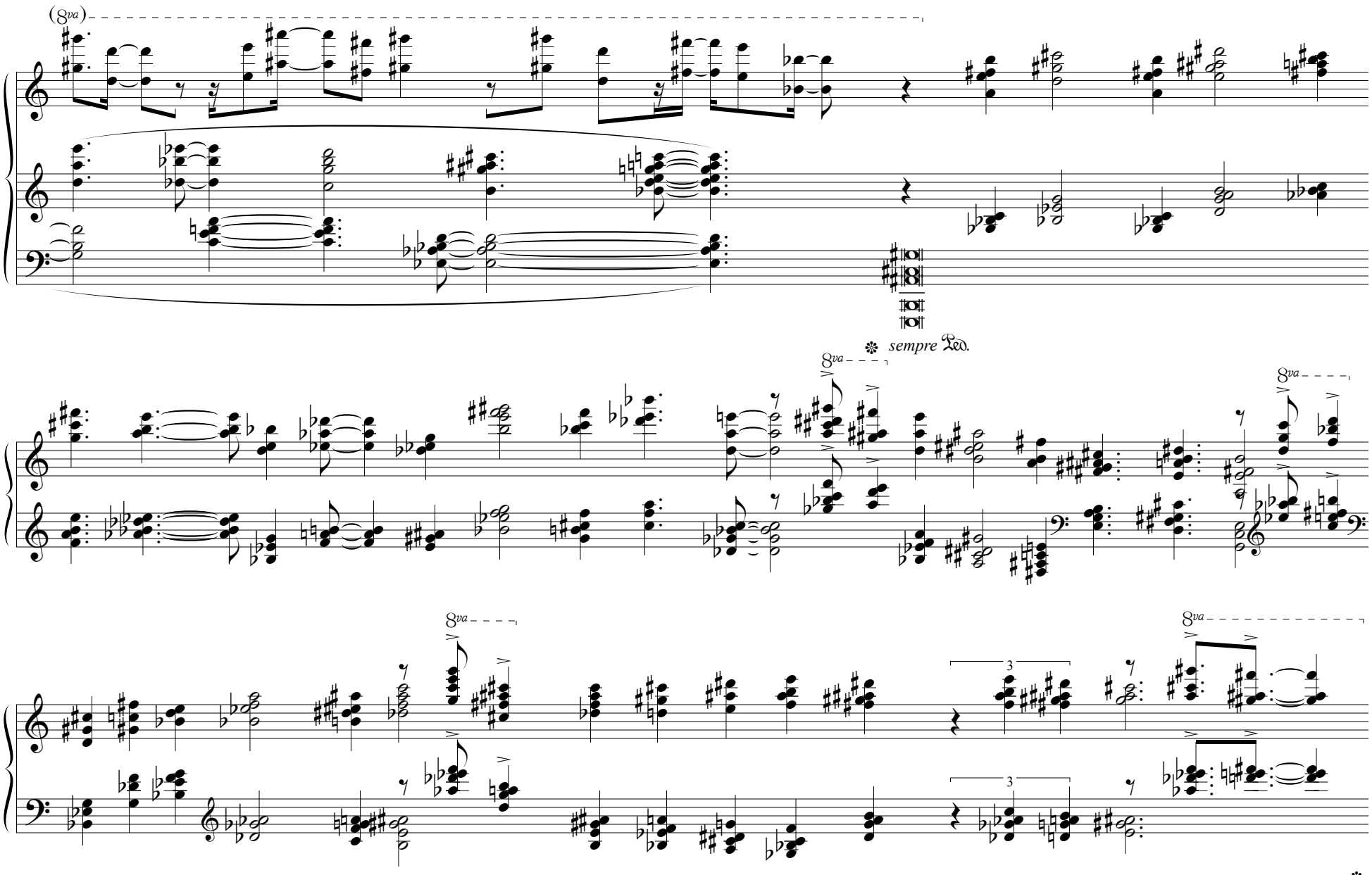
♩ = 56



Accidentals apply only to the notes they immediately preceed.


mf
più f
f
cresc.
poco più mosso
ff
mp
p
sempre Ped.


8va
8va
simile
f
(8va)
1


(8va)
sempre Ped.
8va
8va
8va
8va
3
3

8va

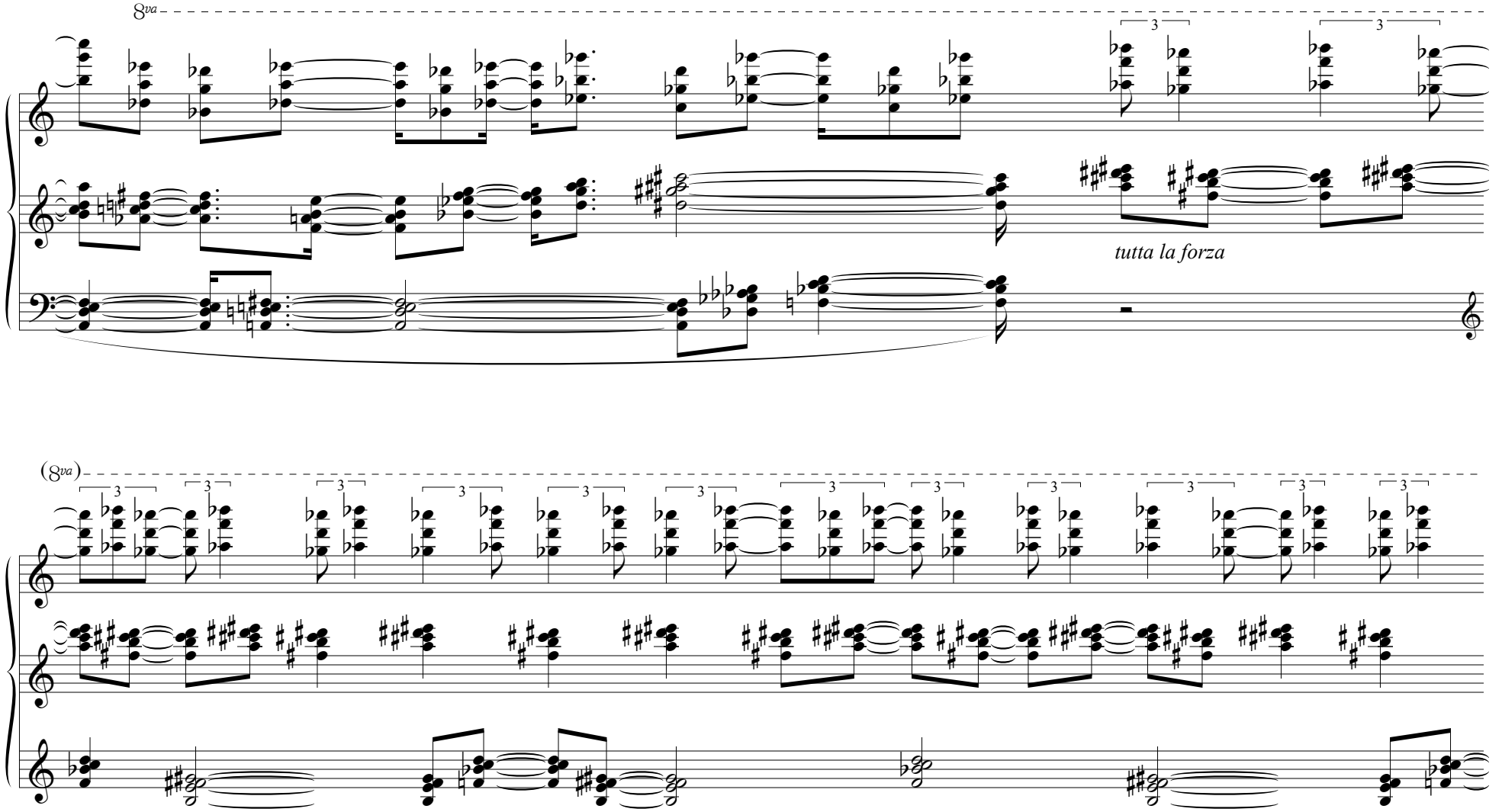
simile

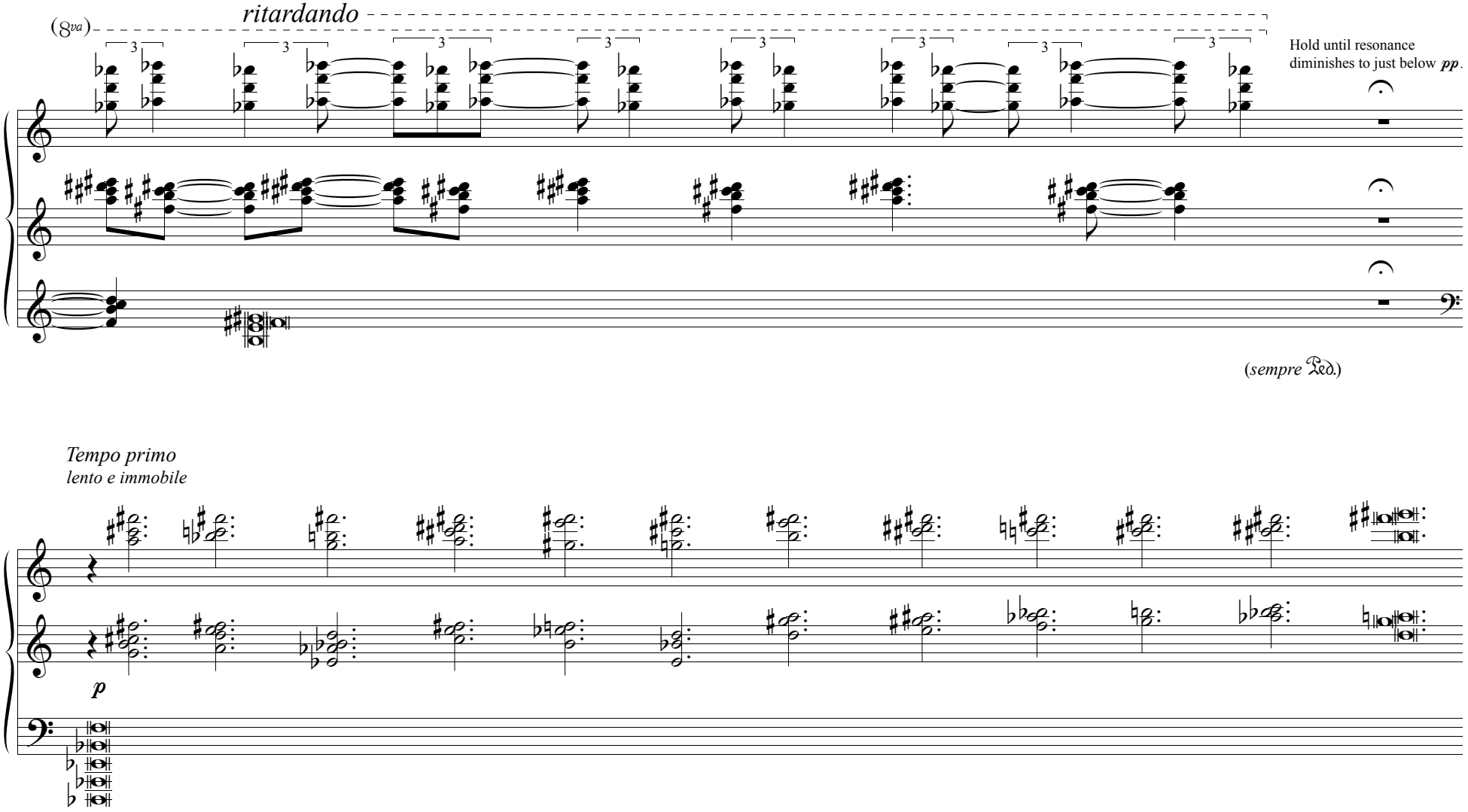
ff

sempre Ped.

like a peal of bells

sempre Ped.


8va
tutta la forza
(8va)



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