Peter McKenzie Armstrong

Patterns

from the

Game of Life

Part III: Pairs & Singles
for solo piano

2019

Edition Ottaviano Petrucci

NOTES

COMPOSITION

This is the last of three volumes of music evolved from *Game of Life* starting–graph configurations. For solo piano (full–ranged, not the "toy" of Vol. I), it builds on patterns with vertical dimension 26 ro 83 units, translating to keyboard ranges of roughly 2 to 7 octaves.

Where a source image's height and width differ, it is set musically twice: first as initially specified ("Hori"–zontally), then in its 90 degree rotation ("Vert"–ically) – i.e., musically speaking, with Pitch and Time swapped. Where height and width are the same, with the corresponding image virtually identical upon rotation, it is presented once ("H=V").

Regarding clusters: As the default chord content is often unmanageable for both scoring and performance, I have trimmed accordingly, imposing two notational constraints: any chord has just one stem; its intervals are spelled diatonically where possible (so with accidental types inevitably mixed). Linearly, spelling attempts to honor "voice leading" where the latter is audibly suggested.

The *Game of Life* "starting patterns" inspiring these pieces are listed by name, discoverer and date at score's end. For full information on any, access site ConwayLife.com/wiki/Category:Patterns and search on its name. For comment on their musical treatment, see my NOTES in two earlier works, *Thin Rake* and *No!*, at imslp.org/wiki/Category:Armstrong,_Peter_McKenzie.

Audio files at IMSLP accompanying this score, initially secondary output from the LilyPond processing, have been independently rewritten by the composer in Rosegarden and realized via PianoTeq's "D4 Vintage Bosendorfer" instrument. Performance durations range non–sequentially from 9" to 36", totalling [9:36].

PERFORMANCE

PROGRAMMING

I imagine this work being performed, not in its entirety, but in variously selected handfuls of from three to perhaps seven items at most – with one constraint, that any two–sectioned movement be performed in its full contiguous pair.

CLUSTERS

Where these near–cluster chords prove unmanageable still, the player is invited to hollow them out somewhat – discretely – to avoid undue rolling. Care should be taken, however, to preserve their dissonance as far as possible.

ACCIDENTALS

With the exception of natural–signs (all cautionary), accidentals throughout apply each exactly once. LilyPond terms this style "Forget".

ARTICULATION

Notes within a slur are to be connected. Notes outside one either before or after are to be audibly detached from it and from each other. Where, as often occurs, a slur contains immediate note–repetition, *legato* connection must be effected via the damper pedal (without "smooth–over" between slurs). There are no ties.

PEDAL

Where pedal engagement immediately follows pedal release, these events must be sufficiently separated to allow articulative silence (as between slurs).

– PMA

to Faith Elliott

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Part III: Pairs & Singles

for piano solo

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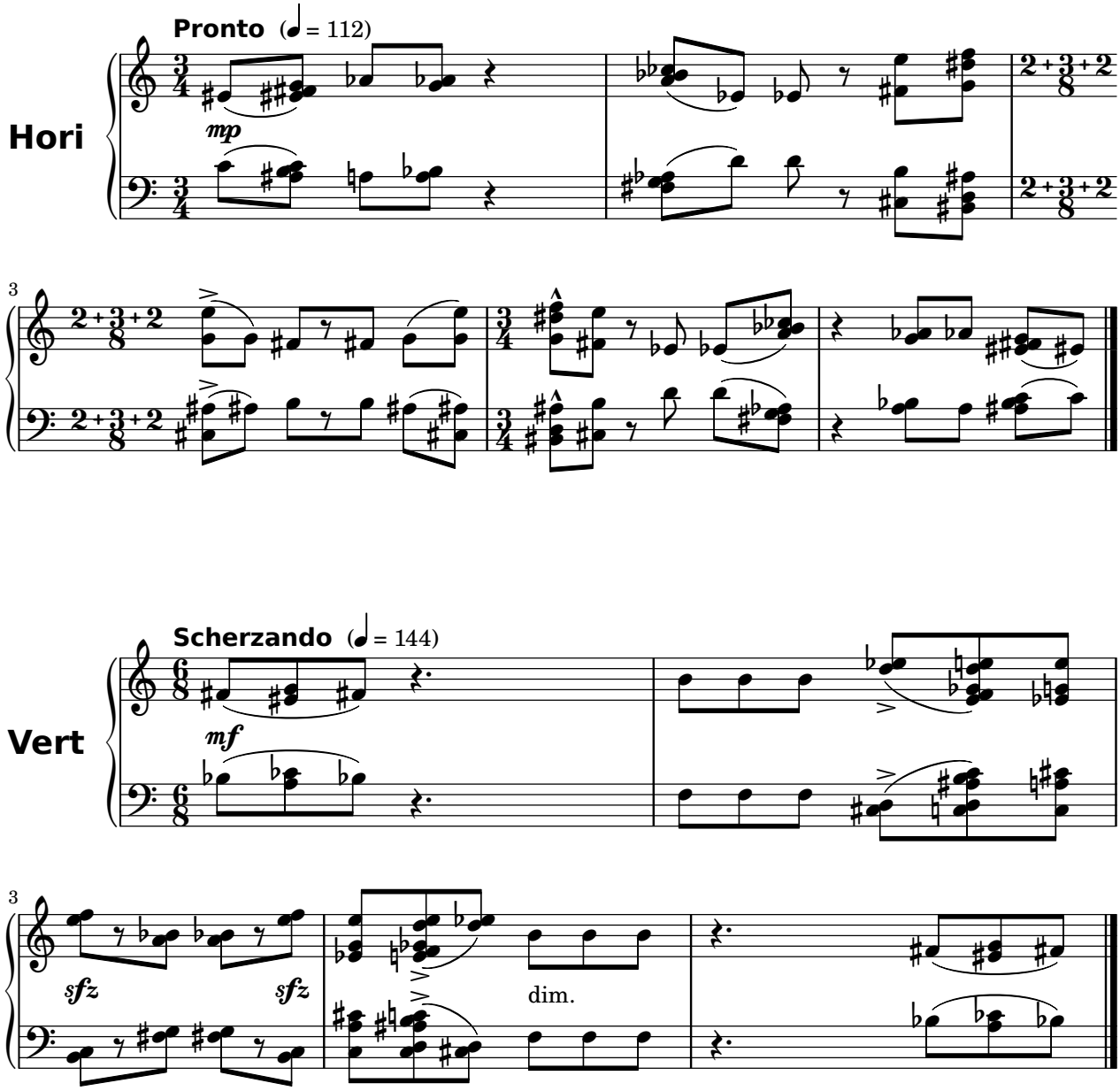
1



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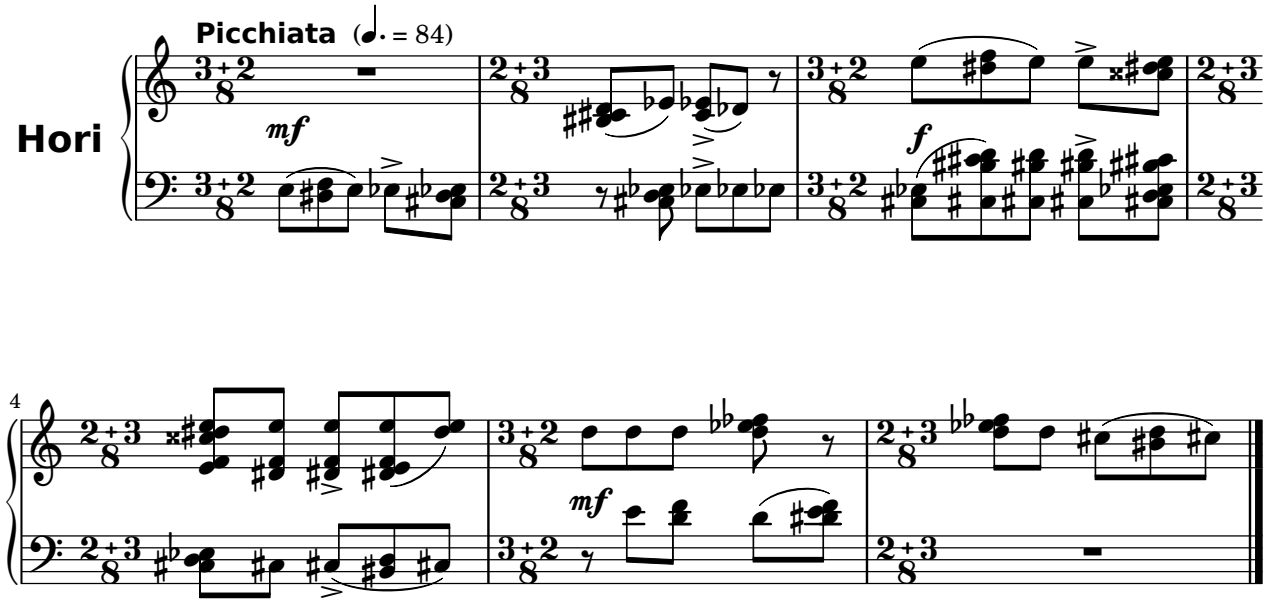
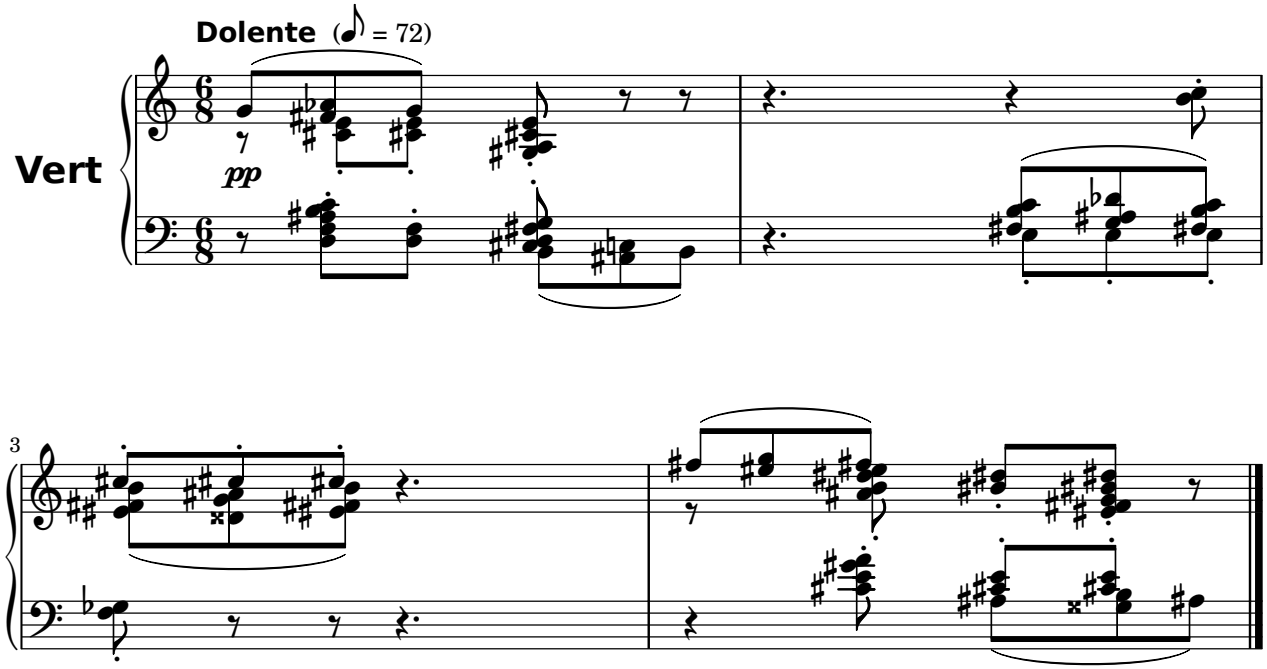
2





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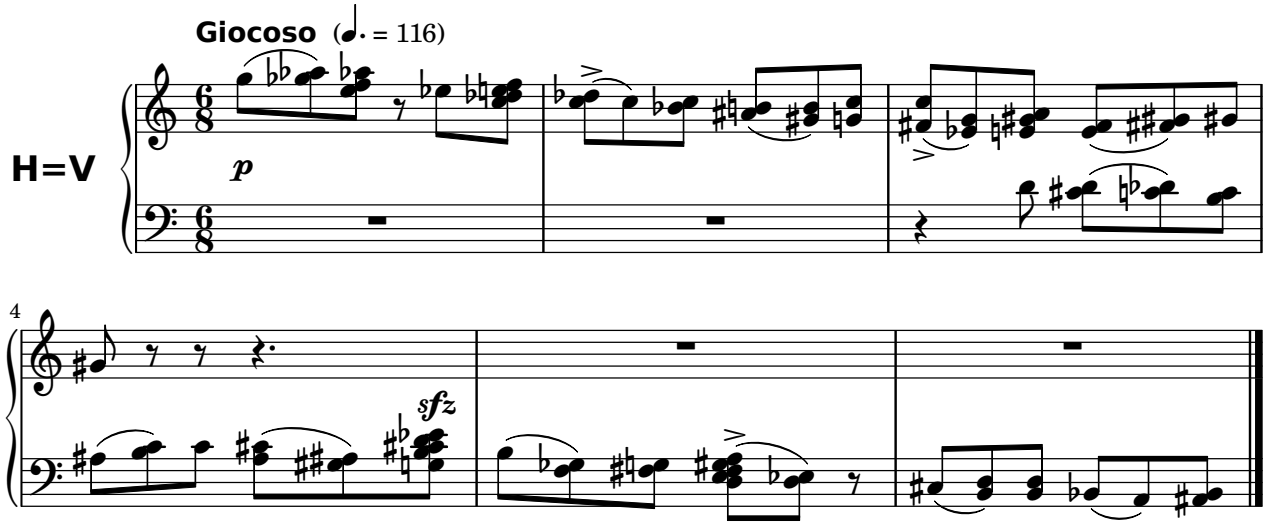

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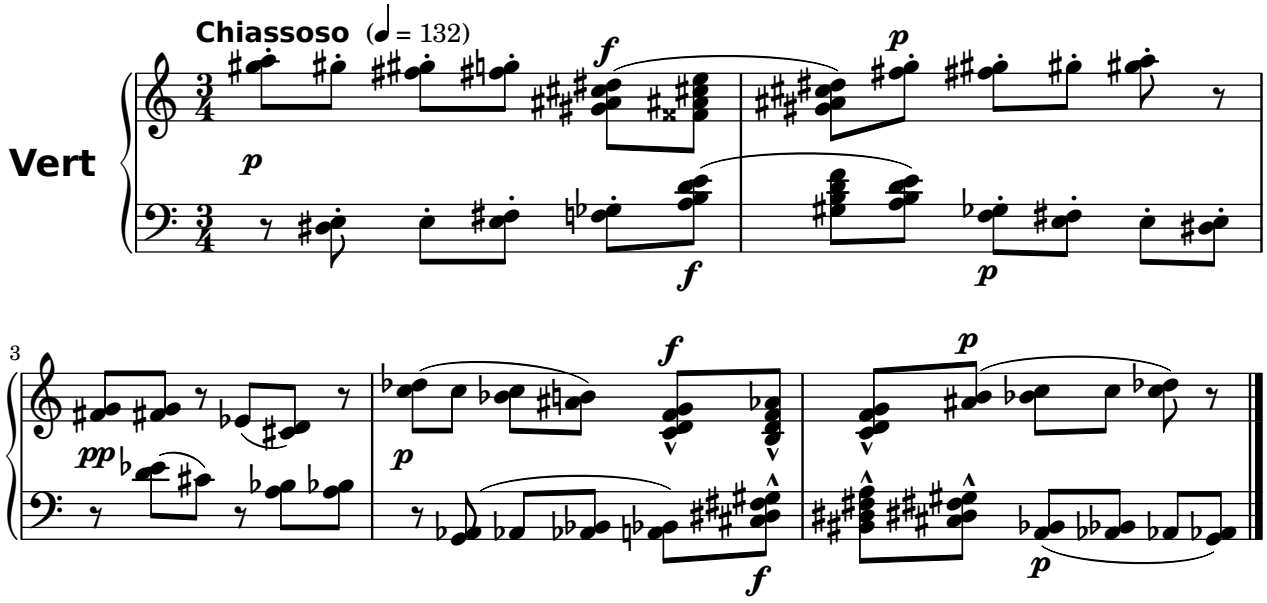

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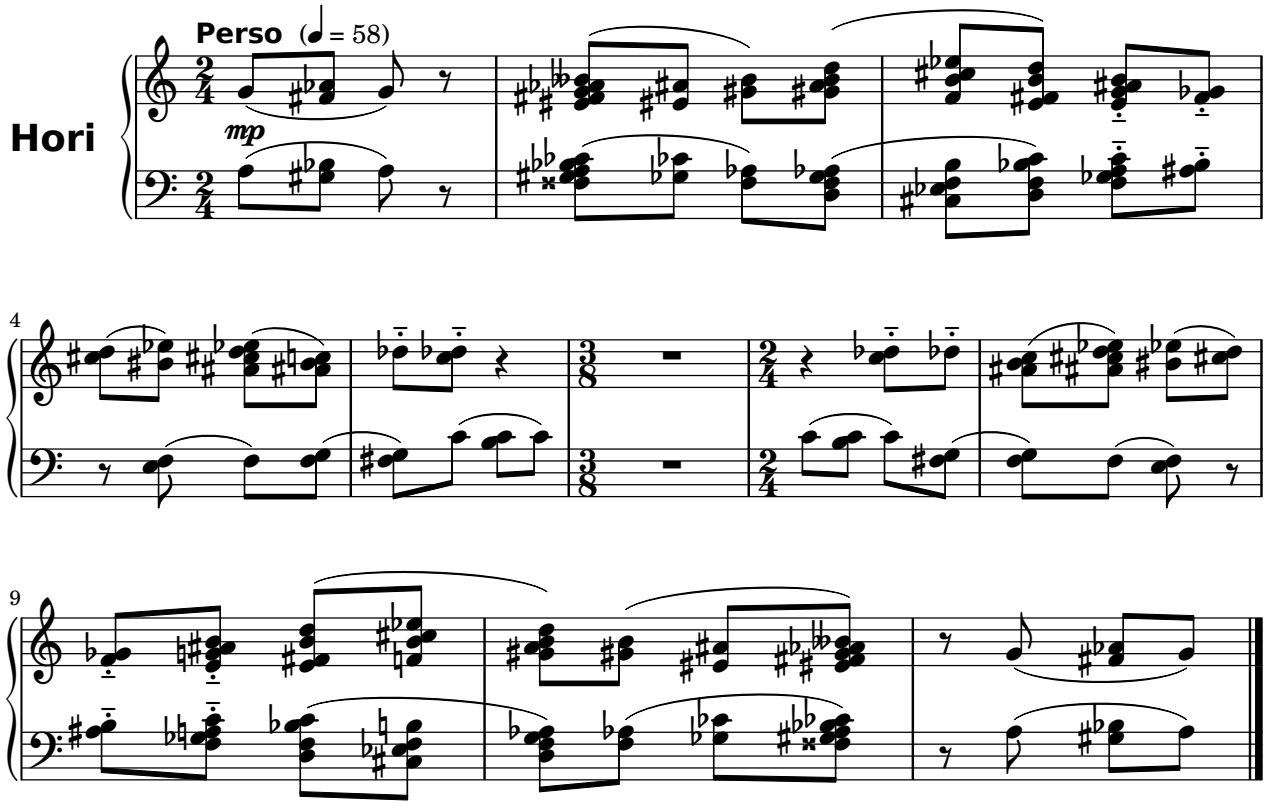
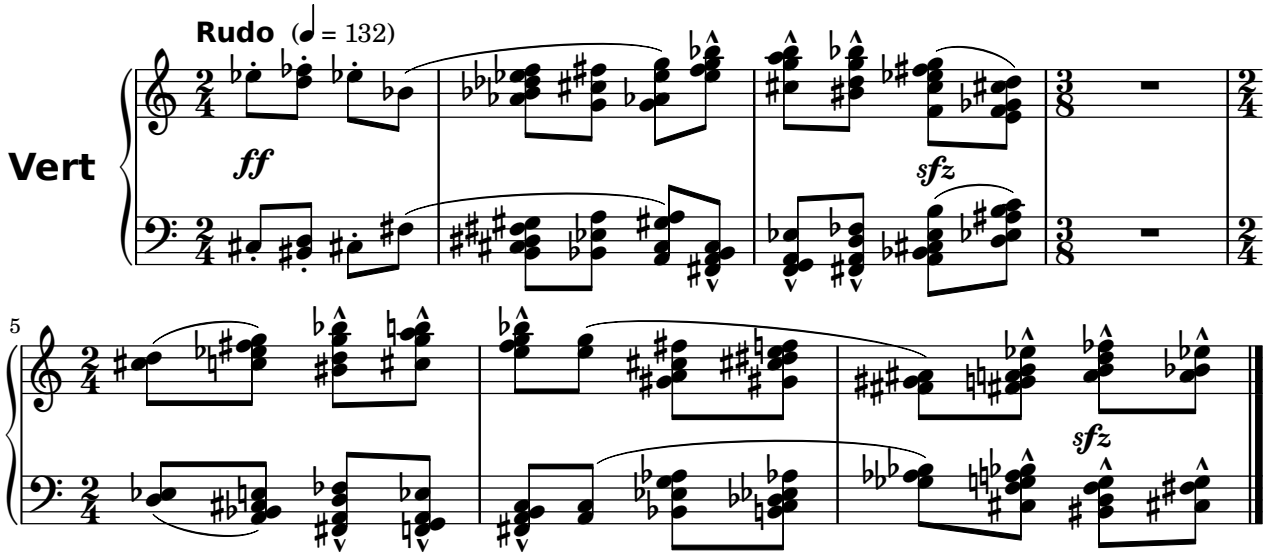
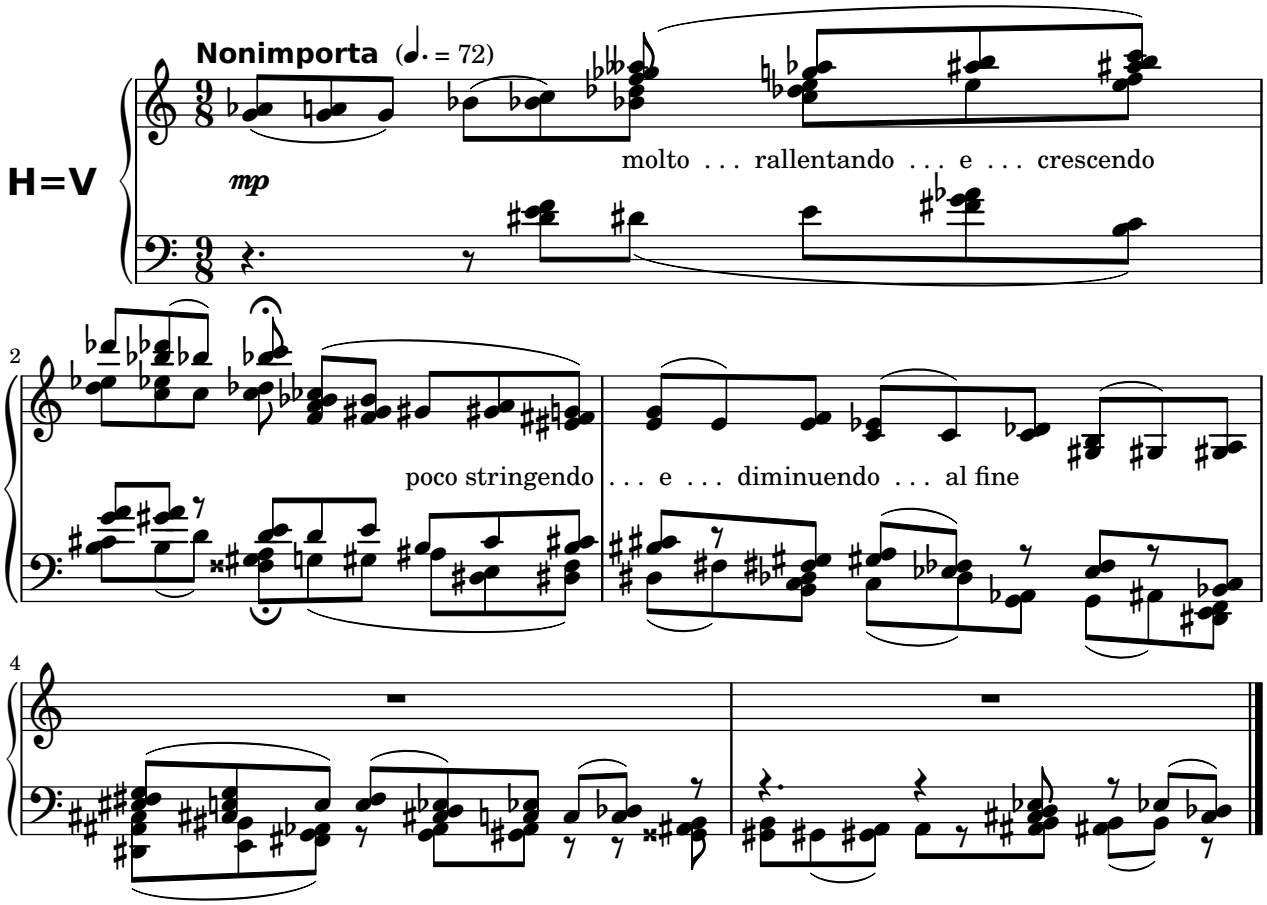
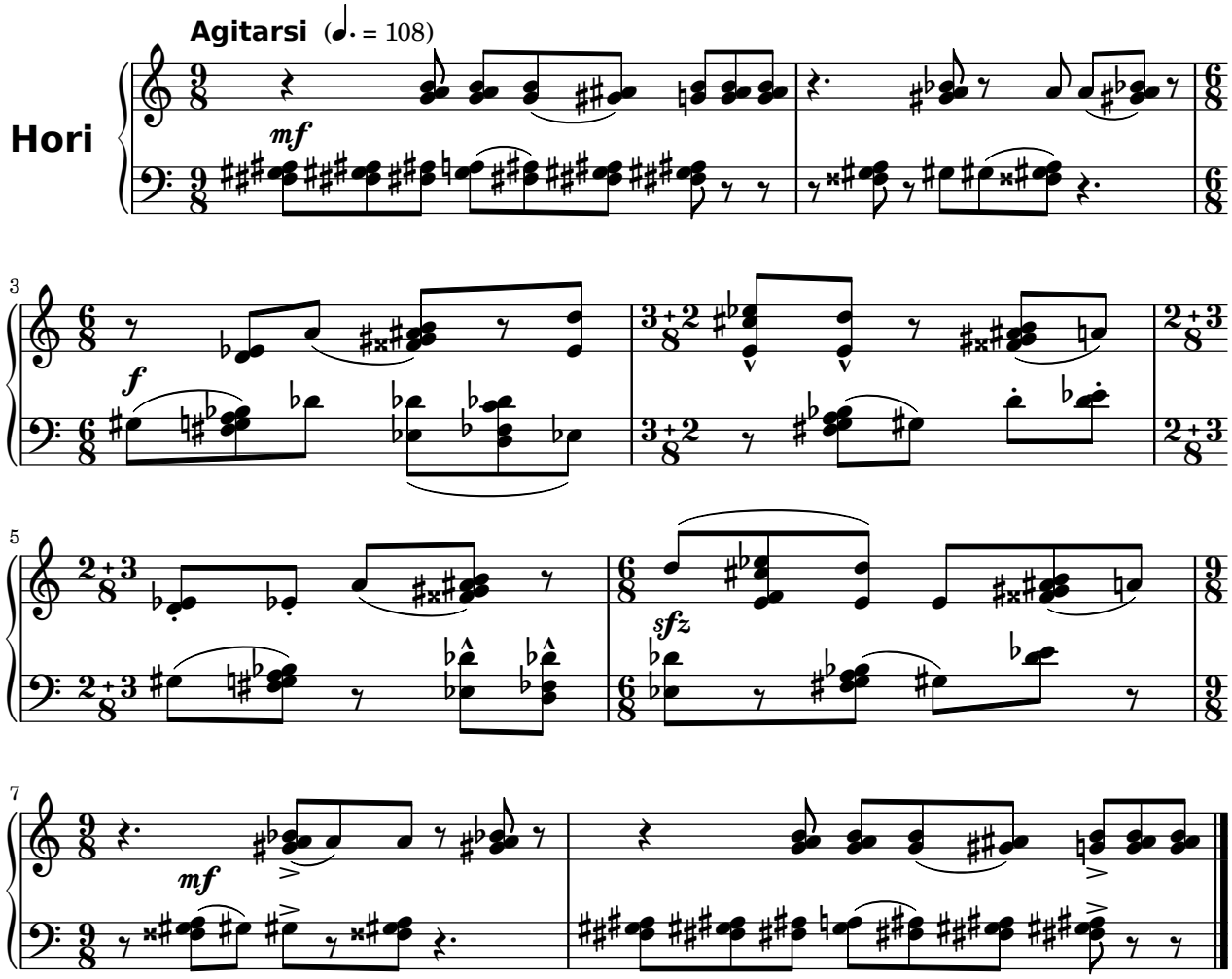


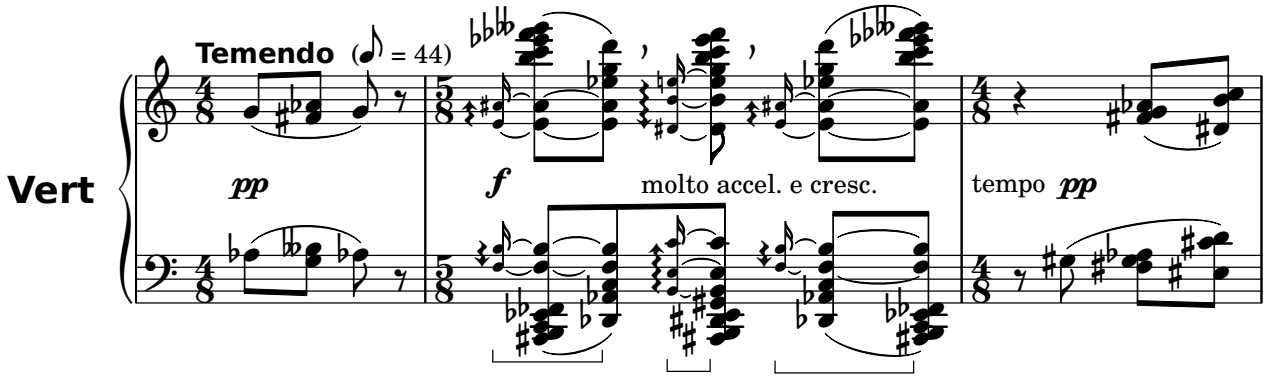

Rudo
♩ = 132
Vert
ff
sfz
5
sfz

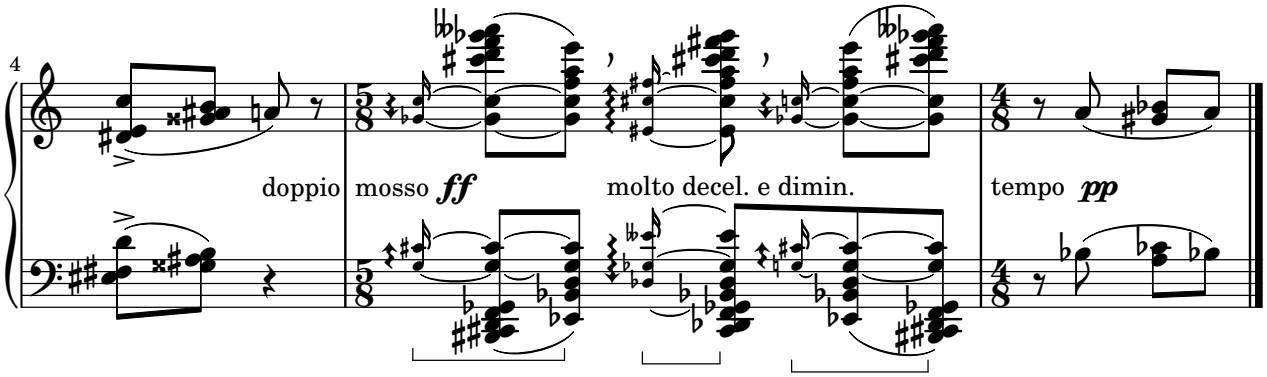
6


Nonimporta
♩. = 72
H=V
mp
molto . . . rallentando . . . e . . . crescendo
2
poco stringendo . . . e . . . diminuendo . . . al fine
4

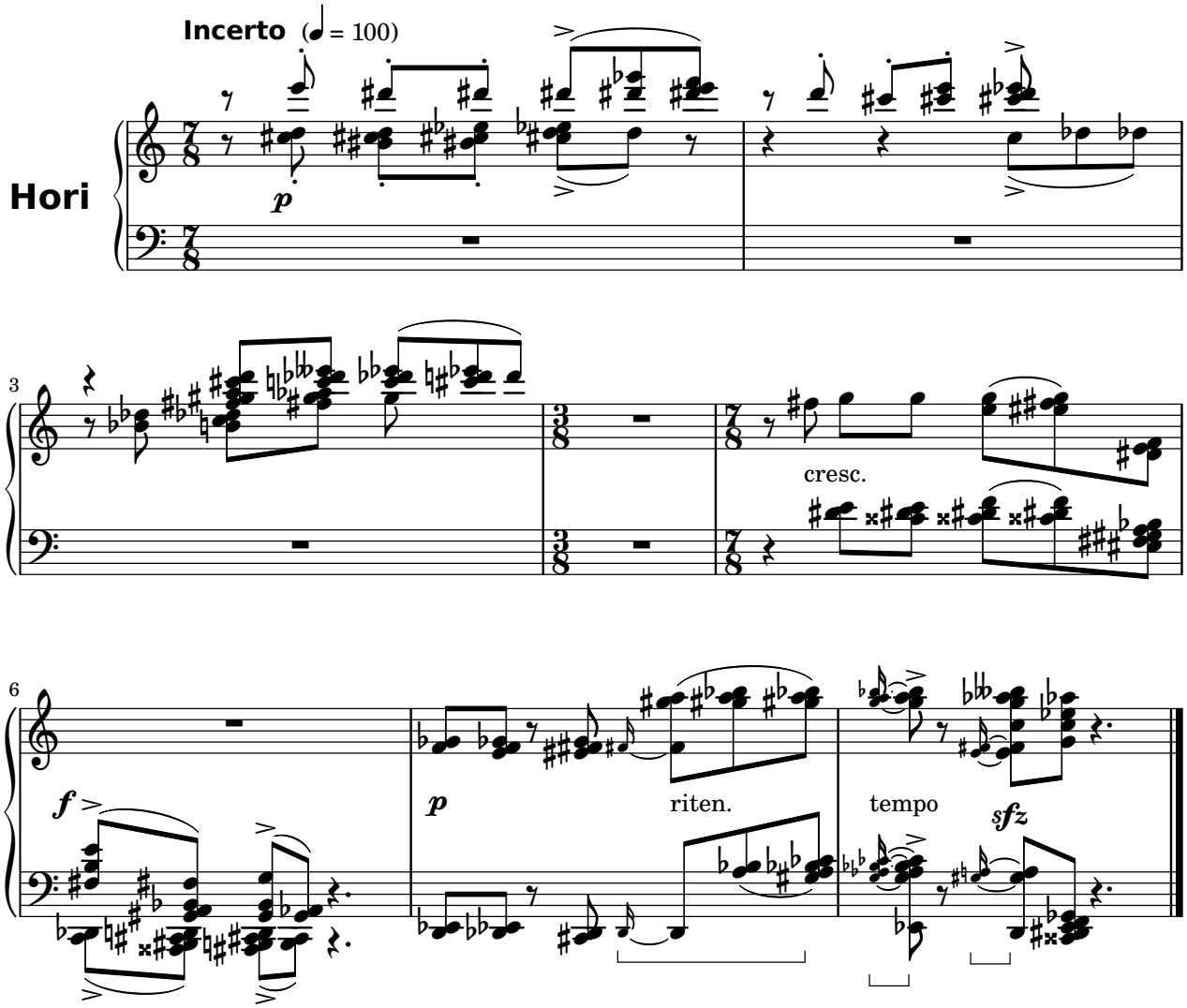
7

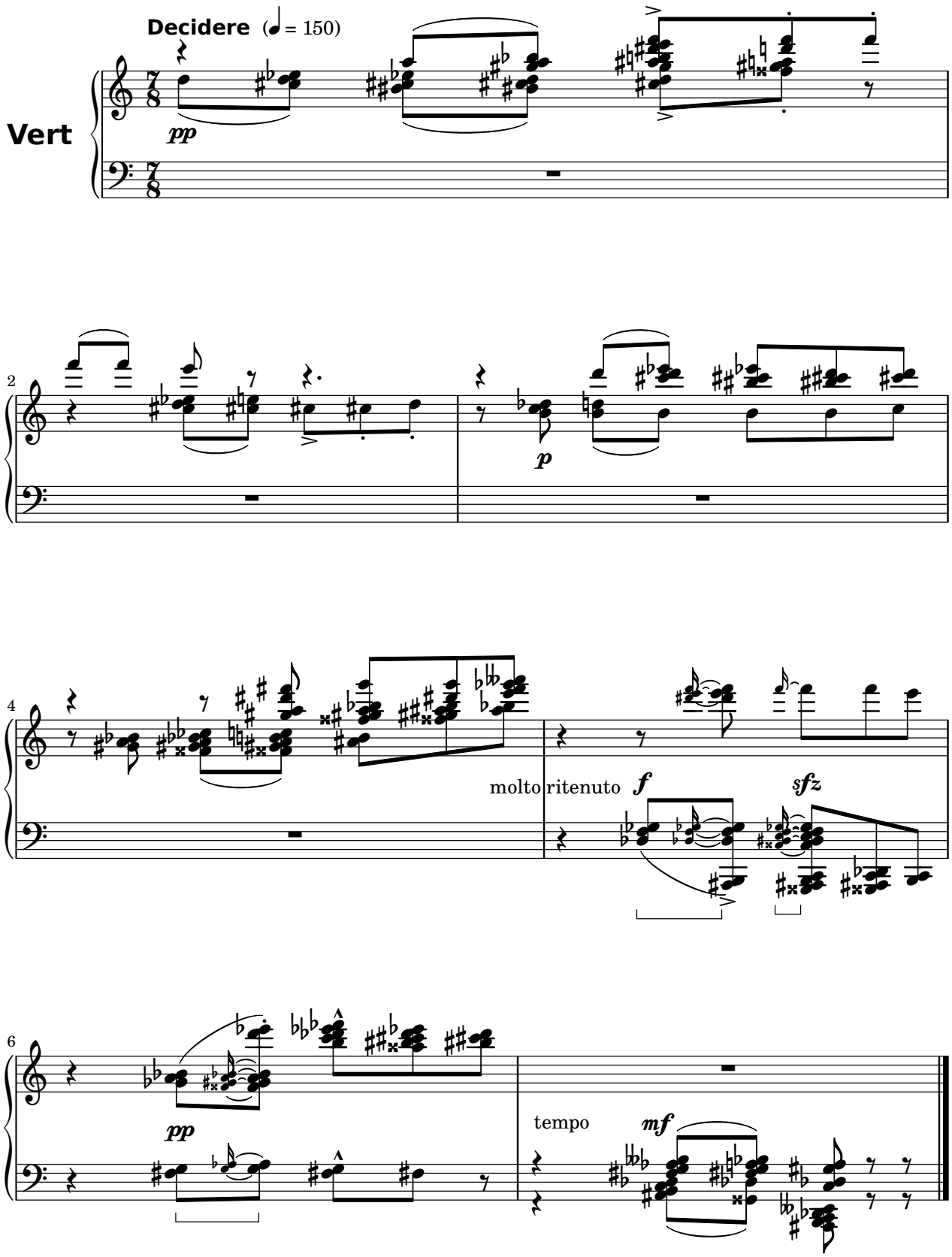

Agitarsi (♩. = 108)
Hori
mf
f
sfz
mf


Temendo (♪ = 44)
Vert
pp
f
molto accel. e cresc.
tempo pp

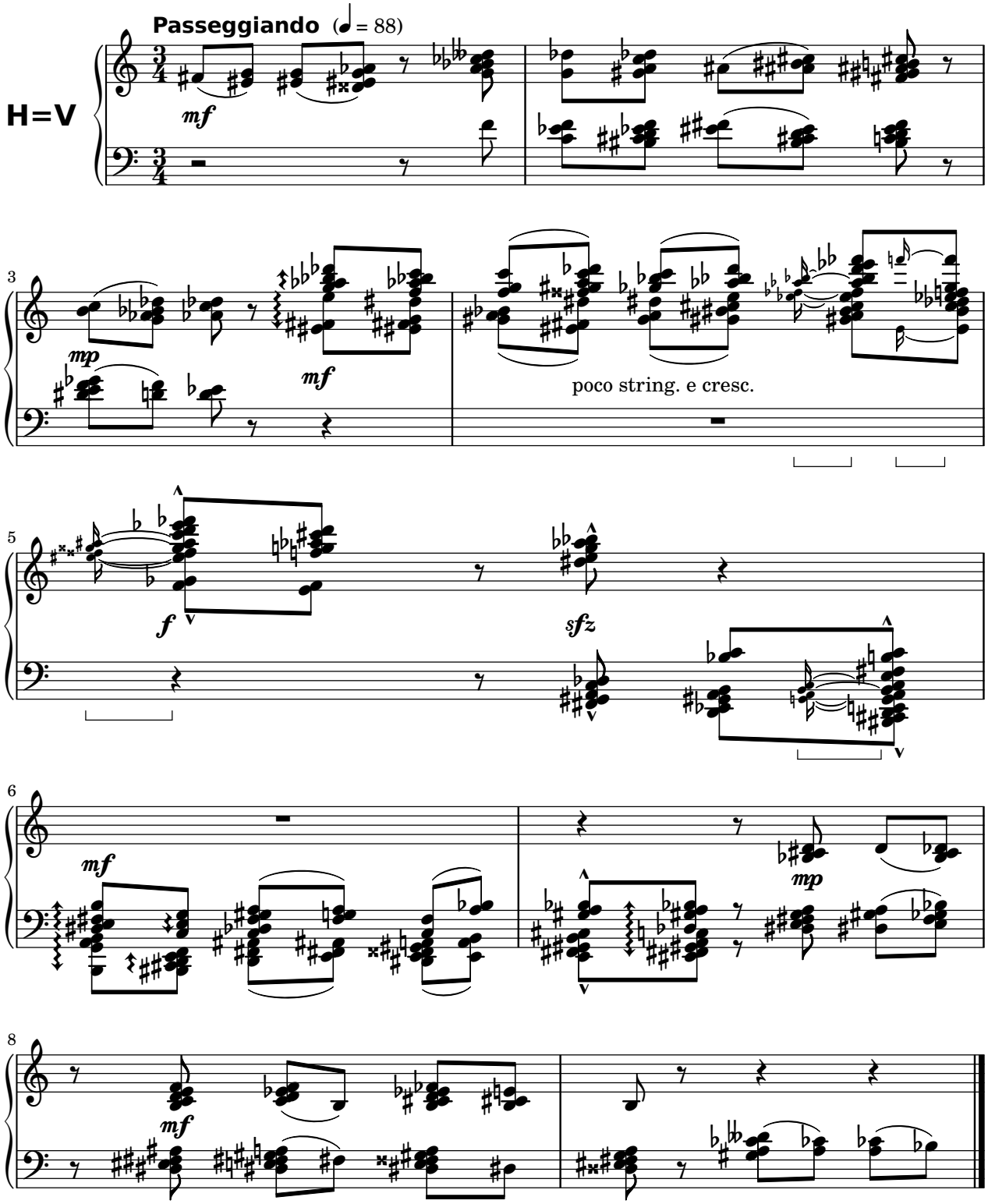

4
doppio
mosso
ff
molto decel. e dimin.
tempo
pp

8

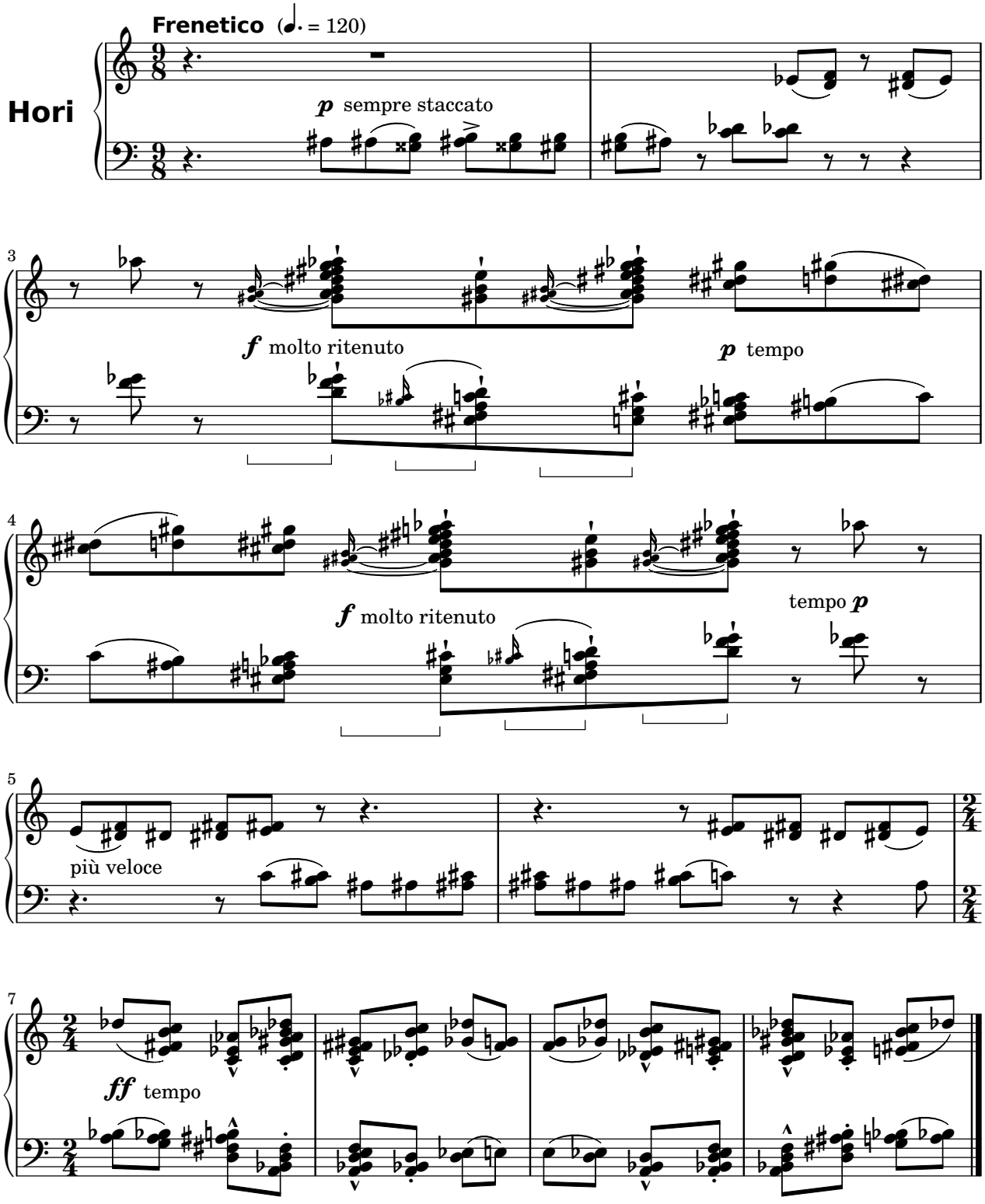

Incerto
(♩ = 100)
Hori
p
3
cresc.
6
f
p
riten.
tempo
sfz


Decidere
♩ = 150
Vert
pp
2
p
4
molto ritenuto
f
sfz
6
pp
tempo
mf

9

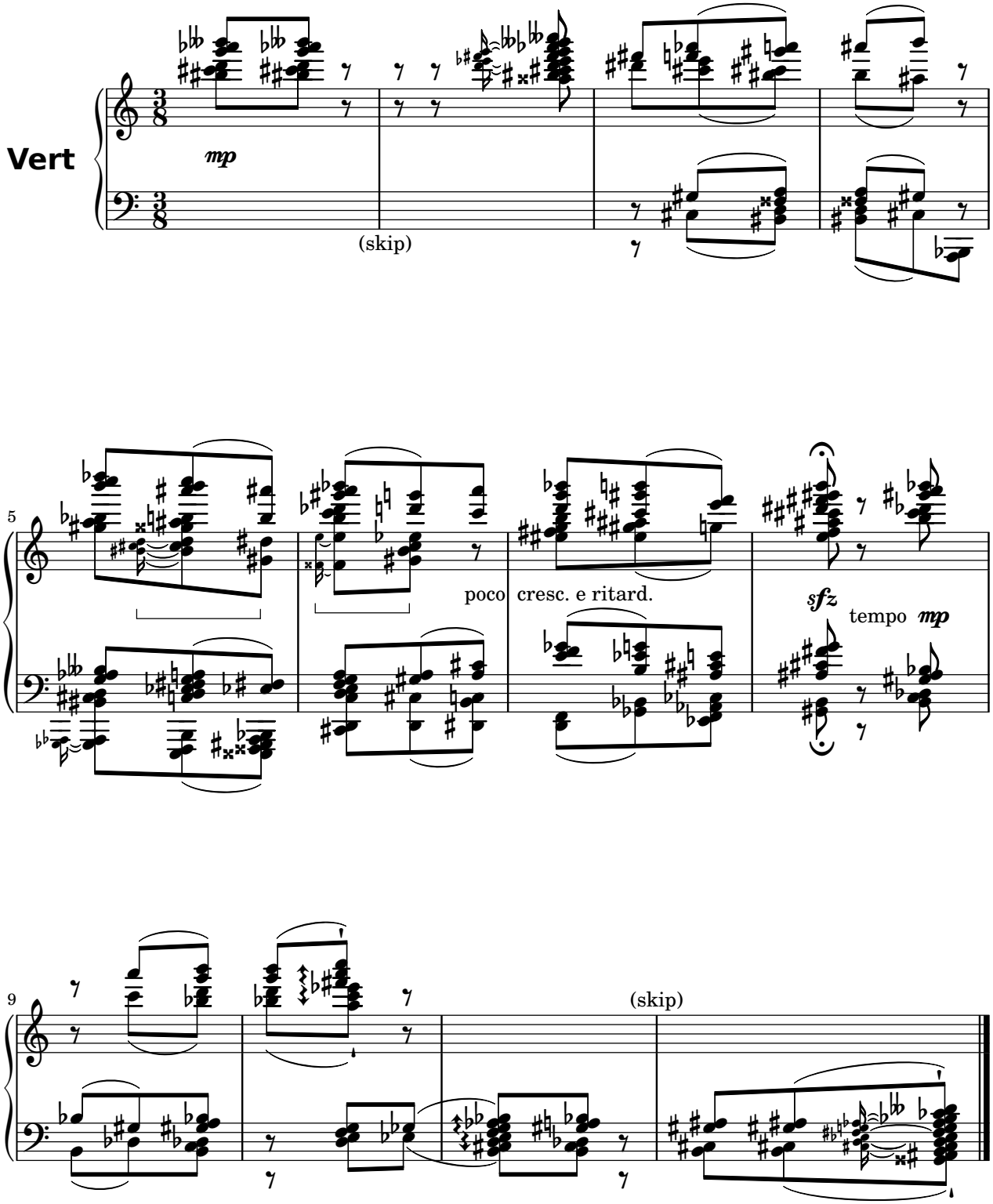

Passeggiando (♩ = 88)
H=V
mf
3
mp
mf
poco string. e cresc.
5
f
sfz
6
mf
mp
8
mf

10


Frenetico (♩. = 120)
Hori
p sempre staccato
3
f molto ritenuto
p tempo
4
f molto ritenuto
tempo p
5
più veloce
7
ff tempo

Play either entire staff alone.

Tartarugamente (♪ = 92)



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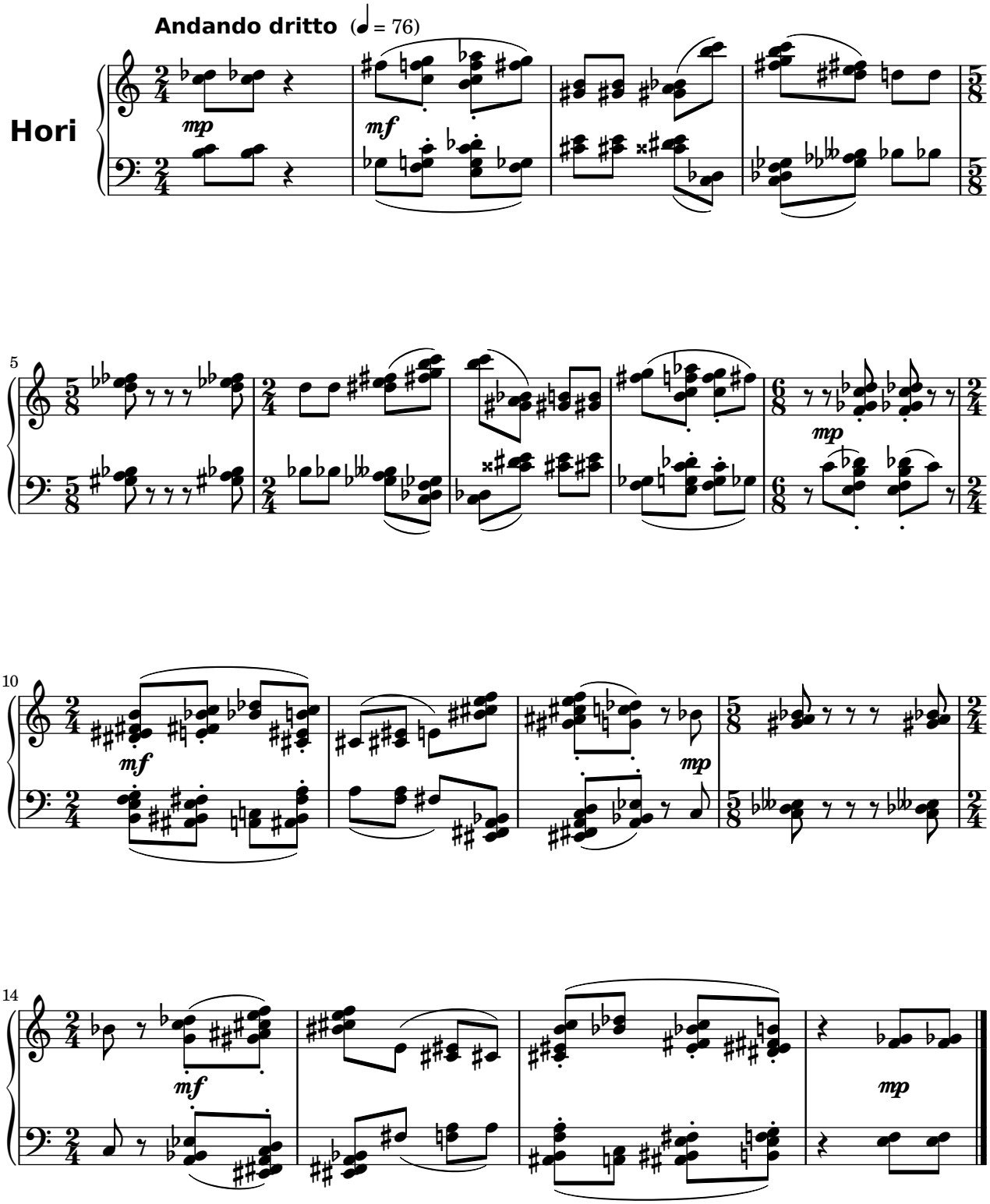
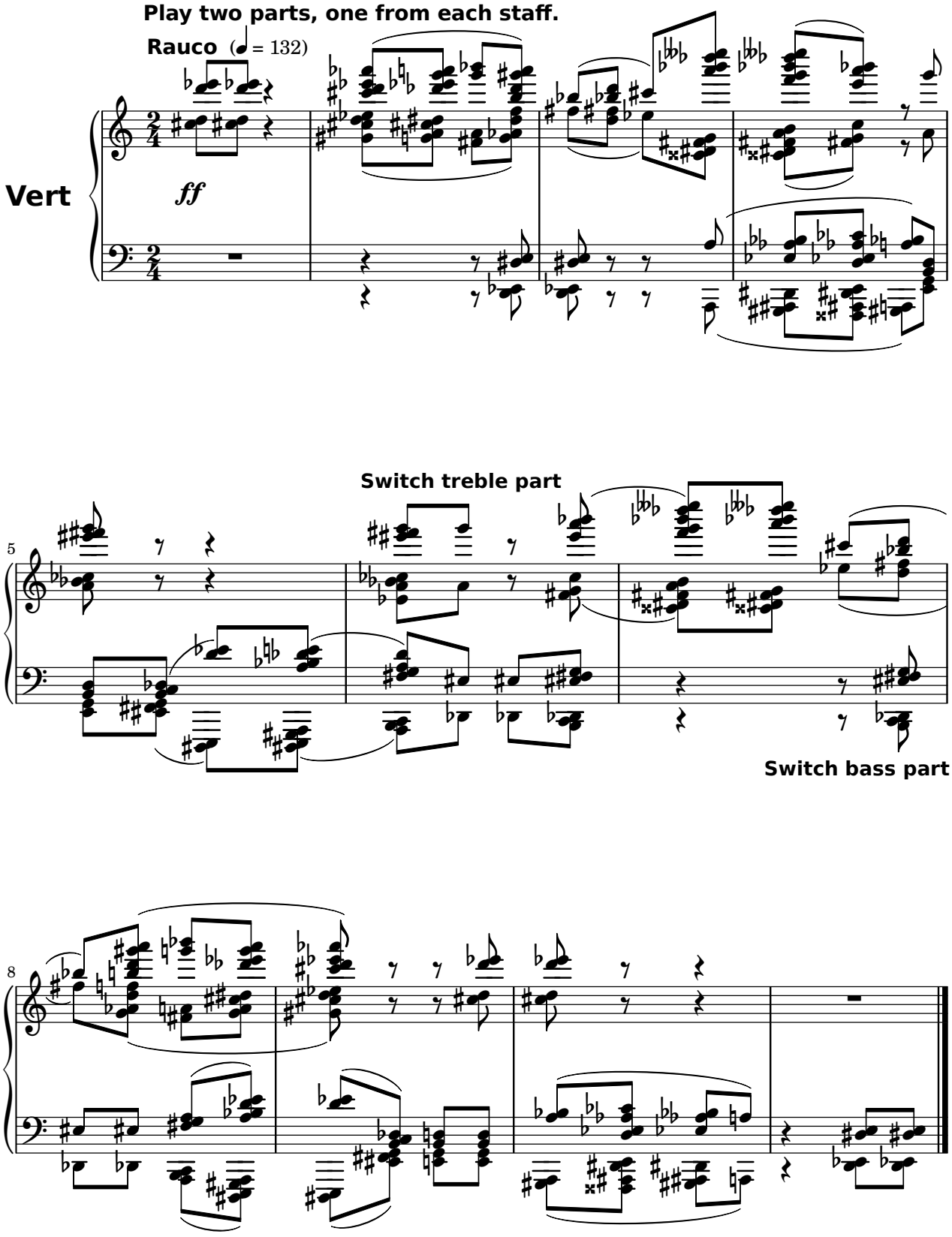
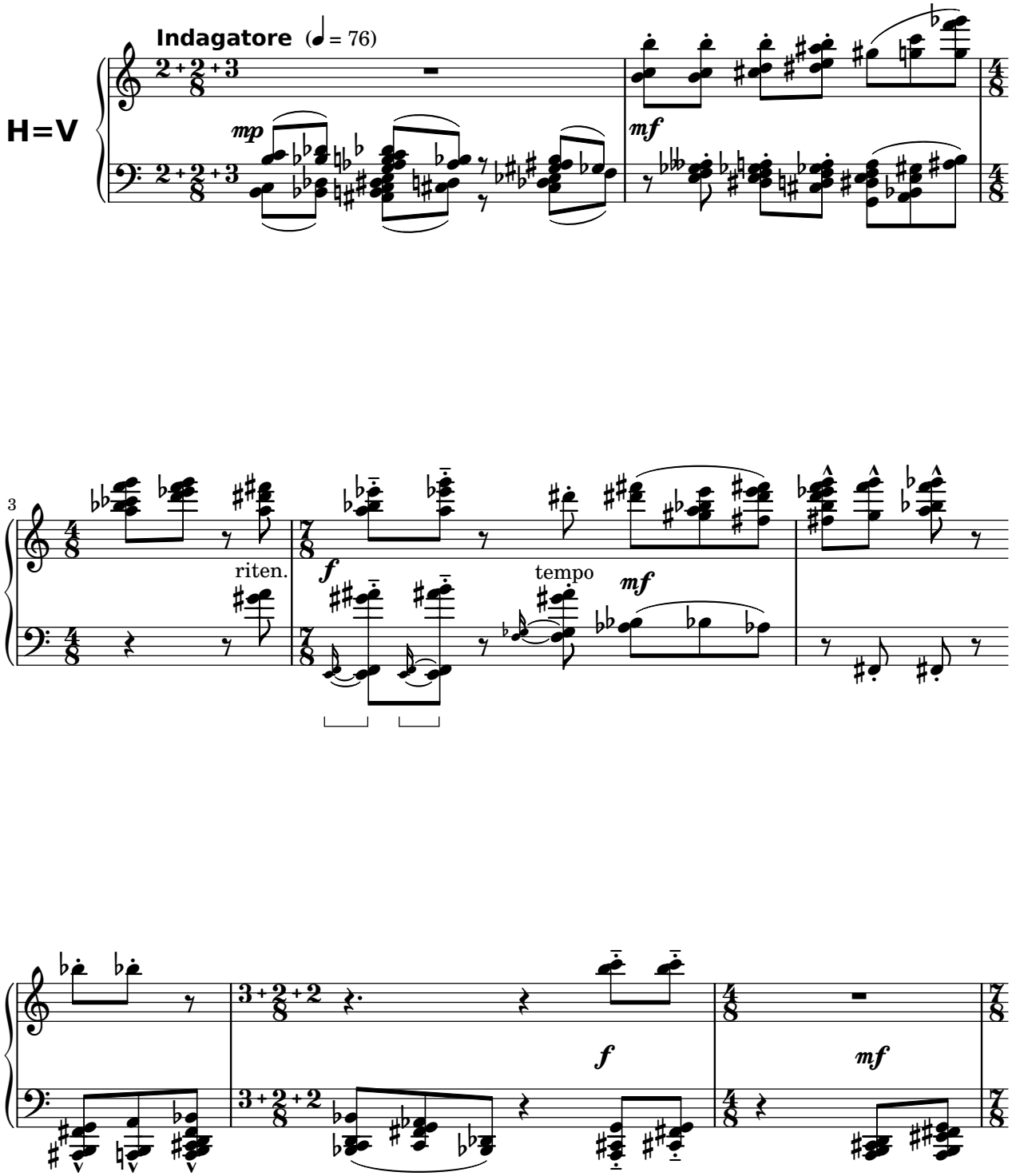
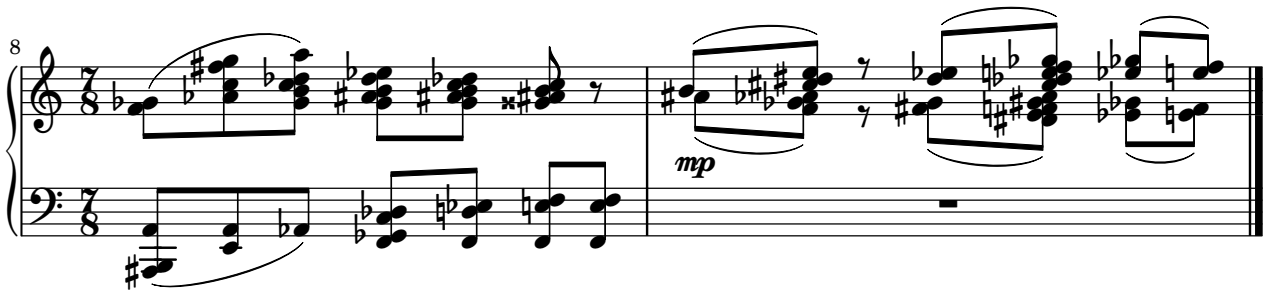



Play two parts, one from each staff.
Rauco
♩ = 132
Vert
ff
Switch treble part
5
Switch bass part
8

12





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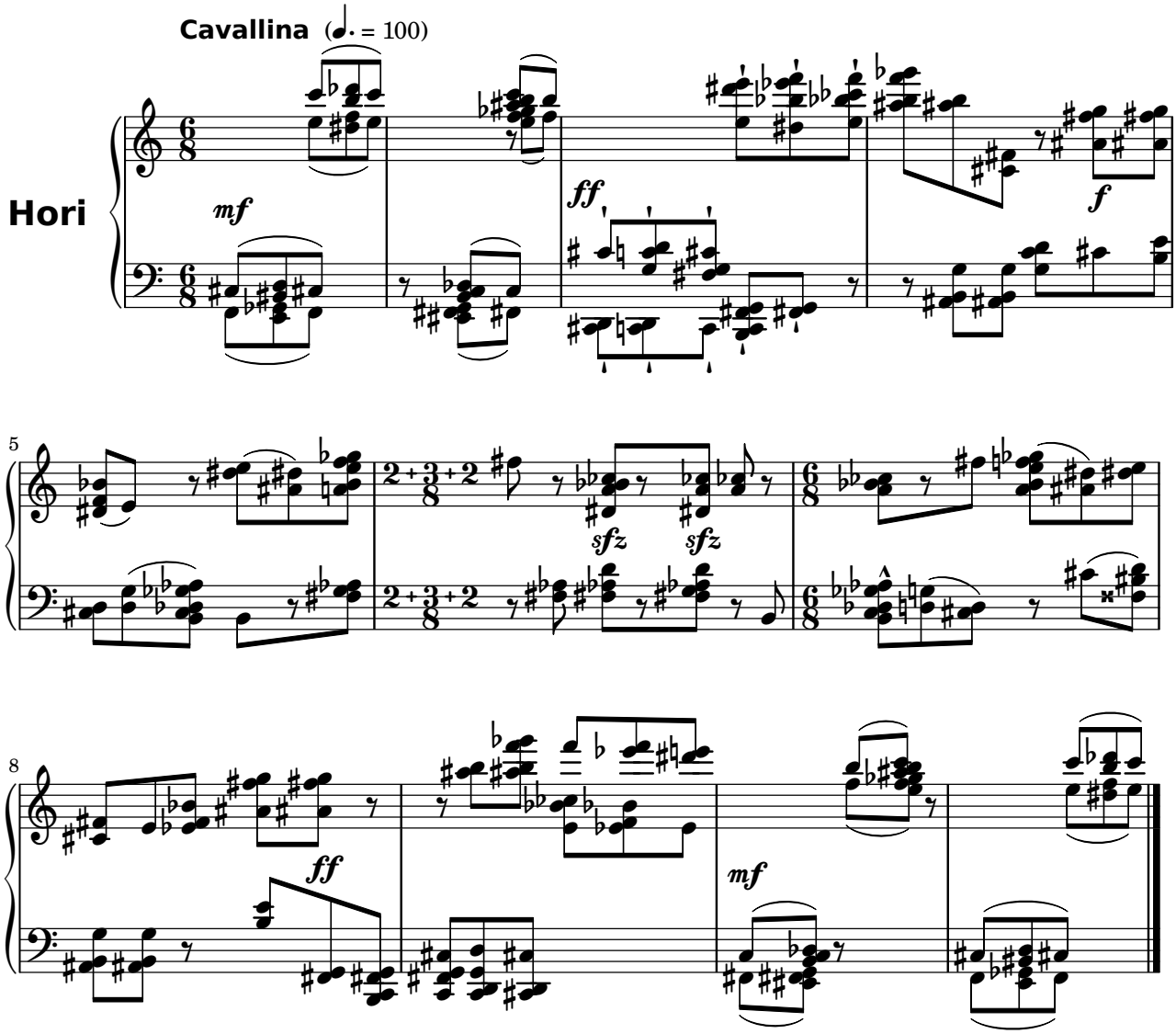
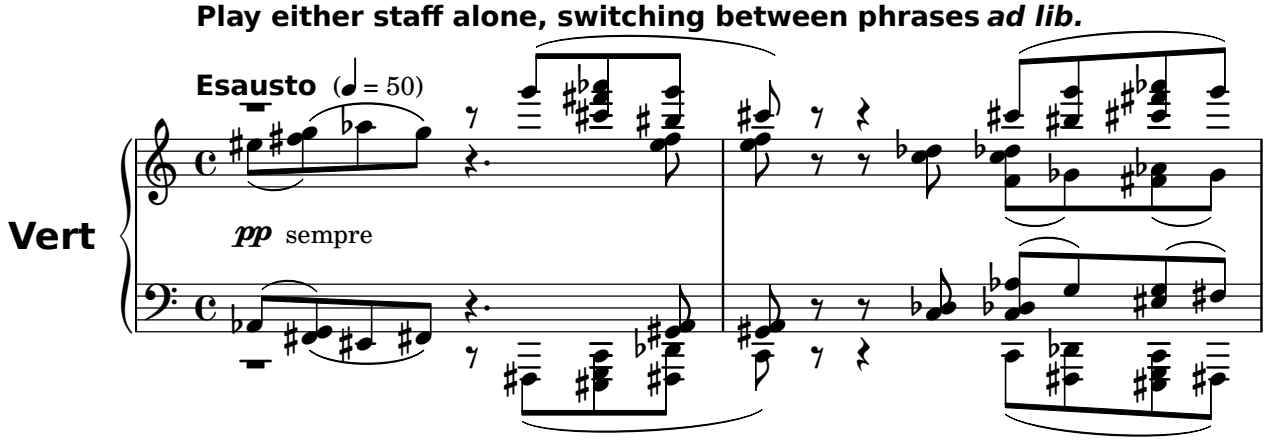


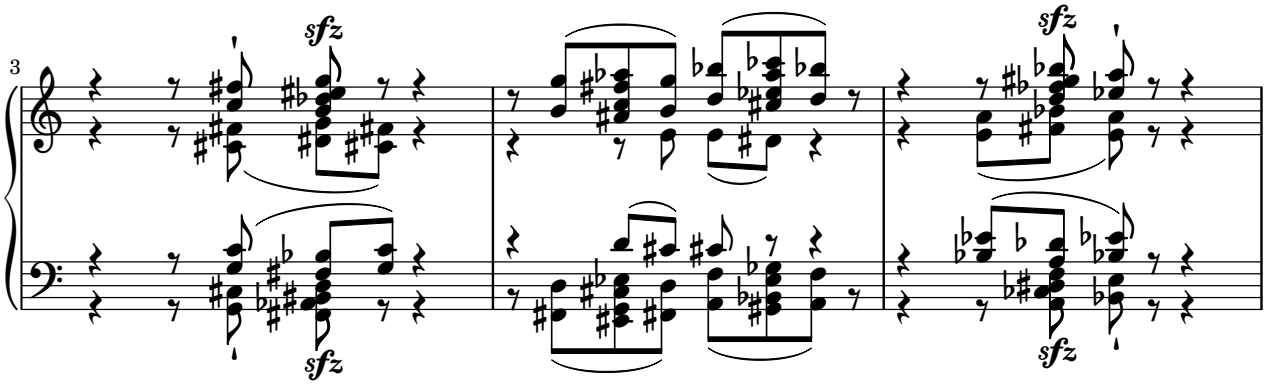
Play either staff alone, switching between phrases *ad lib.*

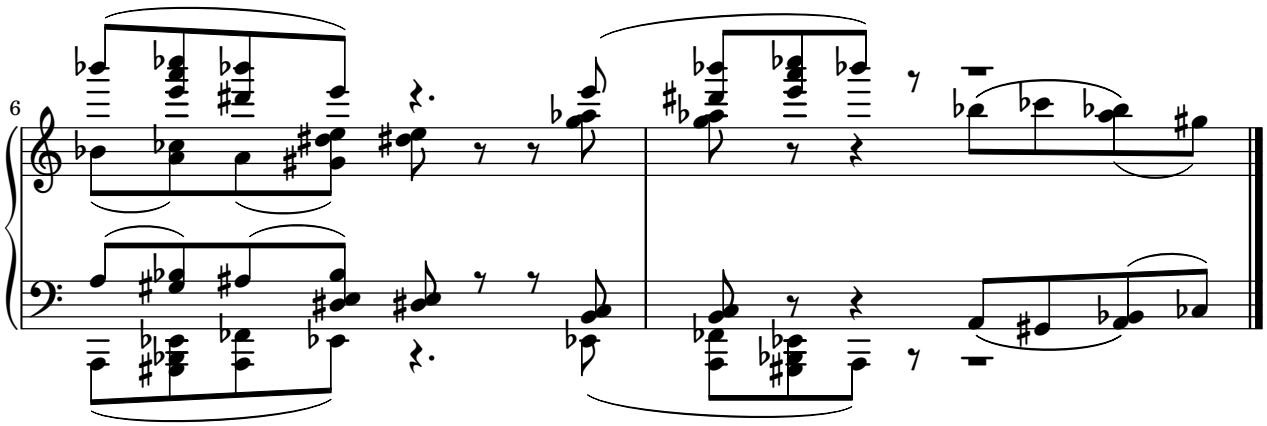
Esausto (♩ = 50)

Vert

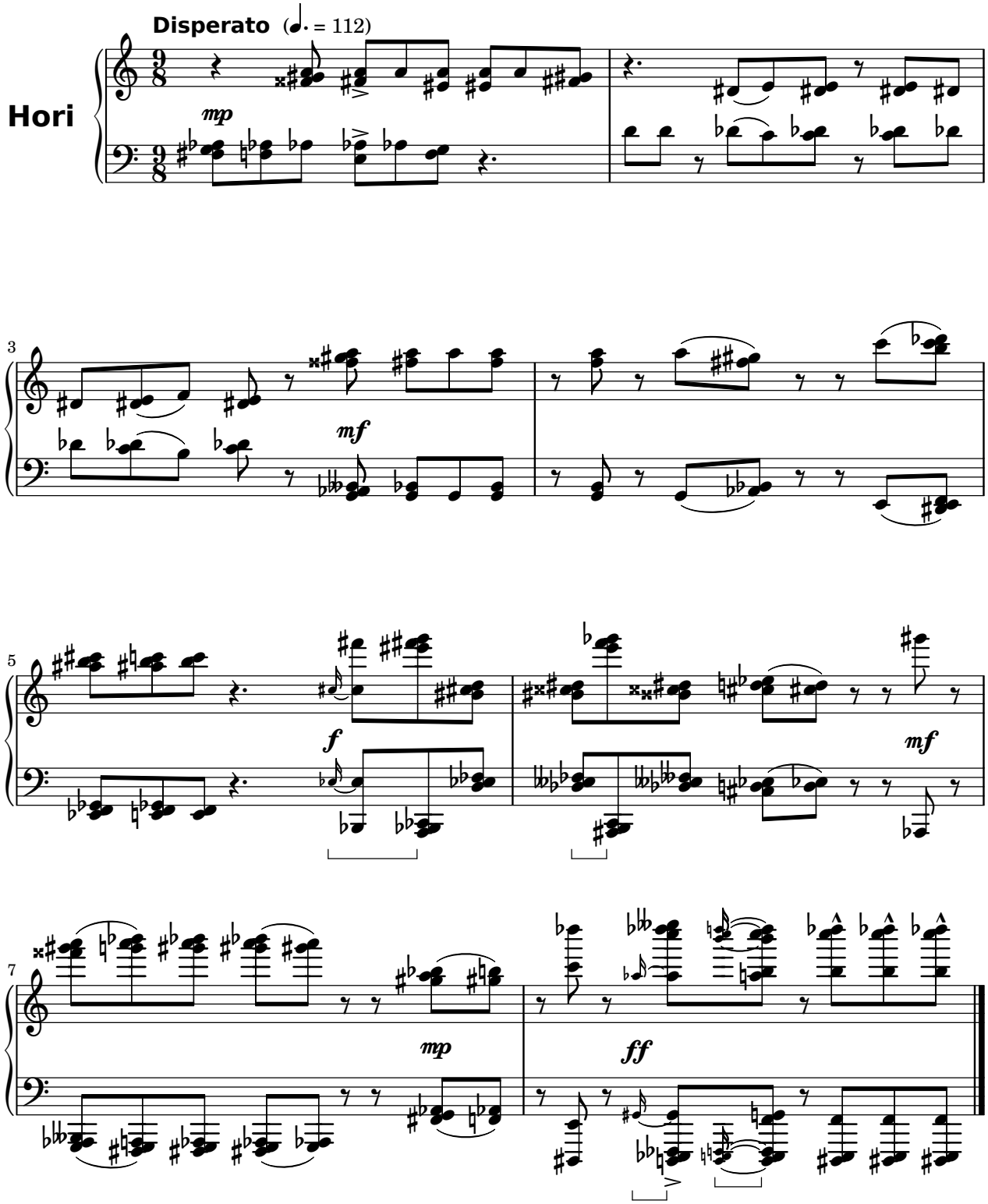
pp sempre

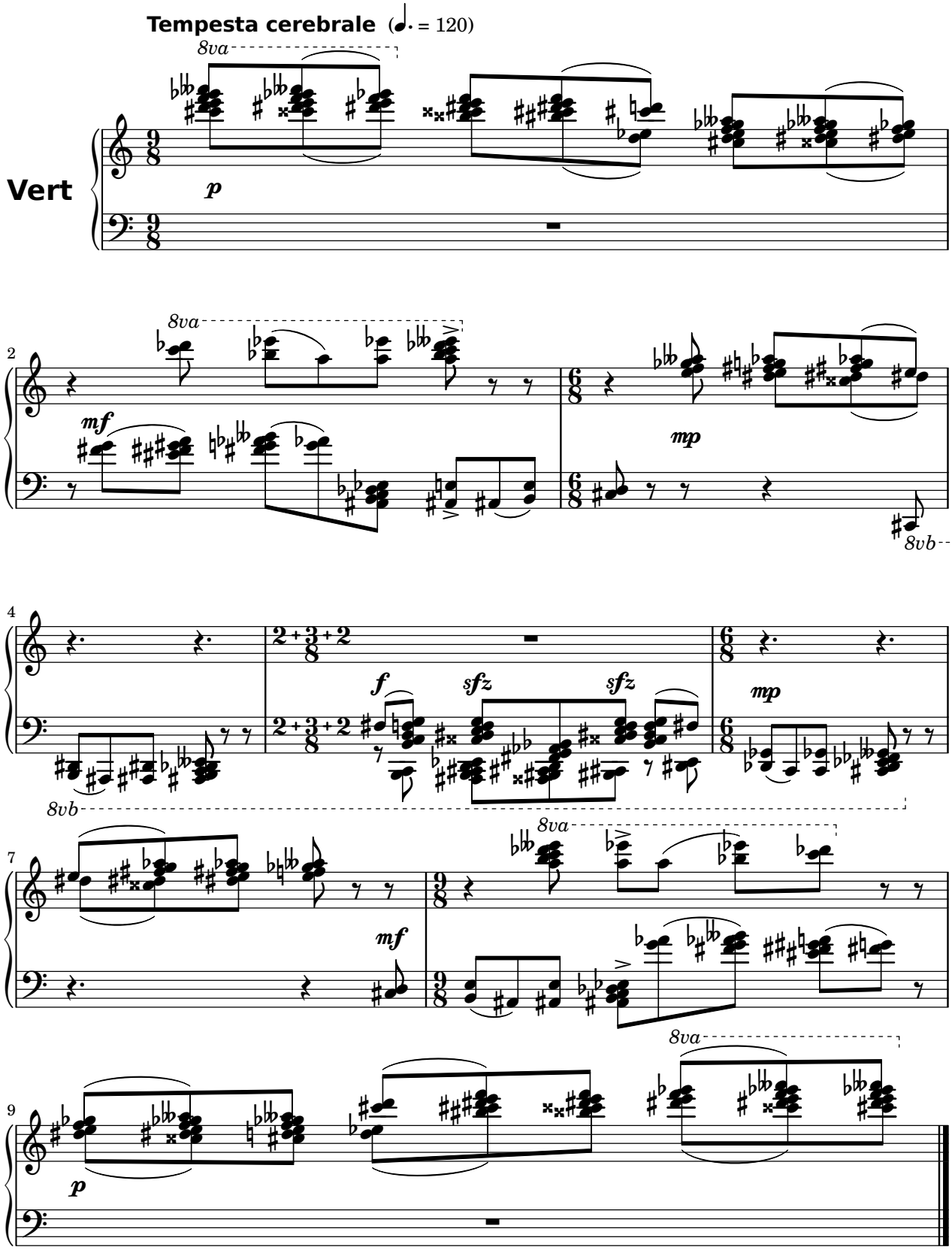




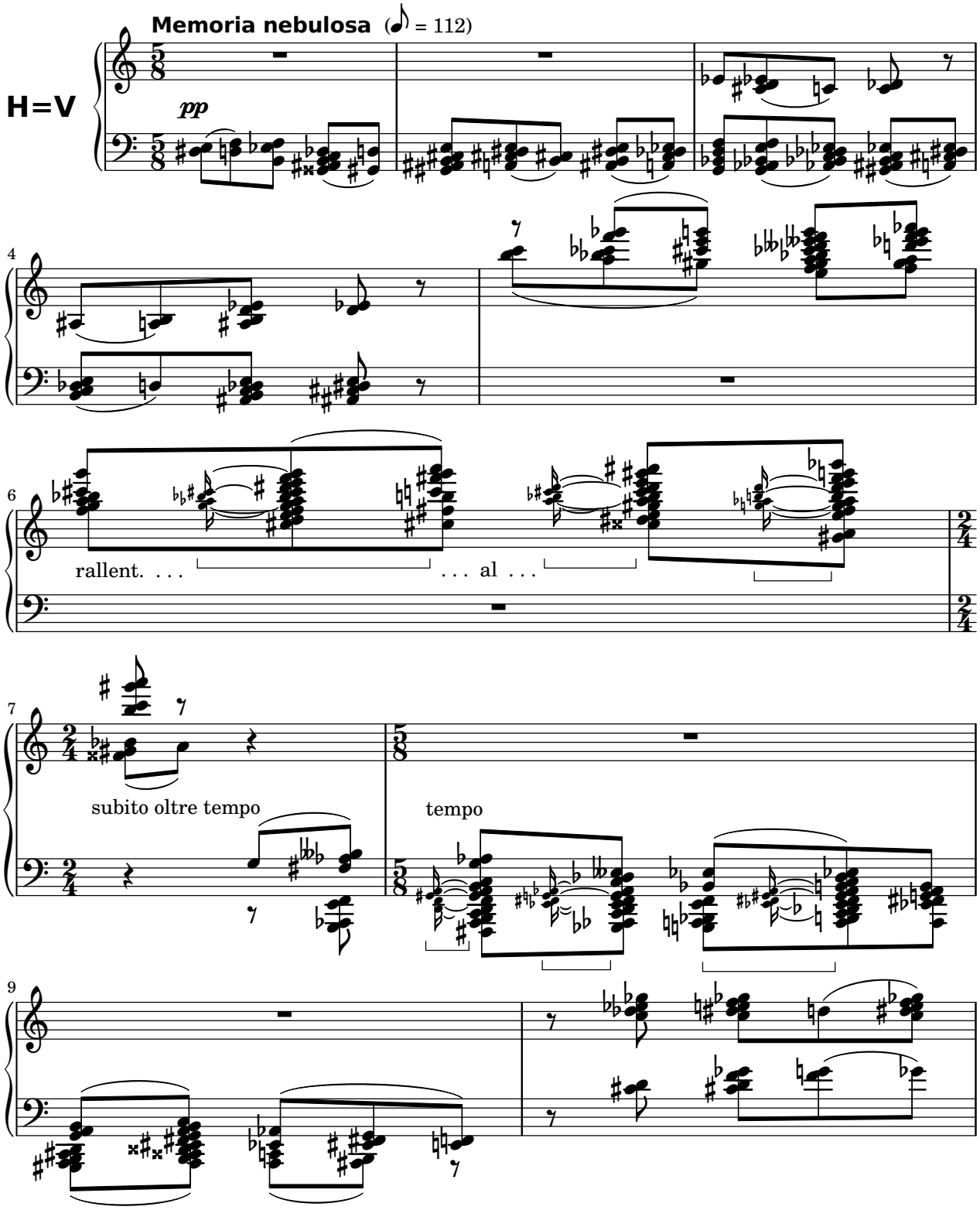


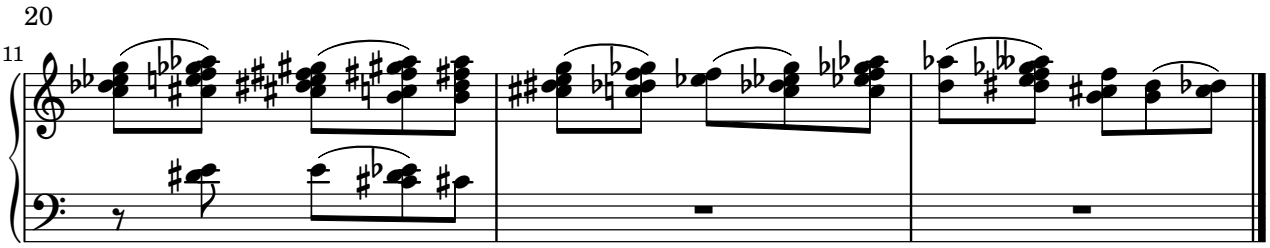
14



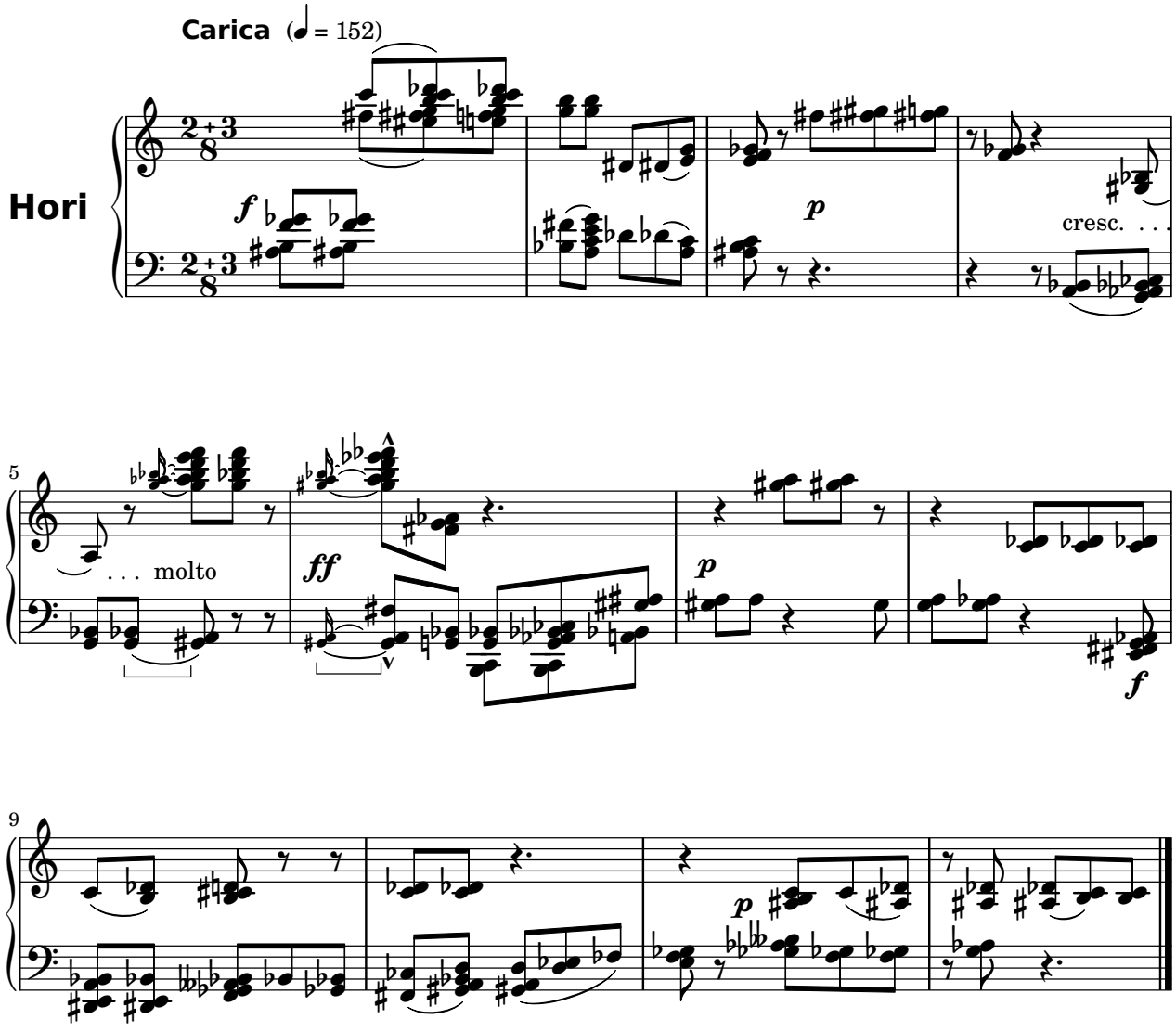

Tempesta cerebrale (♩. = 120)
Vert
8va
p
2
mf
mp
8vb
4
f
sfz
sfz
mp
8vb
7
mf
8va
9
p
8va

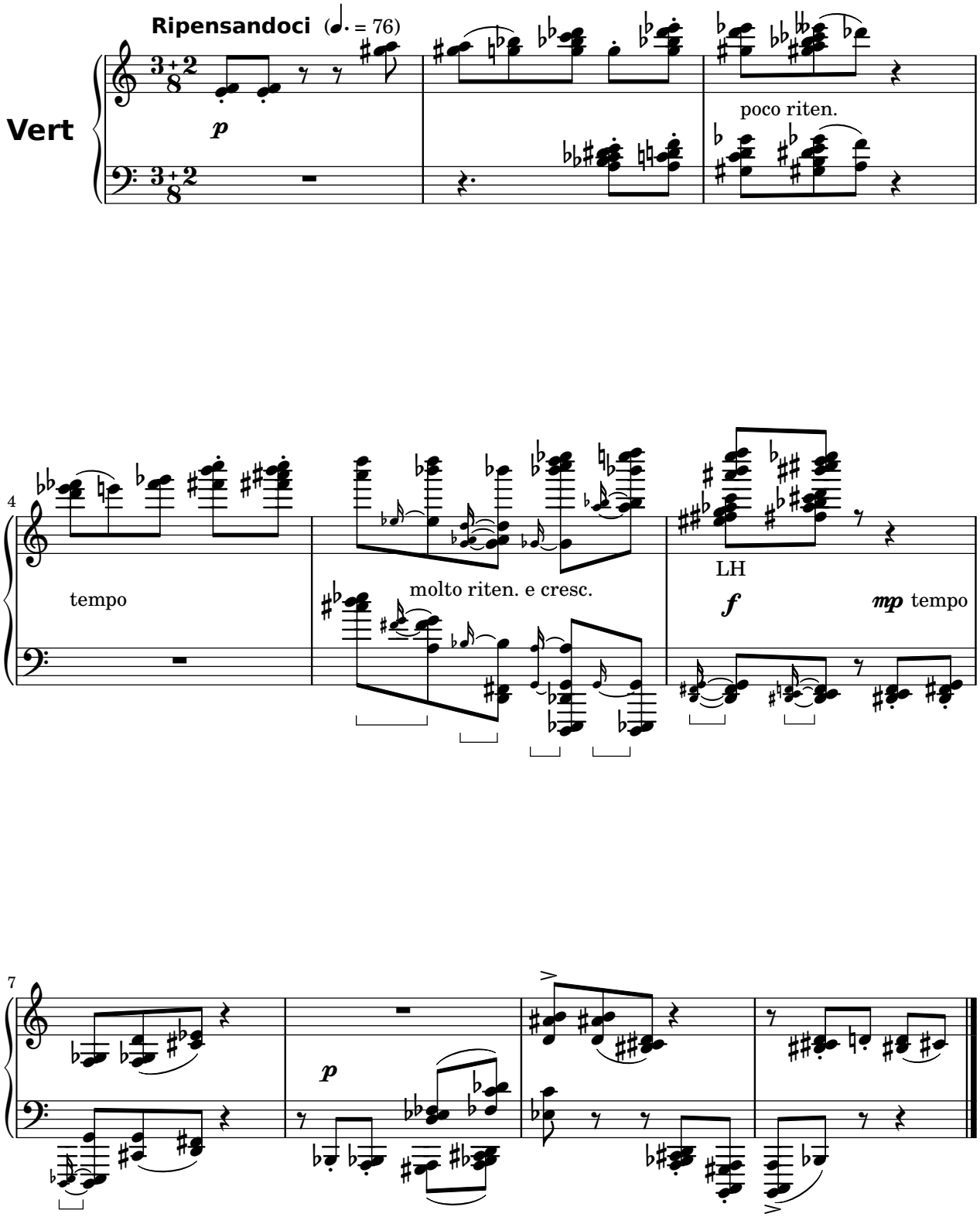
15


Memoria nebulosa
= 112
H=V
pp
rallent. . . .
. . . al . . .
subito oltre tempo
tempo

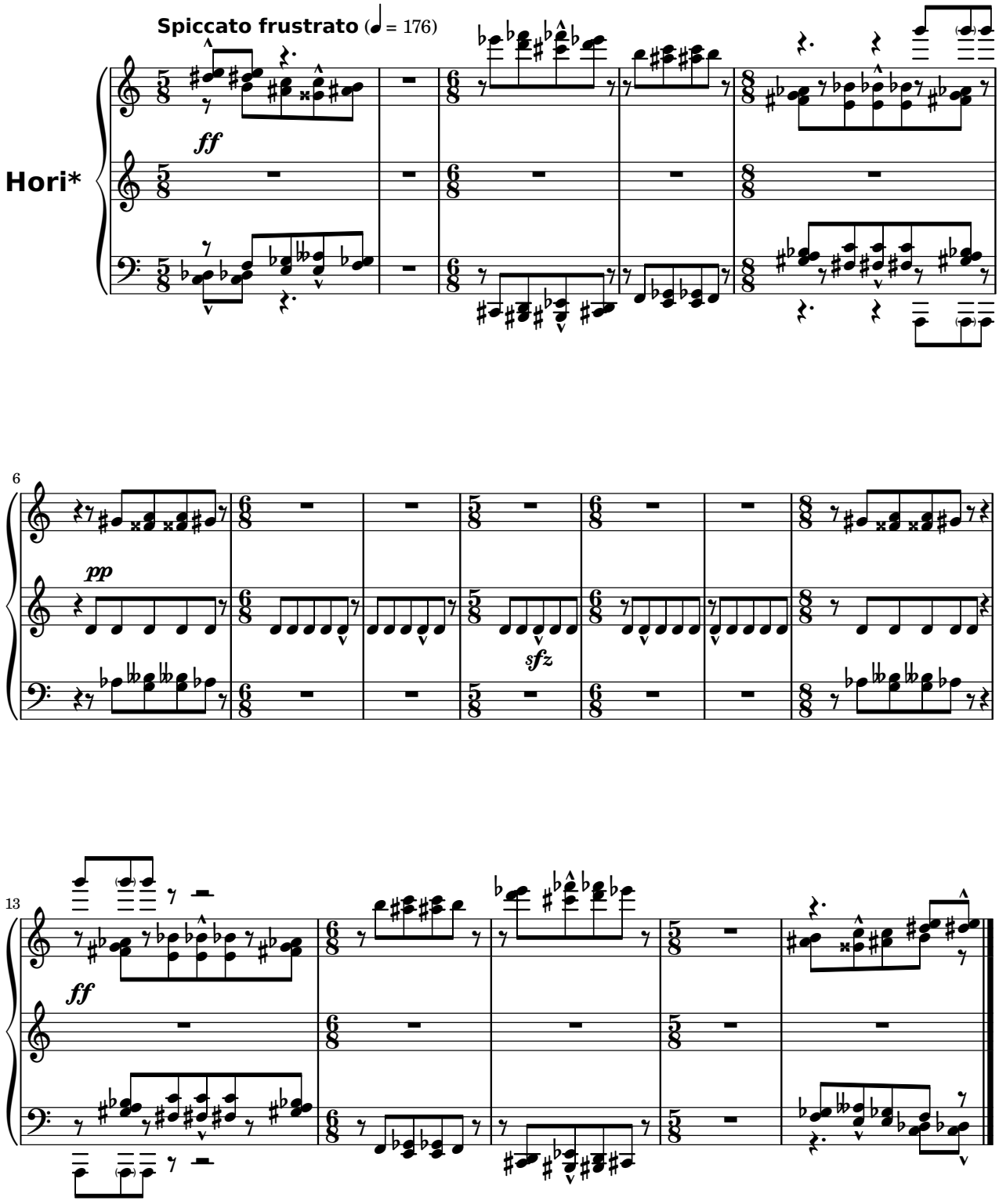


16

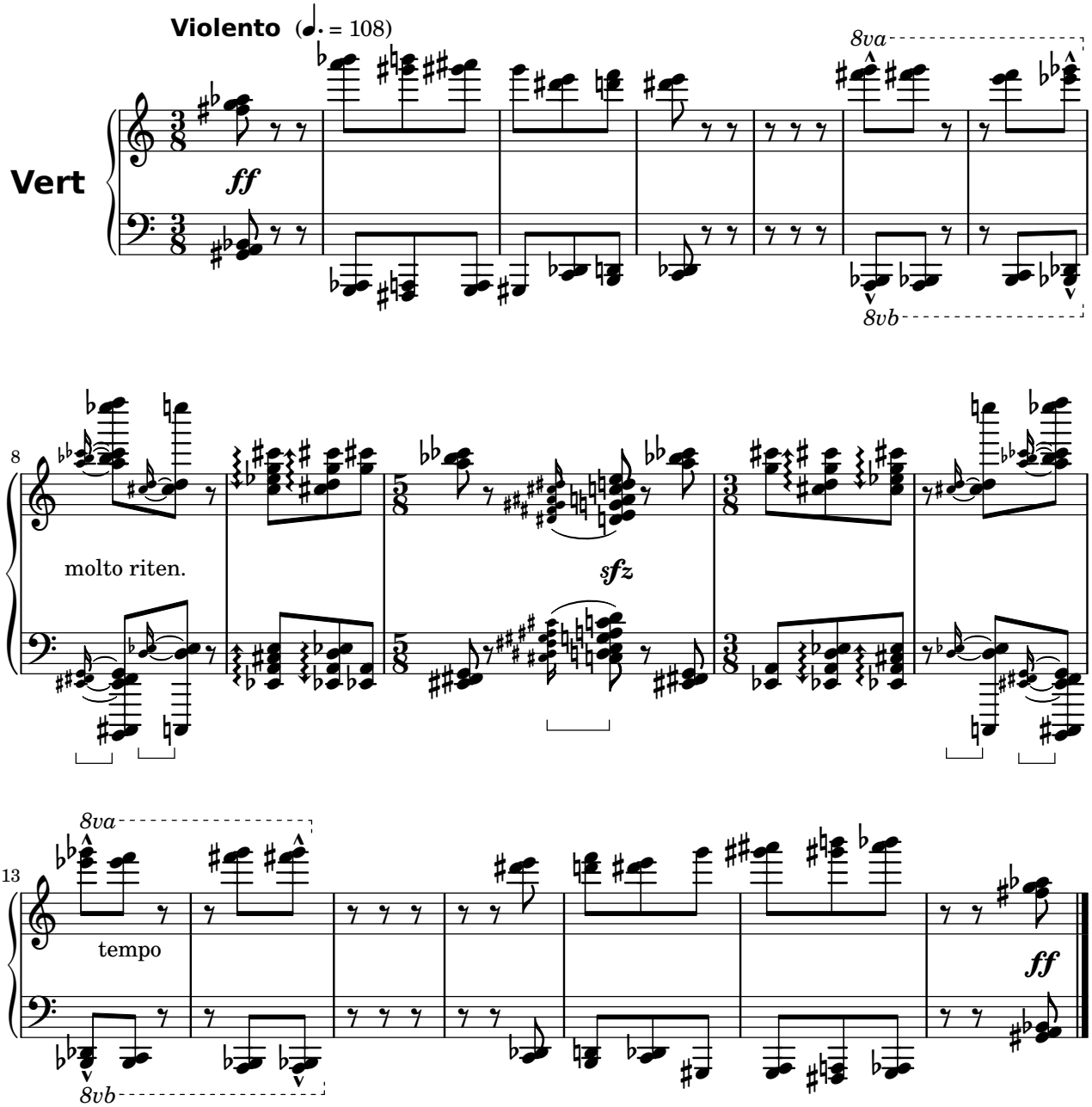



Ripensandoci
Vert
poco riten.
4
tempo
molto riten. e cresc.
LH
mp tempo
7

17



* First published separately as ***No!*** for pianist Rebecca Raffaelli


Violento
Vert
ff
8va
8vb
molto riten.
sfz
tempo

ConwayLife.com Source Graphs

(listed by movement number)

	PATTERN NAME	DISCOVERER	YEAR
1:	Pre−pulsar Shuttle 47	David Buckingham	1982
2:	Jason's P33 (92P33.1)	Jason Summers	2000
3:	77P6H1V1	Josh Ball	2011
4:	117P18	David Buckingham	1991
5:	Pre−pulsar Hassler 55	David Buckingham	1986
6:	Wing (spaceship) Extended	Hartmut Holzwart	1993
7:	186P24	Bill Gosper	1994
8:	Total Aperiodic	Bill Gosper	1997
9:	P18 Glider Shuttle	Dean Hickerson	1992
10:	Dragon Tagalongs	Paul Tooke	2000
11:	Beluchenko's P37 (124P37.B)	Nicolay Beluchenko	2009
12:	Pi Orbital	Noam Elkies	1995
13:	P58 Toadsucker	Bill Gosper	1994
14:	Slow Puffer 1	David Bell	(unk.)
15:	P49 Glider Shuttle	Noam Elkies	1999
16:	Sawtooth 201	Adam P. Goucher	2015
17:	5−5−5−5−5−5−5	Robert T. Wainwright	1970s