Huw Catchpole-Davies

Abiogenesis : First Form

For Orchestra

Abiogenesis Preface

Abiogenesis – the evolution of living organisms from inorganic or inanimate substances. This piece is designed to illustrate a murky primordial soup that develops towards a living rhythmic entity by the close. One of the key features of the work is a breath-like crescendo gesture appearing throughout the piece in various guises (bb.1-2 /bb.11-12/bb.59-62). This doubles as a churning near the beginning when played by the whole orchestra (bb.17-20). This breath-like gesture builds to many anti-climaxes before the main climax of the work begins (b.97). The main dense section of the work preceding this climax (bb.68-96) is representative of the creature taking its first breath and the potential that this breath means for its life – now it *is* living. Following this portion is the final section of the piece where we can hear the creatures living heartbeat played across the orchestra; the creature's excitement at its first breaths now subsiding with its diminishing heartbeat.

While using fairly standard orchestral instruments I attempted to create "primordiality" by using pitch-class sets incorporating quartertones, which are intended to be played consistently. Further to this the orchestra is exploited gesturally and, largely, as one sounding body in the opening. Contrasting this homogenous use of the orchestra it is split into families during the section preceding the climax (bb.68-96) with a premonition of this occurring in the double-horn solo (bb.40-54) where the double-horn emerges out of the texture for the first time. Double-horn is a descriptive term for the conception of an imaginary instrument. While prescriptively a closely connected heterophony is heard between the Horn duo, their lines are conceived as contributing to a single instrument that struggles to break out of its own musical line; we may imagine this as analogous to a butterfly struggling to emerge from its chrysalis, the two horns being the single butterfly and the chrysalis being a single musical line sitting somewhere between the average of what is notated between bb.40-54.

The chance to work with orchestral forces for *Abiogenesis* allowed me to experiment with a new method of composing. Prior to this work I'd spent a lot of my time composing at the piano to discover the pitches and harmonies I wished to use in my works. While I enjoyed the audible feedback given by the piano, for me, this came with the drawback of creating moments of inconsistencies on the page that did not match the 'score' in my head. My explanation for this is that in my exploration of many different versions of a particular musical moment, while composing at the piano, my psychological reaction to eventually having to choose only one of these moments was ultimately unsatisfying and thus lead to the disparity of the real single-score with my imagined multi-score. I would call these moments 'fluxing' as they never seemed to have completely phased into the score of the real. While an odd psychological phenomenon I'm still aware of it when composing at the piano to this day. For *Abiogenesis* I intended to completely remove the piano from my method and instead focus on just the creation of the real score.

As I was no longer bound to the piano to gain my harmonic language I instead used the technique of selecting pitch-class sets for various sections and subsections of the work. I found I naturally aimed towards this harmonic technique to consolidate harmonic consistency across small-scale events within the work.

At the time of writing this work I had been experimenting with creating generative harmonic consistency within a computer program. I had designed a small program that would randomly generate notes in a single musical line one after another at constrained random time intervals. Combining two or more of these generating musical lines created harmonic interest. The question that arose was how to create a harmonic consistency between two or more randomly generating musical lines. The full discussion can be found in chapter 2 of the accompanying critical writing; however, my conclusion was to provide the computer with specific predesigned pitch-

class sets which force the generative engine's decisions to be that of only concurrently pleasing options. The idea of a stable pitch-class set evolves into the concept of a harmonic-cloud in my critical writing—a stable area of predictable harmony in a generative musical environment, allowing the predictability to be used by the composer to affect.

Dedicated to
Emily MacGregor, Jason Preece, Kate Kennedy, Philippa Dand and Liz Mowforth.

Abiogenesis: First Form

For orchestra

Orchestra

2 Flutes
2 Oboes
2 Clarinets in Bb
2 Bassoons

2 Horns in F
2 Trumpets in Bb

Percussion (1 Player)
4 Timpani
Bass Drum
Vibraphone
3 Woodblocks
Cowbell
Suspended Cymbal
Tam-tam
Bow

Divisi Strings

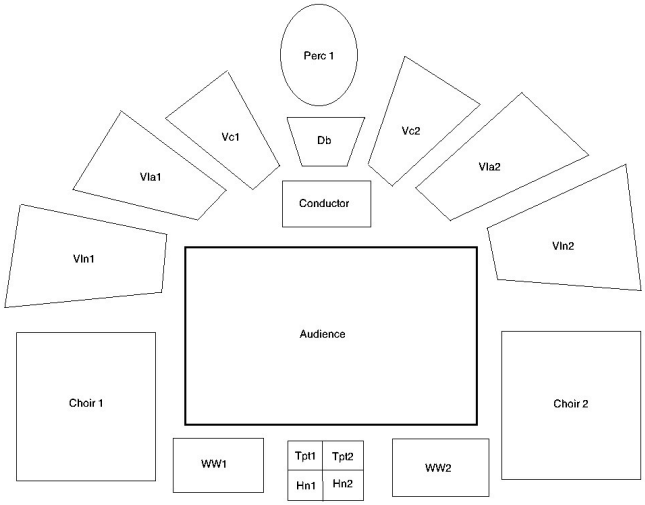
= Score in C =

Performance Directions

General

If resources allow, double both woodwind parts.
Conductor to face the audience with intended orchestral layout.

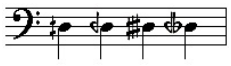
Positioning



(not to scale)

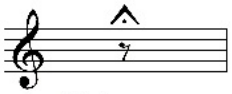
Notation

Quartertones



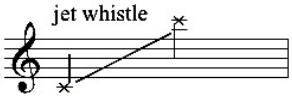
The symbols depicted represent: half sharp, half flat, three-halves sharp and three-halves flat respectively.

Short Fermata



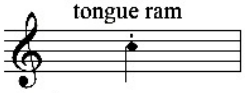
Pause no longer than double the note value.

Jet whistle



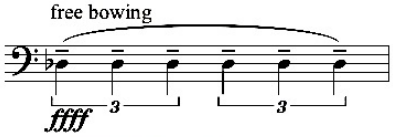
Overblow quickly across harmonic series.

Tongue Ram



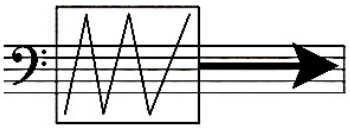
Force tongue into mouthpiece abruptly stopping the sound.

Free Bowing



While bowing heavily try to obtain as many notes from one bow as possible.

Left hand slidey

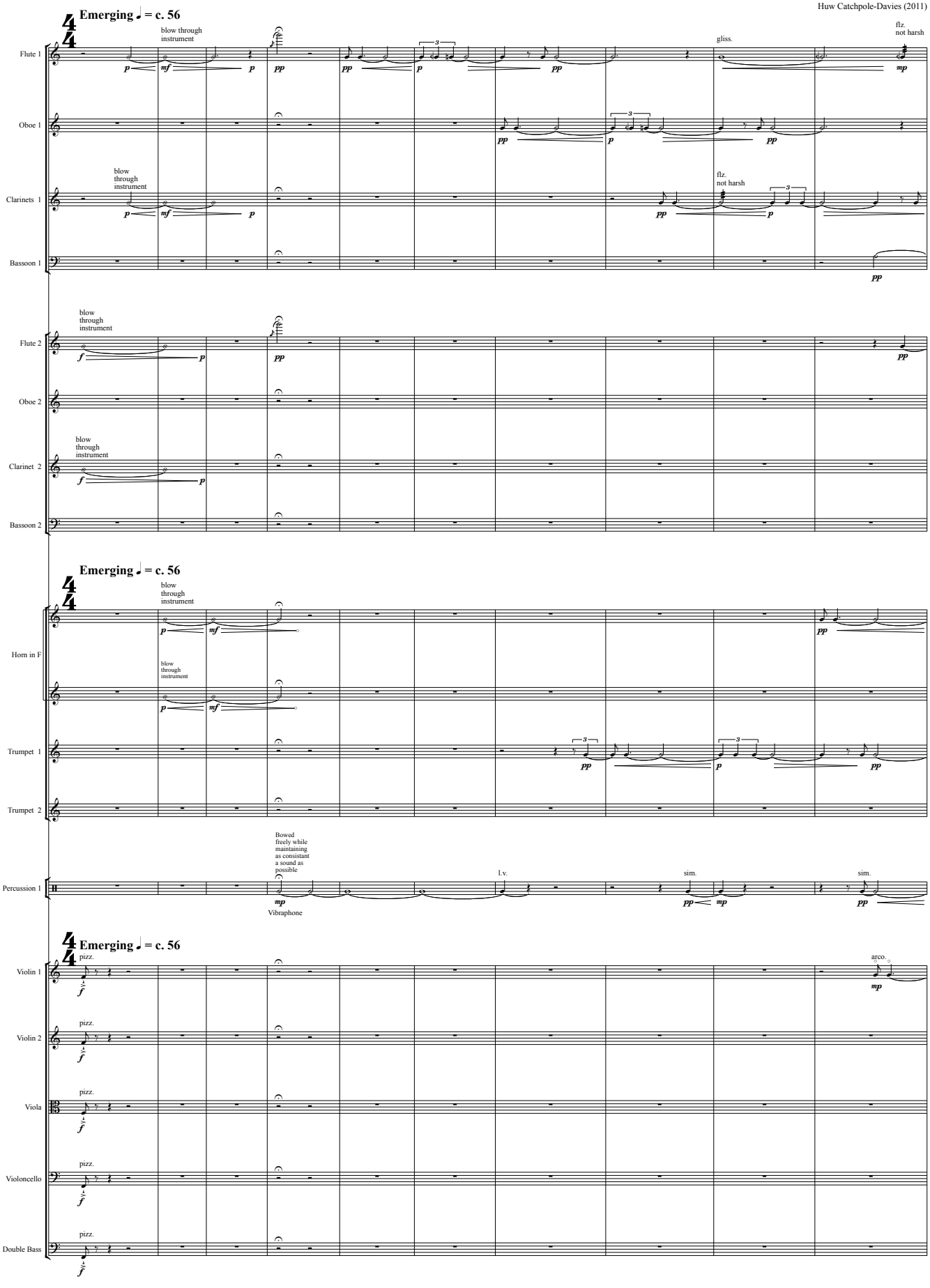


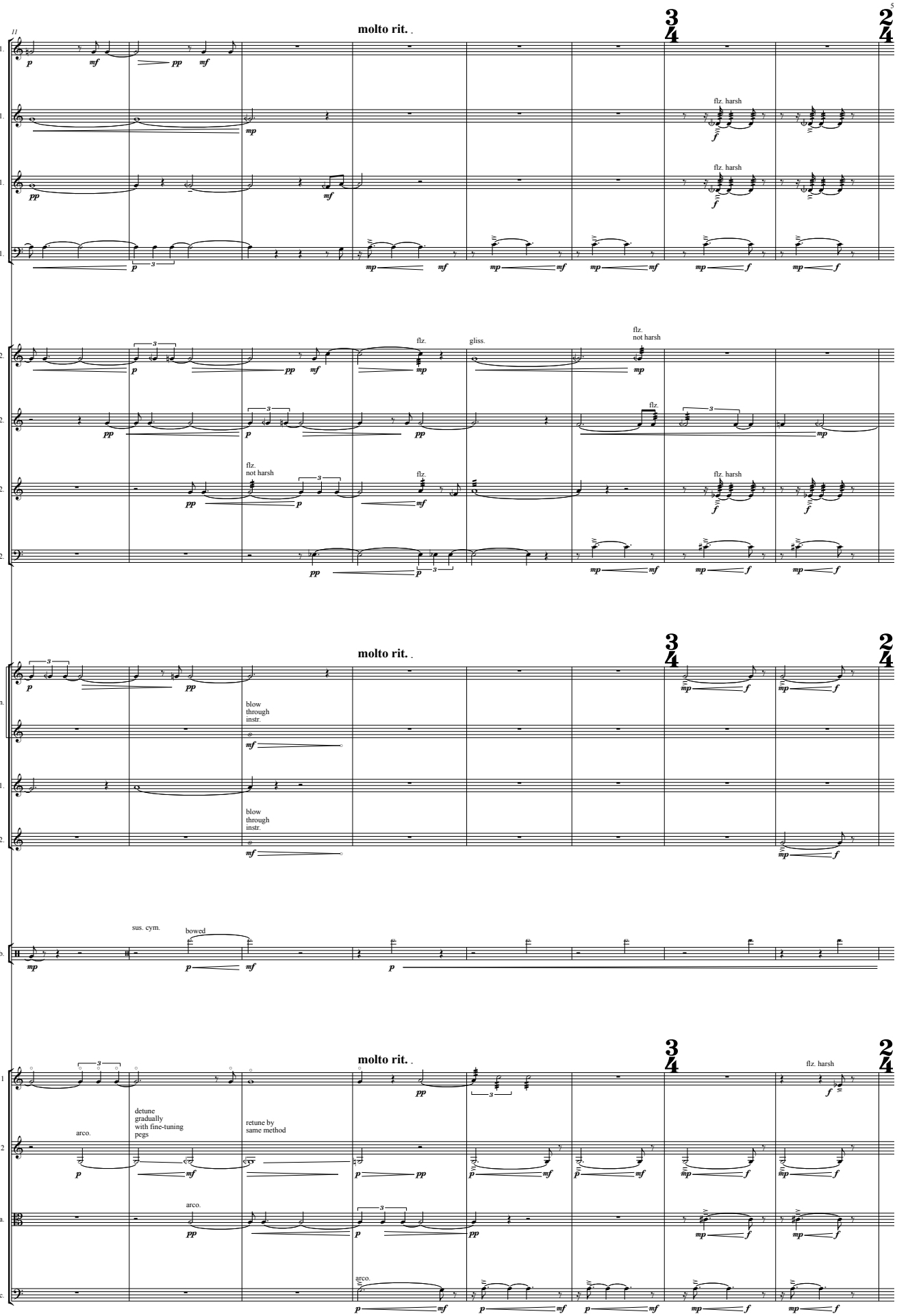
Use the left hand to slide up and down the strings with as much volume as possible for the duration of the arrow.

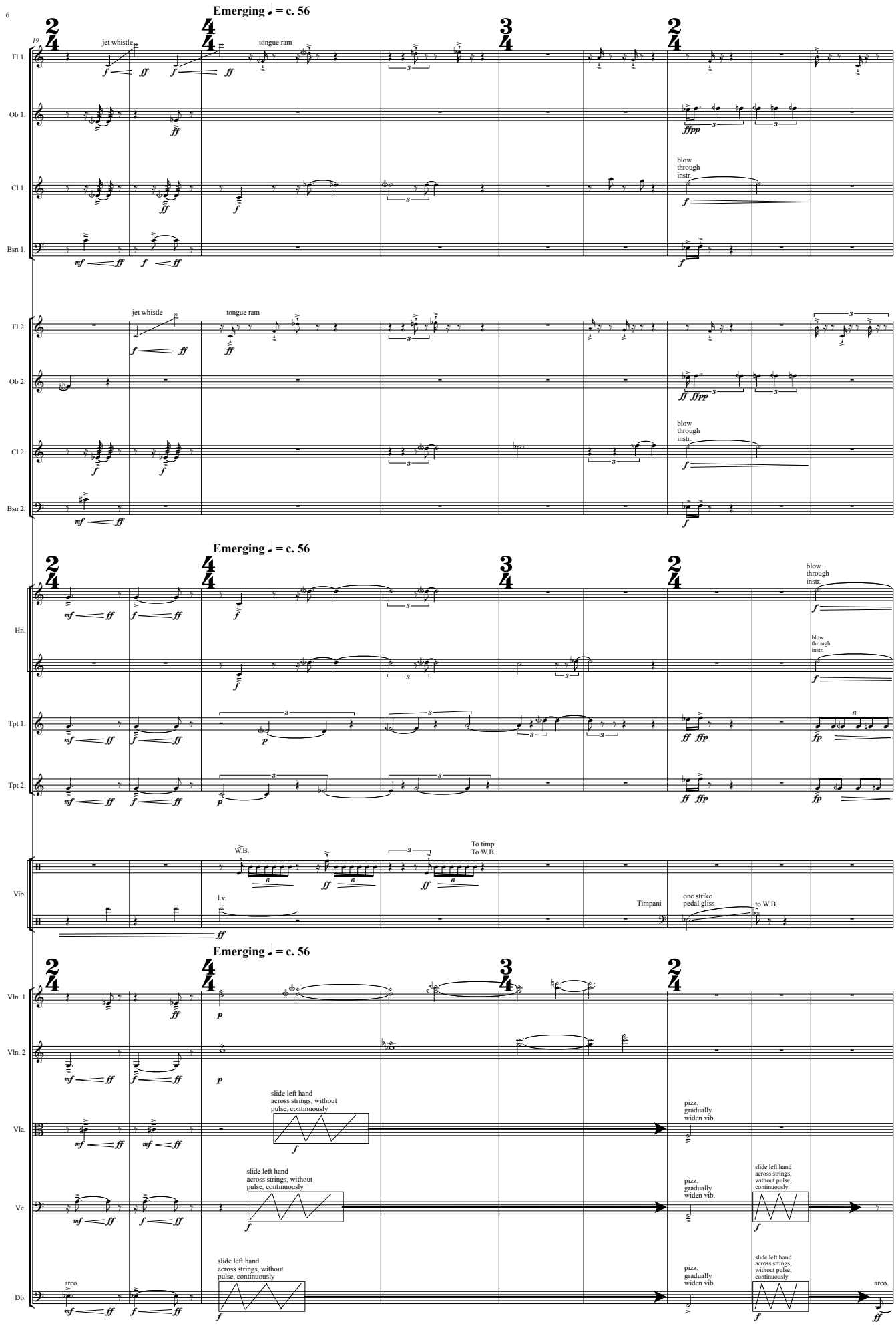
Abiogenesis: First Form

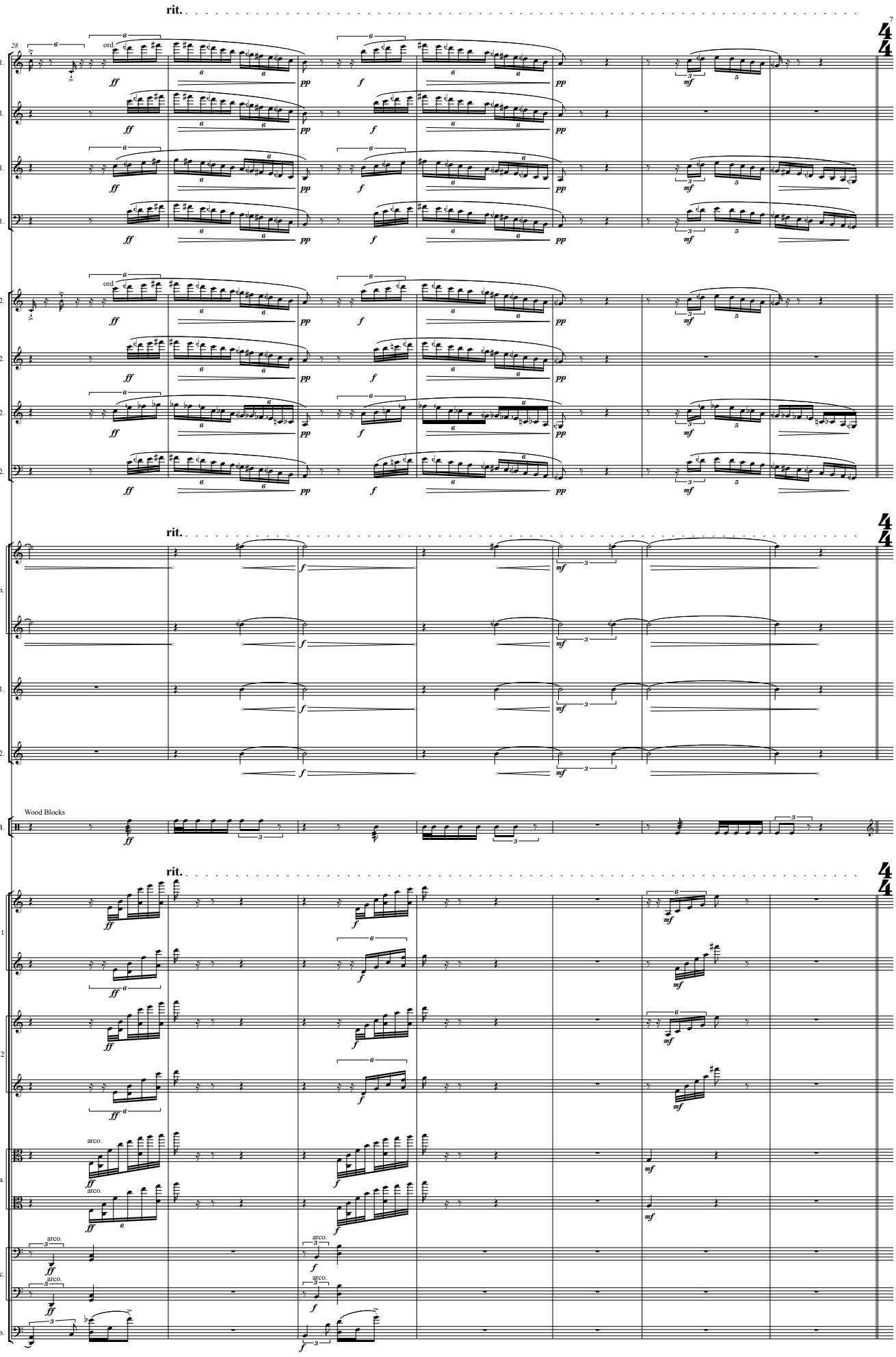
for Orchestra

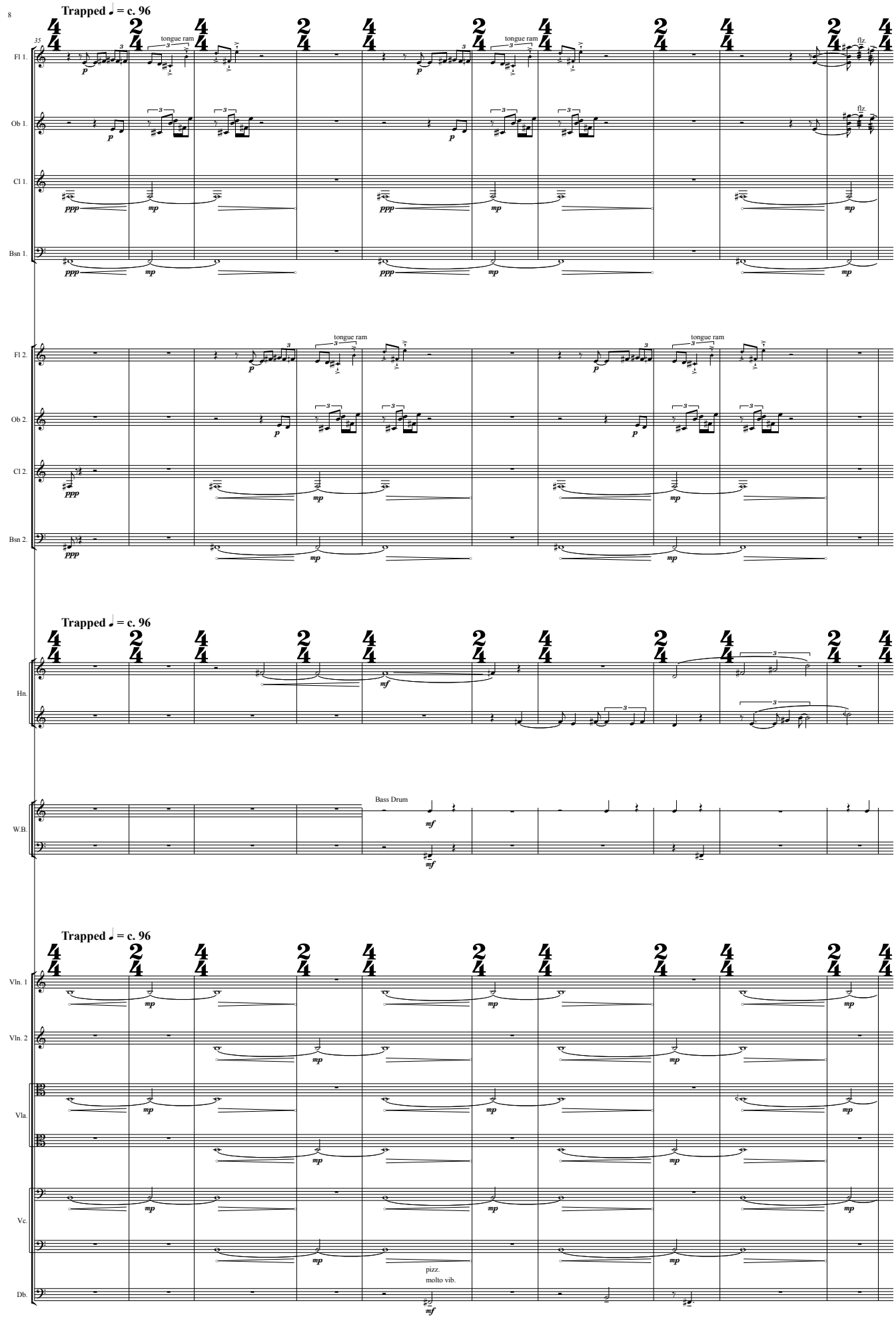
Huw Catchpole-Davies (2011)

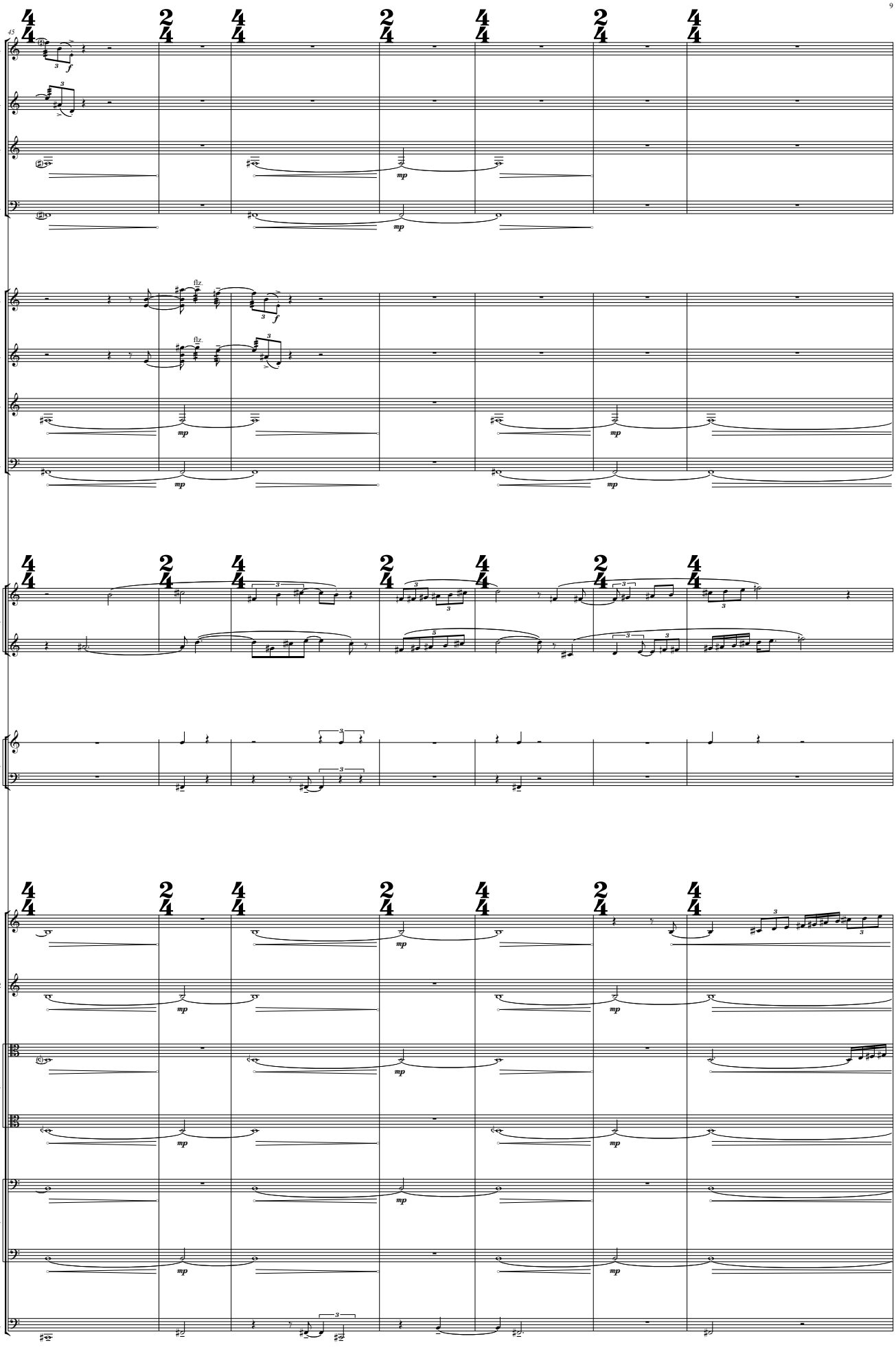


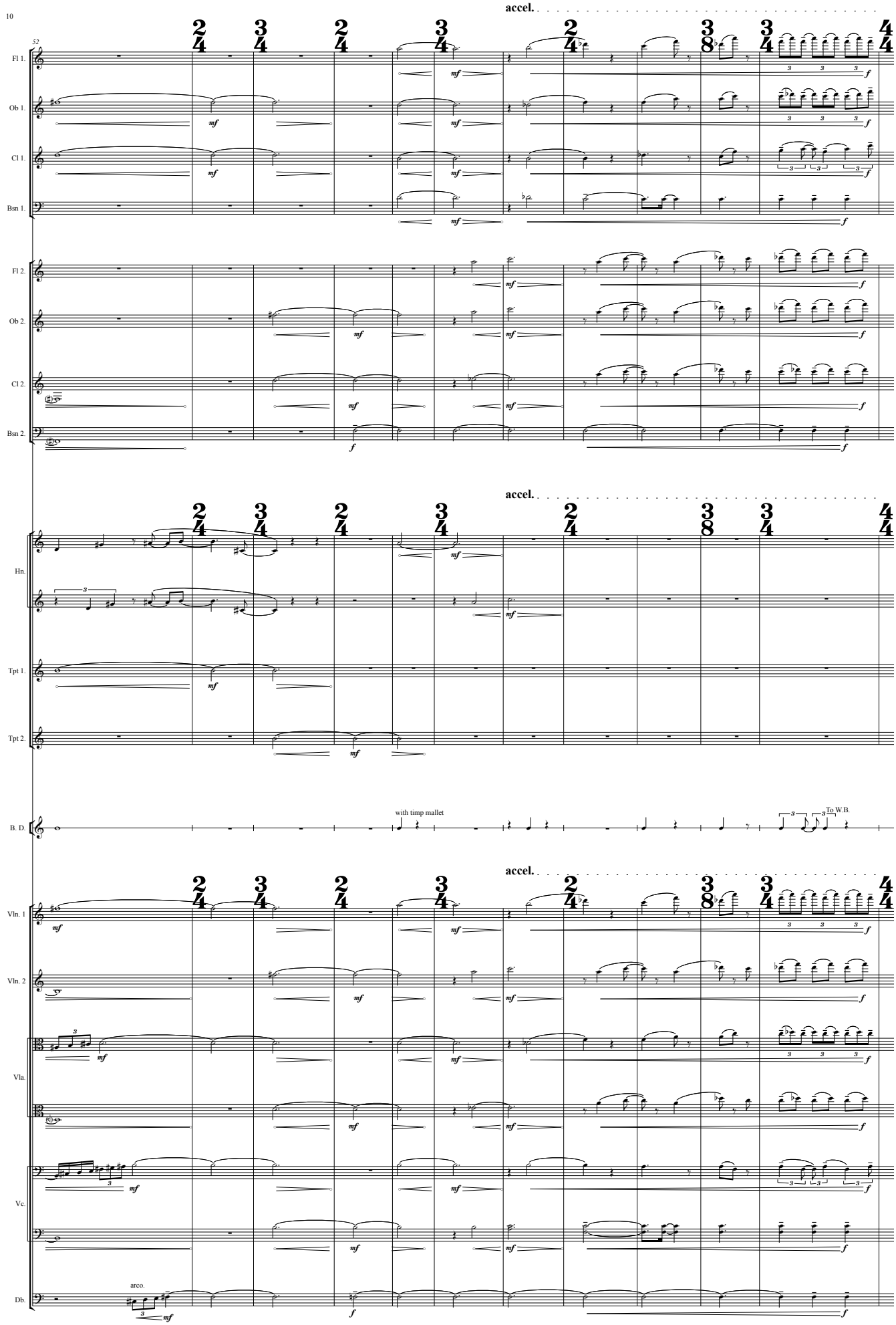

molto rit.
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
flz. harsh
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
flz.
not harsh
gliss.
Hn.
Tpt 1.
Tpt 2.
blow
through
instr.
Vib.
sus. cym.
bowed
Vln. 1
Vln. 2
Vla.
Vc.
arco.
detune
gradually
with fine-tuning
pegs
retune by
same method

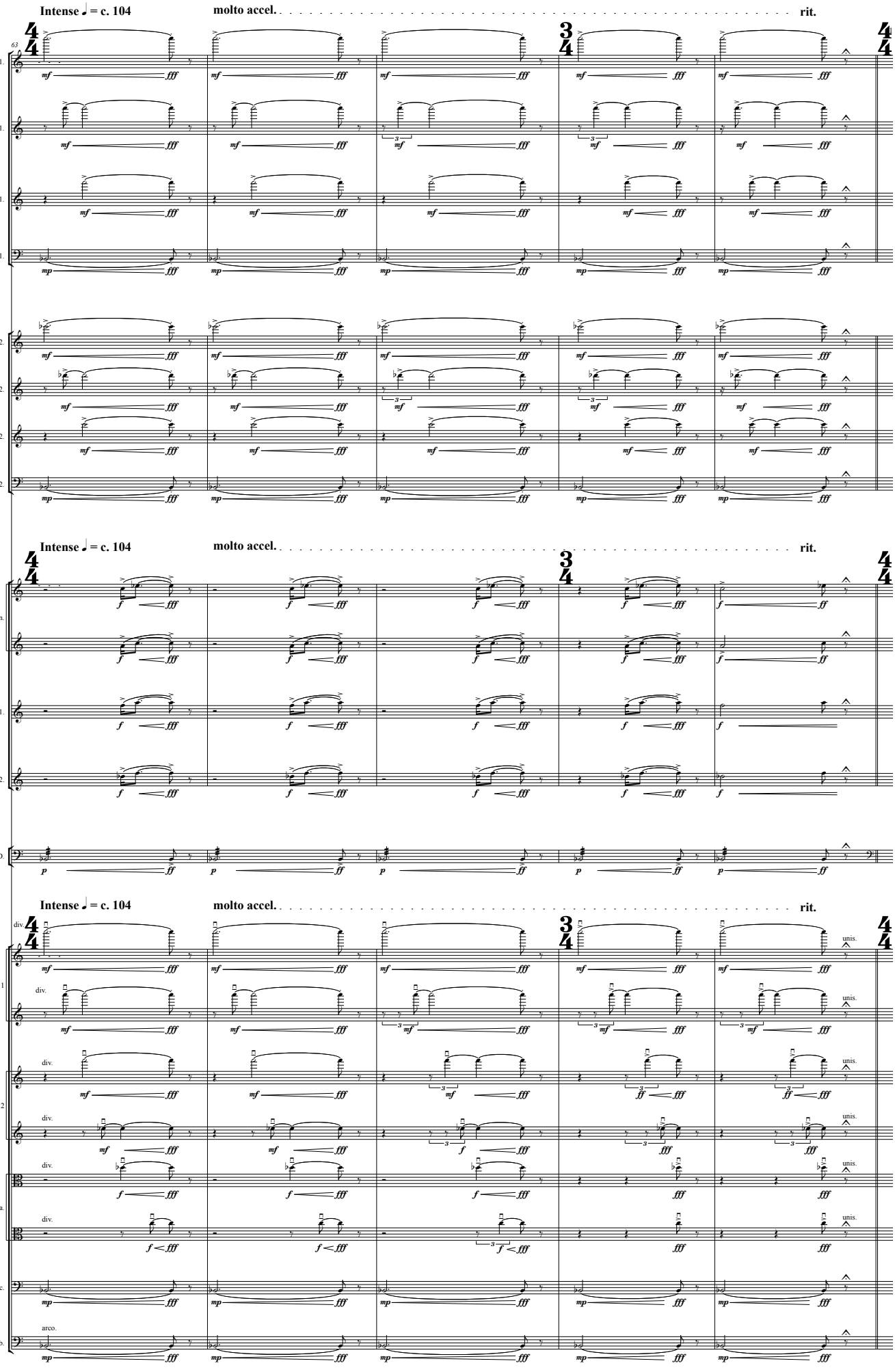

Emerging ♩ = c. 56
jet whistle
tongue ram
blow through instr.
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Emerging ♩ = c. 56
Hn.
Tpt 1.
Tpt 2.
W.B.
To timp.
To W.B.
l.v.
Vib.
Timpani
one strike
pedal gliss
to W.B.
Emerging ♩ = c. 56
Vln. 1
Vln. 2
Vla.
Vc.
Db.
slide left hand across strings, without pulse, continuously
pizz. gradually widen vib.
arco.

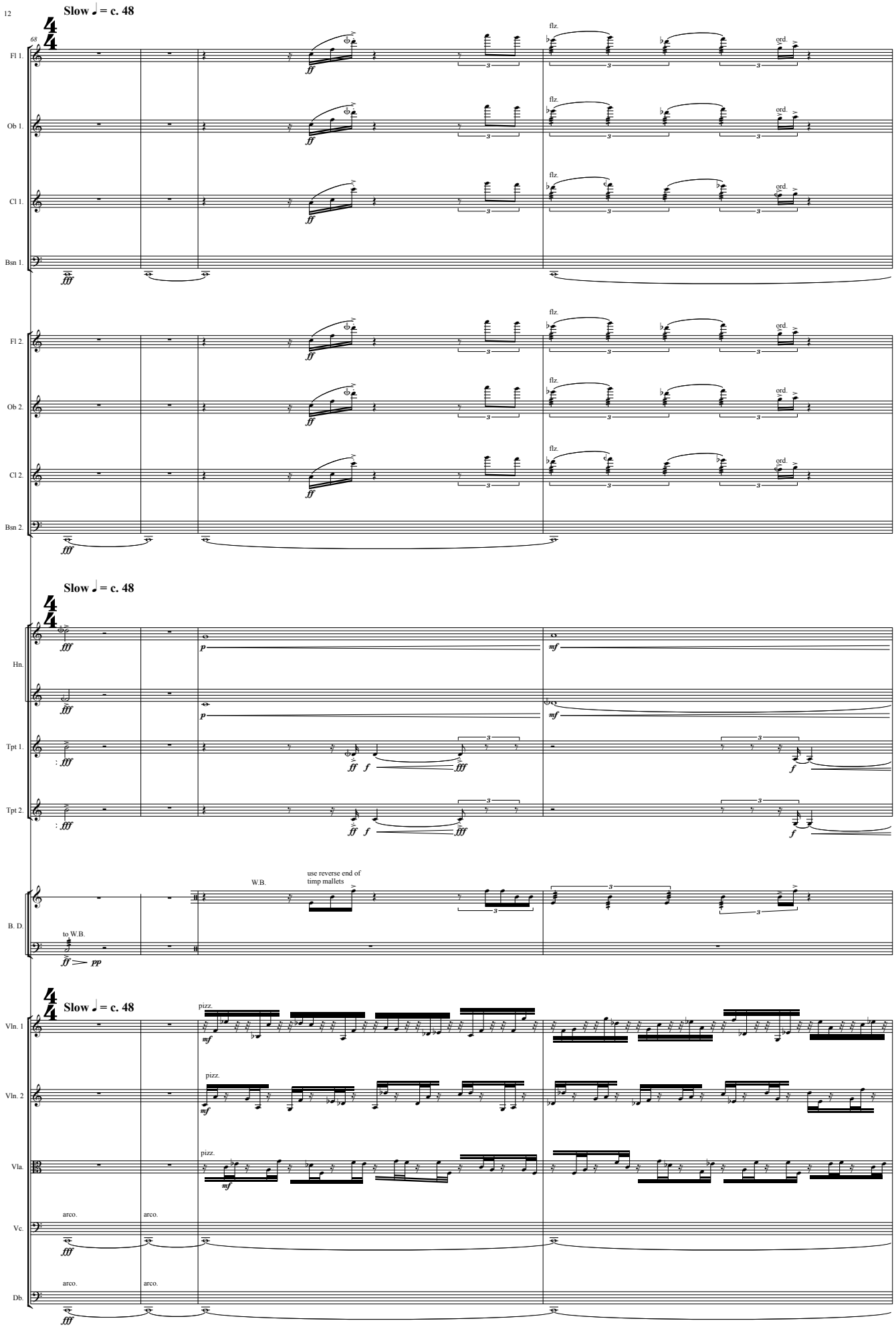

rit.
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Hn.
Tpt 1.
Tpt 2.
W.B.
Wood Blocks
Vln. 1
Vln. 2
Vla.
Vc.
Db.
ord.
arco.

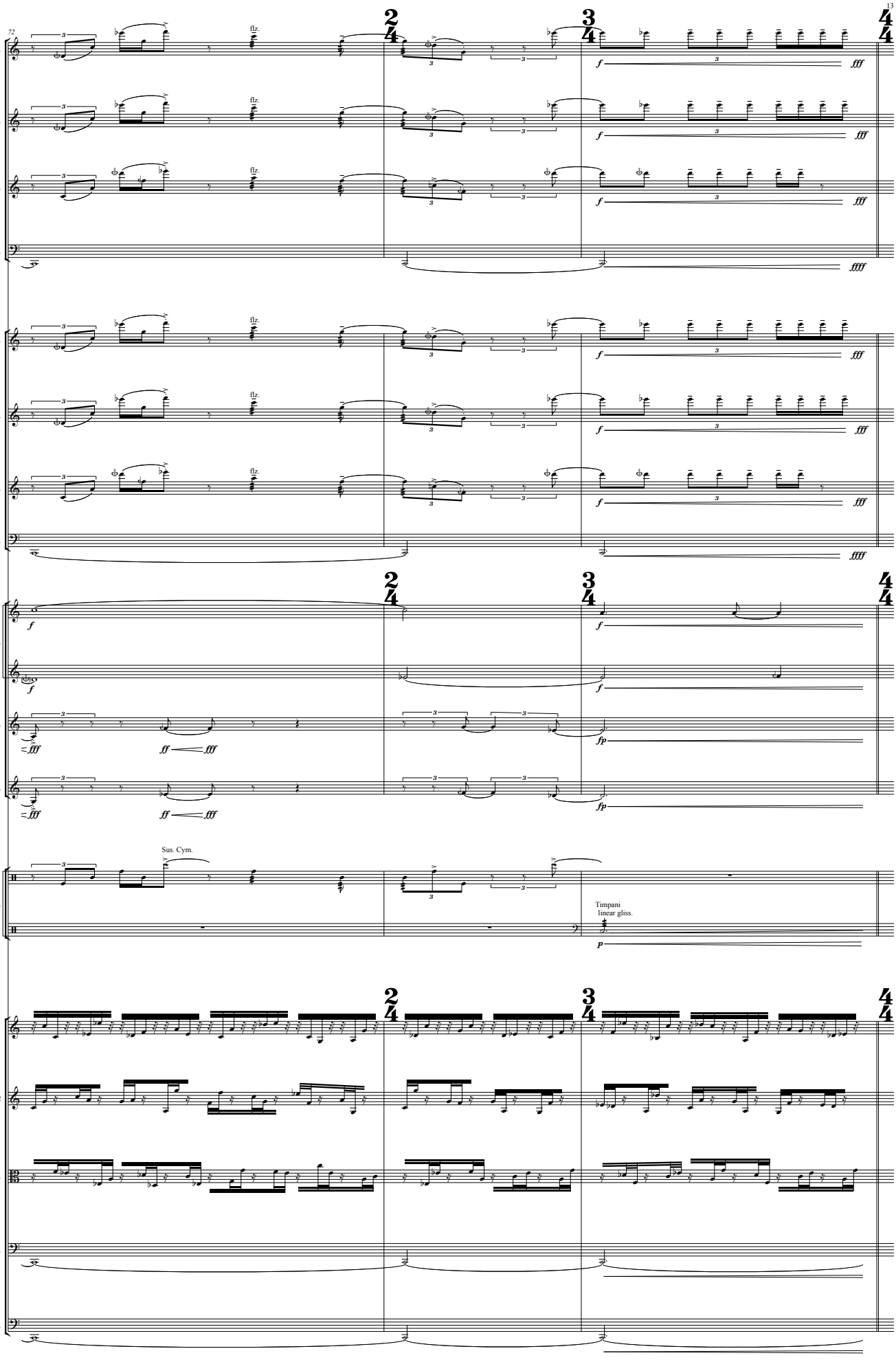

Trapped ♩ = c. 96
35
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
tongue ram
flz.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Trapped ♩ = c. 96
Hn.
W.B.
Bass Drum
Trapped ♩ = c. 96
Vln. 1
Vln. 2
Vla.
Vc.
Db.
pizz.
molto vib.

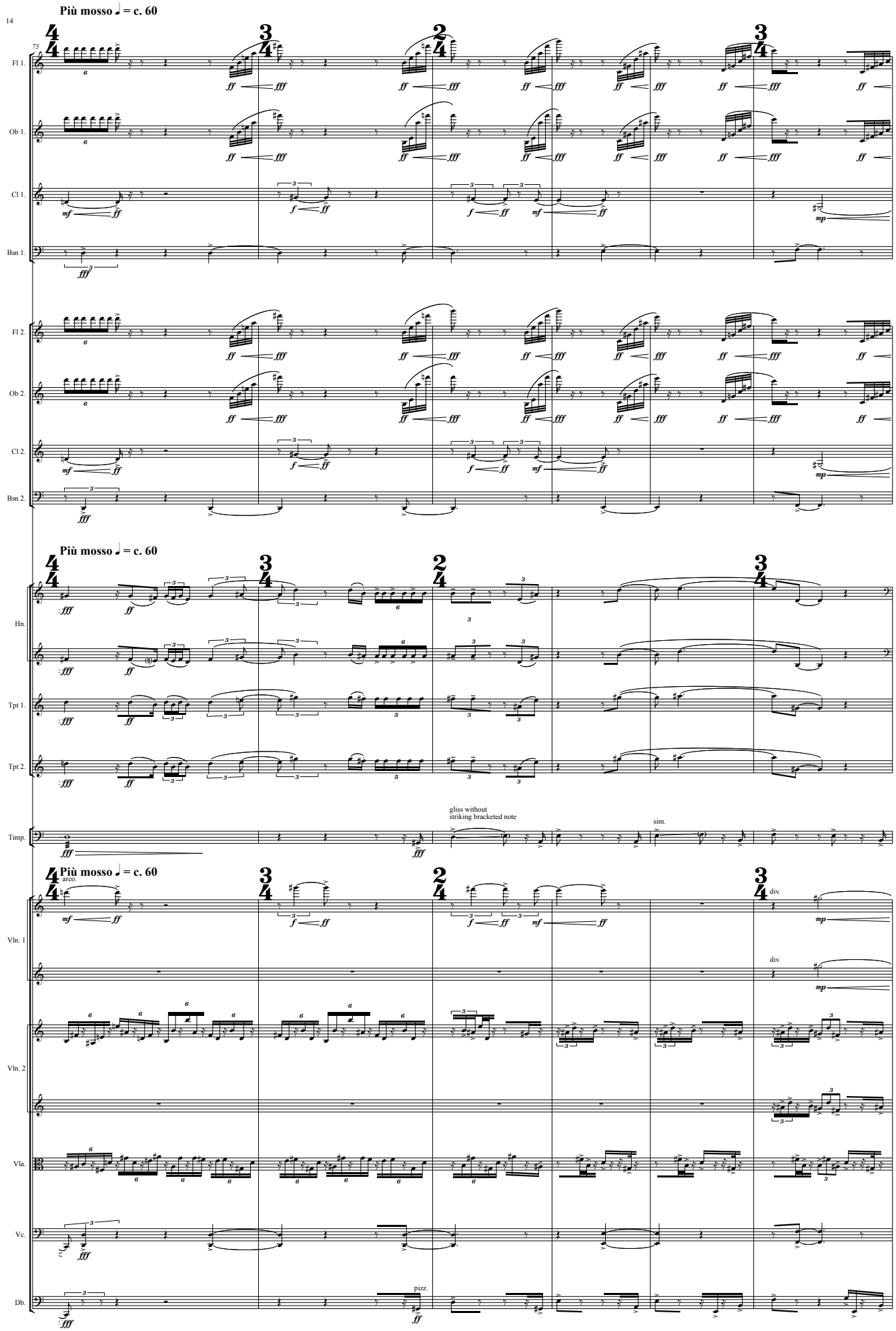

45
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2
Hn.
B. D.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
f
mp

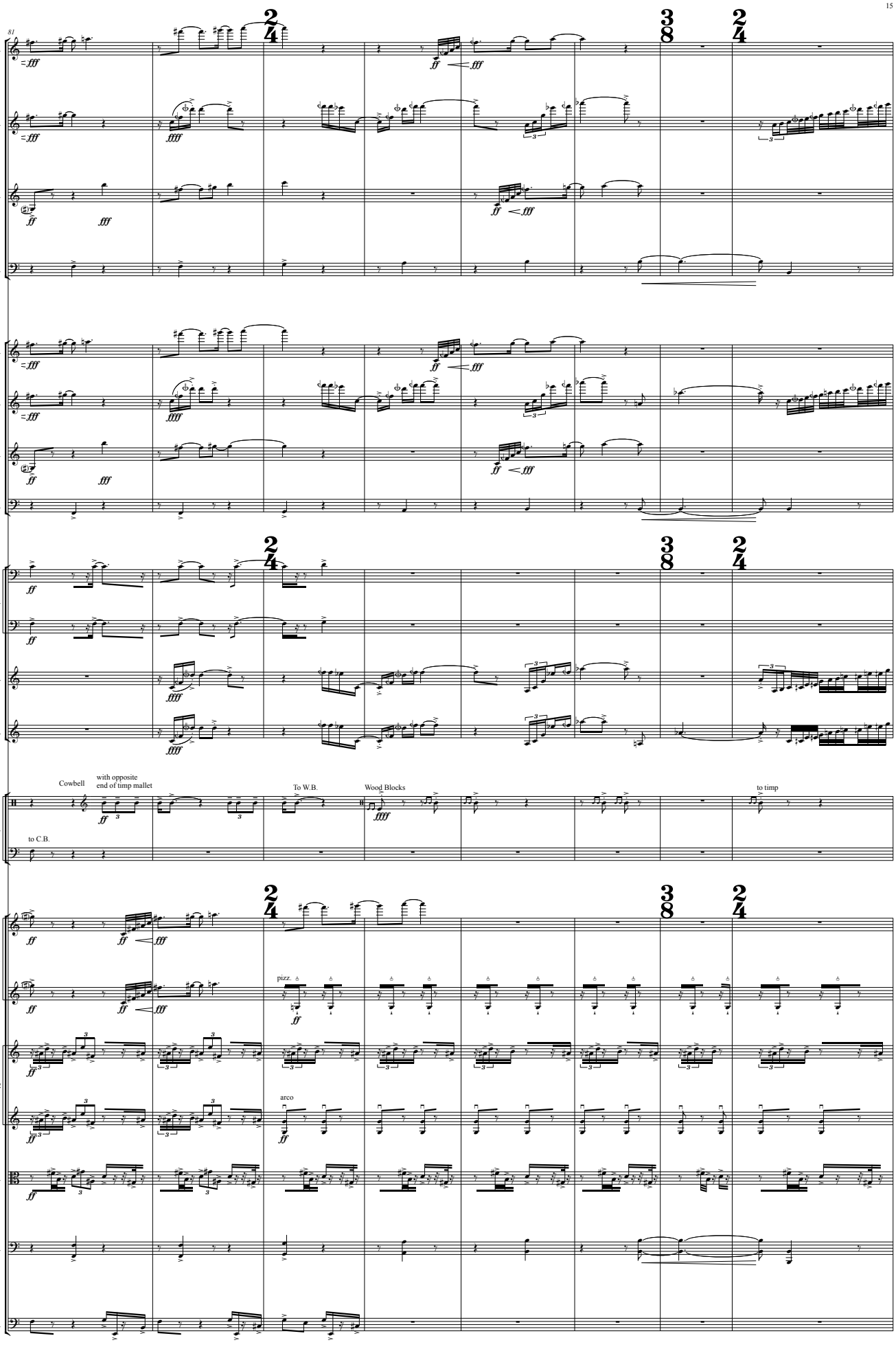

accel.
52
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
accel.
Hn.
Tpt 1.
Tpt 2.
B. D.
with timp mallet
To W.B.
accel.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
arco.

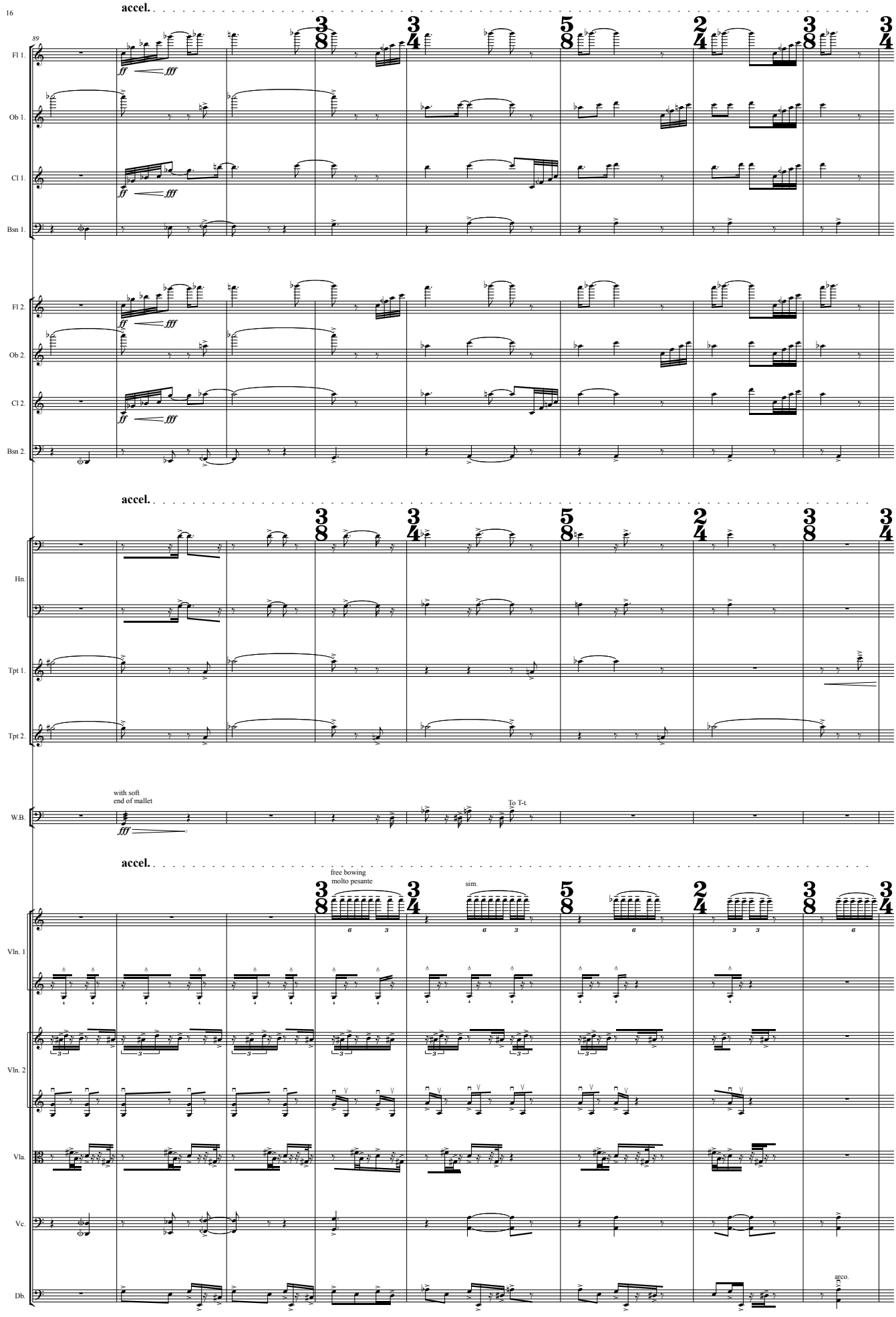

Intense ♩ = c. 104
molto accel.
rit.
63
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Intense ♩ = c. 104
molto accel.
rit.
Hn.
Tpt 1.
Tpt 2.
B. D.
Intense ♩ = c. 104
molto accel.
rit.
div.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
arco.
unis.


Slow ♩ = c. 48
68
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
flz.
ord.
Slow ♩ = c. 48
Hn.
Tpt 1.
Tpt 2.
B. D.
W.B.
use reverse end of timp mallets
to W.B.
Slow ♩ = c. 48
Vln. 1
Vln. 2
Vla.
Vc.
Db.
pizz.
arco.


72
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Hn.
Tpt 1.
Tpt 2.
W.B.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
flz.
Sus. Cym.
Timpani
linear gliss.


Più mosso ♩ = c. 60
75
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Più mosso ♩ = c. 60
Hn.
Tpt 1.
Tpt 2.
Timp.
gliss without
striking bracketed note
sim.
Più mosso ♩ = c. 60
arco.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
div.
pizz.

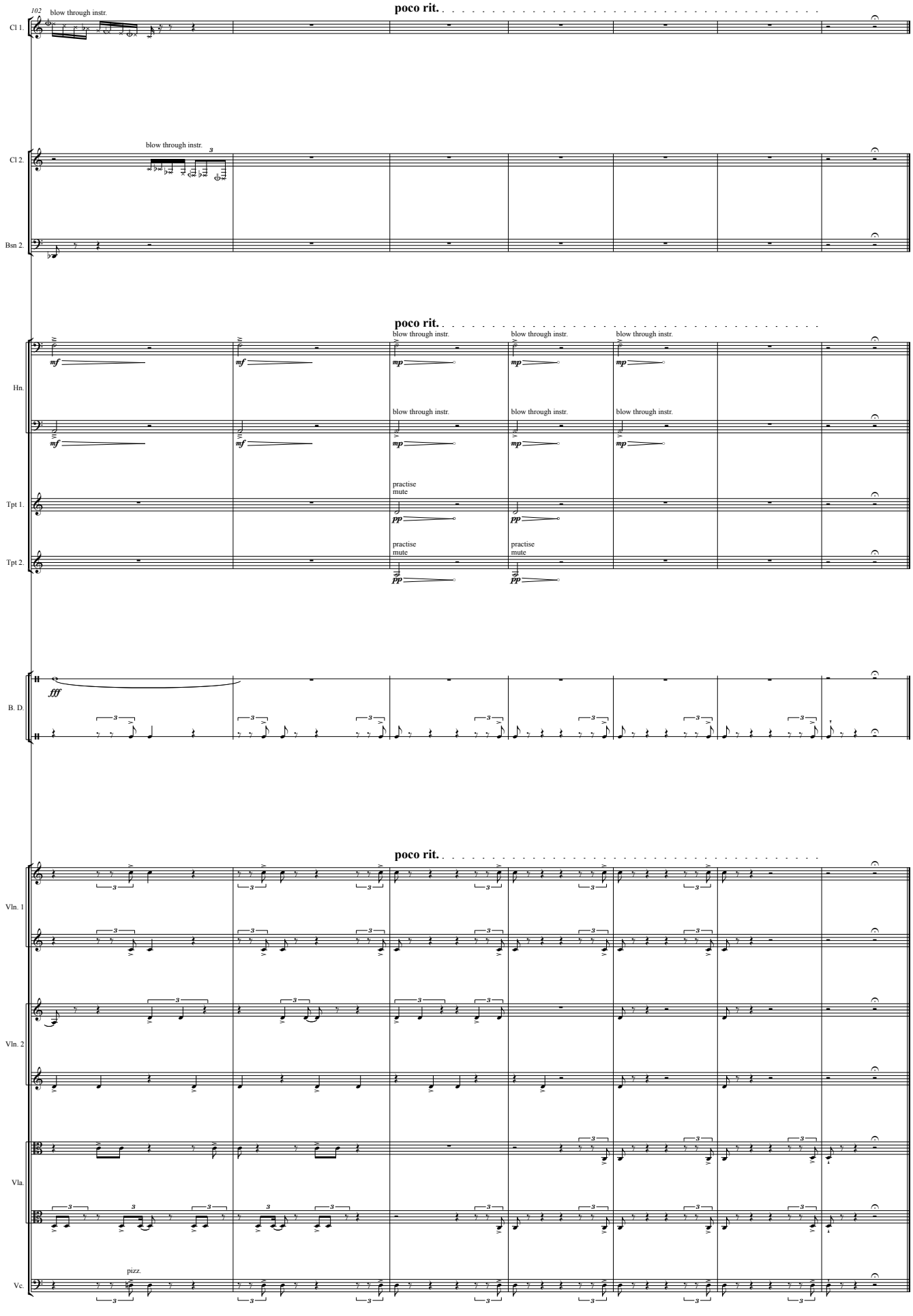

81
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Hn.
Tpt 1.
Tpt 2.
Timp.
Cowbell
with opposite end of timp mallet
to C.B.
To W.B.
Wood Blocks
to timp
Vln. 1
Vln. 2
Vla.
Vc.
Db.
pizz.
arco


accel.
89
Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
accel.
Hn.
Tpt 1.
Tpt 2.
with soft
end of mallet
To T-t.
W.B.
accel.
free bowing
molto pesante
sim.
Vln. 1
Vln. 2
Vla.
Vc.
Db.
arco.

97

Mechanical ♩ = c. 81

Fl 1.
Ob 1.
Cl 1.
Bsn 1.
Fl 2.
Ob 2.
Cl 2.
Bsn 2.
Hn.
Tpt 1.
Tpt 2.
W.B.
Tam-tam
Bass Drum
Vln. 1
Vln. 2
Vla.
Vc.
Db.
pizz.
free bowing
molto pesante


102
blow through instr.
poco rit.
Cl 1.
blow through instr.
Cl 2.
Bsn 2.
poco rit.
blow through instr.
blow through instr.
blow through instr.
Hn.
blow through instr.
blow through instr.
blow through instr.
practise mute
Tpt 1.
practise mute
practise mute
Tpt 2.
B. D.
poco rit.
Vln. 1
Vln. 2
Vla.
pizz.
Vc.