In search of Cohen's Kappa

k=P0-Pc/1-Pc 10/22/10 2:14 PM 12'59"

Michèl Koenders

A composition for the Electra Ensemble, Piano and Computer (DSP)

$$\kappa = \frac{p_0 - p_c}{1 - p_c}$$

Voice: mezzo-soprano.

Violin: using acoustic violin.

Recorder: using Paetzold and tenor recorder.

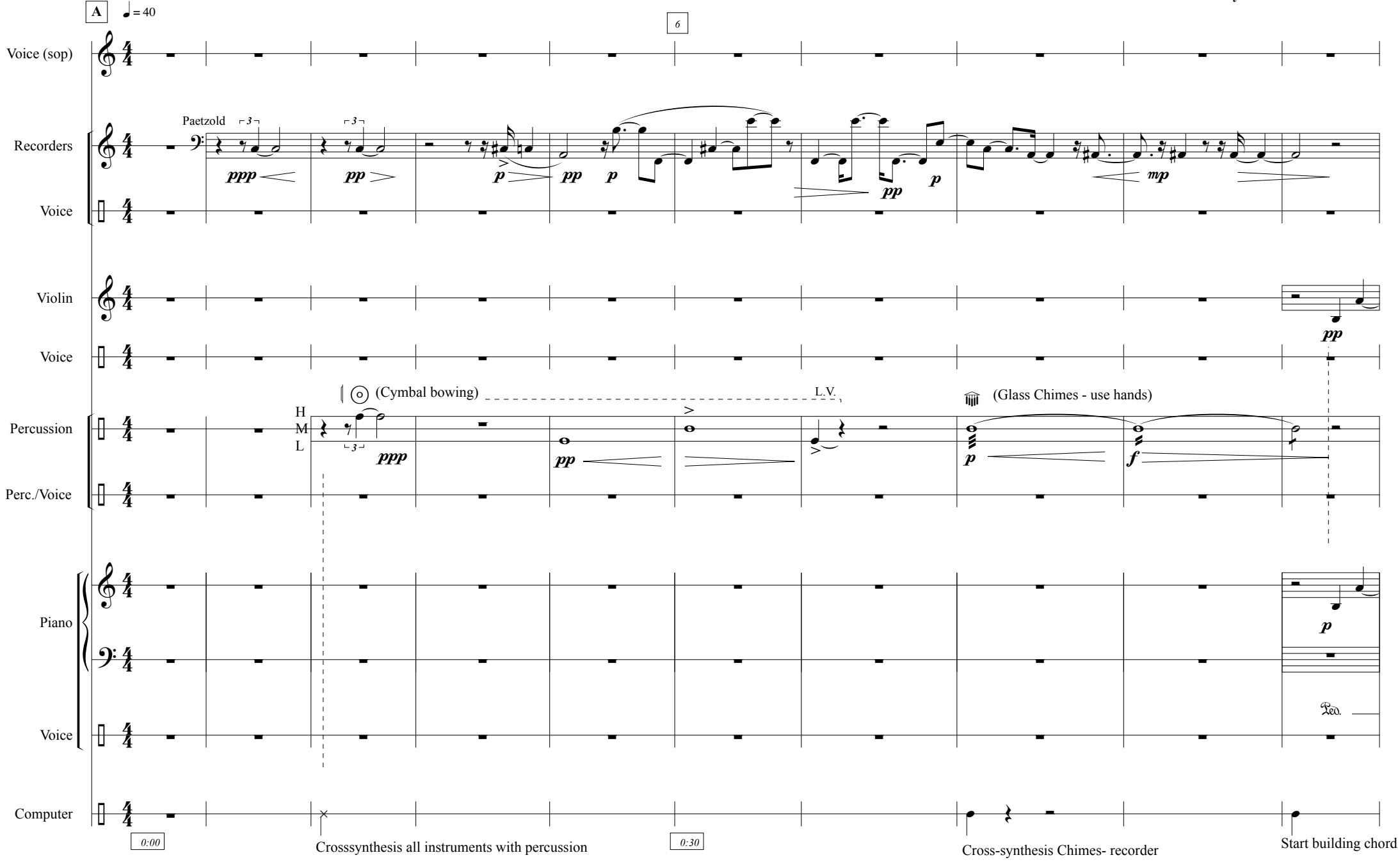
Percussion: Marimba, Glockenspiel, Handheld Crotales, Snaredrum, (glass)chimes (non pentatonic), windgong, 3 templeblocks, Guiro and 3 Cymbals.

Piano: (Also) Playing inside the piano (written in register notation), using wirebrushes.

In search of Cohen's Kappa

Score

Music & lyrics: Michèl Koenders



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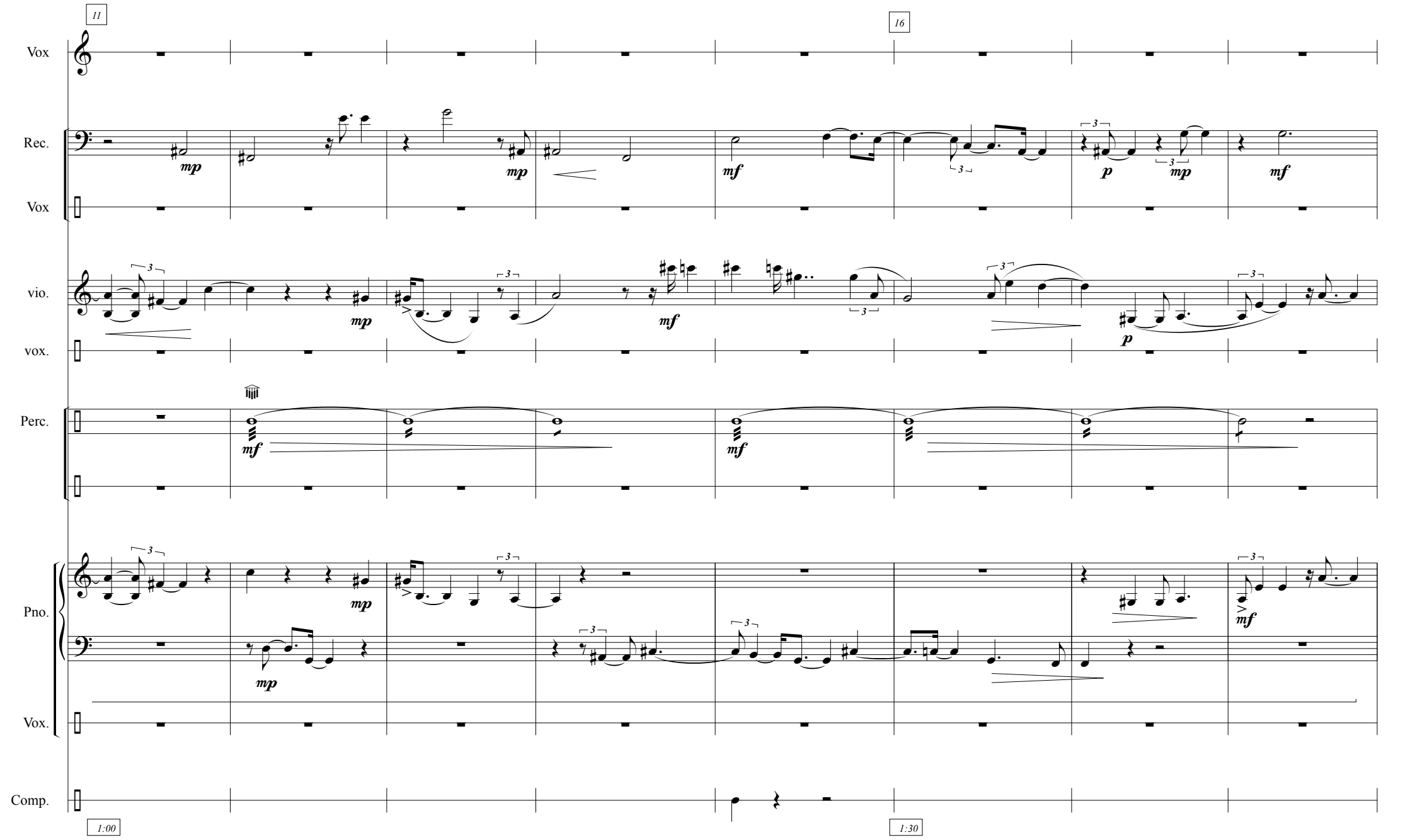
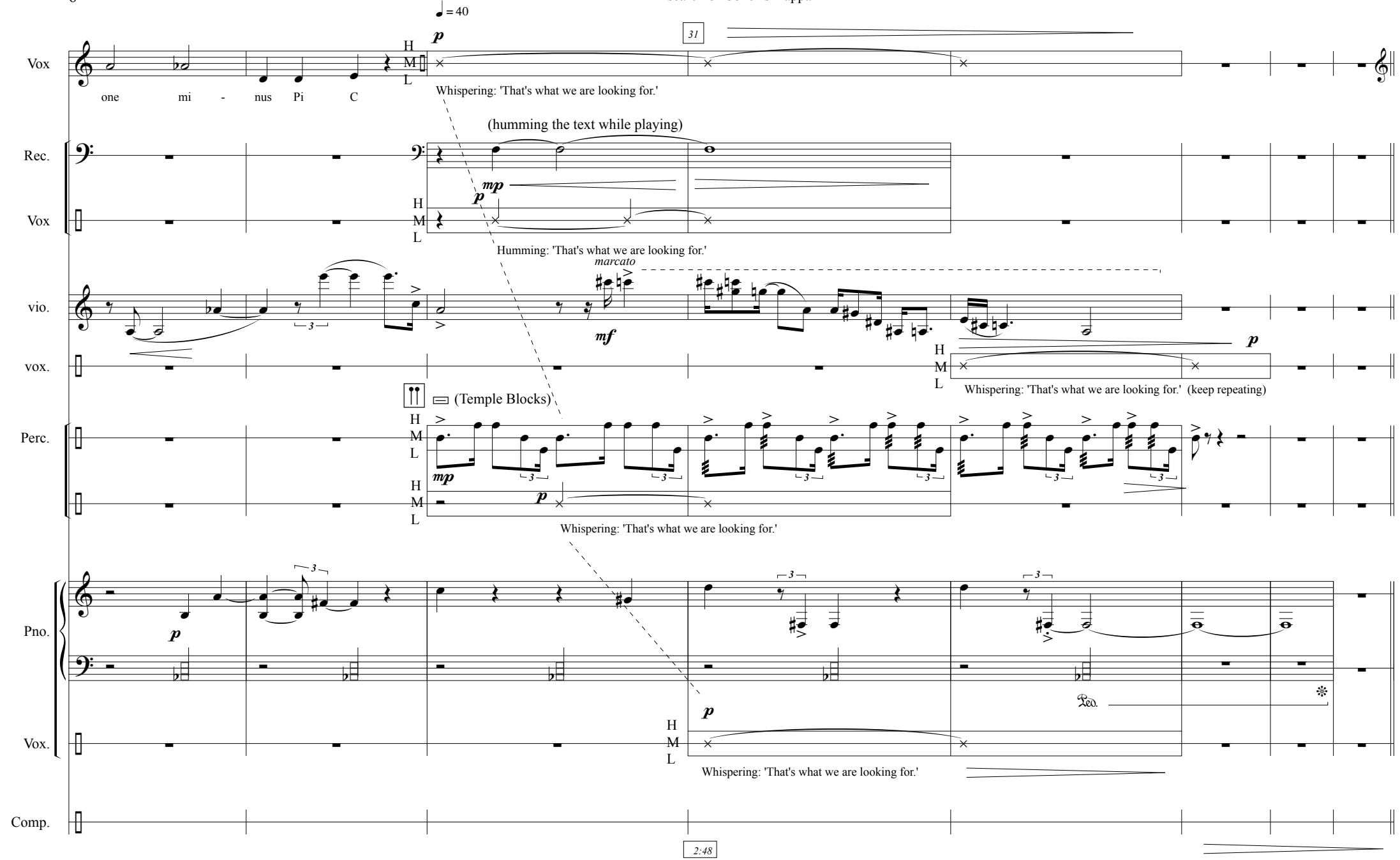
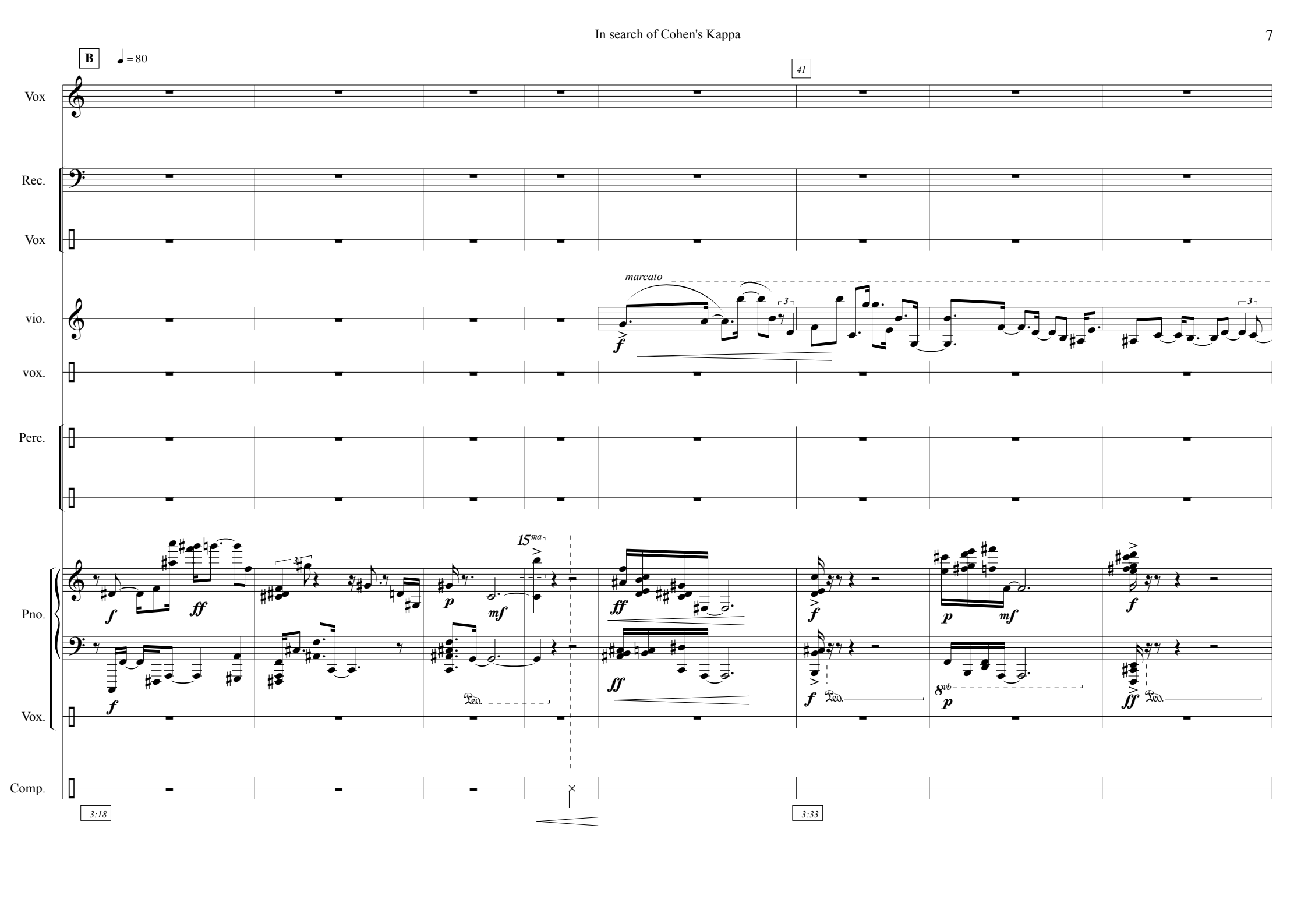
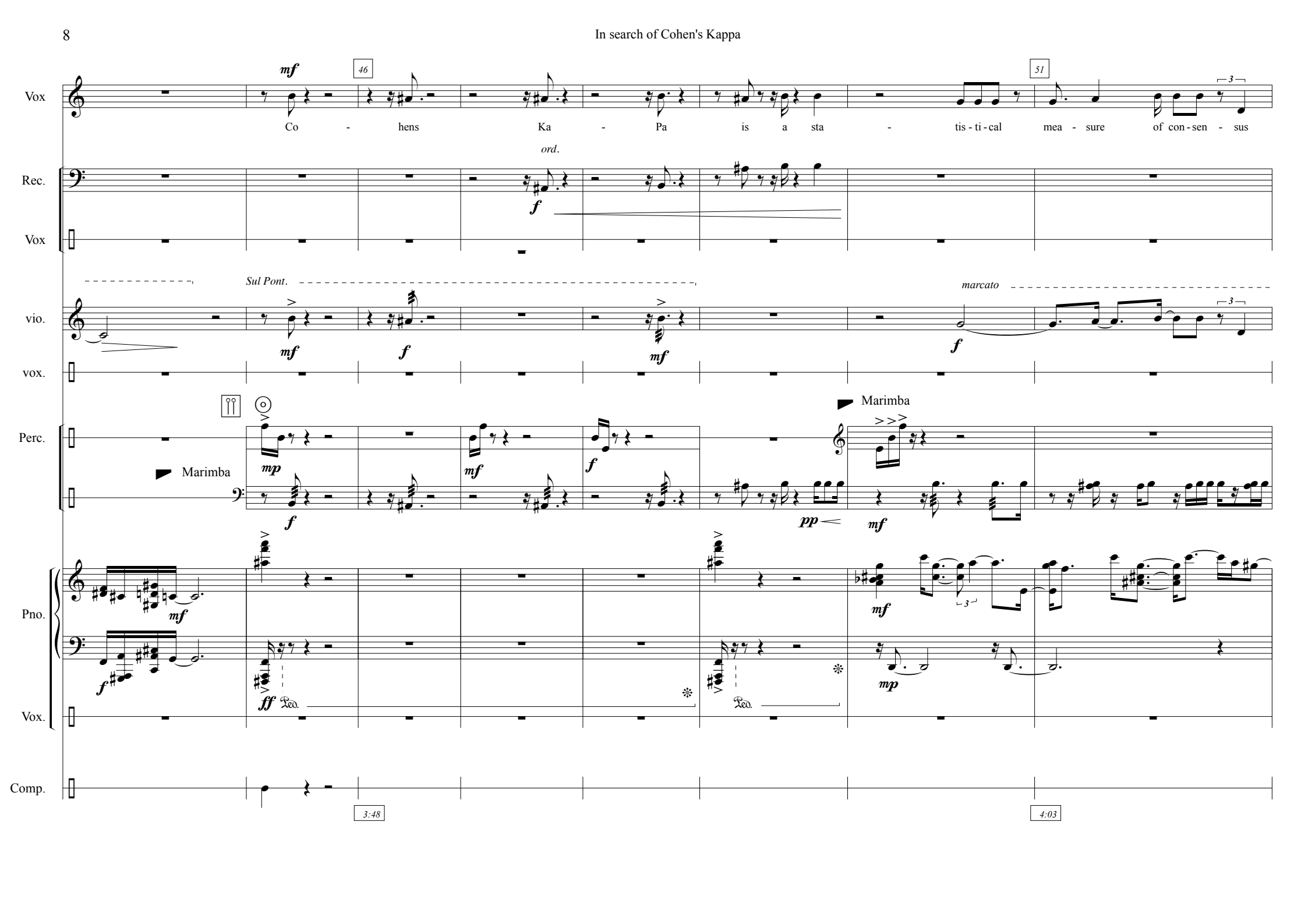
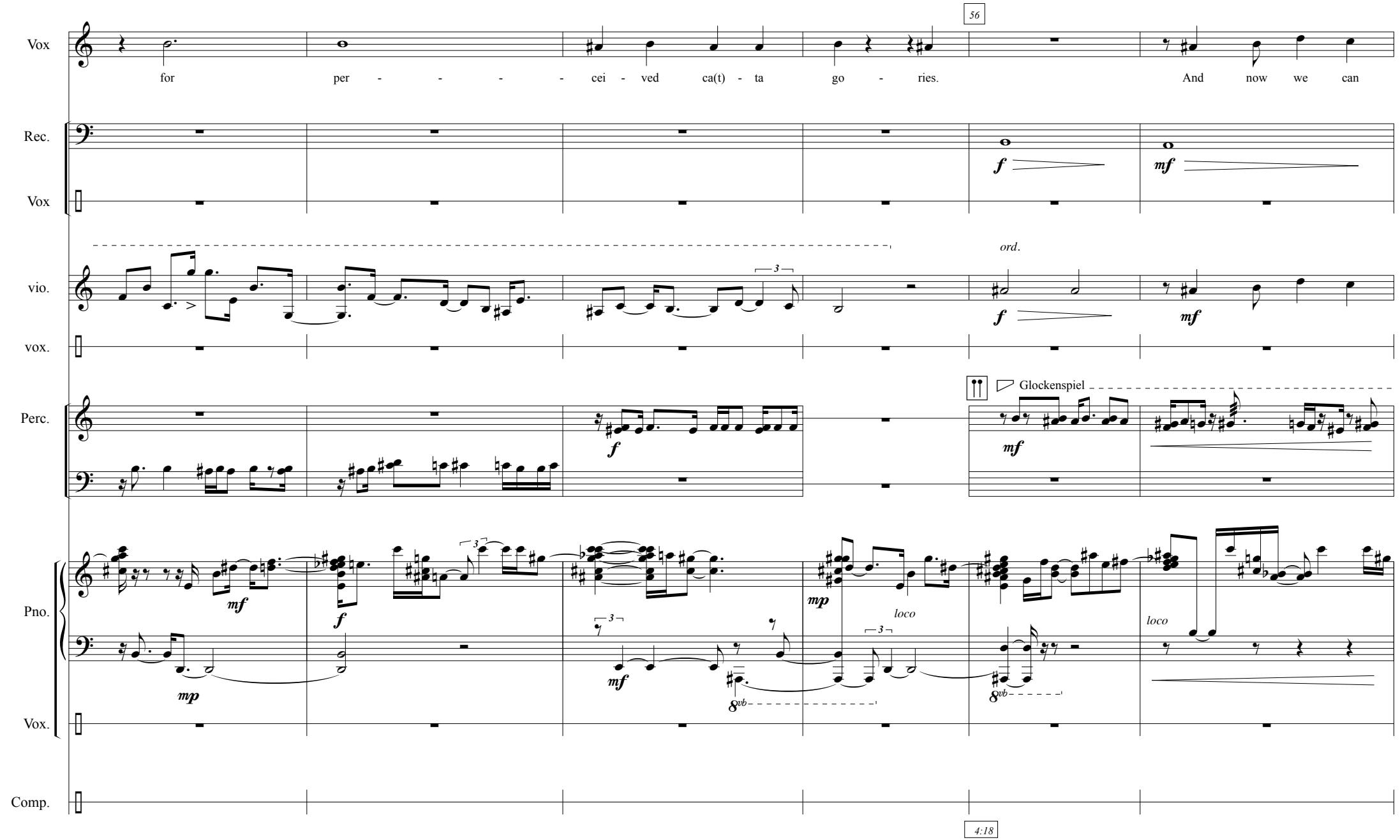

11
16
Vox
Rec.
Vox
vio.
vox.
Perc.
Pno.
Vox.
Comp.
mp
mf
p
1:00
1:30

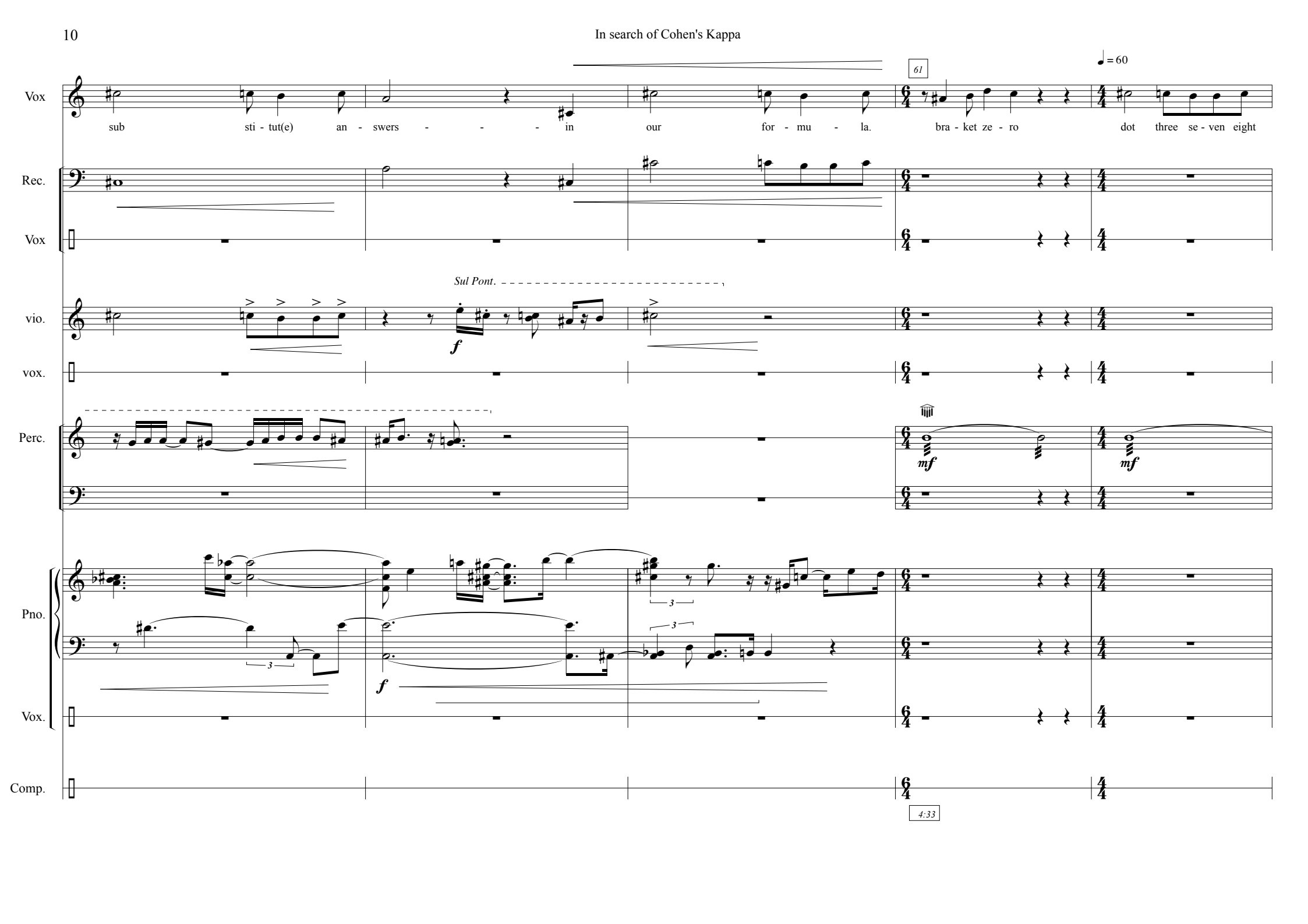
♩ = 60
21
26
Vox
mp
Kap - pa is Pi ze - ro mi nus Pi c Di - vi - ded - by -
Rec.
Vox
mf
vio.
vox.
mf
mp
mp
(Glockenspiel)
(Cymbals)
H
M
L
Perc.
mf
mf
mf
Pno.
Vox.
mf
p
p
Comp.
2:00
2:26
stop chord
spectral smearing
Cross-synthesis Chimes- recorder
Voice CRS with instr.

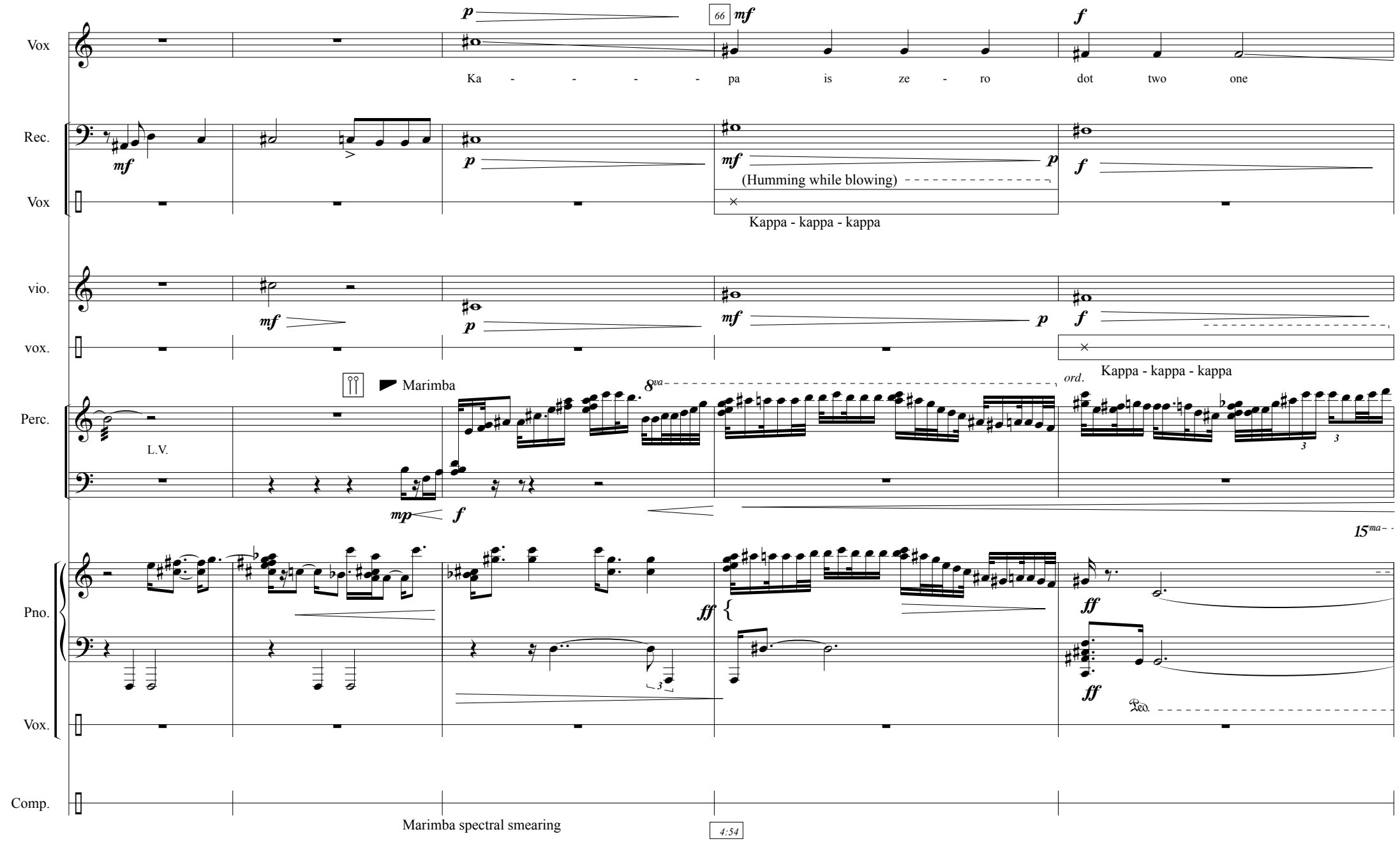

♩ = 40
31
Vox
one mi - nus Pi C
H M L
p
Whispering: 'That's what we are looking for.'
(humming the text while playing)
Rec.
Vox
mp
p
Humming: 'That's what we are looking for.'
vio.
marcato
mf
vox.
p
Whispering: 'That's what we are looking for.' (keep repeating)
(Temple Blocks)
Perc.
mp
Whispering: 'That's what we are looking for.'
Pno.
Ped.
Vox.
Whispering: 'That's what we are looking for.'
Comp.
2:48


B
♩ = 80
41
Vox
Rec.
Vox
vio.
vox.
Perc.
Pno.
Vox.
Comp.
marcato
15ma
8vb
Ped.
3:18
3:33

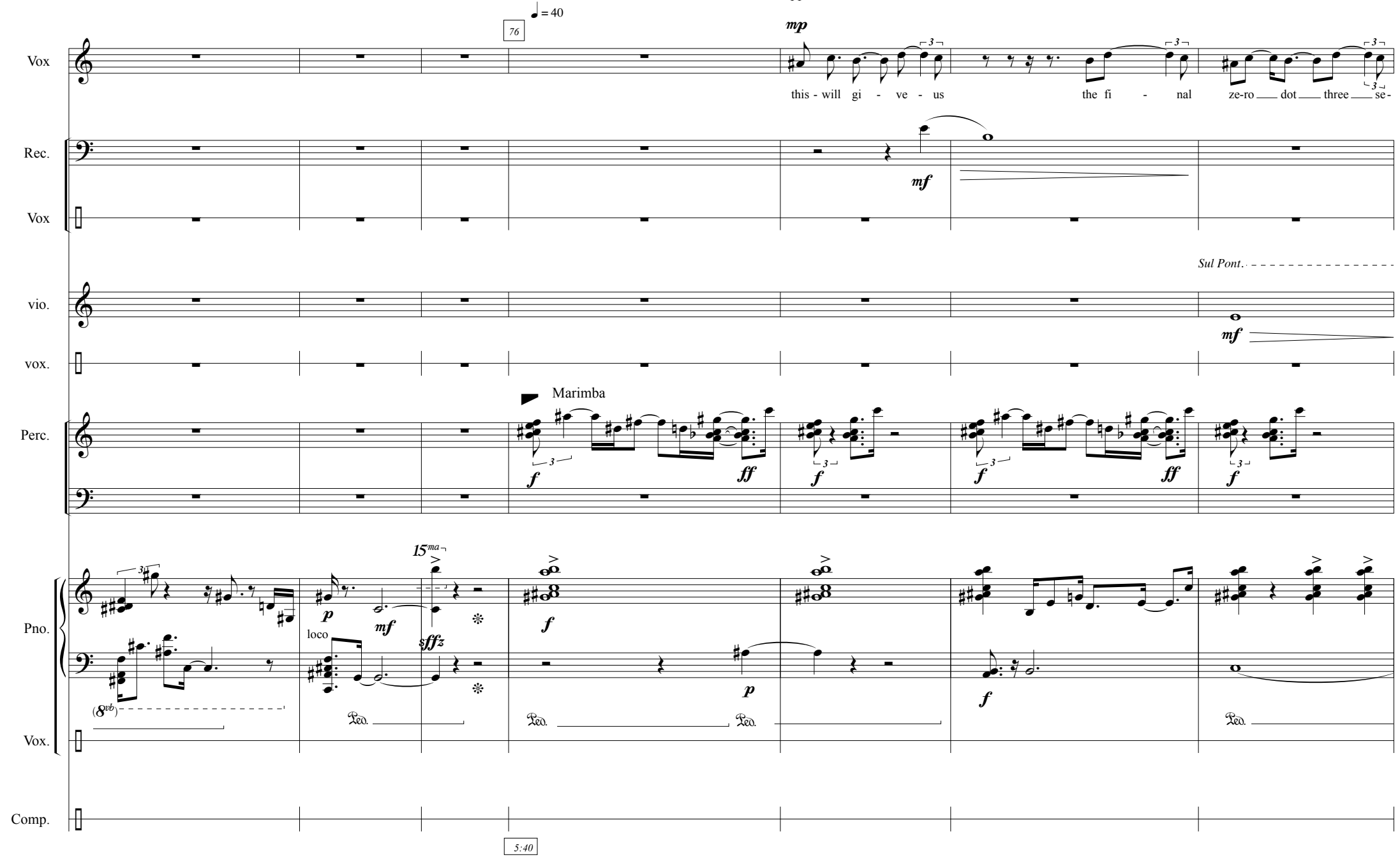

Vox
Co - hens Ka - Pa is a sta - tis - ti - cal mea - sure of con - sen - sus
Rec.
Vox
ord.
vio.
vox.
Sul Pont.
marcato
Perc.
Marimba
Marimba
Pno.
Vox.
Comp.
3:48
4:03


56
Vox
for per - - - - cei - ved ca(t) - ta go - ries. And now we can
Rec.
Vox
f
mf
vio.
vox.
ord.
f
mf
Perc.
Glockenspiel
f
mf
Pno.
Vox.
mf
f
mp
mf
mp
loco
loco
8vb
8vb
Comp.
4:18

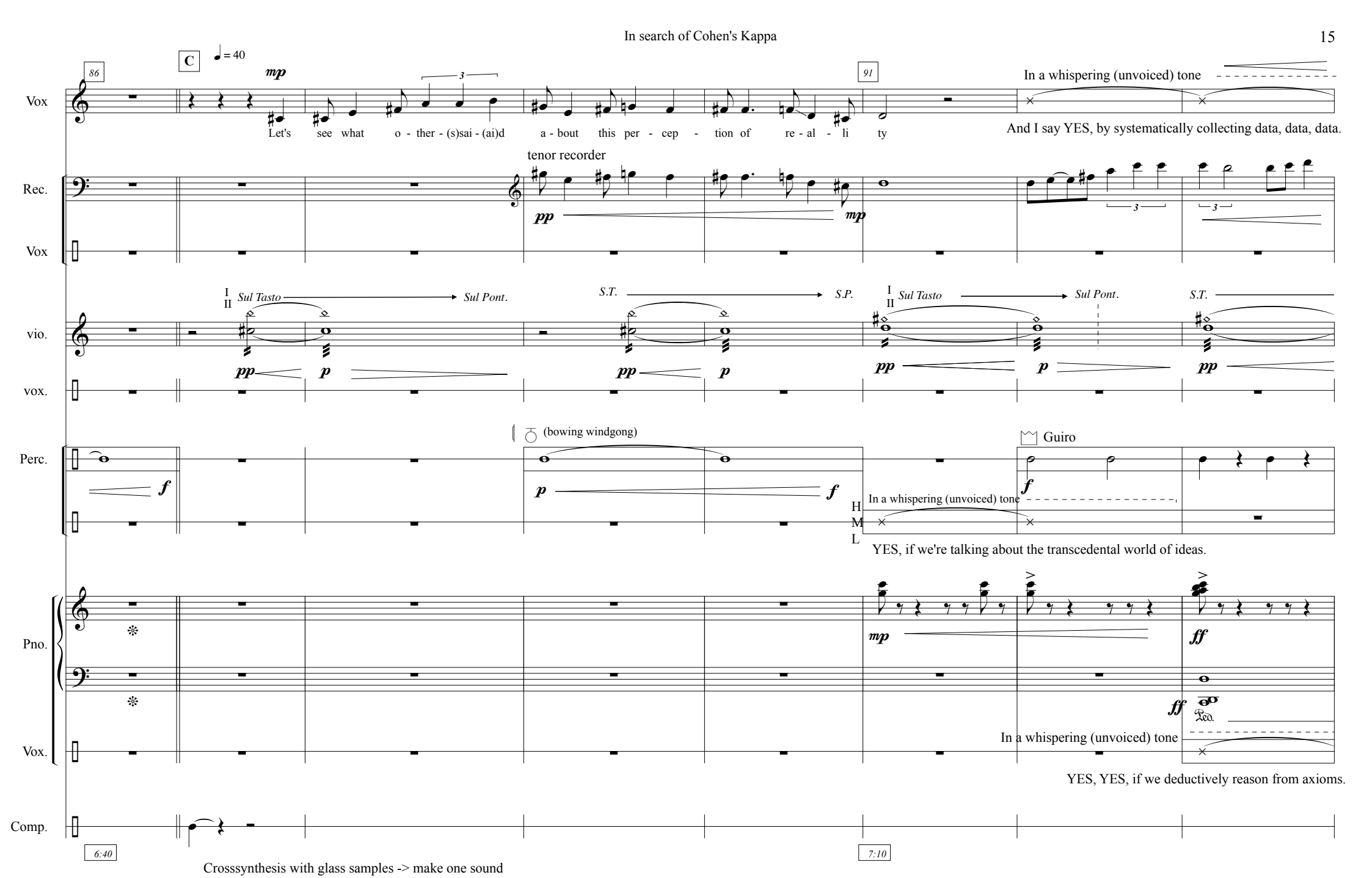

61
♩ = 60
Vox
sub sti - tut(e) an - swers - - - in our for - mu - la. bra - ket ze - ro dot three se - ven eight
Rec.
Vox
Sul Pont.
vio.
f
vox.
Perc.
mf
mf
Pno.
3
3
3
f
Vox.
Comp.
4:33


Vox
p
66
mf
f
Ka - - - - pa is ze - ro dot two one
Rec.
mf
p
mf
p
f
(Humming while blowing)
Vox
Kappa - kappa - kappa
vio.
mf
p
mf
p
f
vox.
Kappa - kappa - kappa
Marimba
8va
ord.
Perc.
L.V.
mp
f
15ma
Pno.
ff
ff
ff
Vox.
Ped.
Comp.
Marimba spectral smearing
4:54

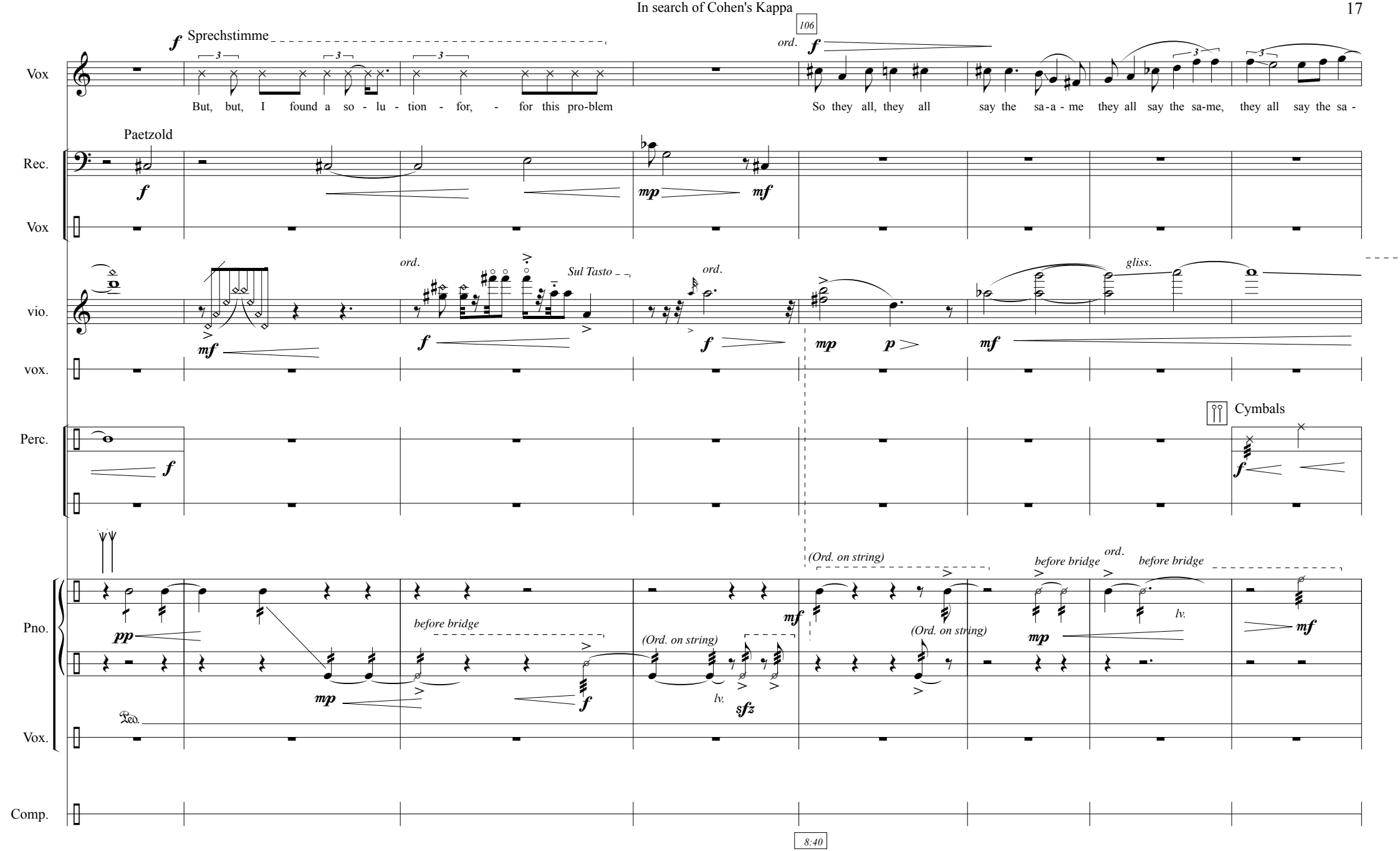
71
mf
Vox
one.
Ka(p) - pa Ka(p) - pa Ka(p) pa
Rec.
f
(Humming while blowing)
Vox
Kappa - kappa - kappa- kappa
vio.
vox.
Perc.
ff
(15ma)
Pno.
Vox.
8vb
Comp.
5:18

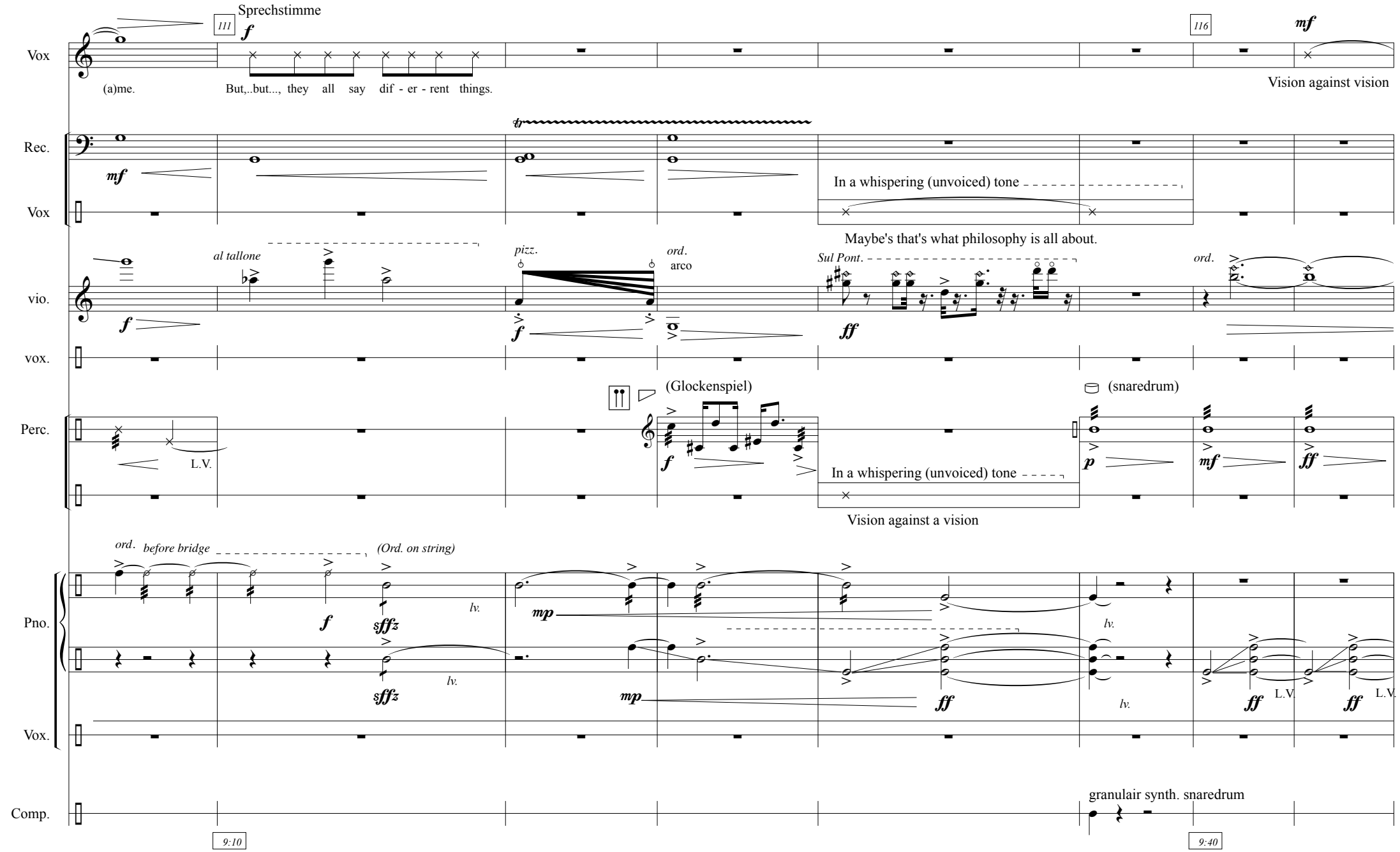

♩ = 40
76
Vox
mp
this - will gi - ve - us
the fi - nal
ze-ro dot three se-
Rec.
mf
Vox
Sul Pont.
vio.
mf
vox.
Marimba
Perc.
f
ff
f
f
ff
f
Pno.
15ma
p
mf
sffz
loco
f
p
f
(8vb)
Ped.
Ped.
Ped.
Ped.
Vox.
Comp.
5:40

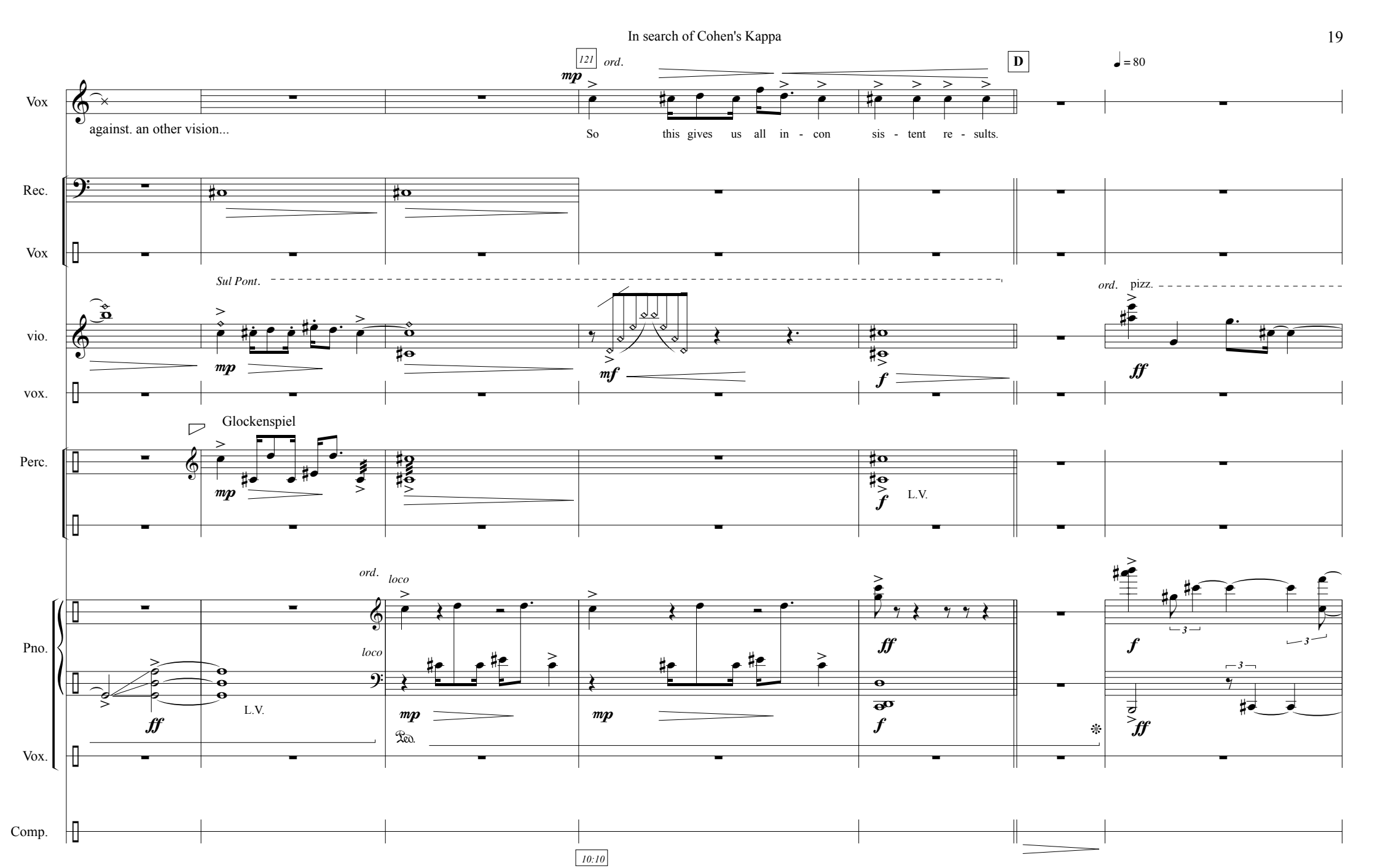
Vox
81
f
ven eight. mi-nus ze - ro dot two one one.
Rec.
Vox
f
mp
f
vio.
vox.
p
marcato
f
(Ord. on string)
p
Sul Pont.
mp
Perc.
f
f
f
H
M
L
(bowing windgong)
p
Pno.
Vox.
8va
ff
sffz
ff
mp
Ped. Ped.
f
sfz
Comp.
6:10

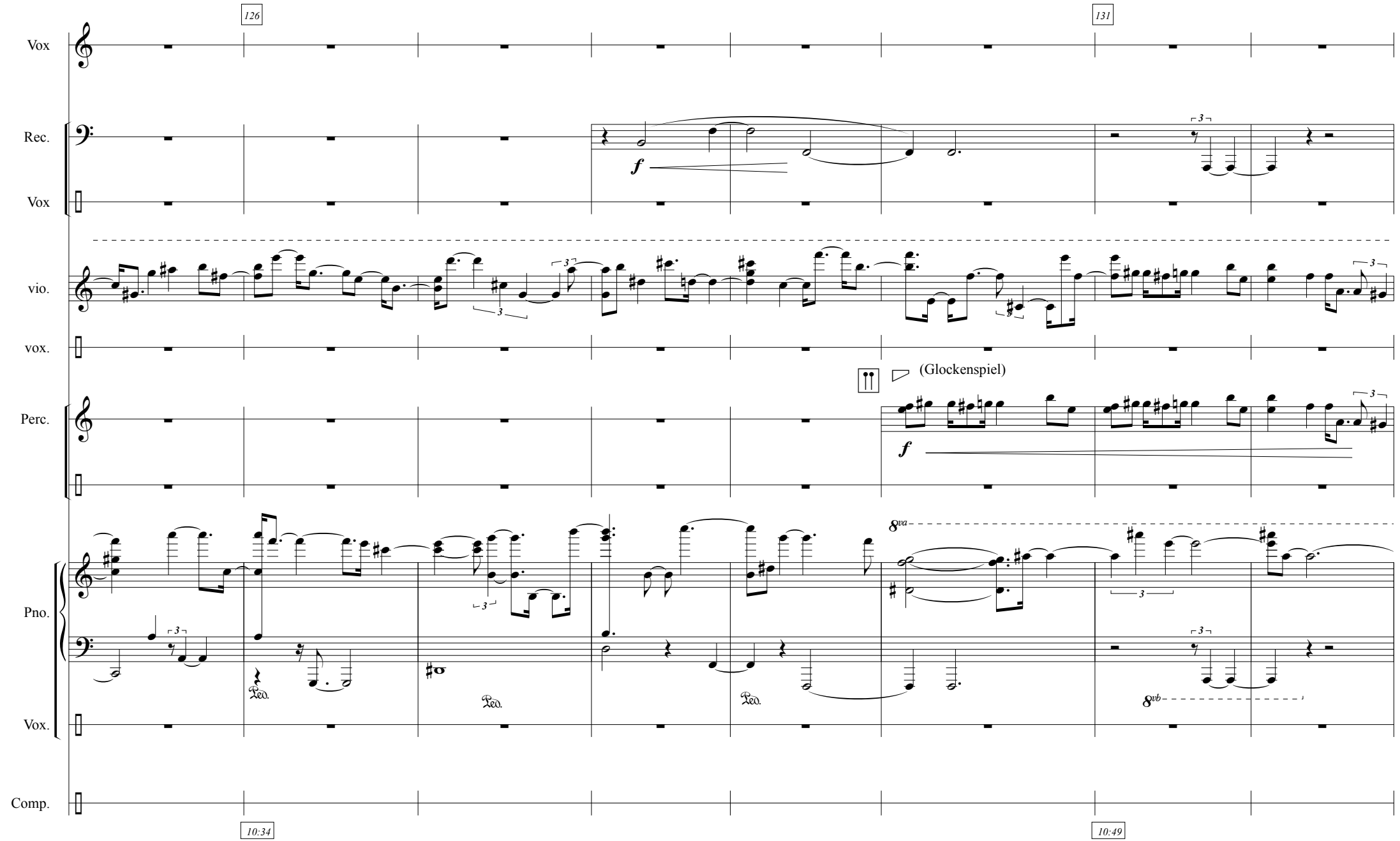

C
♩ = 40
86
91
Vox
mp
Let's see what o - ther - (s)sai - (ai)d a - bout this per - cep - tion of re - al - li ty
In a whispering (unvoiced) tone
And I say YES, by systematically collecting data, data, data.
Rec.
tenor recorder
pp
mp
Vox
vio.
I II Sul Tasto
Sul Pont.
S.T.
S.P.
pp
p
vox.
Perc.
f
(bowing windgong)
Guiro
In a whispering (unvoiced) tone
H M L
YES, if we're talking about the transcedental world of ideas.
Pno.
mp
ff
Vox.
In a whispering (unvoiced) tone
YES, YES, if we deductively reason from axioms.
Comp.
6:40
7:10
Crosssynthesis with glass samples -> make one sound

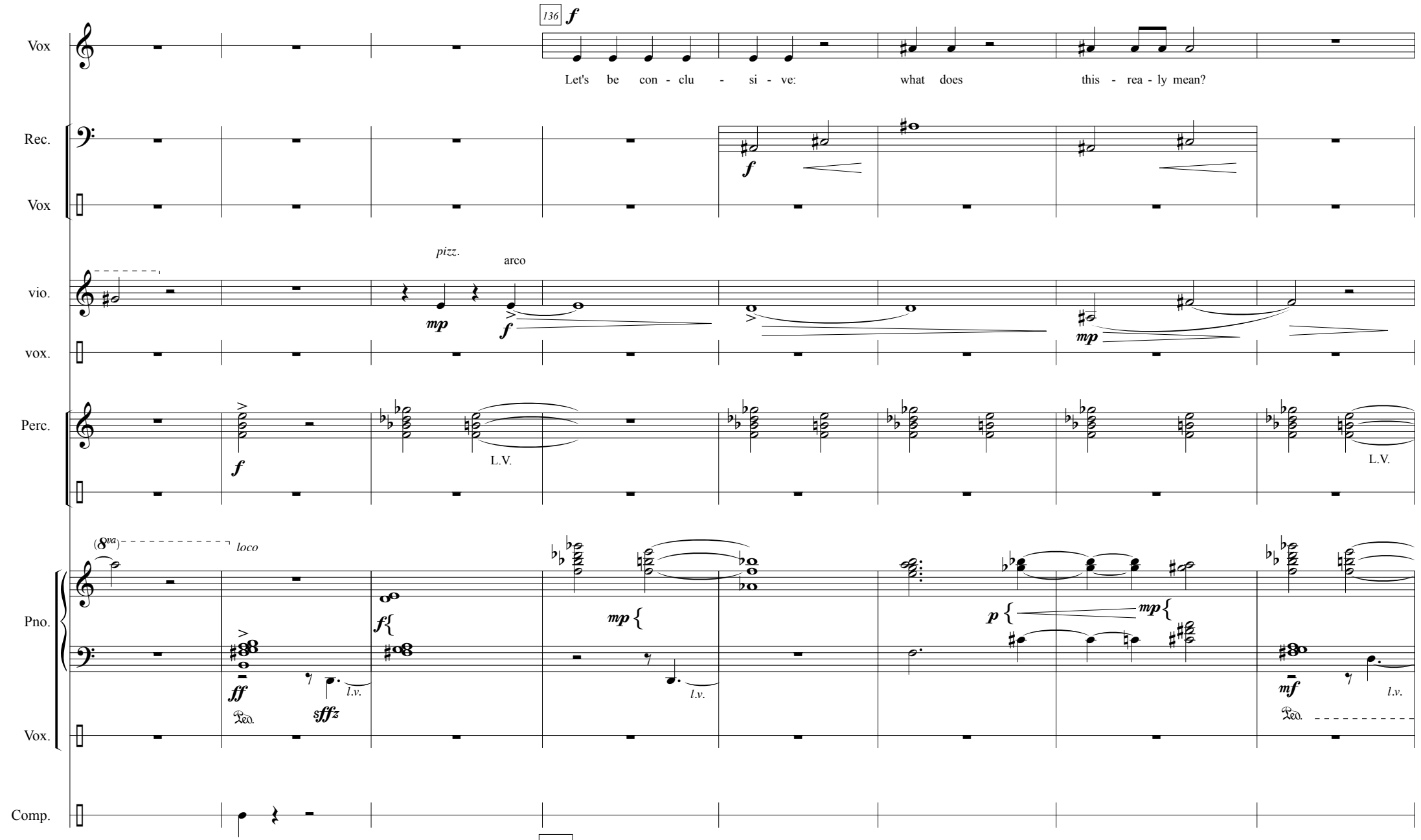
96
101
Vox
Rec.
Vox
vio.
vox.
Perc.
Pno.
Vox.
Comp.
ord.
S.P.
(Humming while playing)
(bowing windgong)
(Handheld) Crotales
(Windgong)
In a whispering (unvoiced) tone
In a whispering (unvoiced) tone
Inside the piano
Ped.
Ped.
And there's no,no, NO!
So they all, they all say the sa - a - me they all say the sa - me, they all say the sa - (a)me.
I meant: selective induction.
But NO, if we use our senses for perceiving reality.
But I say YES, YES, by stating synthetical statements a priori, but not from das 'ding' an sich.
But NO, there's no role for emperical research.
7:40
8:10

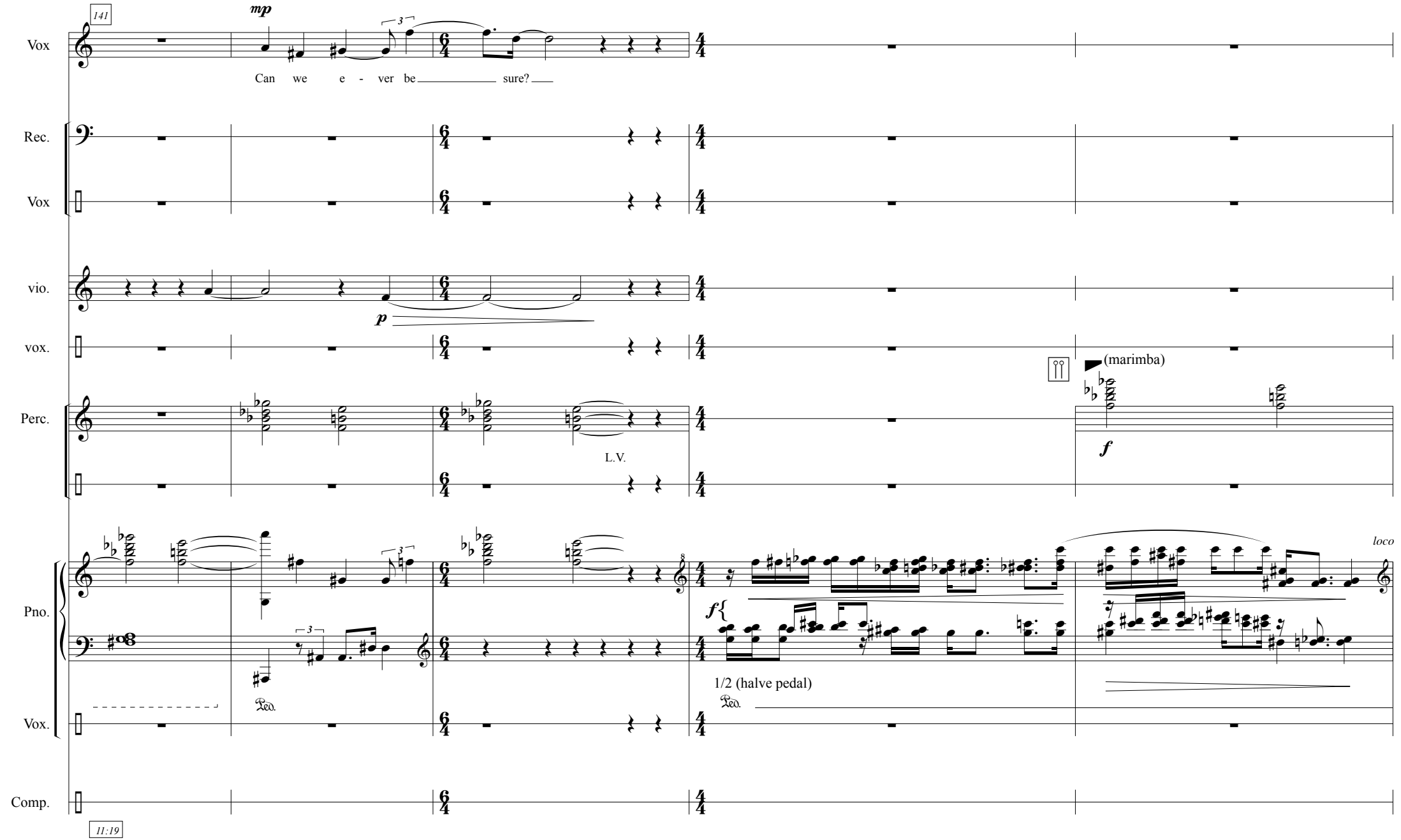

106
Vox
Sprechstimme
But, but, I found a so - lu - tion - for, - for this pro-blem
ord.
So they all, they all say the sa-a - me they all say the sa-me, they all say the sa -
Paetzold
Rec.
Vox
vio.
ord.
Sul Tasto
ord.
gliss.
vox.
Perc.
Cymbals
Pno.
before bridge
(Ord. on string)
(Ord. on string)
(Ord. on string)
before bridge
ord.
before bridge
lv.
lv.
Vox.
Comp.
8:40

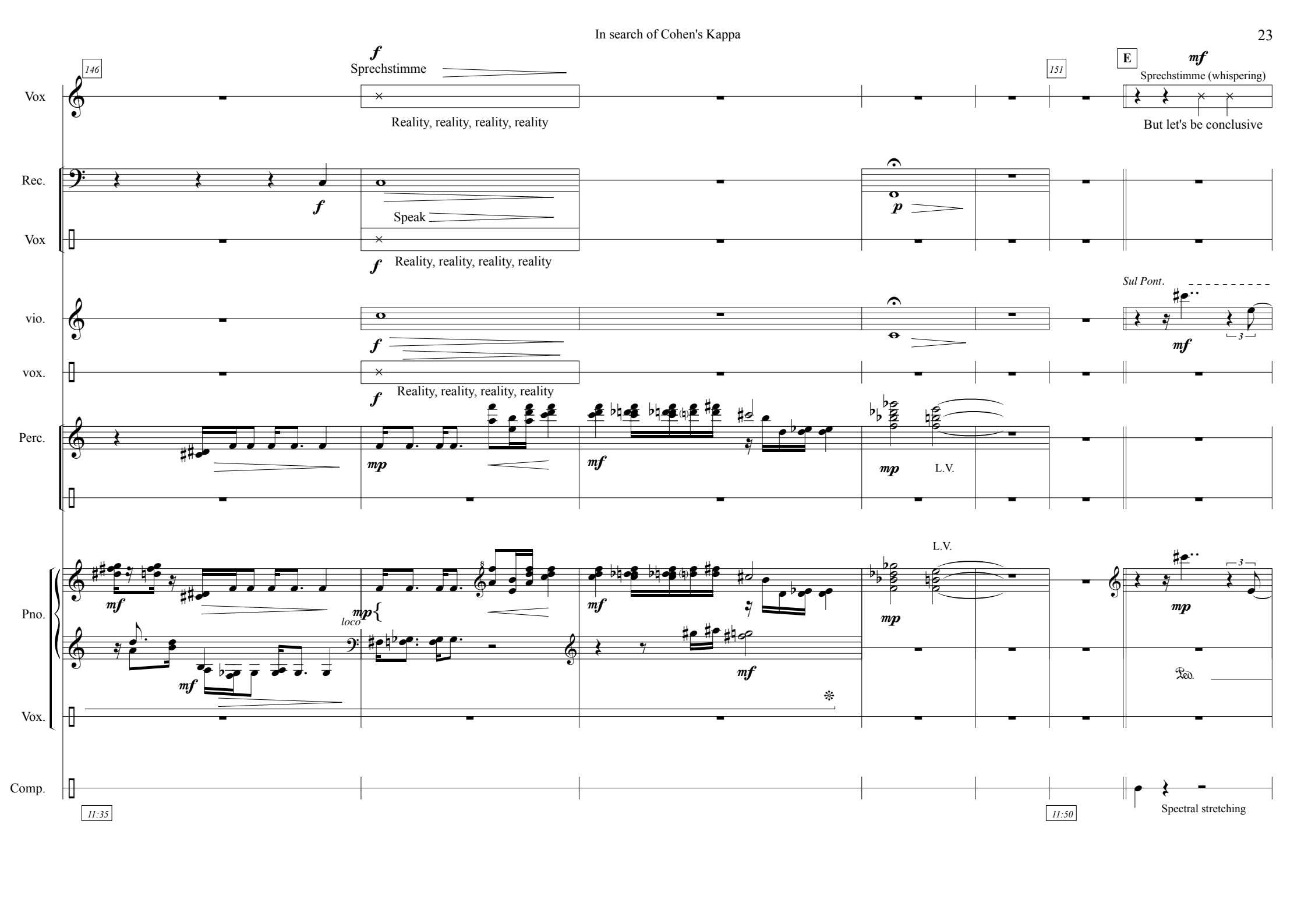

Sprechstimme
111
116
Vox
(a)me.
But,..but..., they all say dif - er - rent things.
Vision against vision
Rec.
Vox
In a whispering (unvoiced) tone
Maybe's that's what philosophy is all about.
vio.
al tallone
pizz.
ord.
arco
Sul Pont.
ord.
vox.
Perc.
(Glockenspiel)
(snaredrum)
L.V.
In a whispering (unvoiced) tone
Vision against a vision
Pno.
ord.
before bridge
(Ord. on string)
lv.
Vox.
Comp.
granulair synth. snaredrum
9:10
9:40

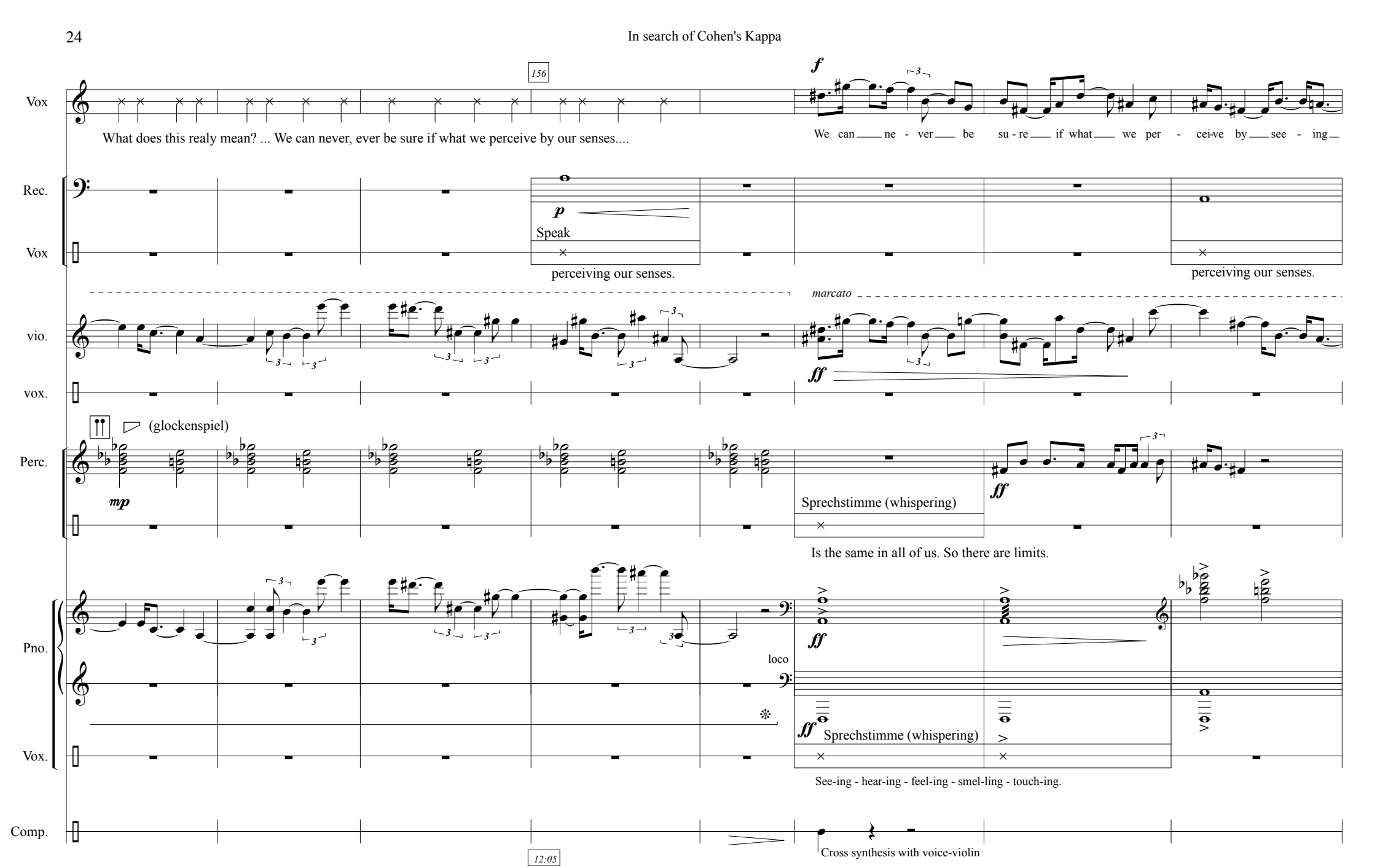

121
ord.
mp
D
♩ = 80
Vox
against. an other vision...
So this gives us all in - con sis - tent re - sults.
Rec.
Vox
Sul Pont.
ord. pizz.
vio.
mp
mf
f
ff
vox.
Glockenspiel
Perc.
mp
f
L.V.
ord.
loco
loco
Pno.
ff
L.V.
mp
mp
Ped.
ff
f
ff
f
ff
Vox.
Comp.
10:10

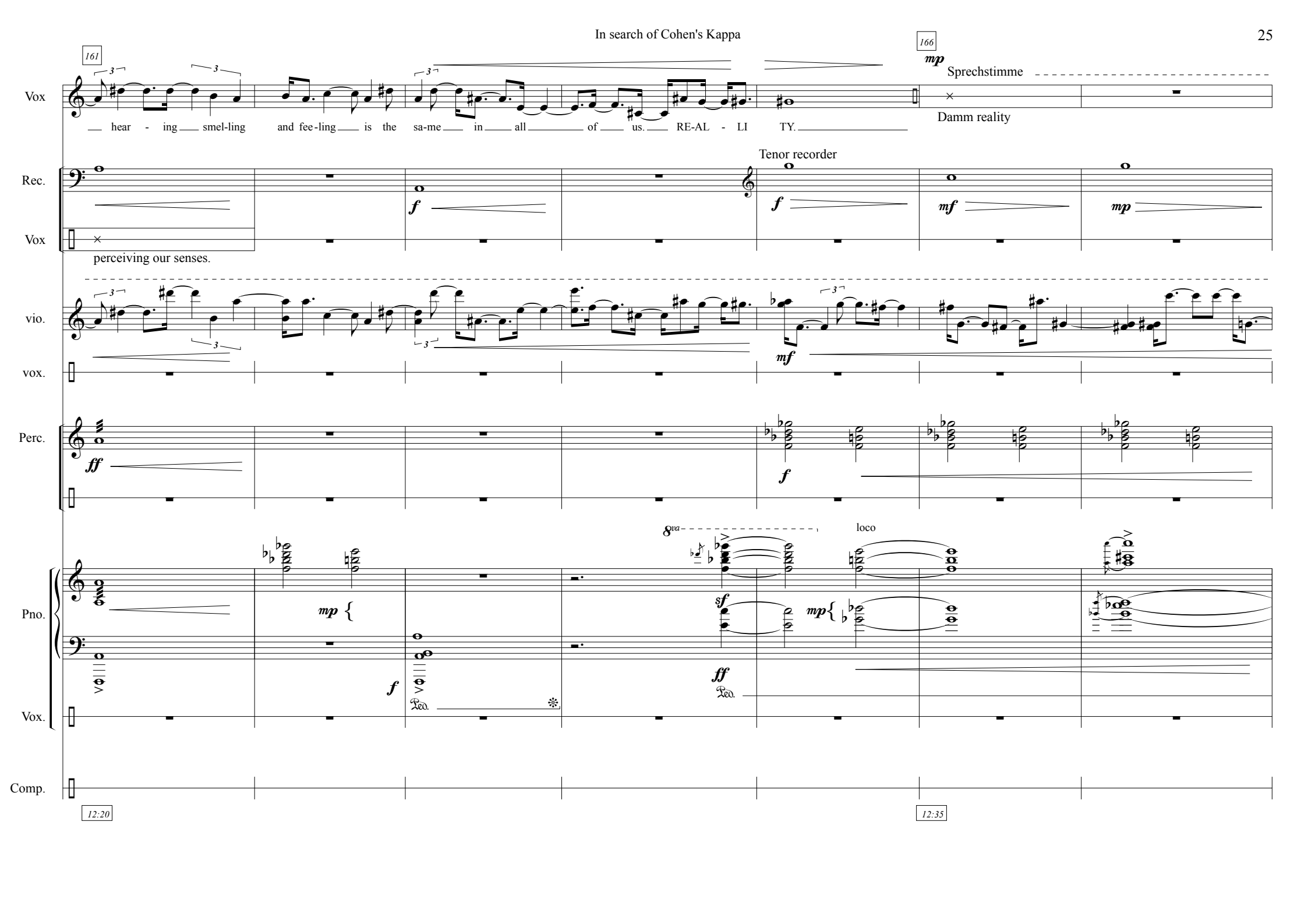

126
131
Vox
Rec.
Vox
vio.
vox.
(Glockenspiel)
Perc.
Pno.
Vox.
Comp.
10:34
10:49

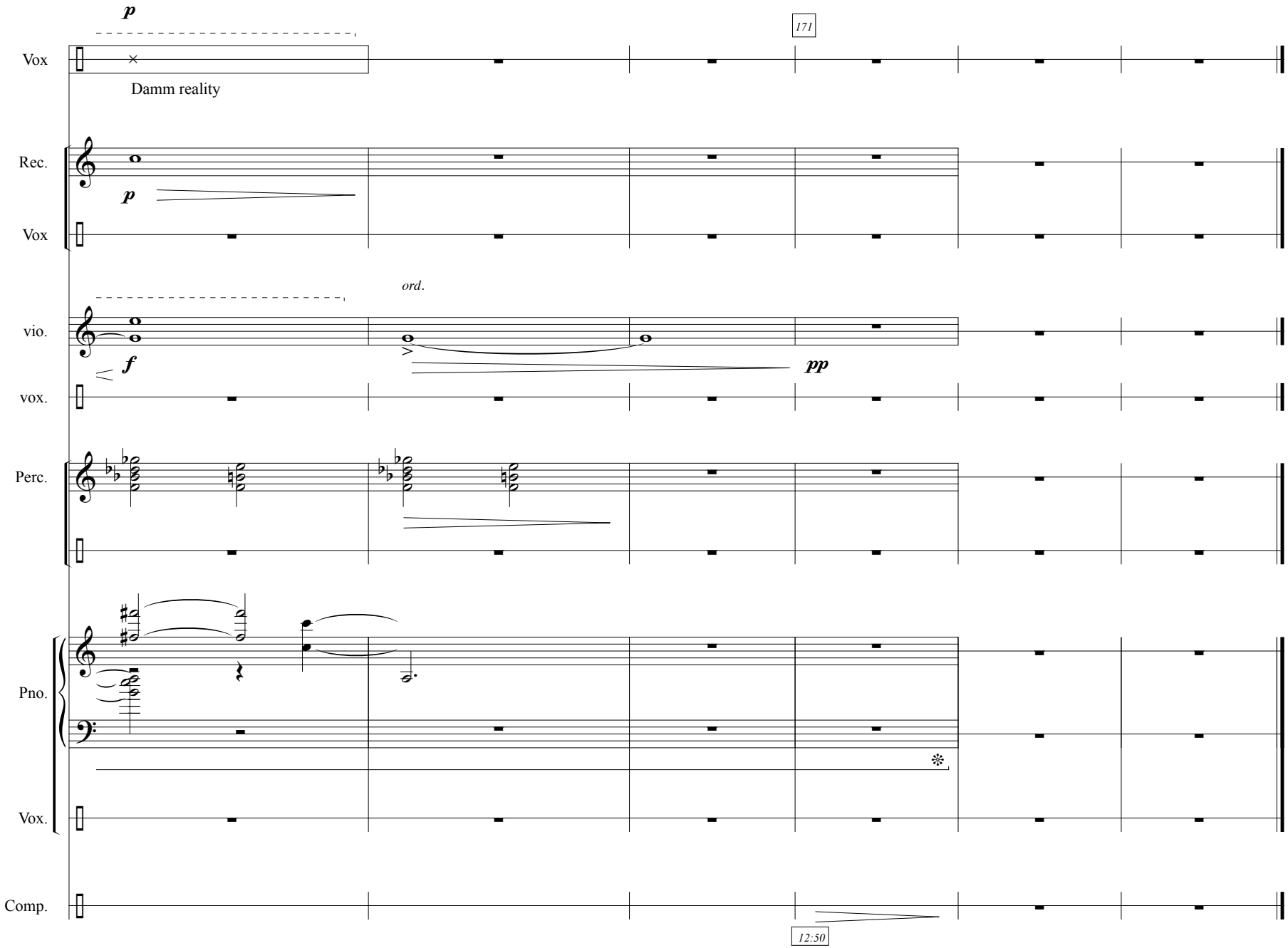

136
Vox
Let's be con - clu - si - ve: what does this - rea - ly mean?
Rec.
Vox
pizz.
arco
vio.
vox.
L.V.
L.V.
Perc.
(8va) loco
Pno.
l.v.
l.v.
l.v.
Vox.
Comp.
11:04


141
Vox
mp
Can we e - ver be sure?
Rec.
Vox
vio.
p
vox.
Perc.
L.V.
(marimba)
f
Pno.
Vox.
f{
1/2 (halve pedal)
loco
Comp.
11:19


146
151
E
Vox
Sprechstimme
Reality, reality, reality, reality
Sprechstimme (whispering)
But let's be conclusive
Rec.
Speak
Vox
Reality, reality, reality, reality
vio.
Sul Pont.
vox.
Reality, reality, reality, reality
Perc.
L.V.
Pno.
loco
L.V.
Vox.
Comp.
Spectral stretching
11:35
11:50


156
Vox
What does this realy mean? ... We can never, ever be sure if what we perceive by our senses....
f
We can ne - ver be su - re if what we per - cei-ve by see - ing
Rec.
Vox
p
Speak
perceiving our senses.
perceiving our senses.
vio.
marcato
ff
vox.
(glockenspiel)
Perc.
mp
Sprechstimme (whispering)
ff
Is the same in all of us. So there are limits.
Pno.
loco
ff
Vox.
ff
Sprechstimme (whispering)
See-ing - hear-ing - feel-ing - smel-ling - touch-ing.
Comp.
12:05
Cross synthesis with voice-violin


161
166
Vox
Rec.
Vox
vio.
vox.
Perc.
Pno.
Vox.
Comp.
hear - ing smel-ling and fee-ling is the sa-me in all of us. RE-AL - LI TY.
Sprechstimme
Damm reality
Tenor recorder
perceiving our senses.
loco
12:20
12:35



Utrecht, 12-10-2010.