saw digression hobbling driftwood (positione di voce)

for
2
amplified
musical
saws

José Luis Torá

Methode ist Umweg
Method is digression
Método es rodeo

Walter Benjamin, *Ursprung des deutschen Trauerspiels. Erkenntniskritische Vorrede*

saw digression hobbling driftwood (positione di voce)

for two amplified musical saws

(2016-17)

José Luis Torá

General remarks

Instruments

saw digression hobbling driftwood (positione di voce) is a piece for two musical saws. The instrument used during the composition, and to which all specifications on the score are related, was an instrument manufactured by Alexis Faucomprez (www.sciemusicale.fr) and has the following characteristics:

Length: 78cm.
Base width: 22cm.
Tip width: 3cm.
Lowest pitch: G^3 (196Hz. approx.)

Both musical saws must be identical.

To perform the piece is not quite necessary to play instruments with those exact characteristics, but similar measures, quality of tone, elasticity of the metal and length of the sustain are essential requirements. It's possible to play the piece with instruments with a not too different range; in this case, the four reference pitches on the score (G^3, [E^4], C^5 and Ab^5, as explained below) should be replaced for four similar ones according to the characteristics of the used saws.

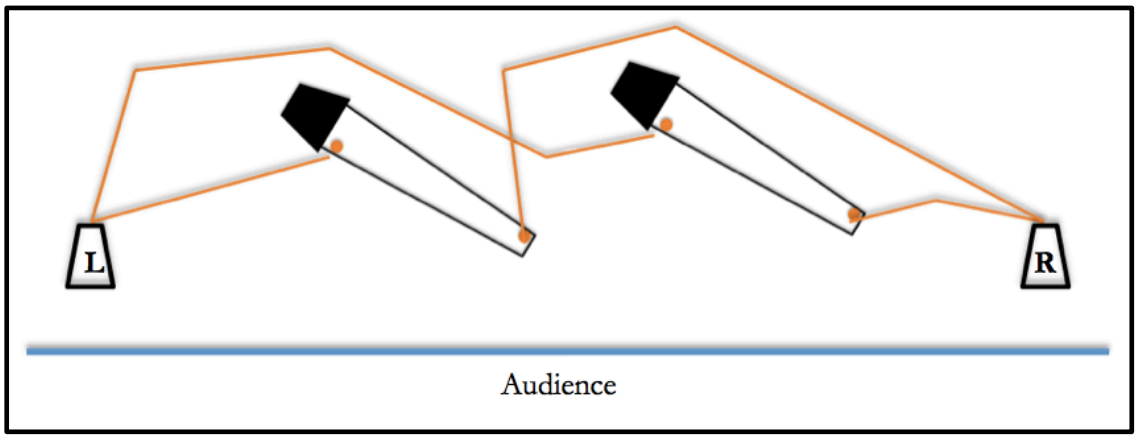
The instrument must have a “tip handle” (a cylindrical piece of wood with a screw at one end) to bend the blade.

The way to hold the saw is to be seated with the handle of the instrument between the thighs:

The saw is bent by holding the tip handle with the left hand and bending it down to the side, forming a slight arch to the left.

Amplification

Two mono contact microphones are to be placed on both ends of each blade, according to the following figure:



The sound vibrations picked up by the mono microphones placed on the tip of the blade must be reproduced only through the loudspeaker placed on the right of the audience, while the sound vibrations picked up by the mono microphones placed on the base of the blade must be reproduced only through the loudspeaker placed on the left of the audience. Both loudspeakers are to be placed far enough from each other to provide audience a clear sense of the side shift and the depth of the sound.

The amplification must be loud.

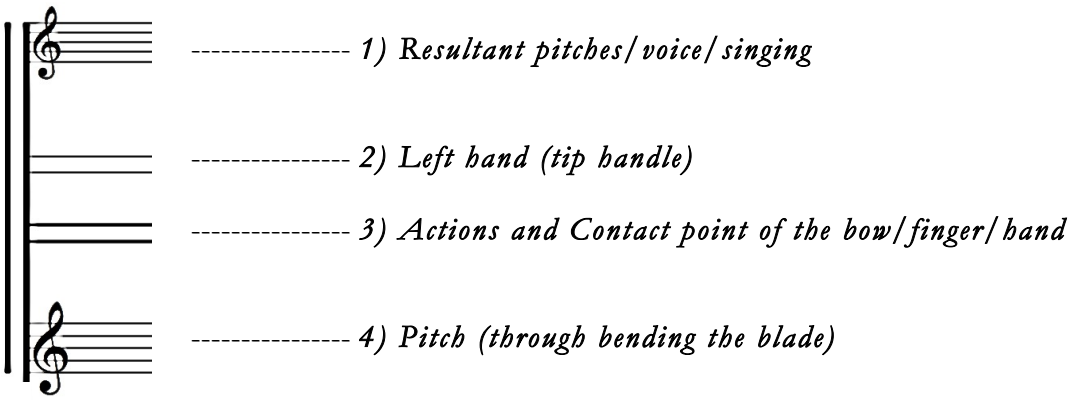
Fermatas

A special fermata appears seven times in the piece always on the bar lines:

During these fermatas a non-written sound-action must be performed; this sound-action (always exactly the same for the seven fermates) have to be decided by the performers according to the following characteristics:

- It has to be produced with a sound source not used in the rest of the piece: saw or voice are then excluded as sound sources.
- It must be possible to produce it only with the right hand/arm, with the bow (the left hand remains holding the tip handle) or even the feet of only one performer.
- The sound action can be a resonant sound (e.g., hitting a resonant instrument with the bow…) or a sustain sound (e.g., moving the bow across some part of an object or musical instrument causing vibration…) or even an electronic sound (e.g., a field recording…).
- The performers have to decided it freely but trying to find any relation of this sound with the piece.
- The fermatas will have always the same temporal succession of events:
    (i) A rest of about 2´´- 4´´
    (ii) The sound action of about 8´´- 10´´
    (iii) A rest of about 2´´- 4´´. If the sound-action is a resonant sound, this last event will be omitted, starting to play the next bar of the piece overlapping with the still resounding event.

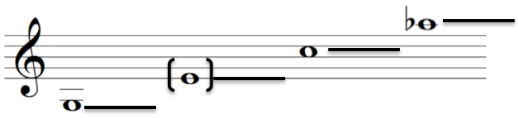
Notation



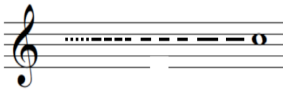
1) Resultant pitches/voice/singing

The upper staff shows three different musical materials.

- Resultant pitches:



They always coincide with the pitches showed on the lower staff but are indicated only (with a few exceptions) when they are clear and accurate and are the same for all saws (that is, by playing on the "sweet spots"; see below). However, that is not to say that there are no pitches when nothing appears on the upper staff; it's only that in those cases the pitches are hard to control and to write down, and depend, to a large extent, on the acoustic characteristics of each saw.



Gradual appearance of a clear pitch.

[T] Third: playing close to the "sweet spot" can produce a pitch a third higher (approx.) than the one indicated on the lower staff.

[🡅] As high as possible: playing a bit further from the "sweet spot" than [T], a very high pitch will be produced.

- Voice

Two short verses are going to be fragmented and recited during the performance of the piece:

saw digression hobbling driftwood

Susan Howe, *Hope Atherton's Wanderings* (I)
from *Articulation of Sound Forms in Time* (1987)

prest by each driftwood & so deep Hope

a selection of one word of each
of the eight verses of *Hope Atherton's Wanderings* (I)

Normal voice; all symbols from the International Phonetic Alphabet (IPA).

Voice + air

Unvoiced sound (whispering with the indicated phonemes)

Hold the indicated phoneme.

[p] [t]

Consonant; always unvoiced sound (no air at all).

- Singing

Sing a G^3 with closed mouth. Always searching for a perfect mixture between the voice and the lowest pitch of the saw but looking for microtonal deviations.

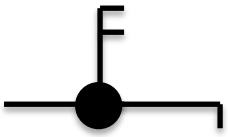
The same but alternating with very short and irregular moments of Vocal Fry register: produced through a loose glottal closure which will permit air to bubble through slowly with a popping or rattling sound of a very low frequency.

2) Left hand (tip handle)

Between the upper and the middle staffs appear sometimes different actions of the left hand related to the tip handle.

l.h .

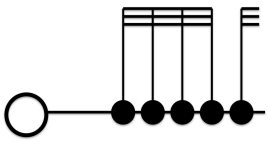
"Normal way": holding firmly the tip handle with the left hand (l.h.) and bending it down to a side and twisting one's wrist towards the body of the saw to create the S-curve and obtain the pitch indicated on the lower staff.



"Normal way" but at one point releasing the tip handle; the blade remains free to resound with the pitch [e^4] (see below).

Alterations (microtone, semitone or tone) of the pitch by twisting slightly one's wrist towards (pitch lowering) or away from (pitch raising) the body of the saw (no motion of the arm at all).

"Loosened way": always with the reference pitch [e^4] (see below) on the lower staff; holding loosely the tip handle with the left hand (l.h.), sometimes allowing the blade to have a gentle vibrato…

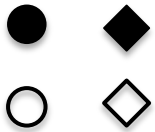


and sometimes tapping with one finger on the tip handle's wood.

3) Actions and Contact point of the bow/finger/hand

- Colour of the noteheads

Noteheads may be colored completely black or white, indicating:



Black noteheads indicate a sound-producing action.

White noteheads indicate a no-sound-producing action

In order to make these two possibilities (sound- and no-sound-producing actions) clearer, the dynamic indications are always (except some passages which don't need them) followed by a line that shows the duration of the sound-producing action:

- Shape of the noteheads

Noteheads may be shaped completely round or diamond, indicating:

Round noteheads indicate an action played on the "sweet spot".

Diamond noteheads indicate an action played on a different contact point.

- "Sweet spot"

To create a note, the player bends the blade into an S-curve. The parts of the blade which are curved are dampened from vibration, and do not sound, while at the center of the S-curve a section of the blade remains relatively flat. This is called the "sweet spot" which vibrates across the width of the blade, producing a distinct and resonant pitch. Other pitches can be heard by playing at varying distances on either side of the "sweet spot". The sawyer controls the pitch by adjusting the S-curve, making the "sweet spot" travel up the blade (toward a thinner width) for a higher pitch, or toward the handle for a lower pitch.

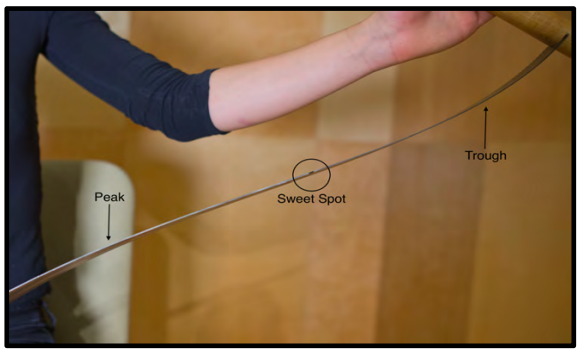
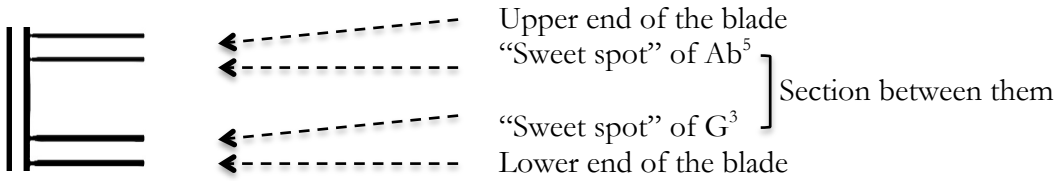


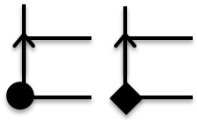
Photo: Stuckenbruck, Erin Else,
"The Singing Blade: The History, Acoustics, and Techniques of the Musical Saw" (2016).
Senior Projects. Spring 2016. Paper 383.

"Sweet spot" is therefore the best contact point of the bow/finger to produce the pitch indicated on the lower staff of the score in the most clear and resounding way.

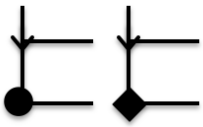
The contact point of the different actions is indicated on the following diagram, representing the blade of the saw:



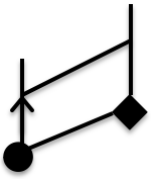
- Actions with the bow



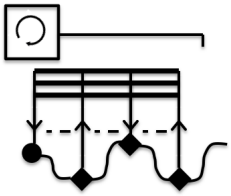
Up-bow: vertical motion in the direction from *tallone* (frog) to *punta* (tip).



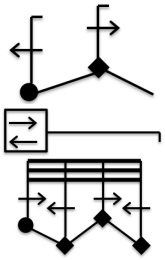
Down-bow: vertical motion in the direction from *punta* (tip) to *tallone* (frog)



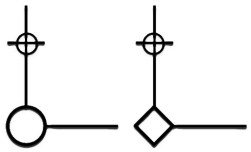
Gradual shift of the contact point of the bow.



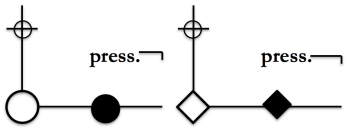
Circular-bow: to move the bow in a circular motion across the blade. This means that as the bow passes in a vertical motion (up and down) to the blade then a clear tone is produced, when the bow is on a horizontal motion to the blade then a scratchy 'non' tone is produced. The shift between vertical and horizontal motion must be a very gradual transition.



Horizontal-bow: horizontal motion to the blade in the directions of the arrows to produce a scratchy sound without pitch.



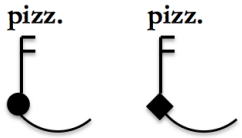
Mute-bow: put or hold the bow motionless on the indicated contact point.



Pressure-bow: put pressure (no motion at all) on the blade with the bow; the sound is produced through the friction of the hair of the motionless bow (right hand) against the blade in motion (left hand). The amount of pressure is determined by the dynamic specification (from ***pp*** to „***f***") but sometimes is also indicated either with *molta press.* or *poca press.*

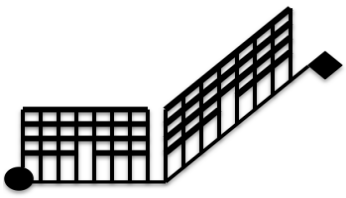
- Actions with the hand: finger/palm

These actions may sometimes produce a more or less pronounced *vibrato* of the blade.

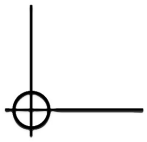


Pizzicato: plucking the edge of the blade with one finger. Plucking on a "sweet spot" produces a ringing sound; plucking far away from a "sweet spot" produces a muffled percussive sound.

Tapping on the surface of the blade with one finger.



The same but repeating and/or shifting the hitting point.

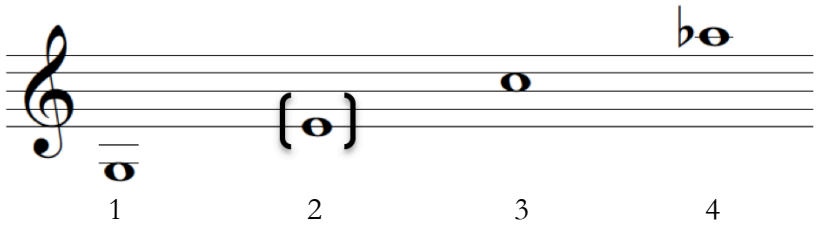


Putting the palm of the hand on the blade to mute it totally or partially.

4) Pitch (through bending the blade)

In many passages of the piece both sawyers have the same pitches on the lower staff: in those passages they play almost the same musical materials. But under no circumstances it is sought after to play a perfect unison between them; quite the opposite, those written unisons are to be intended as a field for (micro)tonal deviations around the indicated pitch.

For this reason, and with the exception of some short passages, only four reference pitches appear on the score:



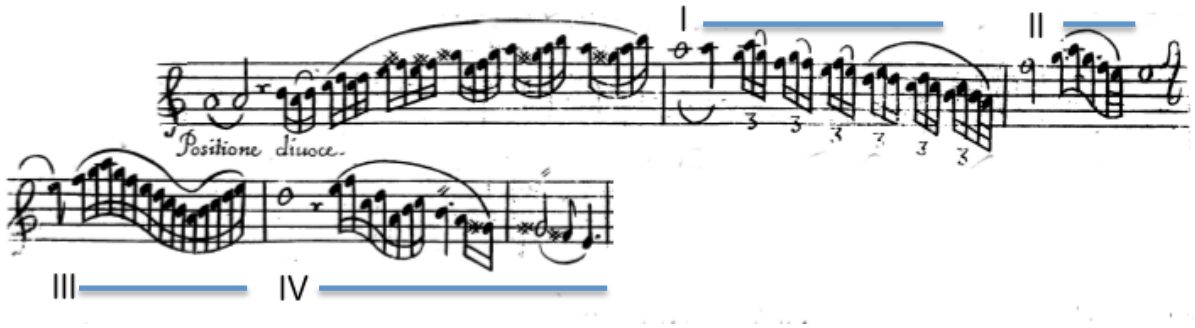
1. G^3 as the lowest pitch of the saw.
2. [E^4] as the pitch produced when the left hand releases the tip handle and the blade is free to vibrate. Its own weight will determine its curvature; the resulting pitch is around E^4 (depending on the different model of saw).
3. C^5.
4. Ab^5.

They should be seen as reference pitches indicating just a field where pitch deviations between both sawyers must be sought. Microtonal relations are preferred (but deviations of wider range are also possible).

By playing with saws of other characteristics these four reference pitches must be adapted to the new possibilities.

Four passages of the piece (bars 6-7, 24-25, 47-48, 68-70) have special features:

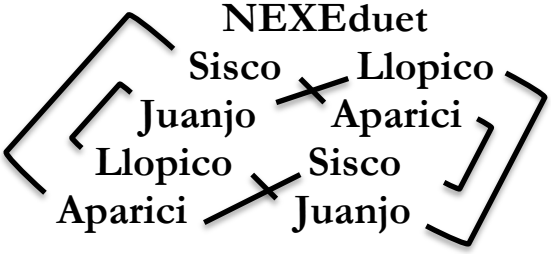
a) They are always a couple of bar 4/8 + 8/8.
b) The 4/8 has always a pitch repeated eight times, the same for both performers: A^5, F^4, E^4 and D^4; at the beginning of the bar these pitches are intended just as reference pitches (as explained before) but gradually the performers must reach a perfect unison for the last two notes.
c) Simultaneously fragments of the text *prest by each driftwood & so deep Hope* are to be recited.
d) The 8/8 bars are always *senza tempo* and are quotations of four fragments of the passage *Positione di voce* from a violin solo piece (named *Passaggio rotto*) by Nicola Mateis included in *Other Ayrs, Preludes, Allmands, Sarabands... with full stops for the Violin / The Second Part* (1676). It's important to have this piece in mind while playing those bars.

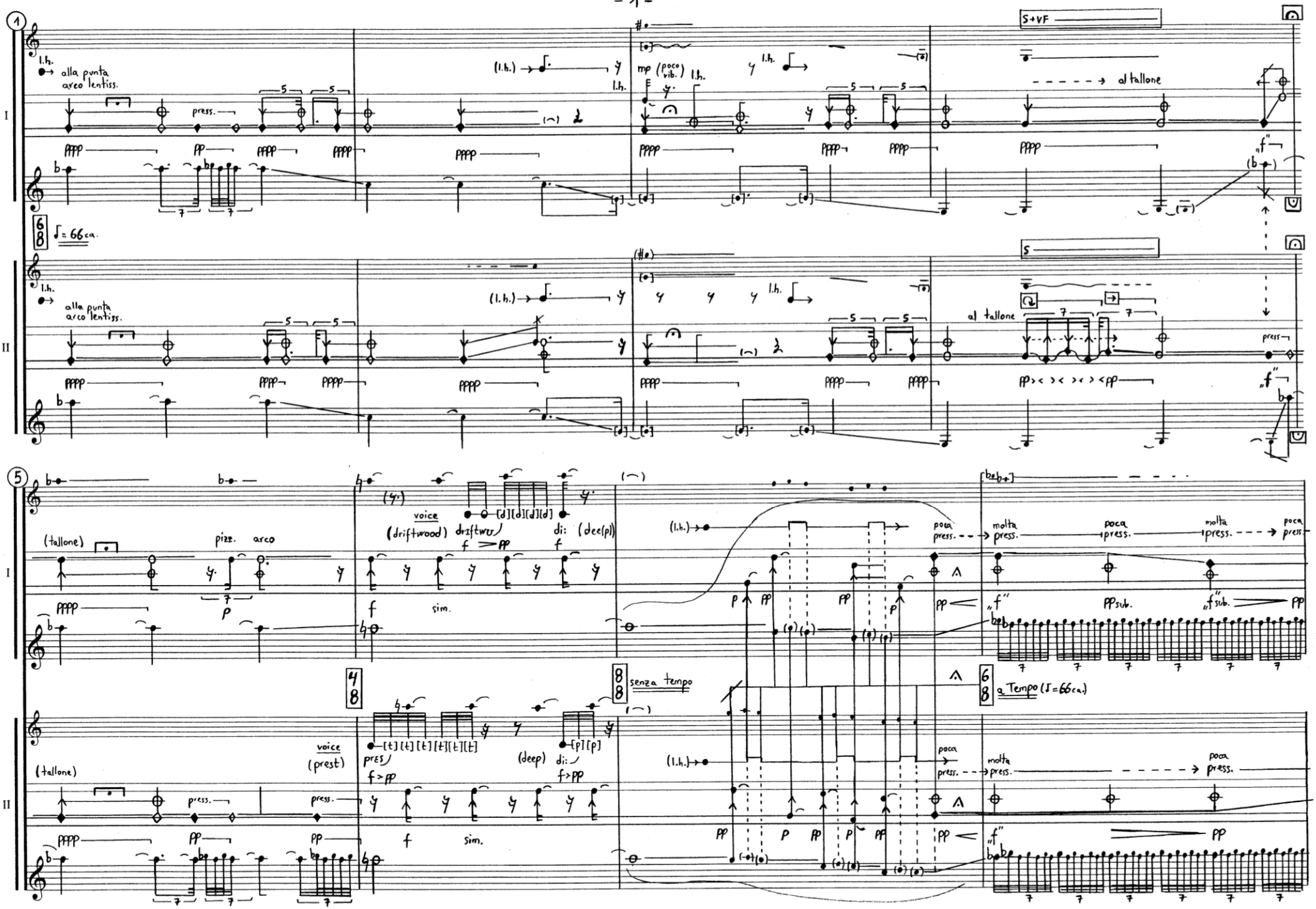


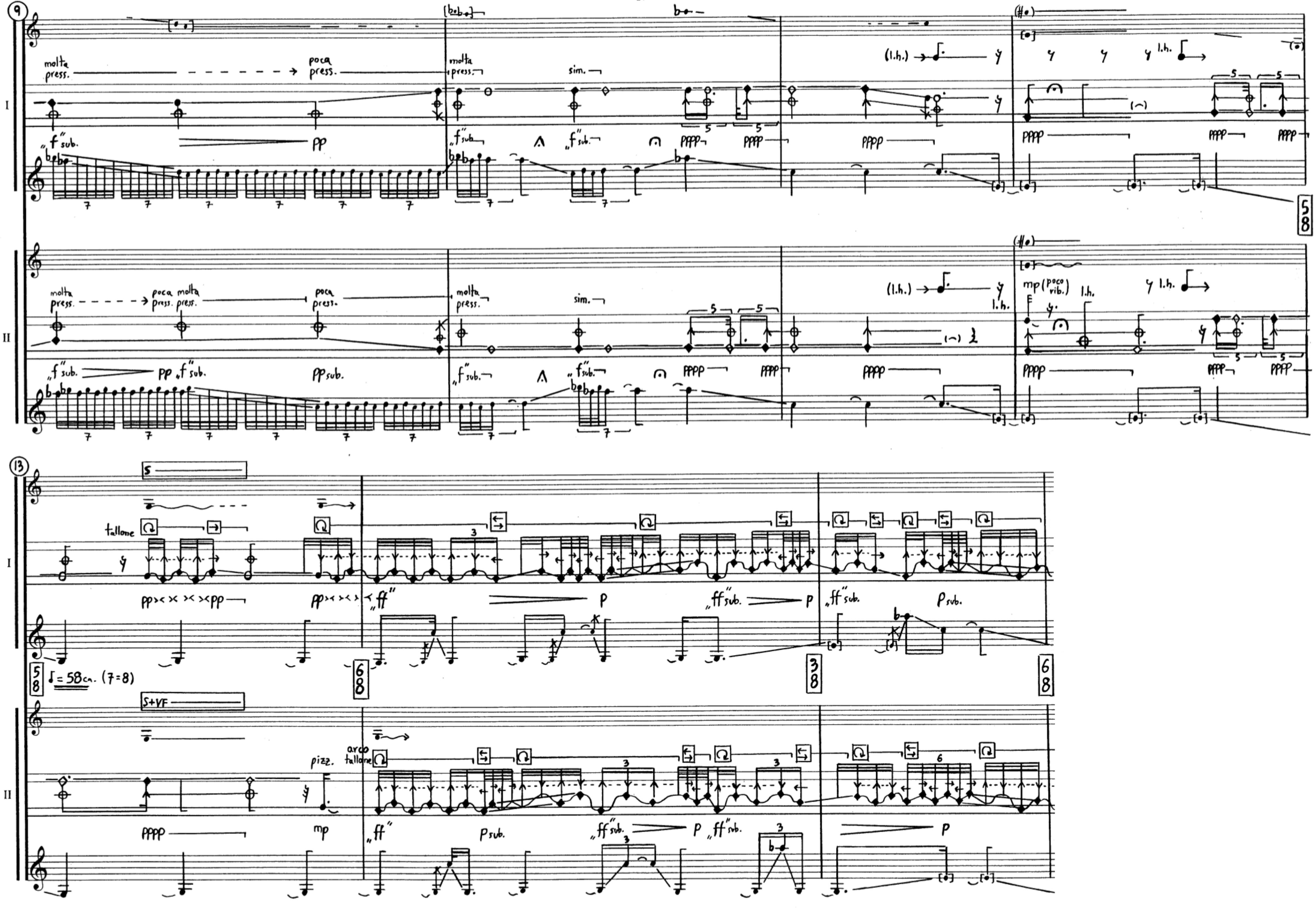
I – bar 7
II – bar 25
III – bar 48
IV – bars 69/70

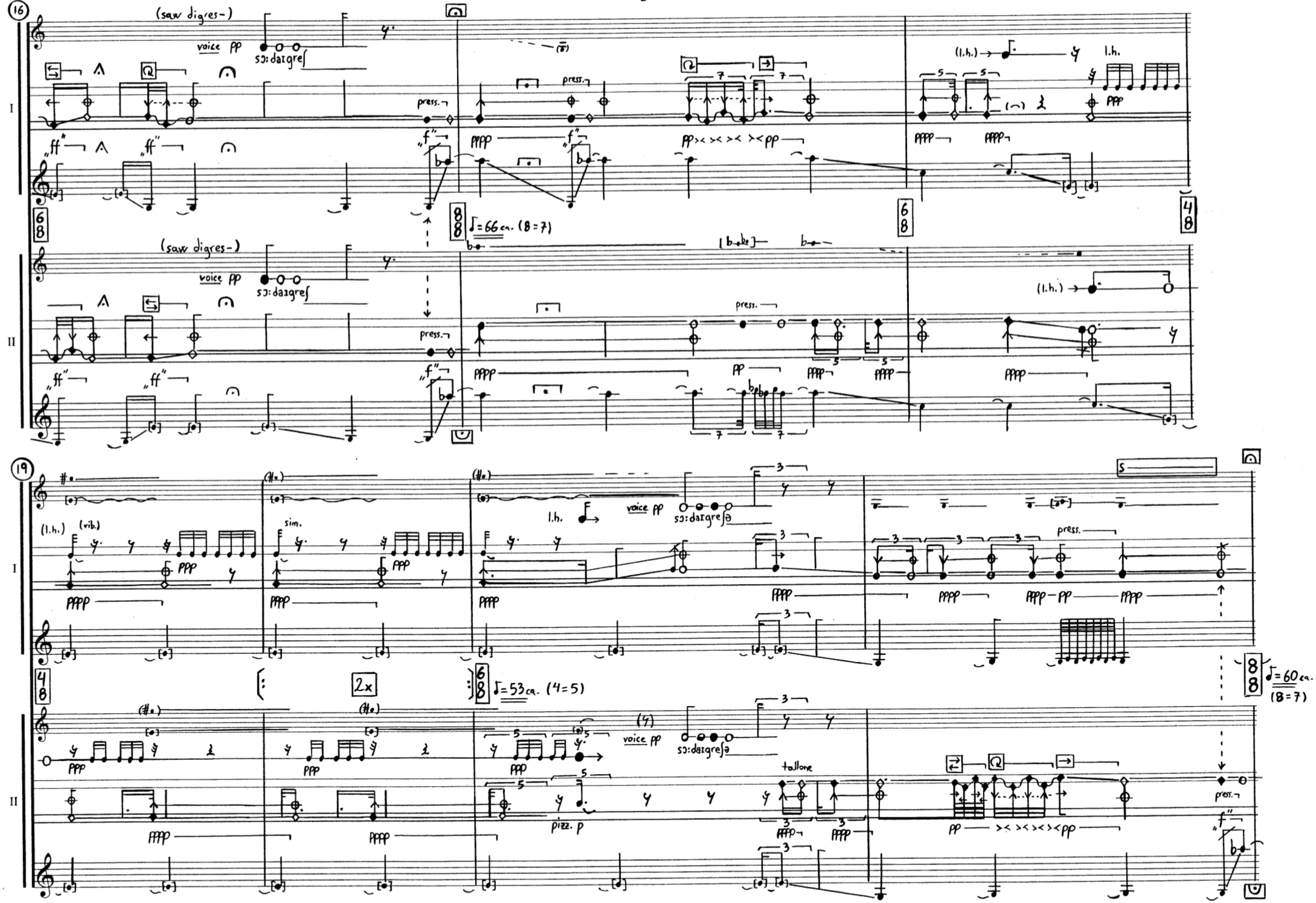
commissioned by Synergein Project

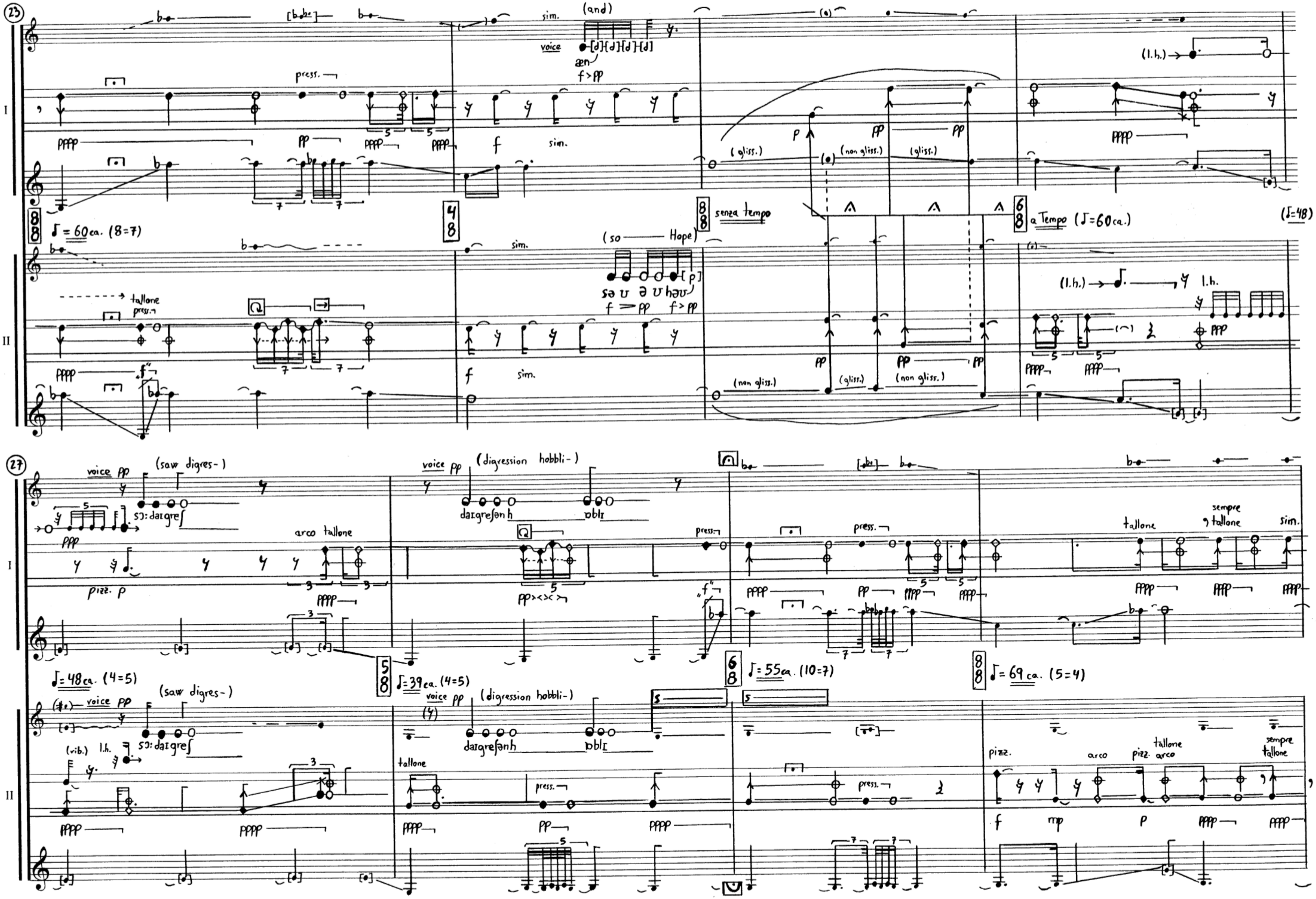
dedicated to
written for
NEXEduet

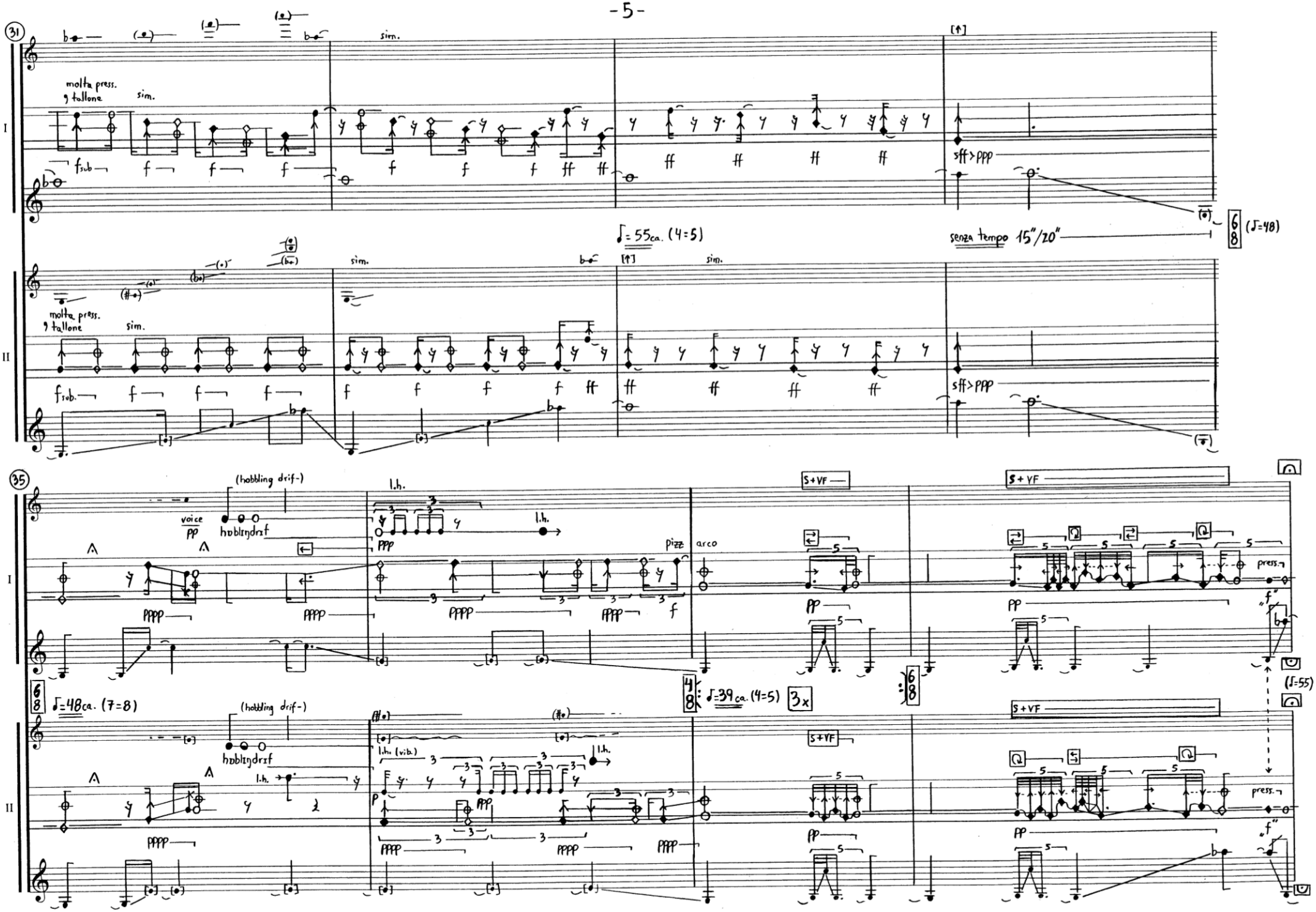


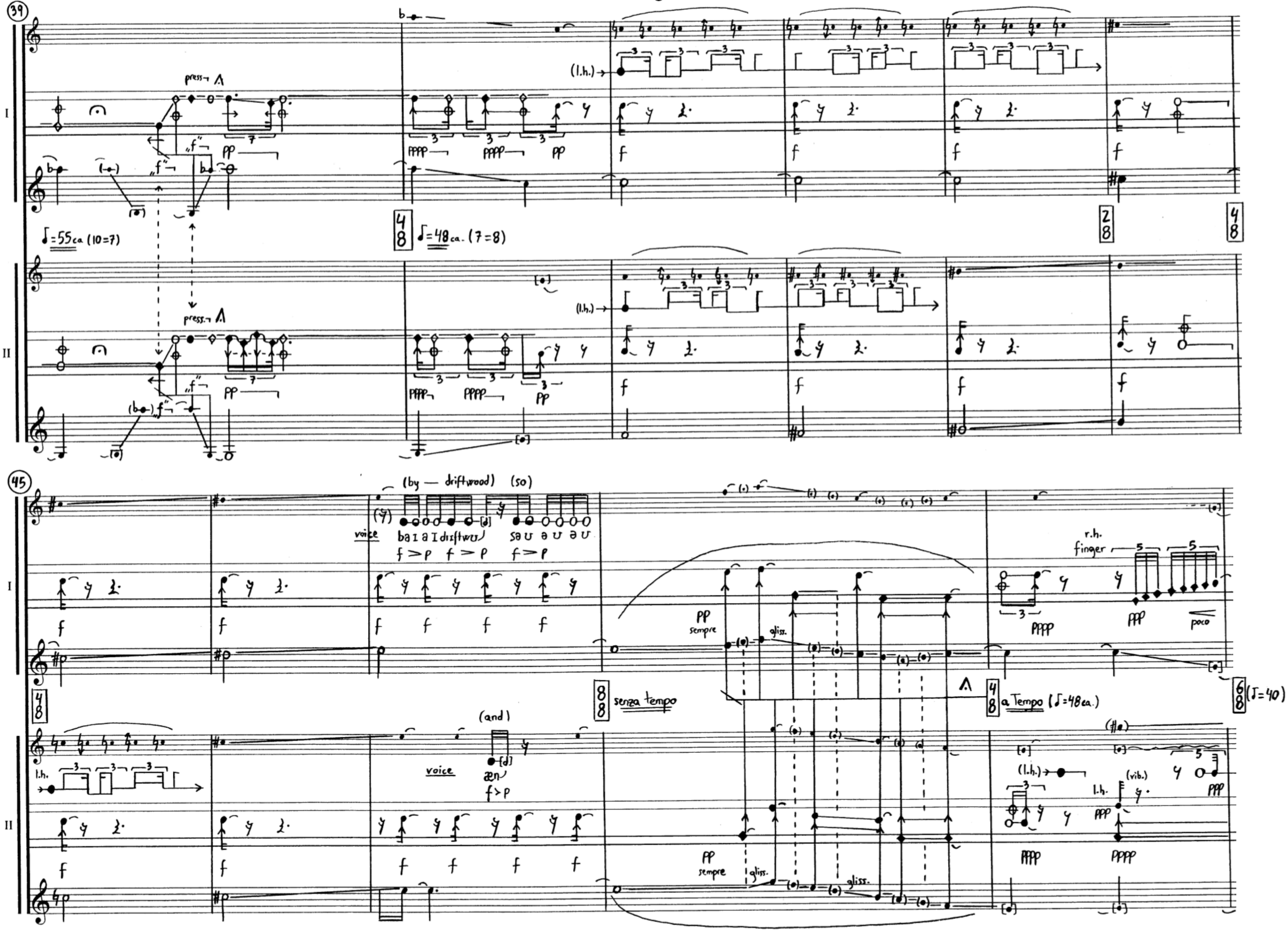

1
I
II
l.h.
alla punta
arco lentiss.
press.
(l.h.)
mp (poco vib.)
S+VF
al tallone
„f"
♩= 66 ca.
S
5
(tallone)
pizz.
arco
voice
(driftwood)
driftwr
di:
(deep)
sim.
senza tempo
a Tempo (♩= 66 ca.)
poco press.
molta press.
„f" sub.
pp sub.

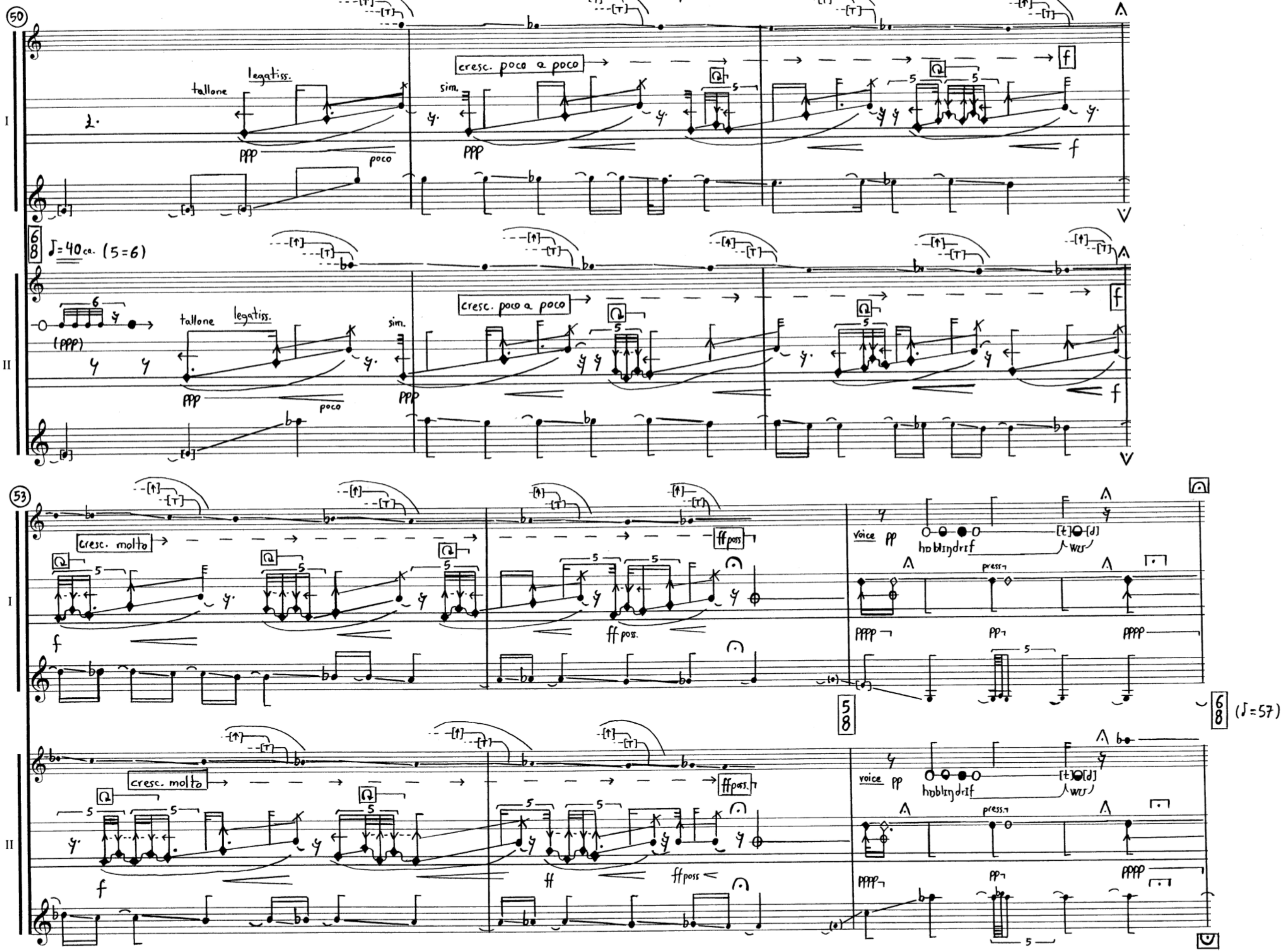

molto press.
poca press.
sim.
„f" sub.
pp
pppp
(l.h.)
l.h.
mp (poco vib.)
pp sub.
tallone
S
S+VF
♩= 58ca. (7=8)
pizz.
arco tallone
„ff"
p sub.
„ff" sub.
mp

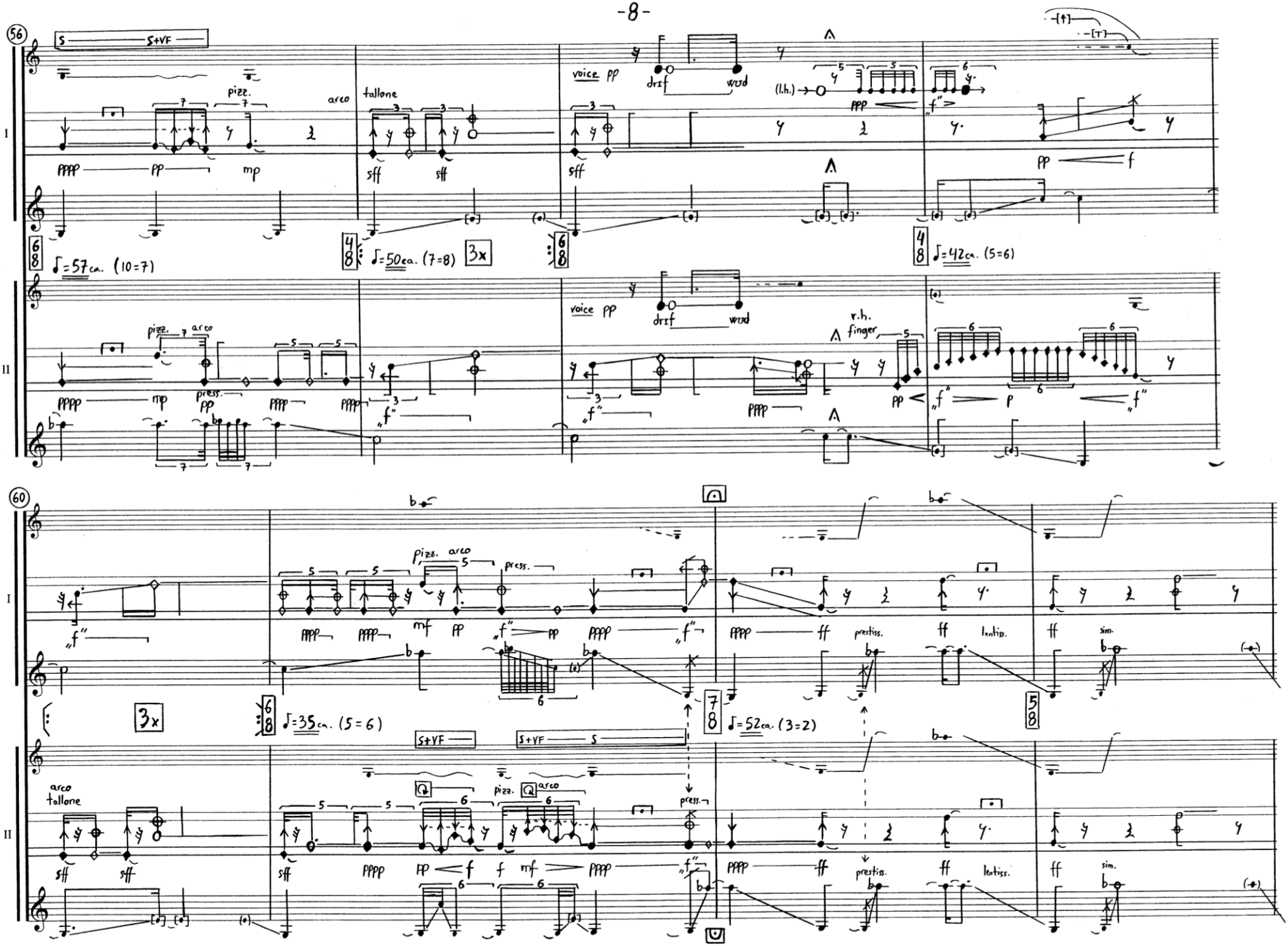

16
(saw digres-)
voice pp
sɔ:dɑɪgreʃ
I
II
press.
„ff"
„f"
pppp
♩=66 ca. (8=7)
(l.h.)
l.h.
ppp
19
(vib.)
sim.
2x
♩=53 ca. (4=5)
♩=60 ca. (8=7)
sɔ:dɑɪgreʃə
tallone
pizz. p
S

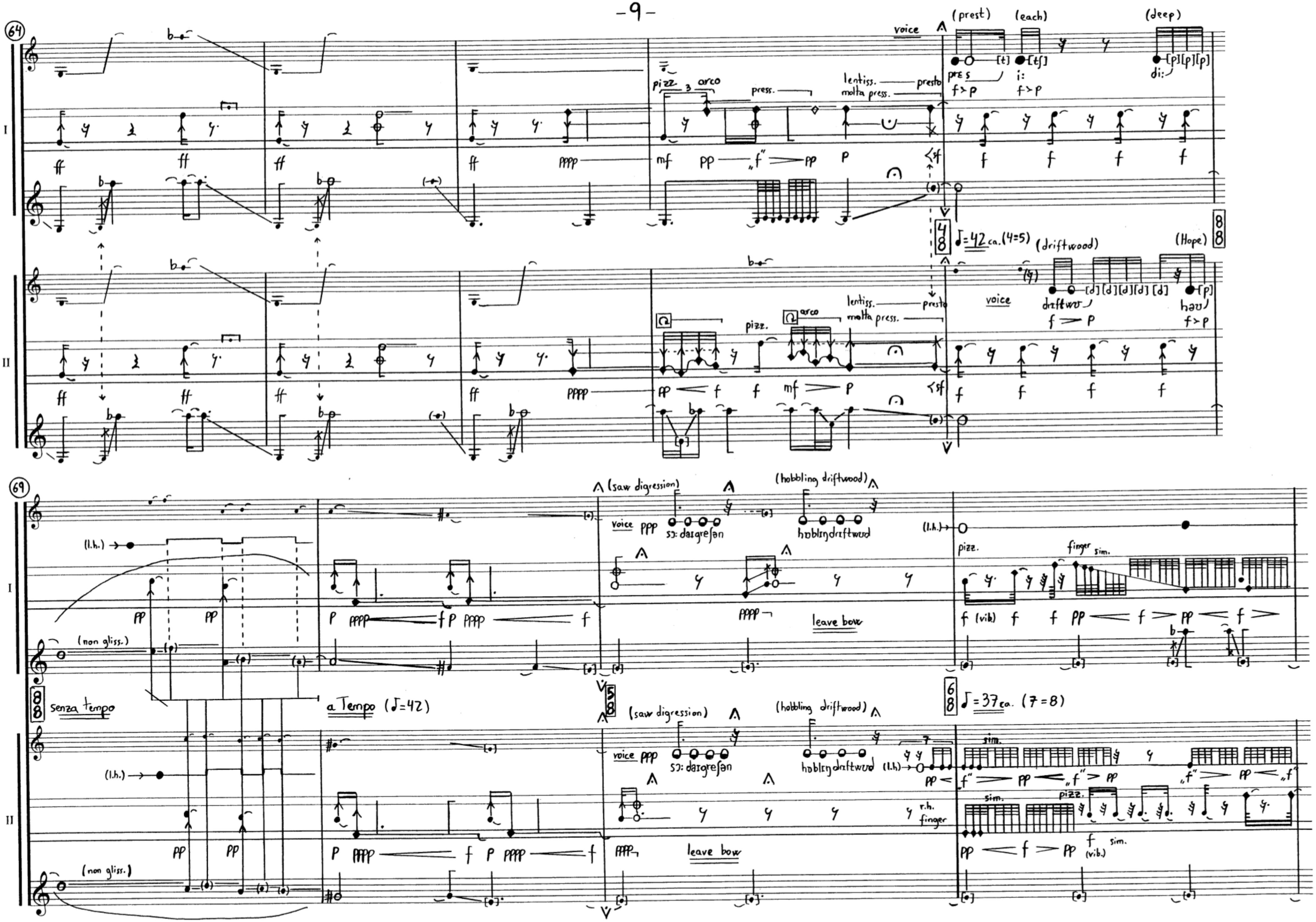

23
I
II
press.
pppp
pp
f
sim.
voice
(and)
æn
f>pp
p
(gliss.)
(non gliss.)
(l.h.)
8/8
♩= 60ca. (8=7)
4/8
senza tempo
6/8
a Tempo (♩=60ca.)
(♩=48)
tallone
(so Hope)
f > pp
27
voice pp
(saw digres-)
(digression hobbli-)
arco tallone
pizz. p
pp><><>
sempre tallone
♩= 48ca. (4=5)
5/8
♩= 39ca. (4=5)
♩= 55ca. (10=7)
♩= 69ca. (5=4)
(vib.) l.h.
pizz.
arco
pizz. arco
mp

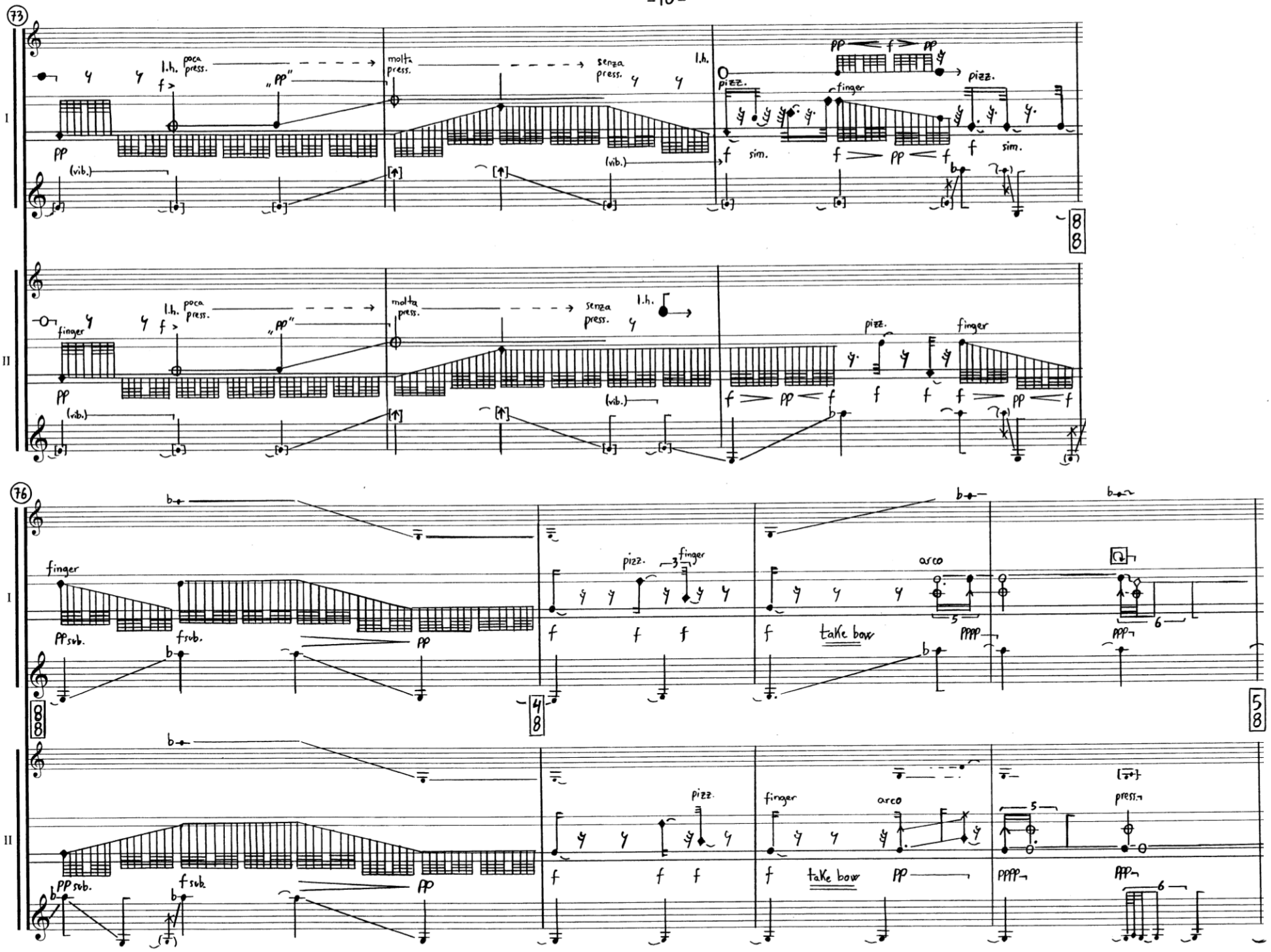

31
molto press.
y tallone
sim.
fsub
f
ff
sff>ppp
senza tempo 15"/20"
(♩=48)
♩=55ca. (4=5)
35
(hobbling drif-)
voice
pp
hobbingdrif
l.h.
ppp
pizz
arco
S+VF
press.
f"
(♩=55)
♩=48ca. (7=8)
l.h. (vib.)
p
♩=39ca. (4=5)
3x

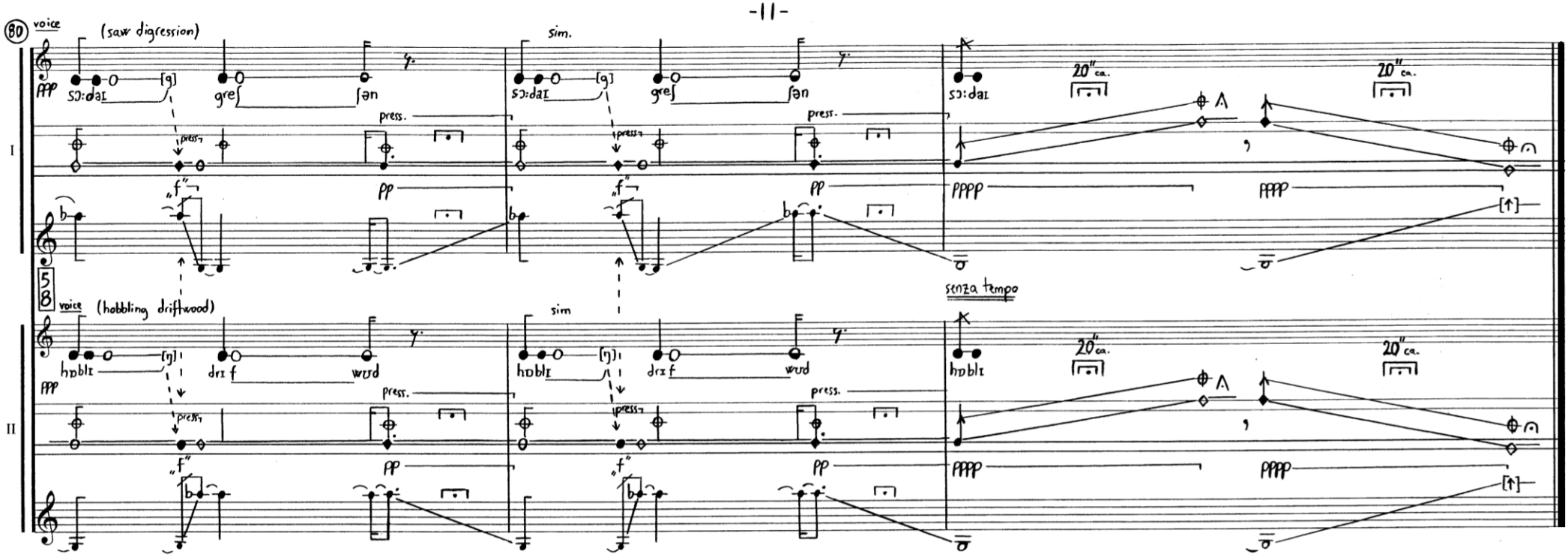

39
I
II
press.
„f"
pp
pppp
♩=55 ca (10=7)
♩=48 ca. (7=8)
(l.h.)
f
45
(by — driftwood) (so)
voice
f > p
(and)
senza tempo
pp sempre
gliss.
r.h. finger
ppp
poco
a Tempo (♩=48 ca.)
(♩=40)
(vib.)
l.h.


50
I
tallone
legatiss.
ppp
poco
sim.
cresc. poco a poco
f
6/8 ♩= 40 ca. (5=6)
II
(ppp)
53
cresc. molto
ff poss.
voice
pp
hoblindrif
[t] [d]
wu
press.
pppp
5/8
6/8 (♩=57)


56
S
S+VF
I
II
pizz.
arco
tallone
voice pp
drif
wurd
(l.h.)
r.h.
finger
press.
prestiss.
lentiss.
sim.
3x
60
S+VF
♩=57ca. (10=7)
♩=50ca. (7=8)
♩=42ca. (5=6)
♩=35ca. (5=6)
♩=52ca. (3=2)


64
I
II
voice
(prest)
(each)
(deep)
pizz
arco
press.
lentiss.
molta press.
presto
(driftwood)
(Hope)
♩=42 ca. (4=5)
69
(l.h.)
(non gliss.)
senza tempo
a Tempo (♩=42)
(saw digression)
(hobbling driftwood)
leave bow
pizz.
finger
sim.
♩=37 ca. (7=8)
r.h.
finger
(vib)


73
I
II
l.h. poco press.
molto press.
senza press.
l.h.
pizz.
finger
sim.
(vib.)
76
PPsub.
fsub.
take bow
arco
press.



15' aprox.

Madrid 11./12. 16
30. 04. 17