Music for Clarinet & ISPW

(IRCAM Signal Processing Workstation)

by Cort Lippe

1992

Commissioned by The Center for Computer Music & Music Technology
Kunitachi College of Music, Tokyo

Cort Lippe

Program Notes

Music for Clarinet and ISPW *(IRCAM Signal Processing Workstation)* (1992) was written for the clarinetist Esther Lamneck and premiered in New York in March of 1992. The piece was realized at IRCAM, Paris and at the Center for Computer Music & Music Technology, Kunitachi College of Music, Tokyo (which also commissioned the work). The electronic part was created using the IRCAM Signal Processing Workstation, a real-time digital signal processor, and the program *Max*, developed by Miller Puckette—whose technical advice made this piece possible.

Technically, the clarinet pitches are tracked by the computer as the performer plays. This pitch information is sent to a "score follower", which allows the computer to follow the player's performance by comparing it to a copy of the score which is stored in the computer. At specific points designated in the score, electronic events are triggered by the score follower. The computer also tracks other parameters of the clarinet, such as amplitude and continuous pitch change, and uses this information for continuous control of the digital synthesis algorithms running in the computer. Thus, the player triggers and controls all electronic events.

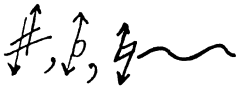
All the sounds used in the electronic part come from the composed clarinet part, and are transformed by the computer in real time during the piece. Thus, the musical and sound material for the instrumental and electronic parts are one and the same. The instrument/machine relationship is neither a dialogue nor a duo. Musically, the computer part is not separate from the clarinet part, but serves rather to "amplify" the clarinet in a multitude of dimensions and directions.
Duration: 17 minutes.

PERFORMANCE NOTES

trill or tremolo with the note(s) in parenthesis

tremolo, **See Nota Bene 1.**

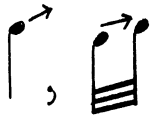
1/4 tone sharp, flat (approximate)



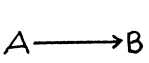
oscillate between 1/4 tone higher and lower (approximate)

accelerando, ritardando

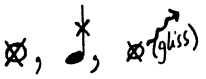
very high pitch, glissando from a very high pitch to even higher (approximate)



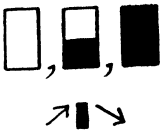
small glissando (approximate), **See Nota Bene 2.**



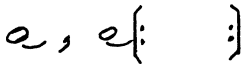
the arrow indicates a move from any given "A" to any given "B" gradually



air-current noise, at times slightly pitched (approximate)



multiphonic sound based on the notated pitch, **See Nota Bene 3.**



sustained low note, held low note of approximate duration, **See Nota Bene 4.**

NOTA BENE

Nota Bene 1: The "x" over the second note indicates that the player can choose another note. Since the tremoli should be played as fast as possible, the lower note may be difficult to finger at high speeds. For instance, for the tremoli in the 5th system of page 3: the f# may be replaced with any note which can be played more easily at an extremely high speed. But, the written notes must be respected once the figure has slowed down to the septuple.

Nota Bene 2: If a destination note is notated and the rhythm is very rapid, respect the pitch of the first note while allowing for some approximation for the pitch of the destination of the glissando (the second note).

Nota Bene 3: Multiphonics should be chosen by the player. The strength of a multiphonic's spectral content is specified by the darkness of the rectangle above the note; thus: a clear rectangle indicates no multiphonic, half-filled is medium strength, and a completely filled-in rectangle indicates a multiphonic with maximum strength. (The arrows indicate moving smoothly to and from a multiphonic while holding the notated pitch.)

Nota Bene 4: Sustained low notes without repeat brackets should be played respecting the notated rhythm. (See the 6th system of page 3.) When a low note is tied to a repeat bracket (see the last system of page 5), the total duration of the held low note and its brackets should be decided by the player. There are no indications for breath markings, but the player is free to breathe whenever so desired (or the player can choose to use circular breathing). In any case, the breathing should be considered as a short interruption, since musically, these sustained low notes should be considered as a kind of musical "background". In all cases where a low held note is indicated and there are also grace-notes, multiphonic indications, air-current indications, etc., the low held note should be interrupted for the time necessary to play the grace-notes, etc., and then the low held note should continue immediately afterwards. The grace-notes and other indications should be considered as "foreground" material.

Nota Bene 5: Events 9 and 10 of page 9 should be played *molto lento* and *ad libitum.*

Nota Bene 6: All low grace notes in the entire piece (which begin to appear on page 3) should be played percussively at dynamic *ff.*

Nota Bene 7: Rhythmic indications of local accelerando/ritardando using "fanned" beams should begin *a tempo* and increase or decrease in tempo as indicated during the beat, returning to *a tempo* at the next beat. But, in the case when a series of fan beams over more than one beat is indicated, do not return to the orginal tempo but continue to accelerate or ritard as indicated. Thus, each new beat begins at the new tempo reached at the end of the previous beat. (A good example of this is found in the first system of page 3. A smooth ritardando should take place over the entire phrase.)

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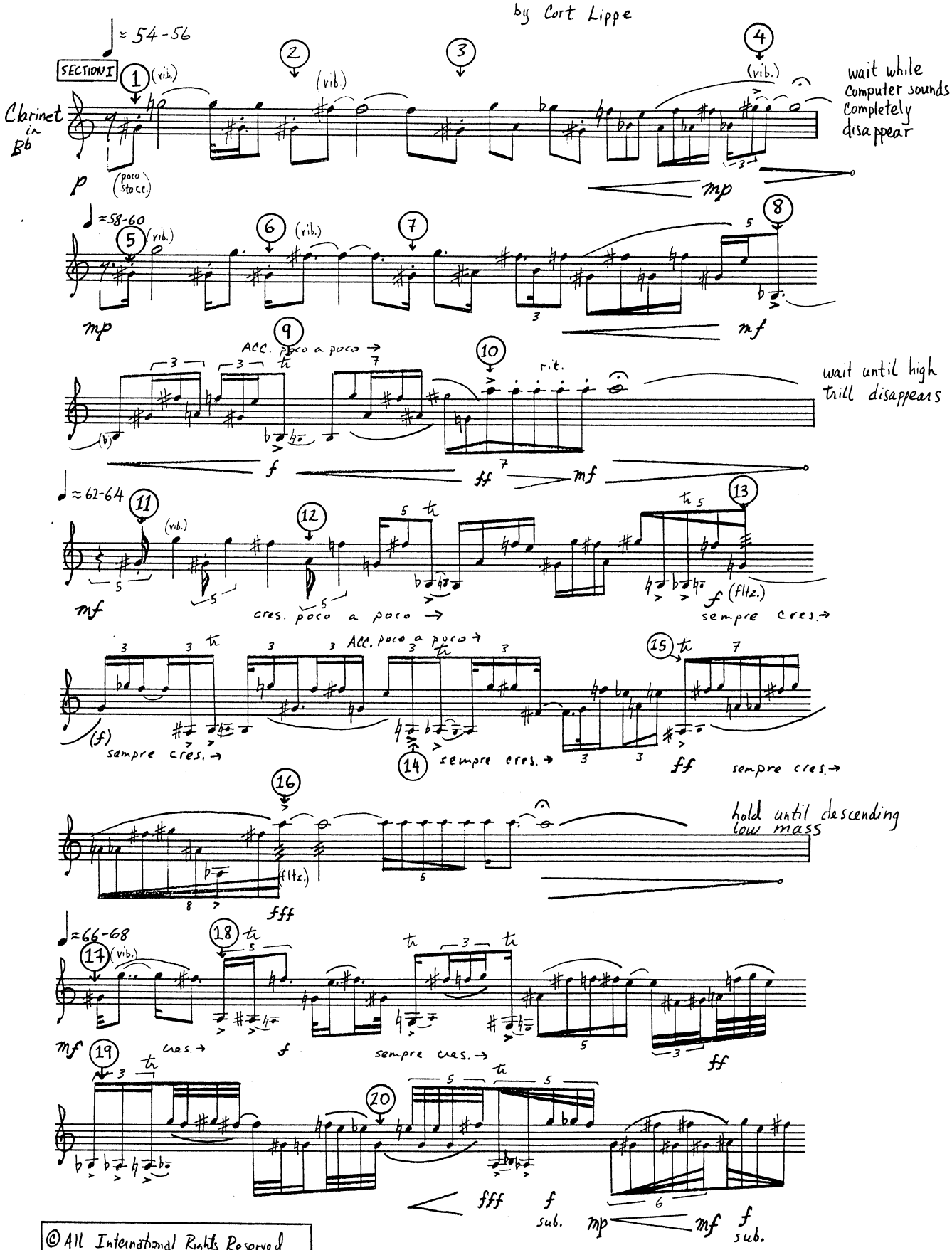
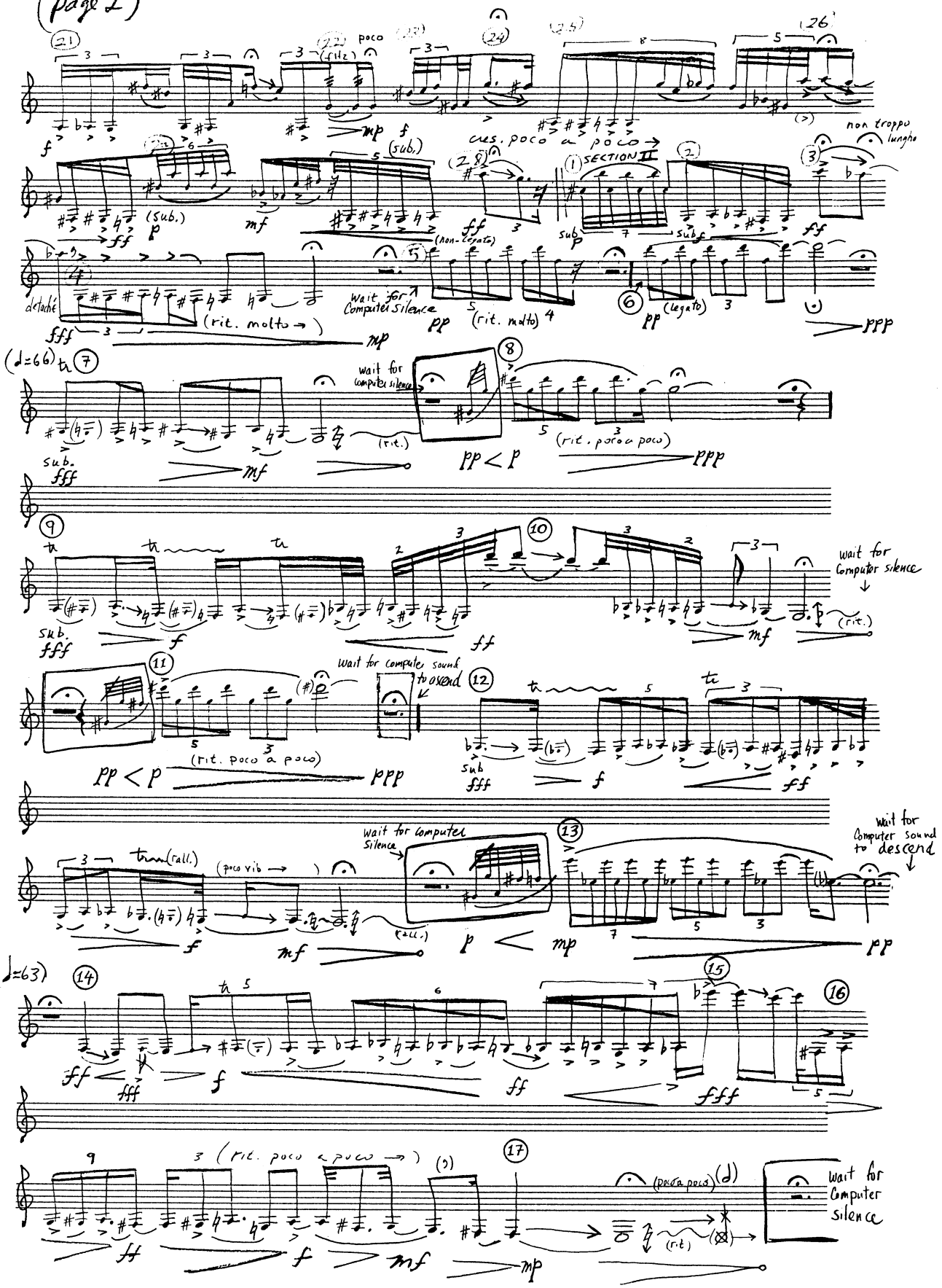
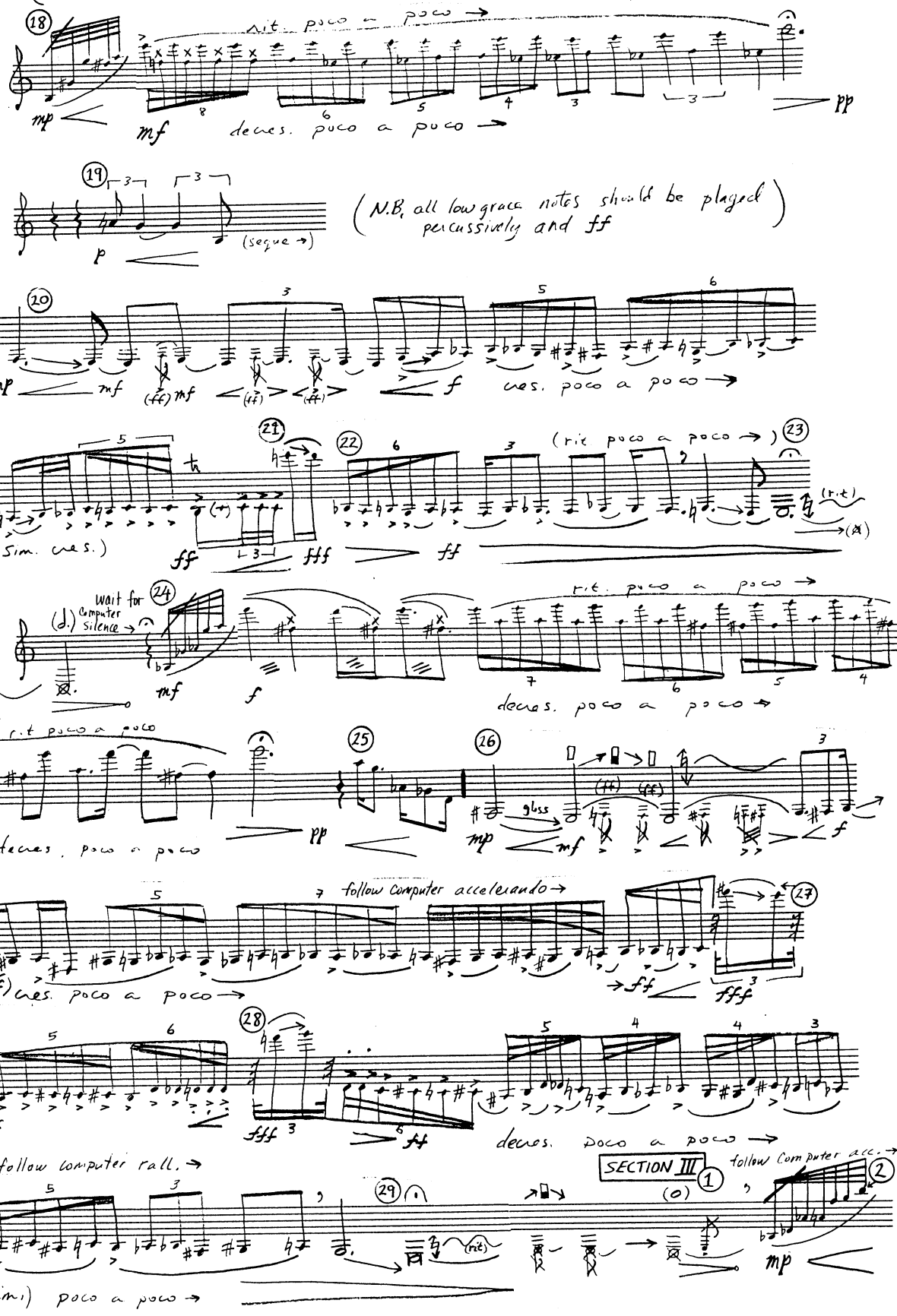
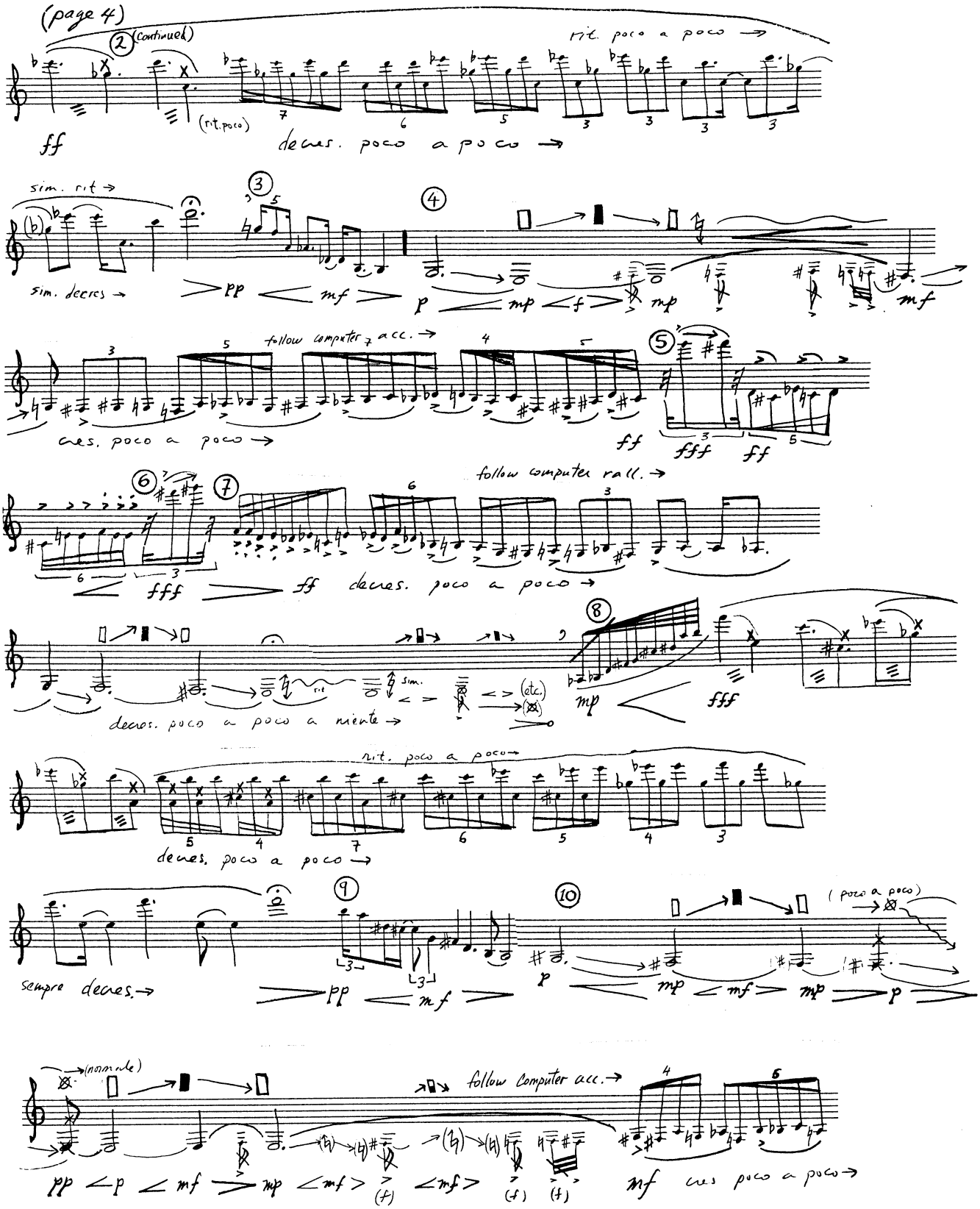


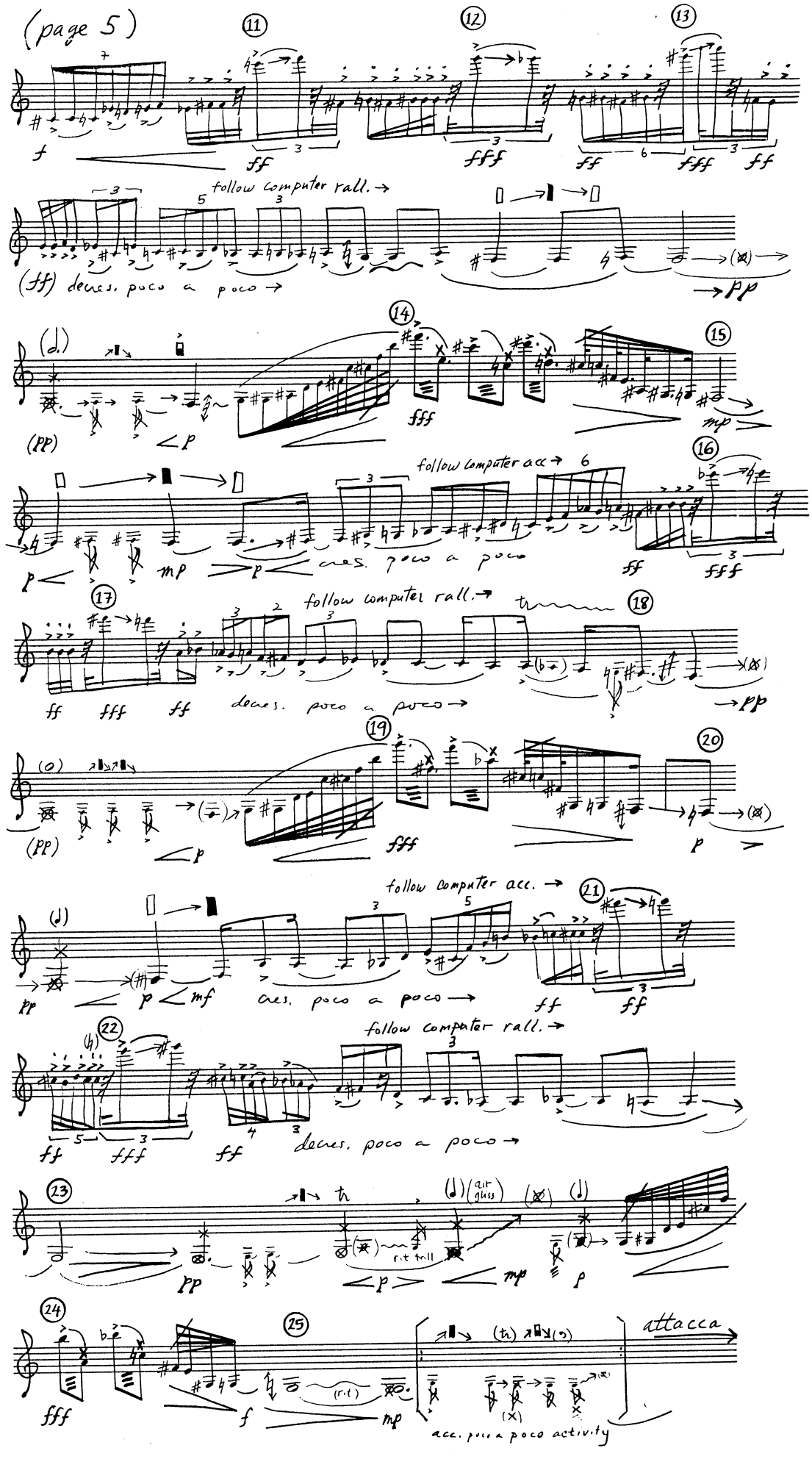

(page 2)
poco
(ritz)
cues, poco a poco
SECTION II
non troppo lungo
(sub.)
(non-legato)
detaché
(rit. molto)
Wait for Computer Silence
(legato)
(rit.)
(rit. poco a poco)
wait for computer silence
wait for computer sound to ascend
(rit. poco a poco)
trem (rall.)
(poco vib)
(rall.)
wait for computer sound to descend
(poco a poco)
Wait for Computer Silence

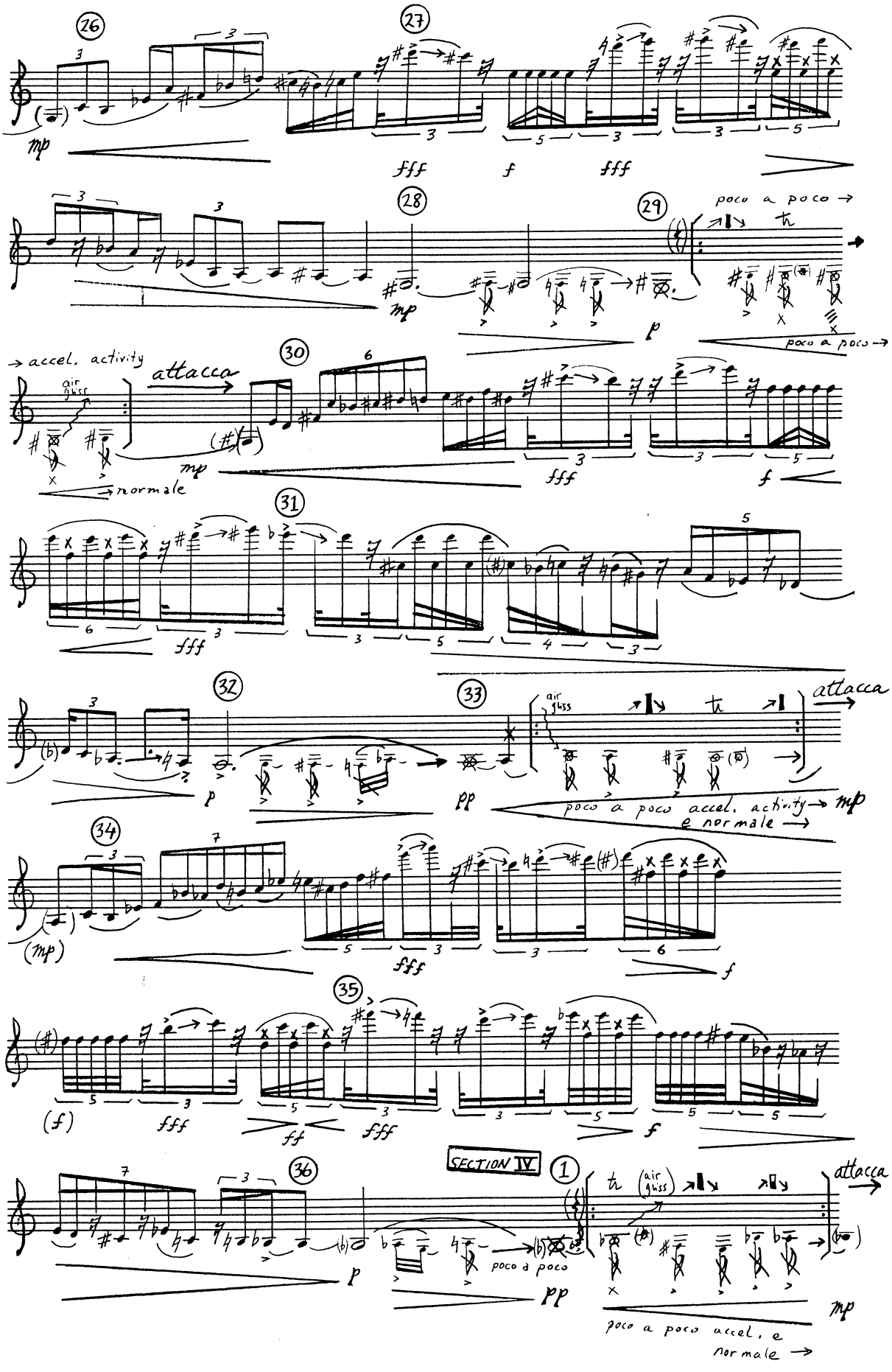
(page 3)

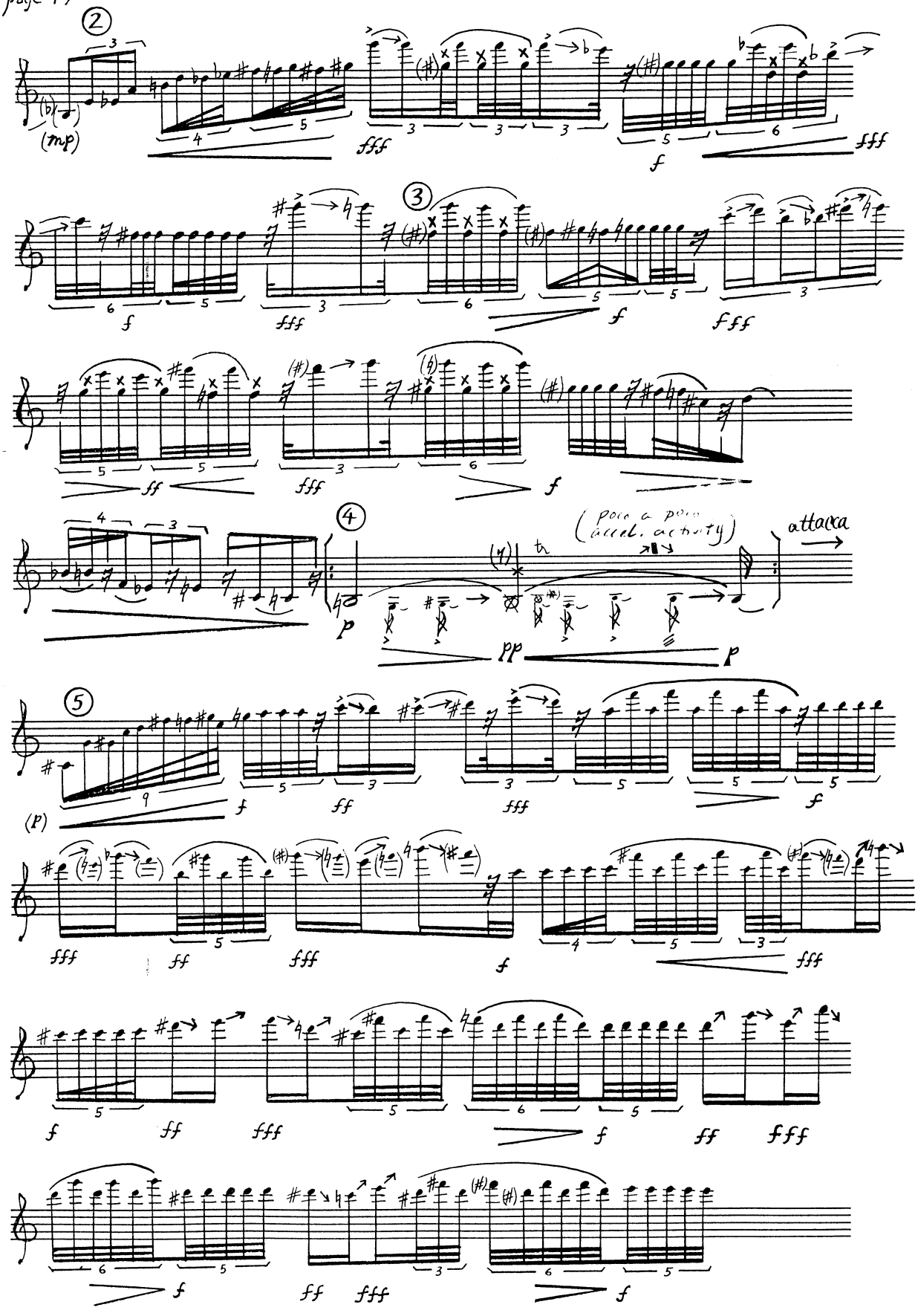

18
rit. poco a poco
mp
mf
decres. poco a poco
pp
19
(N.B. all low grace notes should be played percussively and ff
p
(segue)
20
mp
mf
(ff) mf
(ff)
(ff)
f
cres. poco a poco
21
22
23
(rit poco a poco)
(Sim. cres.)
ff
fff
ff
(rit)
24
wait for computer silence
(d.)
mf
f
rit. poco a poco
decres. poco a poco
sim rit poco a poco
25
26
sim. decres. poco a poco
pp
gliss
mp
mf
f
follow computer accelerando
27
(f) cres. poco a poco
sff
fffff
28
ff
fff
ff
decres. poco a poco
follow computer rall.
SECTION III
1
(0)
follow Computer acc.
2
29
(rit)
(simi) poco a poco
mp

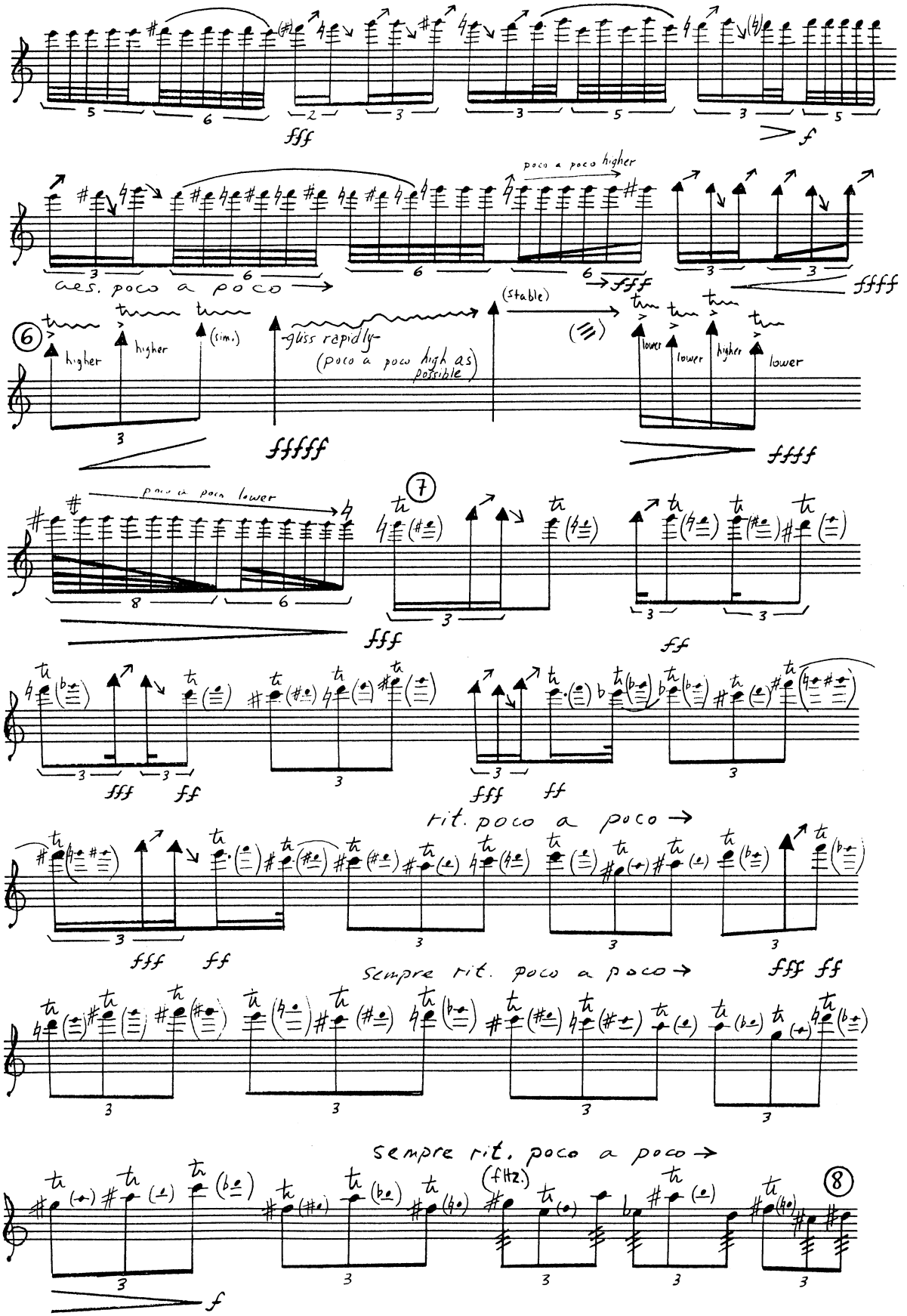
(page 4)


2 (continuel)
rit. poco a poco →
(rit. poco)
ff
decres. poco a poco →
sim. rit →
3
4
sim. decres →
pp
mf
p
mp
f
mp
mf
follow computer 7 acc. →
5
ces. poco a poco →
ff
fff
ff
6
7
follow computer rall. →
fff
ff
decres. poco a poco →
8
sim.
(etc.)
decres. poco a poco a niente →
mp
fff
rit. poco a poco →
decres. poco a poco →
9
10
(poco a poco)
sempre decres. →
pp
mf
p
mp
mf
mp
p
(normale)
follow Computer acc. →
pp
p
mf
mp
mf
(f)
mf
(f)
(f)
mf
ces poco a poco →

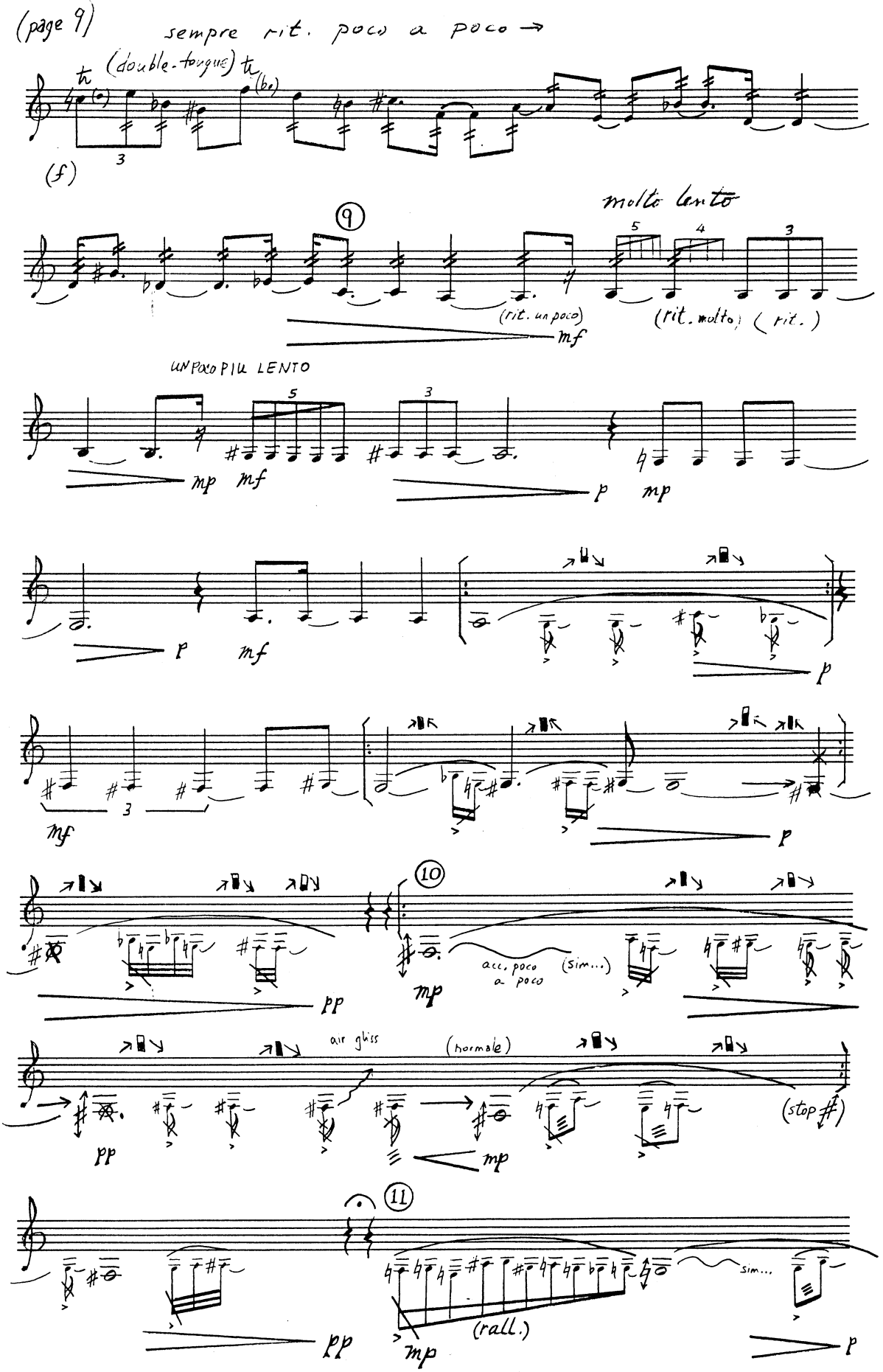

(page 5)
11
12
13
f
ff
fff
fff
ff
follow computer rall.
(ff) decres. poco a poco
pp
14
15
(pp)
p
fff
mp
follow computer acc.
16
p
mp
p
decres. poco a poco
ff
fff
17
follow computer rall.
18
ff
fff
ff
decres. poco a poco
pp
19
20
(pp)
p
fff
p
follow computer acc.
21
pp
p
mf
decres. poco a poco
ff
ff
22
follow computer rall.
ff
fff
ff
decres. poco a poco
23
pp
rit trill
p
mp
p
24
25
attacca
fff
f
mp
acc. poco a poco activity

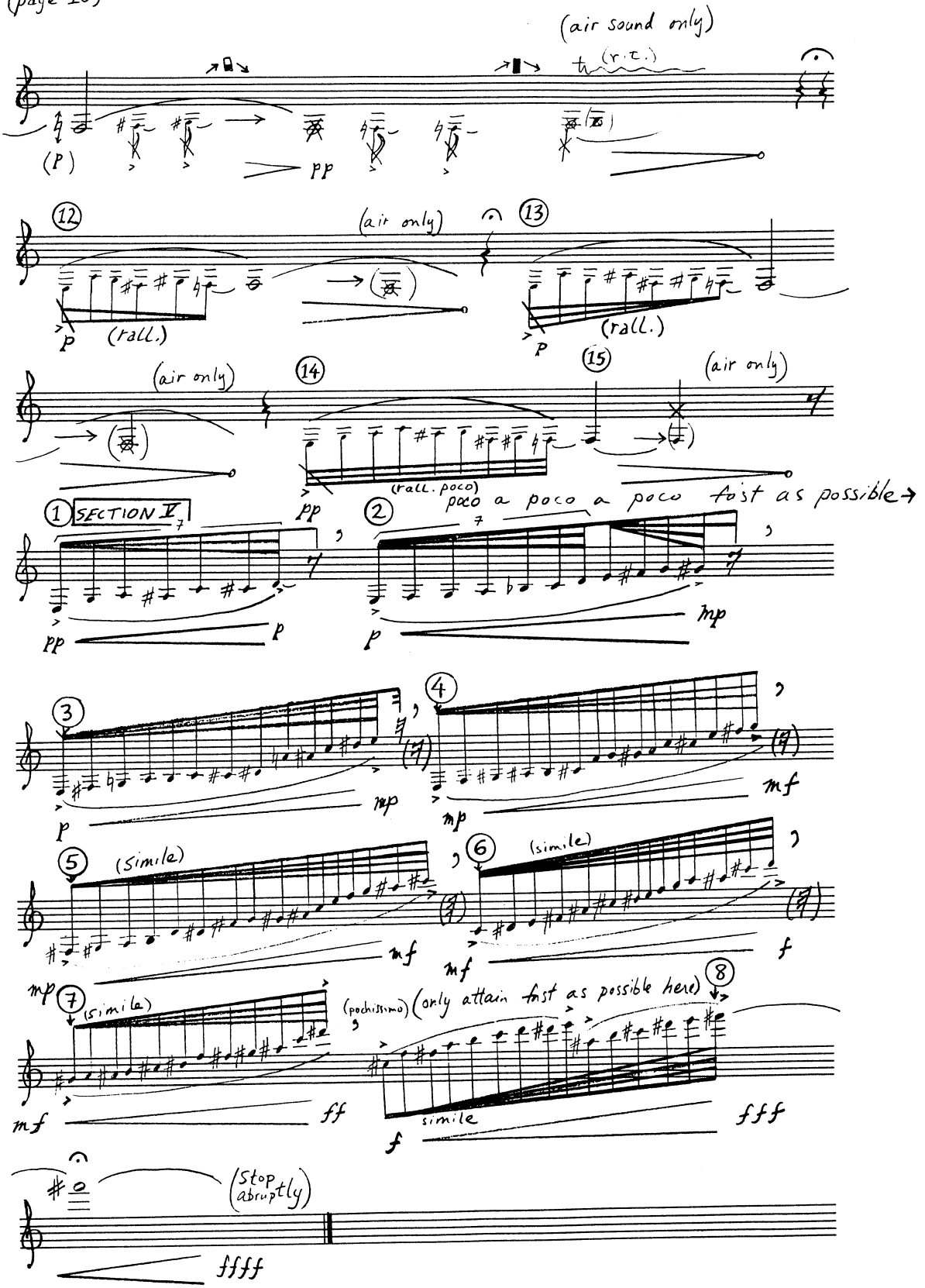

26
27
28
29
30
31
32
33
34
35
36
SECTION IV
1
mp
fff
f
p
poco a poco
accel. activity
attacca
air gliss
normale
pp
poco a poco accel. activity
e normale
(mp)
(f)
ff
poco a poco accel. e
normale


2
(mp)
fff
f
fff
3
f
fff
f
fff
ff
fff
f
4
p
pp
p
(poco a poco accel. activity)
attacca
5
(p)
f
ff
fff
f
fff
ff
fff
f
f
ff
fff
f
f
ff
fff
f


fff
f
poco a poco higher
aes. poco a poco
ffff
fffff
⑥
higher
higher
(sim.)
gliss rapidly
(poco a poco high as possible)
(stable)
lower
lower
higher
lower
fffff
ffff
poco a poco lower
⑦
fff
ff
fff
ff
rit. poco a poco
fff
ff
fff
ff
Sempre rit. poco a poco
Sempre rit. poco a poco
(flhz.)
⑧
f

(page 9)


sempre rit. poco a poco →
(double-tongue)
(f)
9
molto lento
(rit. un poco)
mf
(rit. molto)
(rit.)
UN POCO PIU LENTO
mp
mf
p
mp
p
mf
p
mf
p
10
acc. poco a poco
(sim...)
pp
mp
air gliss
(normale)
(stop)
pp
mp
11
(rall.)
sim...
pp
mp
p


(air sound only)
(r.t.)
(P)
pp
12
(air only)
13
p
(rall.)
(rall.)
(air only)
14
15
(air only)
(rall. poco)
1 SECTION II
pp
p
2
poco a poco a poco fast as possible→
p
mp
3
4
p
mp
mf
mp
5
(simile)
6
(simile)
mf
mf
f
mp
7
(simile)
(pochissimo)
(only attain fast as possible here)
8
mf
ff
simile
f
fff
(Stop abruptly)
ffff