Juraj Kojs

Concealed

for flute and electronics

San Juan de la Cruz: *Noche Oscura*
(second verse)

2. A oscuras y segura,
por la secreta escala, disfrazada,
¡oh dichosa ventura!,
a oscuras y en celada,
estando ya mi casa sosegada.

Saint John of Cross: *Dark Night*

2. In darkness and secure,
by the secret ladder, disguised
—oh, happy chance!—
in darkness and in concealment,
my house being now at rest.

Translated by E. Allison Peers
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Concealed belongs to a series of pieces inspired by poetry of St. John of Cross. These compositions explore instrumental sonorities that lie on the border of hearing. In Concealed, flute predominantly produces colored noise. The concealed pitch becomes heard as the color of timbre. The pitches are derived from the letters of the poem. The electronic part uses recordings of Dan Trueman's MAX/MSP implementation of the flute physical model designed by Perry Cook and Gary Scavone (originally ported in STK). The model was used to augment the sonorities of the physical flute through extending its registral and textural arenas. The model enabled expanding the flute's parameters to unrealistic dimensions and consequently producing novel sonorities and performance modes unattainable on the physical instrument. The new version further explores deforming the Tube model in Ableton Live's Corpus engine.

Performance notes

The notation system is divided into six parts: computer part, regular notation staff, dynamic envelope staff, IN/OUT breathing staff, blow hole staff, and area for notes.

Regular Notation Staff. Accidentals apply only to the note in front of which they are positioned. Allow harmonics to sound at all times.
Dynamic Envelope Staff. The top level suggests ***ffff*** and the bottom level *niente*.
Blow-hole Staff. This staff signifies the percentage of the covered blow-hole. A gesture positioned at the top level requires enclosing the hole completely with mouth ("rolled in"). A gesture located at the bottom level implies a completely open blow-hole ("rolled out").

To achieve the "pitch color", the player is asked to finger notes while avoiding generation of concrete pitch. Depending on the blow-hole enclosure, mouth shape, and dynamics, the pitch is more or less present. It, however, should never transparently resonate. Where indicated, particular *in* and *out* breathing patterns are required.
The player is asked to articulate syllables and words. The syllables are spelled phonetically in English.

Spelling	Sound
a	laugh
d	dip; voiceless alveolar plosive [d]
e	red
f	flower; voiceless labiodental fricative [f]
i	lip
ii	teeth
kkk	cat
rrr	*rolled r*
t	tip ; voiceless alveolar plosive [t]

The words—based on the second verse of *Noche Oscura*—should be spoken with Spanish pronunciation.

Technical requirements

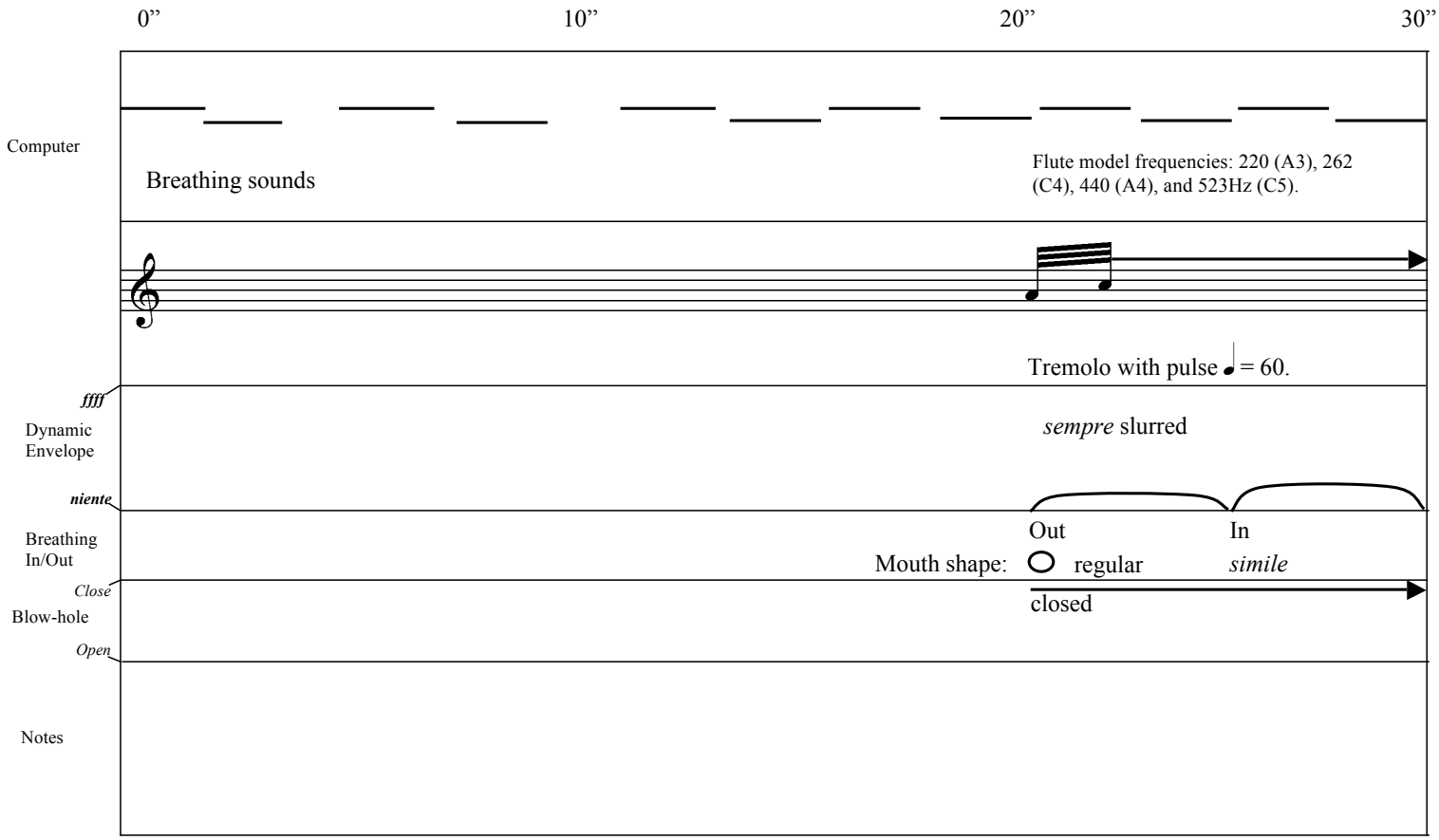
1 microphone

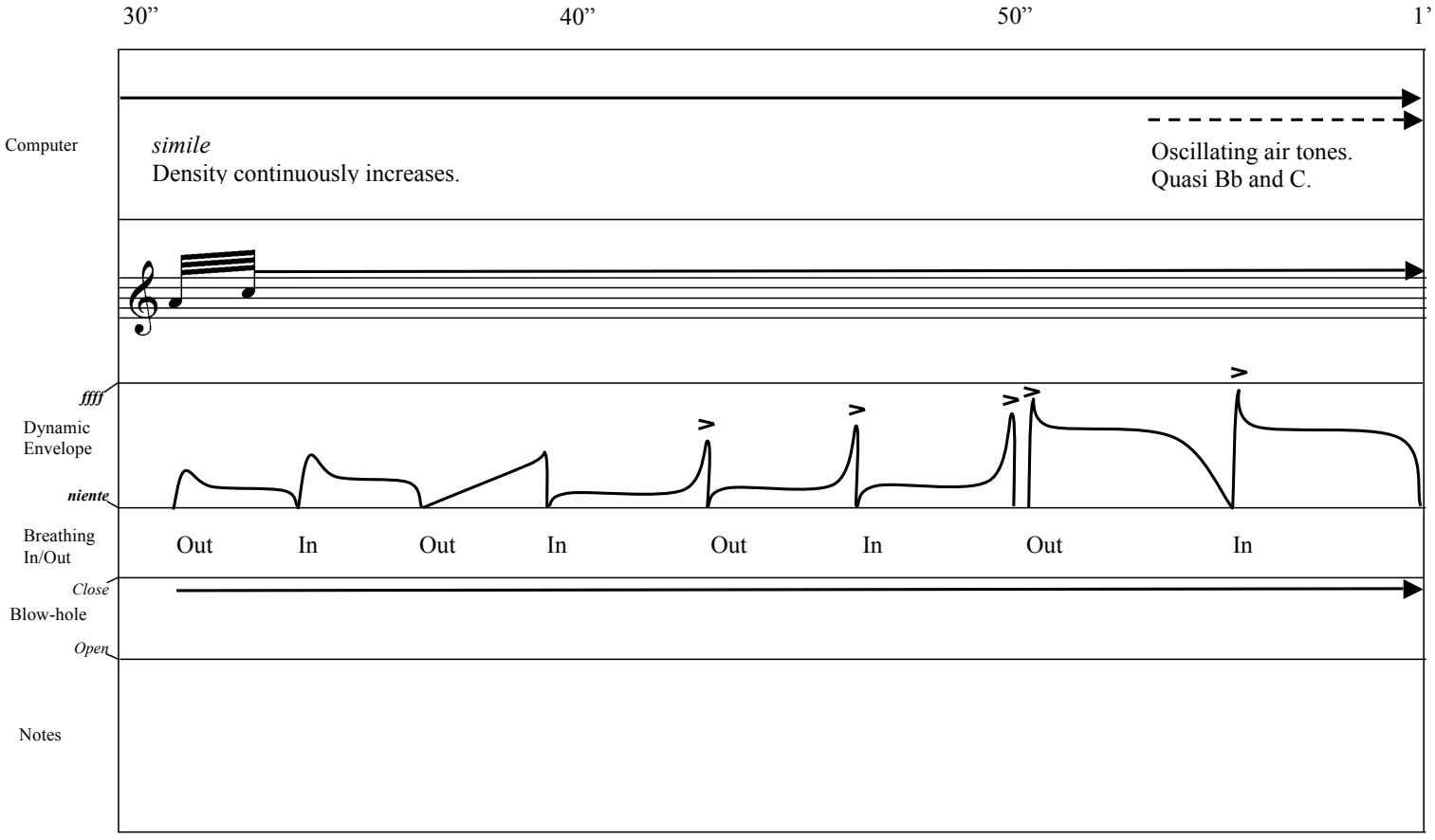
1 Apple computer running Ableton Live

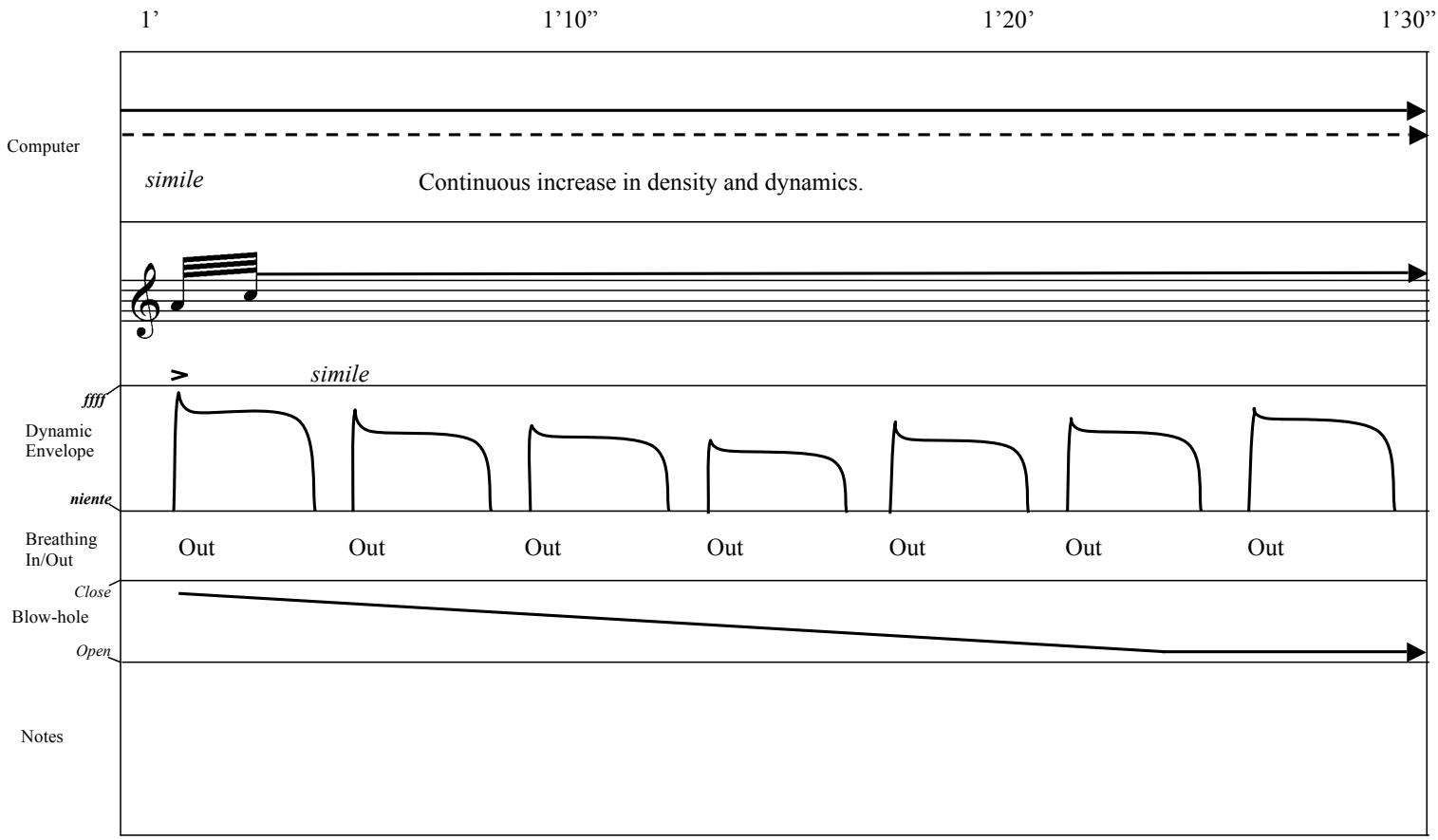
1 Firewire interface

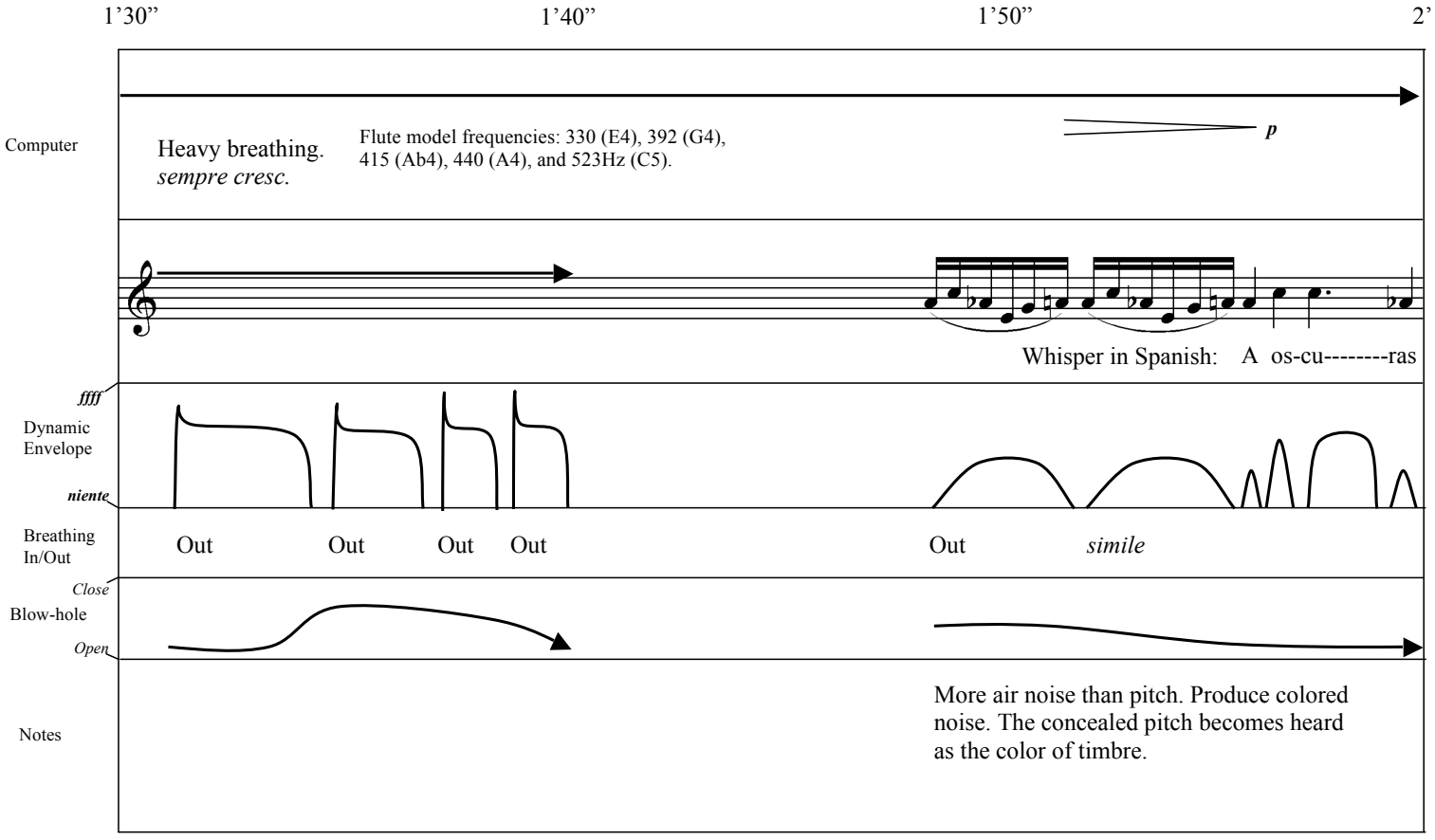
1 Stereo audio system

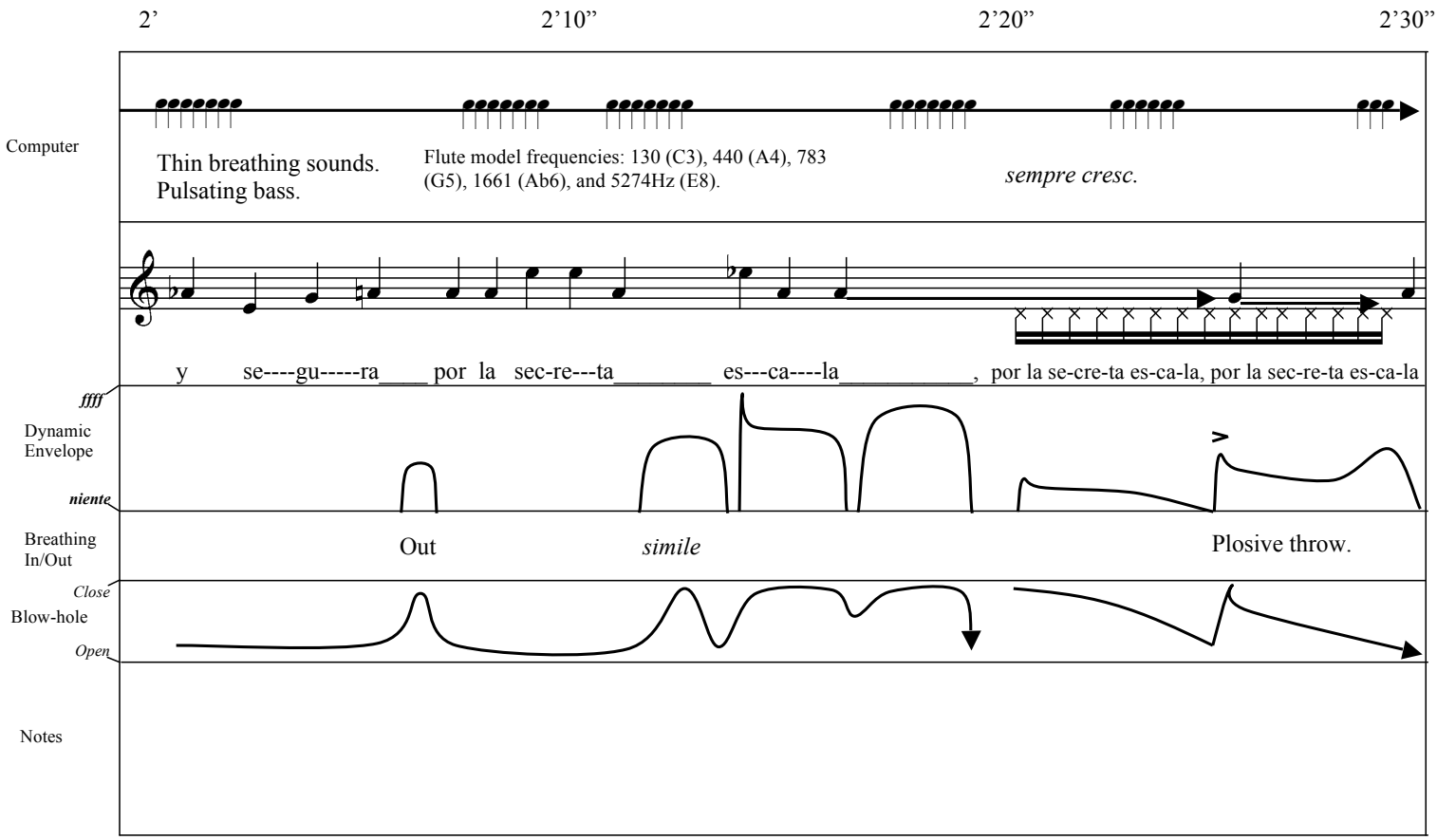
Duration: 7′10″

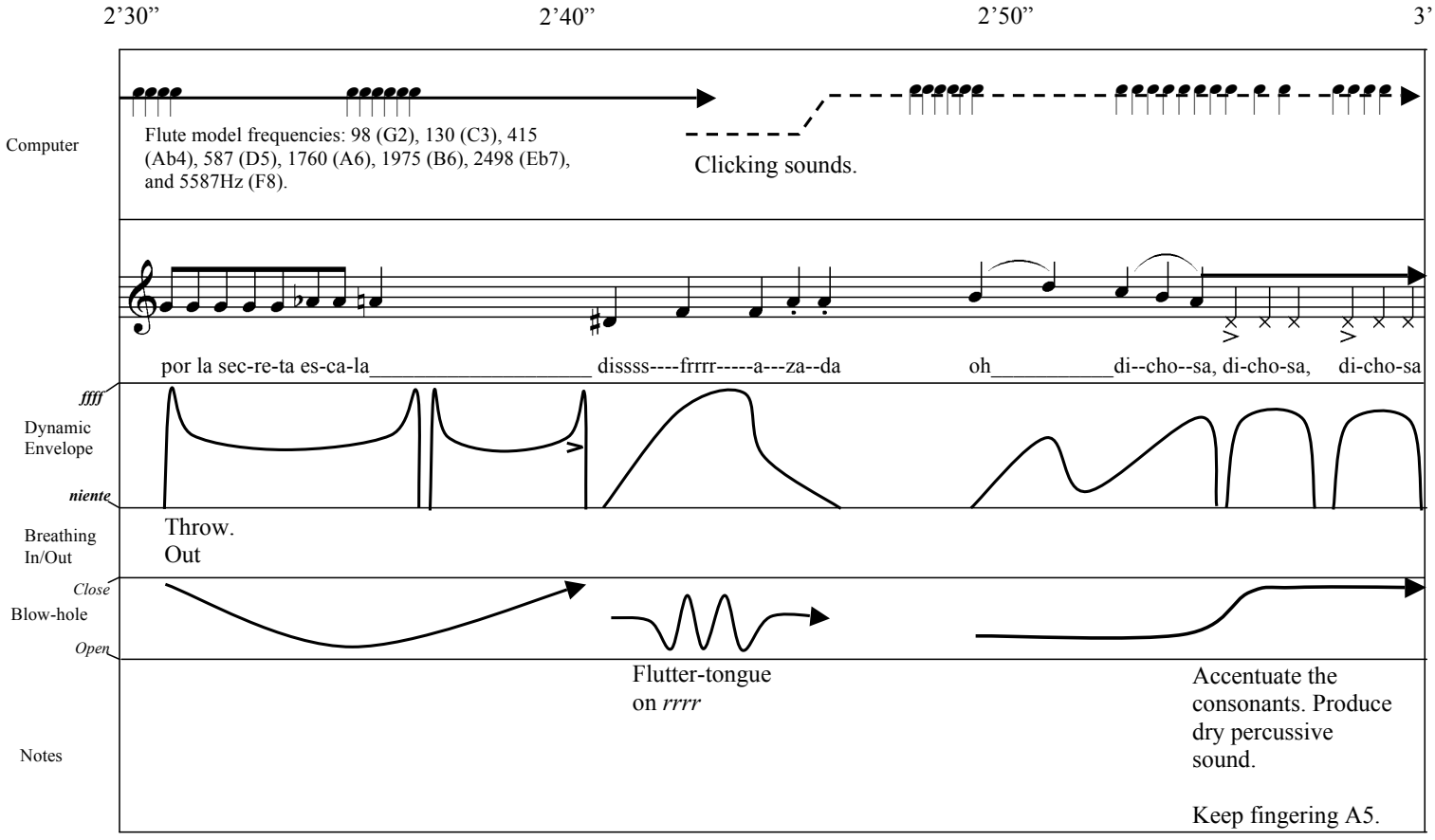

0”
10”
20”
30”
Computer
Breathing sounds
Flute model frequencies: 220 (A3), 262 (C4), 440 (A4), and 523Hz (C5).
Tremolo with pulse ♩ = 60.
fffff
Dynamic Envelope
sempre slurred
niente
Breathing In/Out
Out
In
Mouth shape:
regular
simile
Close
Blow-hole
closed
Open
Notes

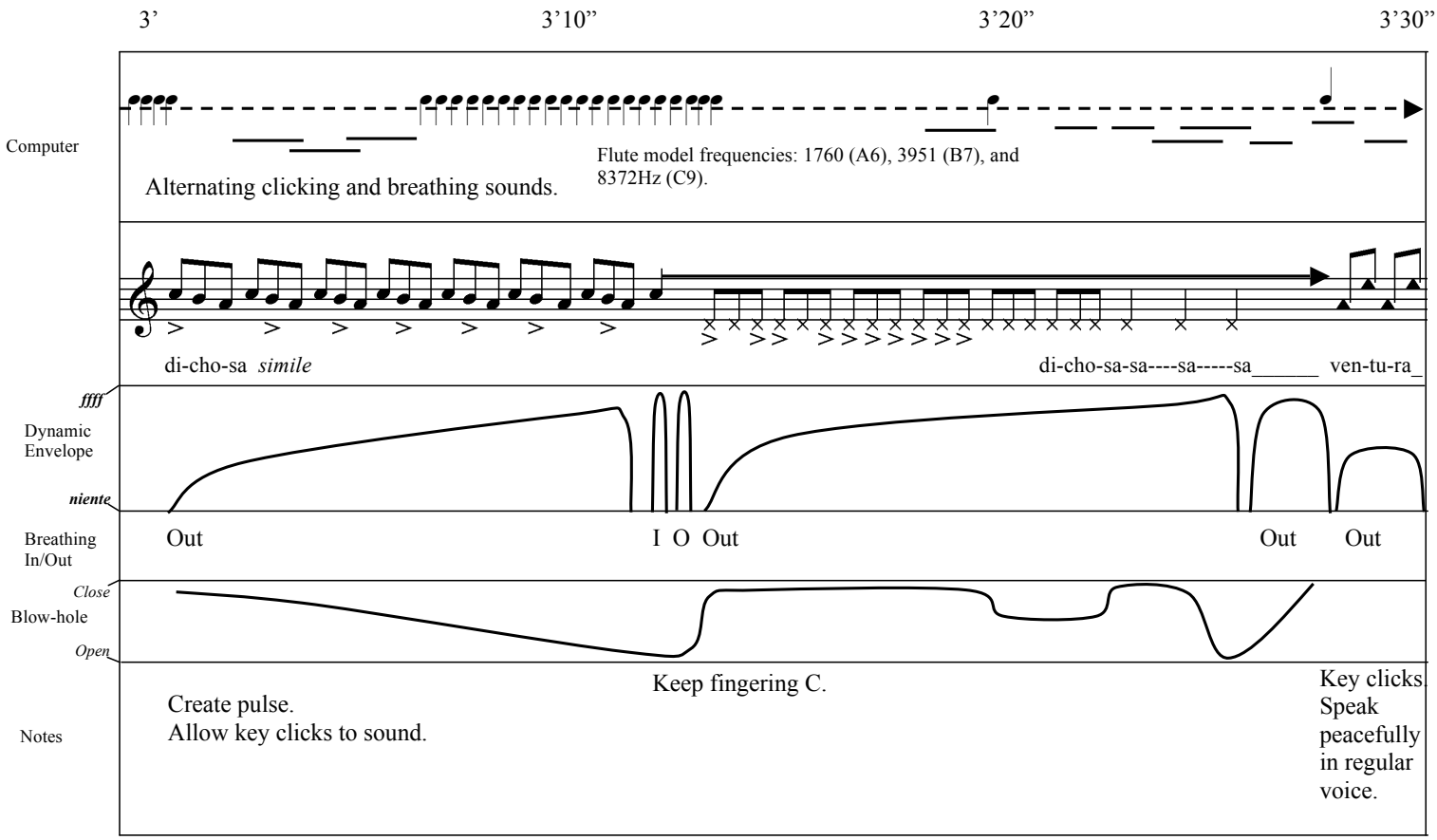

30”
40”
50”
1’
Computer
simile
Density continuously increases.
Oscillating air tones.
Quasi Bb and C.
fffff
Dynamic Envelope
niente
Breathing In/Out
Out
In
Out
In
Out
In
Out
In
Close
Blow-hole
Open
Notes

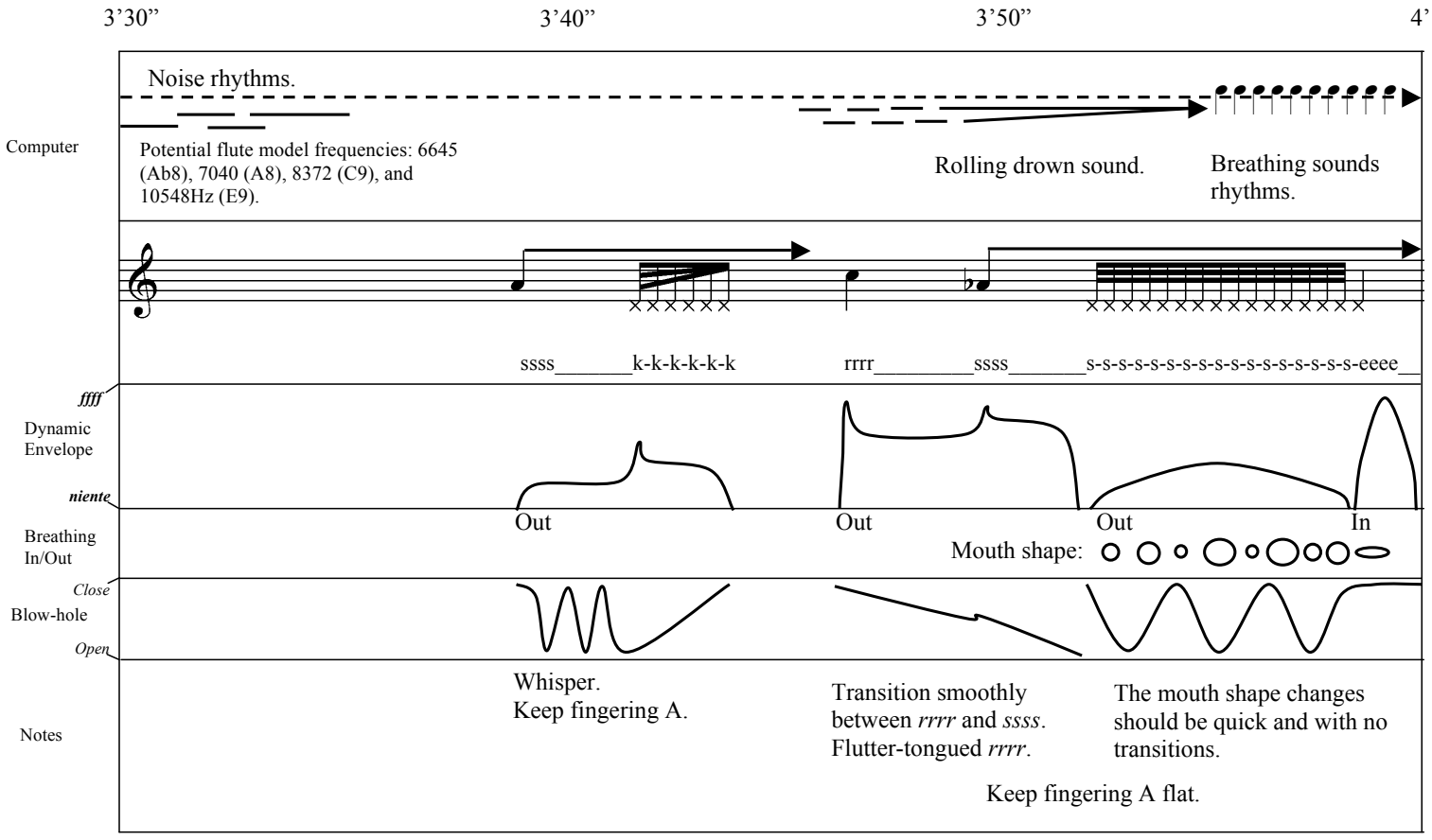

1’
1’10”
1’20’
1’30”
Computer
simile
Continuous increase in density and dynamics.
simile
ffff
Dynamic Envelope
niente
Breathing In/Out
Out
Out
Out
Out
Out
Out
Out
Close
Blow-hole
Open
Notes

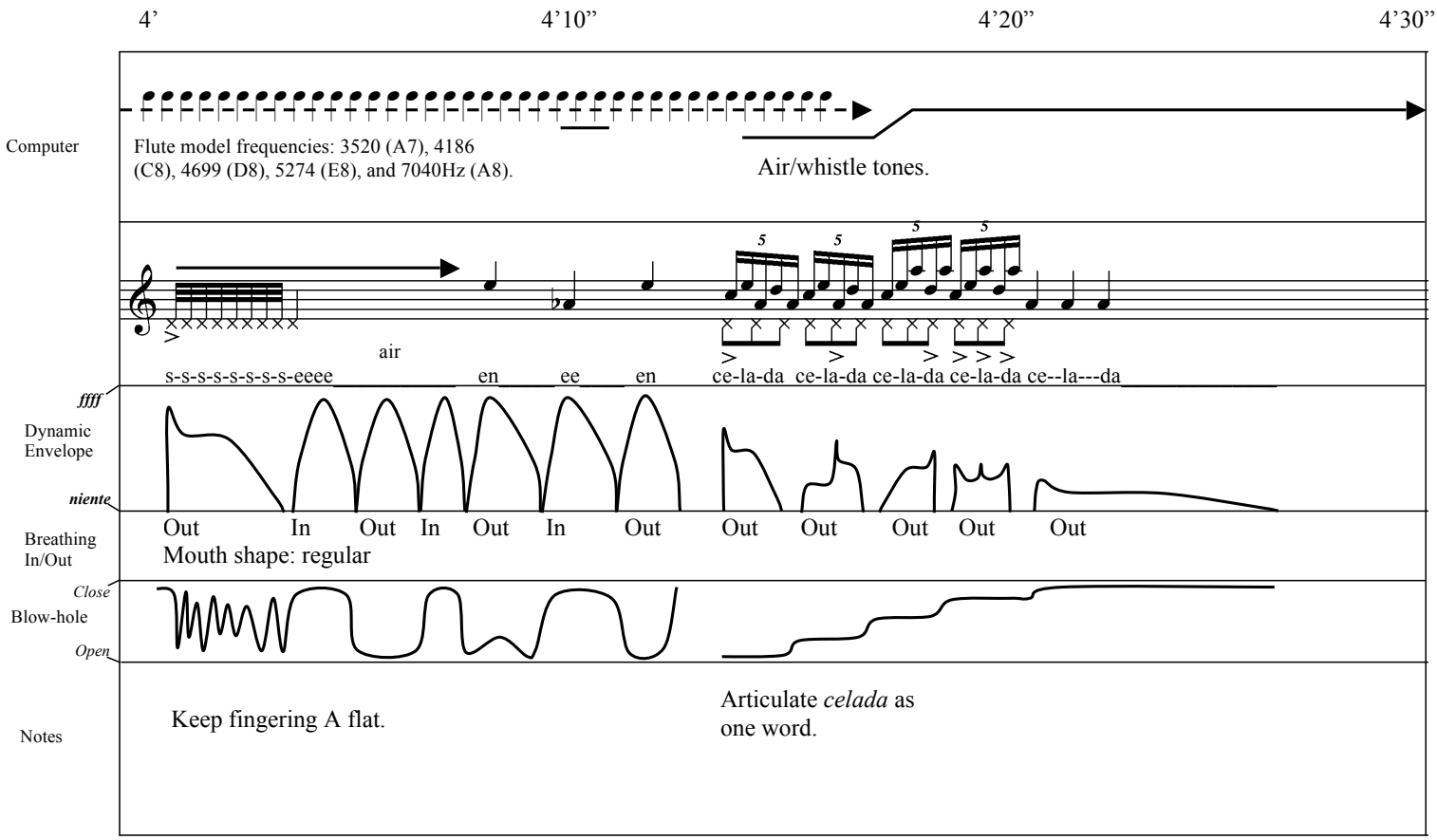

1’30”
1’40”
1’50”
2’
Computer
Heavy breathing.
sempre cresc.
Flute model frequencies: 330 (E4), 392 (G4), 415 (Ab4), 440 (A4), and 523Hz (C5).
p
Whisper in Spanish: A os-cu--------ras
ffff
Dynamic Envelope
niente
Breathing In/Out
Out
Out
Out
Out
Out
simile
Close
Blow-hole
Open
Notes
More air noise than pitch. Produce colored noise. The concealed pitch becomes heard as the color of timbre.

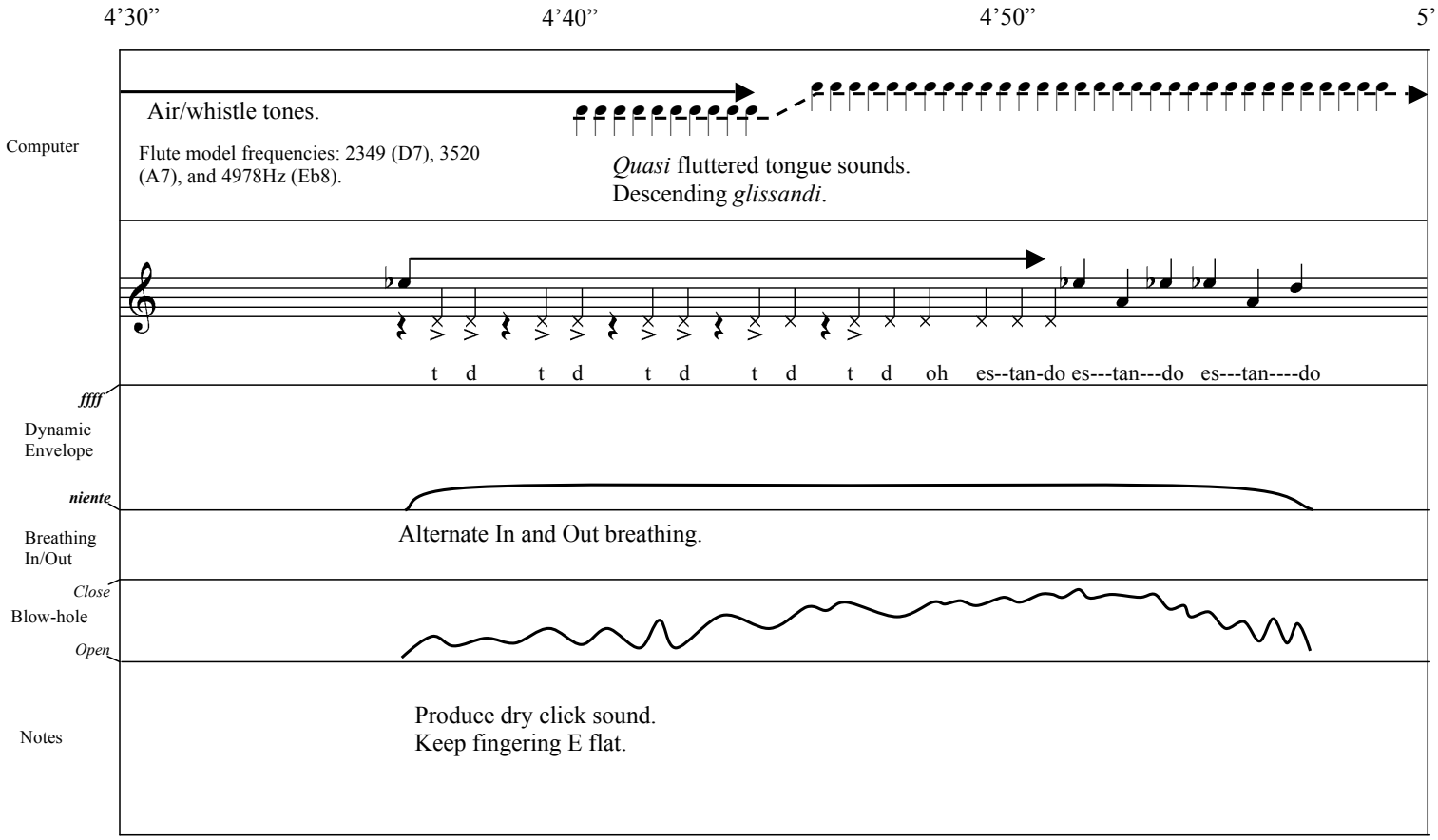

2’
2’10”
2’20”
2’30”
Computer
Thin breathing sounds.
Pulsating bass.
Flute model frequencies: 130 (C3), 440 (A4), 783 (G5), 1661 (Ab6), and 5274Hz (E8).
sempre cresc.
y se----gu-----ra____ por la sec-re---ta_____ es---ca----la_____, por la se-cre-ta es-ca-la, por la sec-re-ta es-ca-la
fffff
Dynamic Envelope
niente
Breathing In/Out
Out
simile
Plosive throw.
Close
Blow-hole
Open
Notes

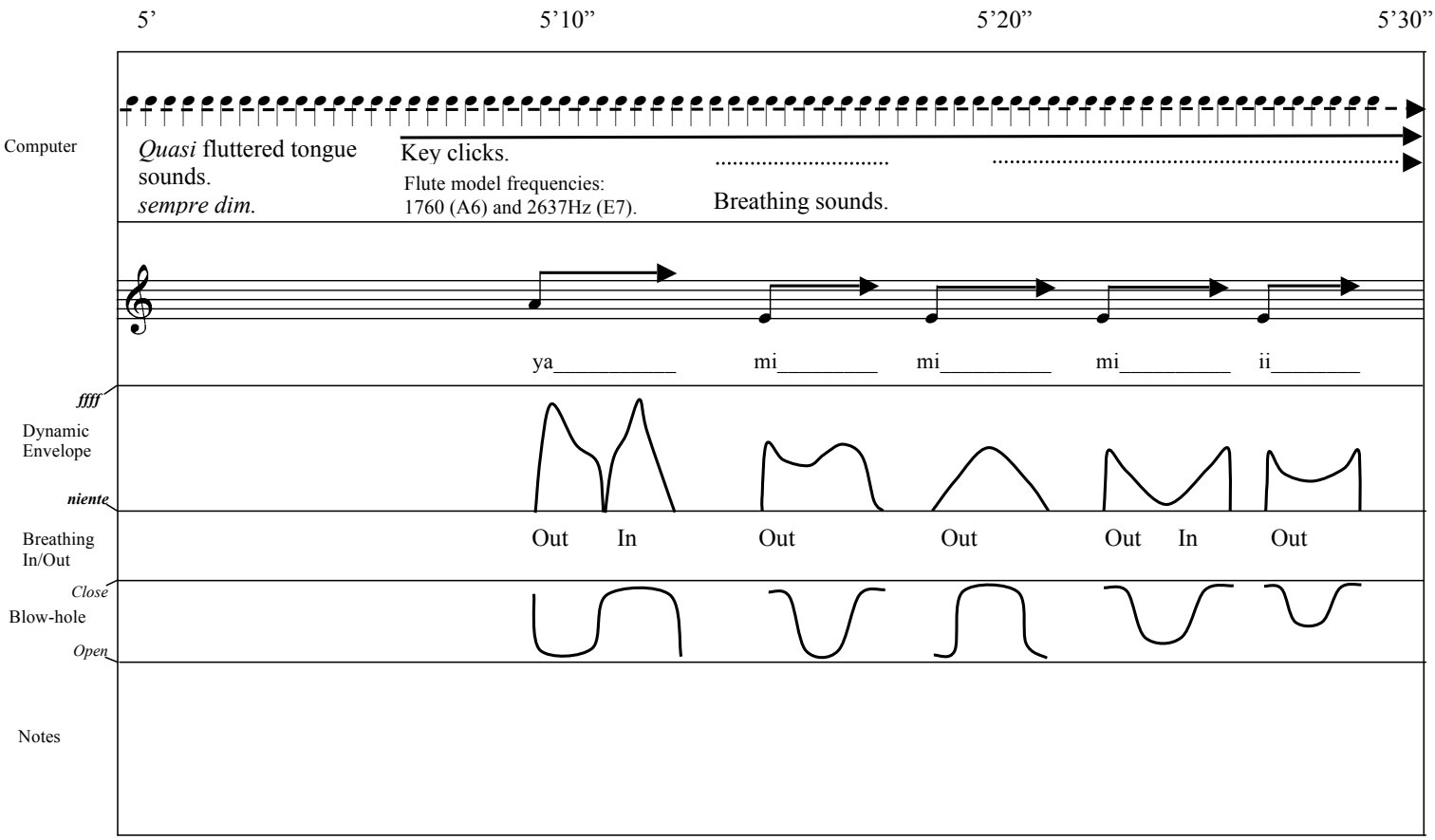

2’30”
2’40”
2’50”
3’
Computer
Flute model frequencies: 98 (G2), 130 (C3), 415 (Ab4), 587 (D5), 1760 (A6), 1975 (B6), 2498 (Eb7), and 5587Hz (F8).
Clicking sounds.
por la sec-re-ta es-ca-la_____ dissss----frrrr-----a---za--da
oh_____di--cho--sa, di-cho-sa,
di-cho-sa
fffff
Dynamic Envelope
niente
Breathing In/Out
Throw.
Out
Close
Blow-hole
Open
Flutter-tongue on *rrrr*
Accentuate the consonants. Produce dry percussive sound.
Keep fingering A5.
Notes

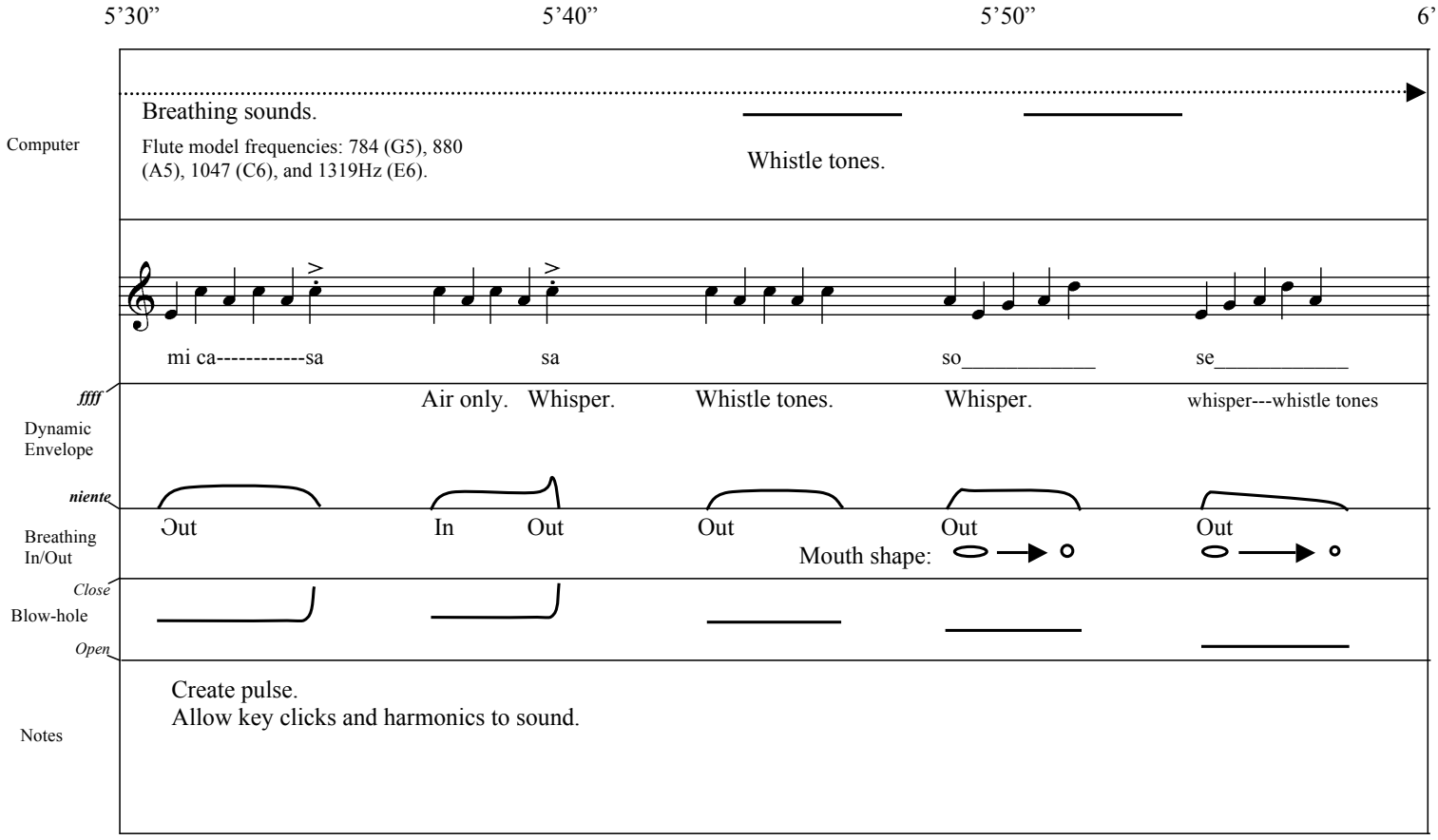

3’
3’10”
3’20”
3’30”
Computer
Alternating clicking and breathing sounds.
Flute model frequencies: 1760 (A6), 3951 (B7), and 8372Hz (C9).
di-cho-sa *simile*
di-cho-sa-sa----sa-----sa_____ ven-tu-ra_
ffff
Dynamic Envelope
niente
Breathing In/Out
Out
I O Out
Out
Out
Close
Blow-hole
Open
Keep fingering C.
Notes
Create pulse.
Allow key clicks to sound.
Key clicks. Speak peacefully in regular voice.

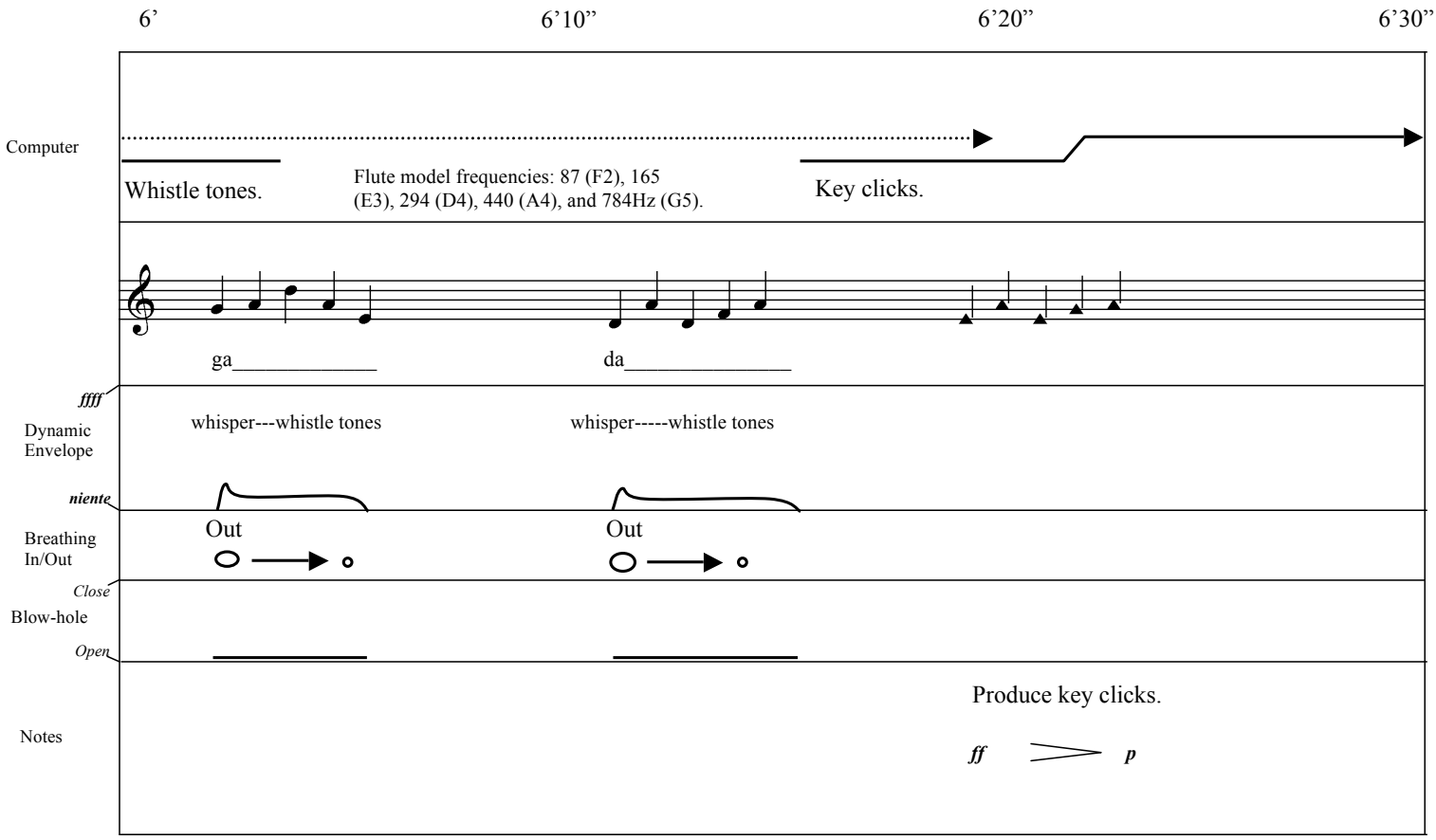

3’30”
3’40”
3’50”
4’
Noise rhythms.
Computer
Potential flute model frequencies: 6645 (Ab8), 7040 (A8), 8372 (C9), and 10548Hz (E9).
Rolling drown sound.
Breathing sounds rhythms.
ssss_____k-k-k-k-k-k
rrrr_____ssss_____s-s-s-s-s-s-s-s-s-s-s-s-s-s-s-s-eeee__
ffff
Dynamic Envelope
niente
Breathing In/Out
Out
Out
Out
In
Mouth shape:
Close
Blow-hole
Open
Whisper.
Keep fingering A.
Transition smoothly between *rrrr* and *ssss*.
Flutter-tongued *rrrr*.
The mouth shape changes should be quick and with no transitions.
Keep fingering A flat.
Notes

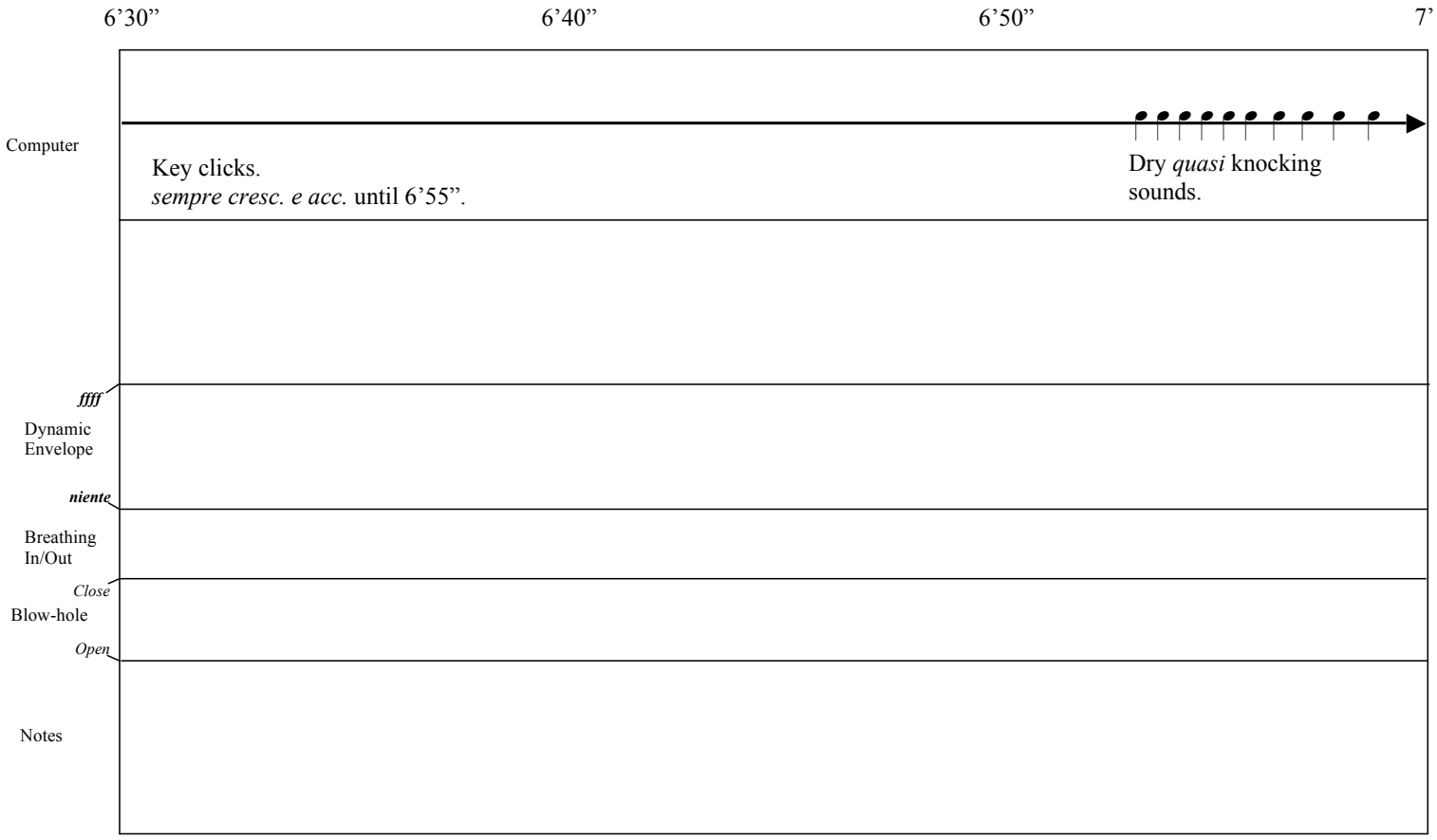

4’
4’10”
4’20”
4’30”
Computer
Flute model frequencies: 3520 (A7), 4186 (C8), 4699 (D8), 5274 (E8), and 7040Hz (A8).
Air/whistle tones.
air
s-s-s-s-s-s-s-s-eeee en ee en
ce-la-da ce-la-da ce-la-da ce-la-da ce--la---da
fffff
Dynamic Envelope
niente
Breathing In/Out
Out In Out In Out In Out Out Out Out Out Out
Mouth shape: regular
Close
Blow-hole
Open
Keep fingering A flat.
Articulate *celada* as one word.
Notes

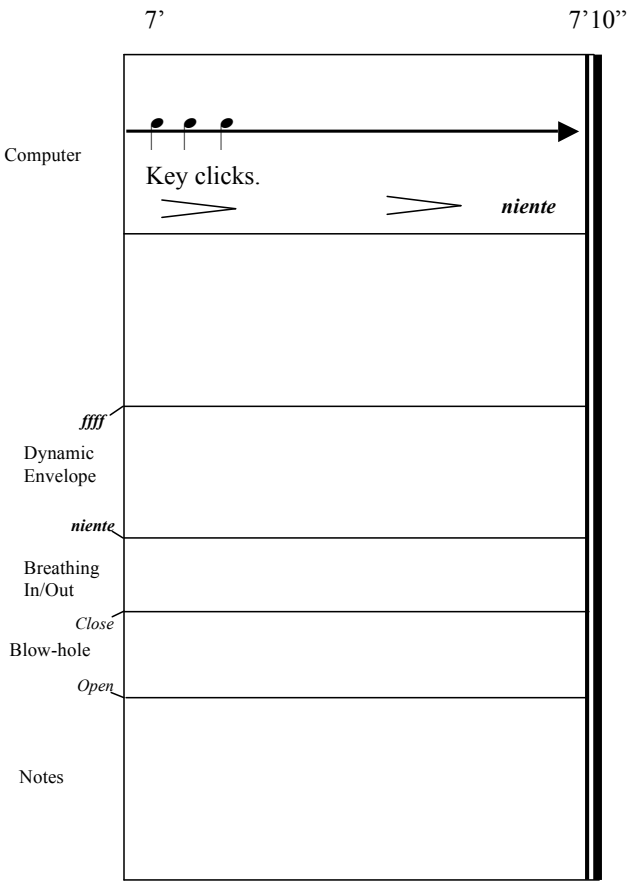

4’30”
4’40”
4’50”
5’
Air/whistle tones.
Computer
Flute model frequencies: 2349 (D7), 3520 (A7), and 4978Hz (Eb8).
Quasi fluttered tongue sounds.
Descending *glissandi*.
t d t d t d t d t d oh es--tan-do es---tan---do es---tan----do
fffff
Dynamic Envelope
niente
Breathing In/Out
Alternate In and Out breathing.
Close
Blow-hole
Open
Produce dry click sound.
Keep fingering E flat.
Notes


5’
5’10”
5’20”
5’30”
Computer
Quasi fluttered tongue sounds.
sempre dim.
Key clicks.
Flute model frequencies:
1760 (A6) and 2637Hz (E7).
Breathing sounds.
ya_____
mi_____
mi_____
mi_____
ii_____
fffff
Dynamic Envelope
niente
Breathing In/Out
Out
In
Out
Out
Out
In
Out
Close
Blow-hole
Open
Notes


5’30”
5’40”
5’50”
6’
Computer
Breathing sounds.
Flute model frequencies: 784 (G5), 880 (A5), 1047 (C6), and 1319Hz (E6).
Whistle tones.
mi ca----------sa
sa
so_____
se_____
fffff
Air only.
Whisper.
Whistle tones.
Whisper.
whisper---whistle tones
Dynamic Envelope
niente
Out
In
Out
Out
Out
Out
Mouth shape:
Breathing In/Out
Close
Blow-hole
Open
Create pulse.
Allow key clicks and harmonics to sound.
Notes


6’
6’10”
6’20”
6’30”
Computer
Whistle tones.
Flute model frequencies: 87 (F2), 165 (E3), 294 (D4), 440 (A4), and 784Hz (G5).
Key clicks.
ga_____
da_____
fffff
Dynamic Envelope
whisper---whistle tones
whisper-----whistle tones
niente
Out
Out
Breathing In/Out
Close
Blow-hole
Open
Produce key clicks.
Notes
ff
p


6’30”
6’40”
6’50”
7’
Computer
Key clicks.
sempre cresc. e acc. until 6’55”.
Dry quasi knocking sounds.
fffff
Dynamic Envelope
niente
Breathing In/Out
Close
Blow-hole
Open
Notes


7’
7’10”
Computer
Key clicks.
niente
fffff
Dynamic
Envelope
niente
Breathing
In/Out
Close
Blow-hole
Open
Notes