

unvoiced (2016)
for voice and live-electronics

Luc Döbereiner

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duration: 8 minutes

General

The piece consists of four sections. The material and the relation between the voice and the live-electronics are different in each section. Section 1 last from second 1 to 154; section 2 lasts from second 159 to 271.25; section 3 lasts from second 278 to 362; section 4 lasts from section 362 until the end of the piece.

Durations are indicated in different ways throughout the piece, but in all sections the time is indicated in seconds above the staff (sometimes additional to rhythmic notation). The live-electronics are triggered, fed, and controlled by the voice. While rhythms and timing can be adjusted on a micro-level the formal units (sections) need to start and end exactly at the indicated times. The singer should therefore perform the piece with a stopwatch. The timing of events and changes in section 1 is indicated both in seconds and in rhythmical notation.

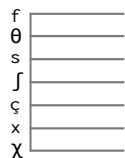
Setup and Electronics

The singer sits on a chair in the middle of the stage. Two loudspeakers are to be placed to right and to the left of the singer with an appropriate distance depending on the performance space. The electronics require 1 dynamic microphone, 2 loudspeakers, and an appropriate mixing desk. The computer outputs 4 signals. Signal 1 and 2 are used for amplification; the voice is compressed and reverberated. Signal 3 and 4 are the live-electronics themselves. The output and input channels can be adjusted in the SuperCollider patch.

The SuperCollider patch requires at least version 3.6. and the sc-plugins. Moreover the PhinGen UGen developed by the composer is required and can be requested from the composer (Linux or Mac OS 64bit binaries + C++ source code). The patch is reproduced in this score. The patch and required files can be downloaded from http://doebereiner.org/music/unvoiced_electronics.zip For further questions, please write to: luc.doebereiner@gmail.com.

Symbols

The International Phonet Alphabet (IPA) is used through the piece as a phonetic notation. Arrows between phonetic symbols indicate transitions.



Section 1 uses a special staff with seven ledger lines indicating the place of articulations for voiceless fricative consonants and rolls.

fχ

ingressive



egressive

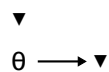


Symbols in direct succession indicate the attack and the sustain of a sound.

ingressive sounds (breathing in)

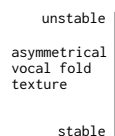
egressive sounds (breathing in)

The singer may chose freely to perform some of the multiphonic and creaky sounds as well as the asymmetrical vocal fold textures ingressively or egressively.



Whistle. May be very breathy depending on the context.

Transition from a fricative to a whistle.



Complex vibratory pattern including multiple fundamental frequencies. "stable" denotes periodic patterns and "unstable" denotes nonperiod, non-continuous and chaotic pitch movements. See Michael Edgerton, *The 21st-Century Voice*, Lanham: Scarecrow Press, 2004.

low fry



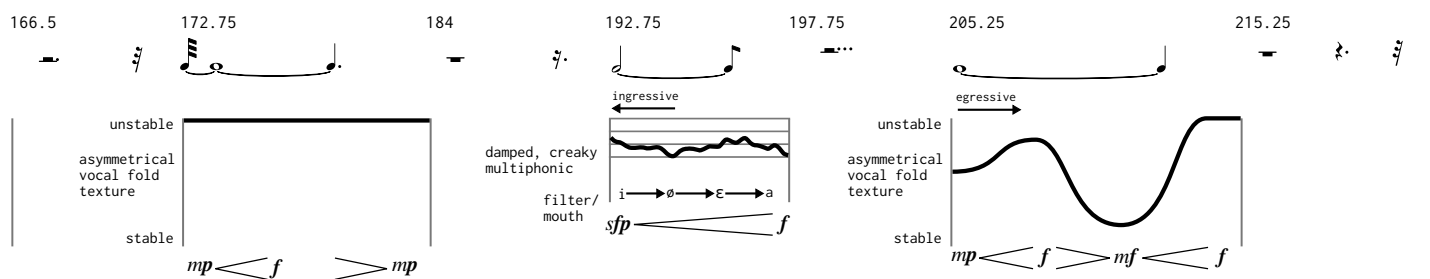
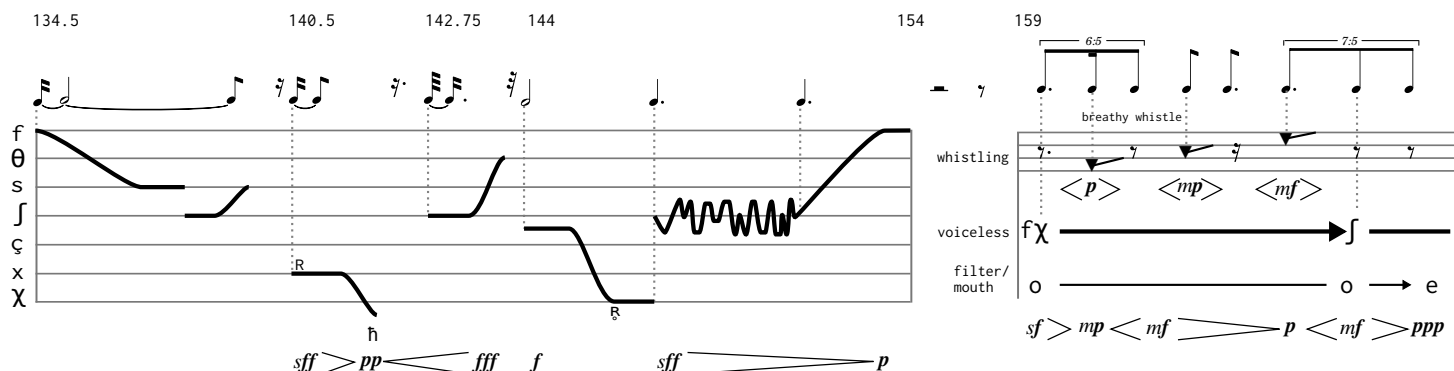
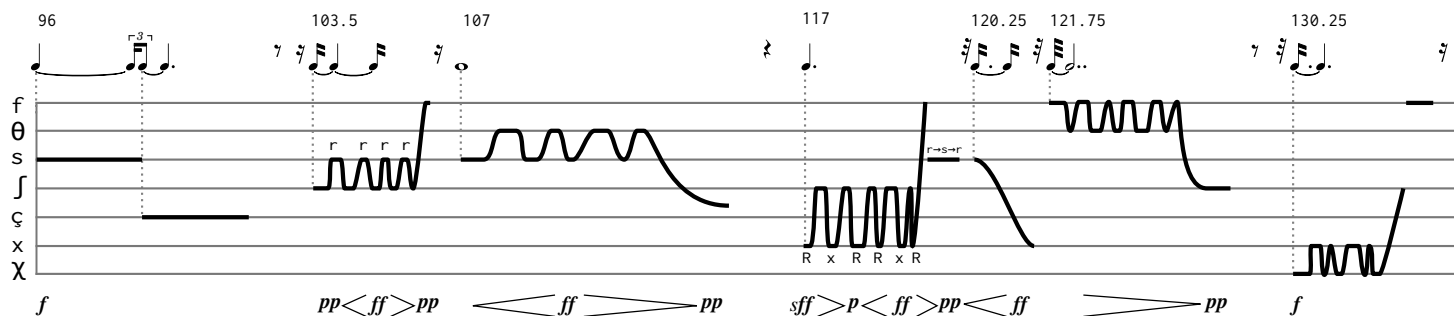
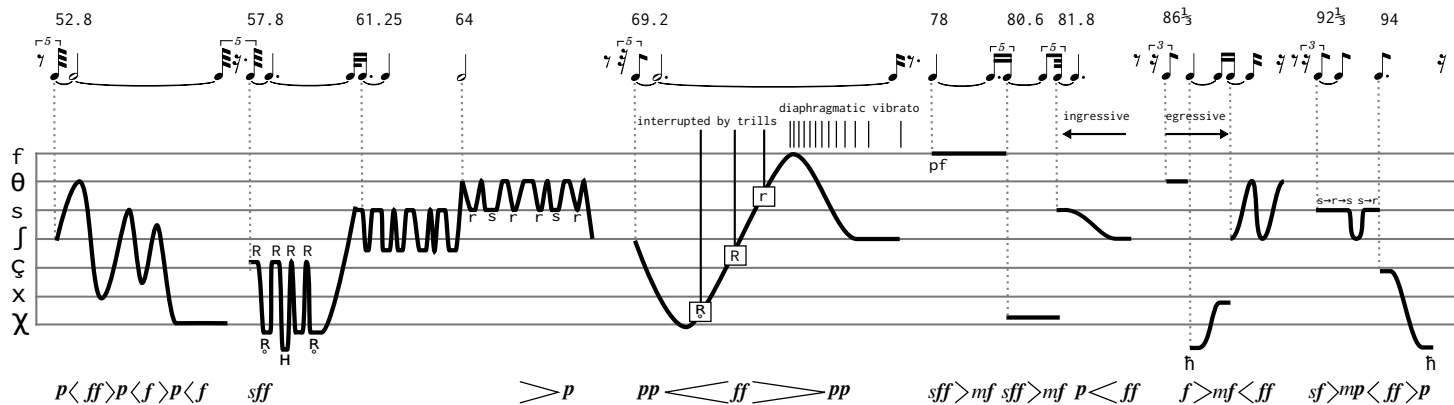
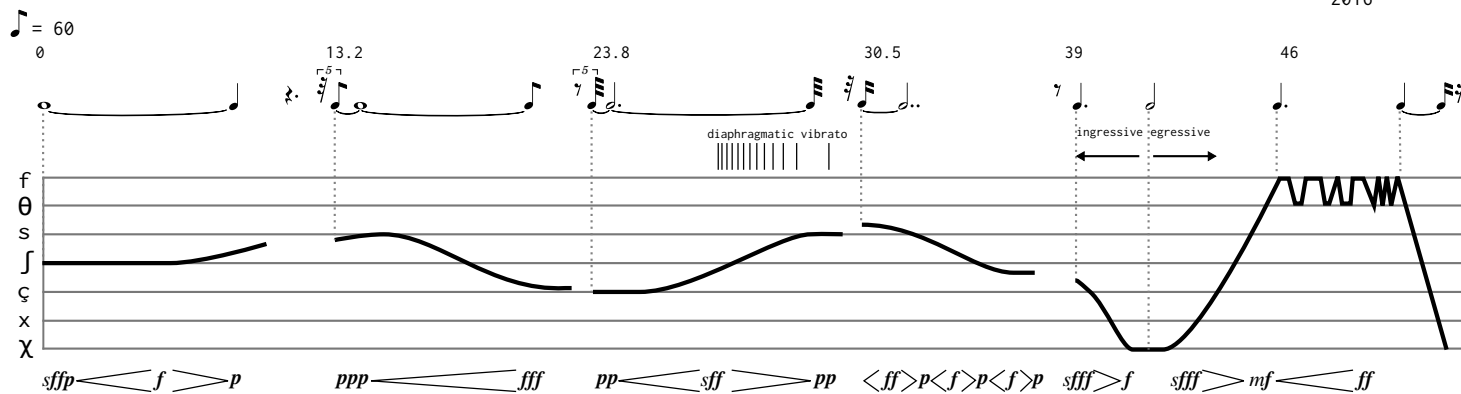
Low fry. Transition from high density to low density fry clicks.

filter/
mouth

Phonemes in this staff are not to be vocalized directly, but are to be used for filtering other vocal actions.

unvoiced

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226.5 235.25 245.25 257.75 262.75 271.25

damped creaky
filter/mouth
a → ø → y → m
sff > mp < mf > p

unstable
asymmetrical vocal fold texture
stable
mp < f > mp

voiceless
diaphr. vib. ingressive interrupting plosives egressive
p t k
damped creaky low fry
filter/mouth y → æ
pp < ff > p < f > pp

legato where possible

278 280 282 284 286 288 290

χ s j θ x > r θ f θ kx kç r
filter/mouth u u → y i o i y → o → a
f > pp < ff mf f mf f > p sfp sfp mf ff > p

292 294 296 298 300 302 304

θ s j ç x k j
filter/mouth o y → i → e o → a → e
ff > p pp < ff > pp < ff > pp < f > mp < f > p < ff > p ppp < mf p

306 308 310 312 314 316 318

filter/mouth o half-closed ø → y → i → e
f p mf > pp sff > p pp < f > pp

320 322 324 326 328 330 332

barely whistling s f interrupted by trills r r r r
filter/mouth u a a
mf > pp < f > pp fff fff ff > p < ff > p

tongue pressed to the palate

334 336 338 340 342 344 346

348 350 352 354 356 358 360

ingressive
damped, creaky
multiphonic

vib. as indicated

filter/
mouth

ppp mp

p mf p f p

ingressive
damped, creaky
multiphonic

random jumps

filter/
mouth

ppp ff

ppp mp ppp

Only relative pitch changes are notated. Whole numbers indicate semitones. Each horizontal line indicates a quarter note. Pitch 0 should be a low pitch allowing for harmonics to be occasionally audible with slow vowel changes (diphonic singing). Vowels may be adjusted slightly for emphasis of resulting harmonics where necessary or feasible.

362 364 366 368 370 372 374

376 378 380 382 384 386 388

390 392 394 396 398 400 402

speed
estremo
molto
poco
senza

vibrato

slow medium fast

4 1 0.25 0.5 0.5 0.25 2.25 1.75

0 0 0.25 0 0.25 0 0.25 1.25 1.75

o → ø → a

ppp f

p mf p

fff pp f

medium slow

9.25 3.75 2.75 3 0.5 0.25

0 0 0.25 0 0 0.5 0.25

y → ø → o

ppp mf p f

mf

fast slow

0.75 1.25 0.25 2.25 2.5 1.5 3.75 2

0.25 0 0.75 0 2

i

f pp mf

f > mp < f > mp < f > mp <

404 406 408 410 412 414 416

speed
estremo
molto
poco
senza

vibrato

slow

senza vibrato

2.25 1.75 1 0.75 0.25 0 1 0.5 0

$f > mp < f > mp$ f pp mp pp

418 420 422 424 426 428 430

0.75 0.75 0.5 1.5 0

mf pp mp pp mf ppp mp

432 434 436 438 440 442 446 450

0.25 0.25 0.25 0

$ppp < mp > ppp$ $p > ppp < p$ mp $mf > pp$ $ppp < p$

452 456 460 464 468

wait for electronics to finish

13 12 11

$mf > pp$ $ppp < mp > ppp$ p pp $ppp < mp > ppp$

Venezia/Berlin, January-April 2016