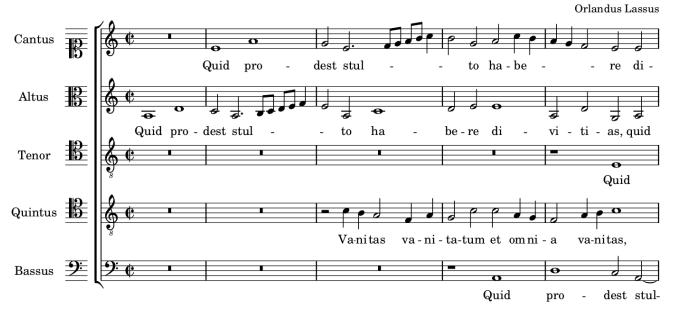
ohne Titel (2)

for 3 x sustaining instruments, 1 x noise making instrument, 1 x keyboard & 7 x channel tape

 $\label{levin-eric-zimmermann} Levin.eric.zimmermann@posteo.eu$

15.09.2021

Quid prodest stulto habere divitias



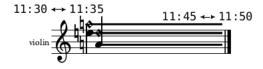
Je ne fais rien, c'est entendu. Mais je vois les heures passer – ce qui vaut mieux qu'essayer de les remplir.

E. M. CIORAN

Notes

General remarks

In order to perform this work each player will need a stopwatch. Alternatively a video score can be used which is provided by the composer. The notation consist of time brackets as it has been developed in the late works of US-American composer John Cage. The two left numbers indicate the time range (in minutes and seconds) within which the player may start. The two right numbers indicate the time range (in minutes and seconds) within which the player shall stop.



Besides the rather free time brackets the score also contains stricter variants. In the example below the player has to start at the given time and play the music within the notated tempo.



In time-brackets rhythm is written with duration-lines. Duration in time is equal to space in notation ("proportional notation"). Empty space between lines and note heads indicate rests.



Sustaining instruments

The exact instrumentation for this group is unspecified. Any instrument which produces sustaining and clean pitches can be used. The chosen instrument has to be capable of playing a list of microtonal pitches in mostly correct octaves (see the pitch lists below). Finally sustaining instruments must be able to produce varieties of noisy sounds.

Microtonal deviations to the closest chromatic tempered pitch are notated with cent values above notes.



Additionally microtonal accidentals are provided. See the table below for a comprehensive explanation ("The Helmholtz-Ellis JI Pitch Notation"). Instruments should be tuned to the concert pitch a=442 Hertz (this the tuning of the tape part).

Graphical notation indicate noise sounds. There are two types of noise notation:

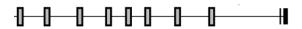
One long block for continuous sounds
(for strings: continuous bowing with

overpressure, bowing over various parts of the instruments body, ...; for woodwinds: air sounds, ...).

2. Single items for discreet aperiodic sounds (for strings: producing clicks by combining a high bow pressure with a slow bowing speed, tapping on the instruments body, ...; for woodwinds: key clicks, toneless slaps, ...).



Both types of notation are merely symbolic and aren't intended to be performed literally. In continuous sounds rests can be added ad libitum. The density of appearing items correlates with the density of the resulting sound. See the image below for a denser version.

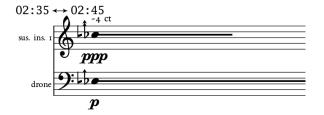


The color of blocks represent how present or dominant ('loud') a resulting sound should be.

- 1. white: least present
- 2. grey: medium present

3. black: most present

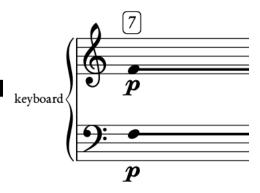
Some time-brackets contain hints to the simultaneously sounding electronics part ('drone'). This is mostly for providing an intonation reference for the player.



Keyboard

The keyboard part consist of cues. Cues determine the tuning and the timbre of the resulting tones. Boxes filled with numbers indicate cues. Cues have to be set by the keyboard player. For moving between cues the two lowest keys can be used.

- 1. A-0: move to the previous cue
- 2. A-sharp-0: move to the next cue





A computer screen is provided for orientation. The color of blocks represent how present or dominant ('loud') a resulting sound should be.

Noise making instrument

The player is free to use any type of acoustic or electronic or mixed instrument setup which is capable of producing a variety of toneless noisy sounds in order to interpret this score.

Various sound qualities are indicated with graphical notation. First of all the score differentiates between two distinct sound characteristics:

1. One long block for continuous sounds

1. white: least present

2. grey: medium present

3. black: most present

2. Single items for discreet (mostly) aperiodic sounds



Both types of notation are merely symbolic and aren't intended to be performed literally. The density of appearing items correlates with the density of the resulting sound. See the image below for a denser version.



The Helmholtz-Ellis JI Pitch Notation (HEJI) | 2020 | LEGEND

revised by Marc Sabat and Thomas Nicholson | PLAINSOUND MUSIC EDITION | www.plainsound.org in collaboration with Wolfgang von Schweinitz, Catherine Lamb, and M.O. Abbott, building upon the original HEJI notation devised by Marc Sabat and Wolfgang von Schweinitz in the early 2000s

PYTHAGOREAN JUST INTONATION | generated by multiplying / dividing an arbitrary reference frequency by PRIMES 2 and 3 only

... bb b 4 # × ...

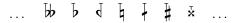
notate a series of **perfect fifths** above / below a reference $^{3}/_{2} \approx \pm 702.0$ cents (i.e. 2c wider than tempered) each new accidental represents 7 fifths, altering by one apotome $^{2187}/_{2048} \approx \pm 113.7$ cents

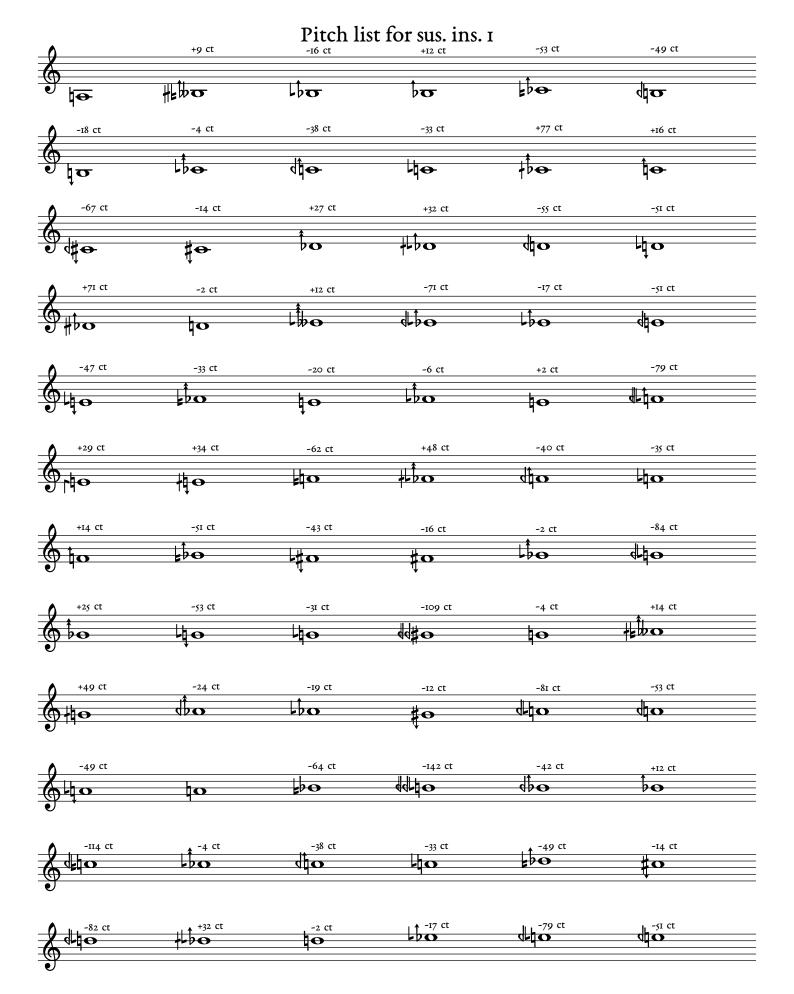
Frequency ratios including higher prime numbers (5–47) may be notated by adding the following distinct accidental symbols. Custom indications for higher primes or various enharmonic substitutions may be invented as needed by simply defining further symbols representing the relevant ratio alterations.

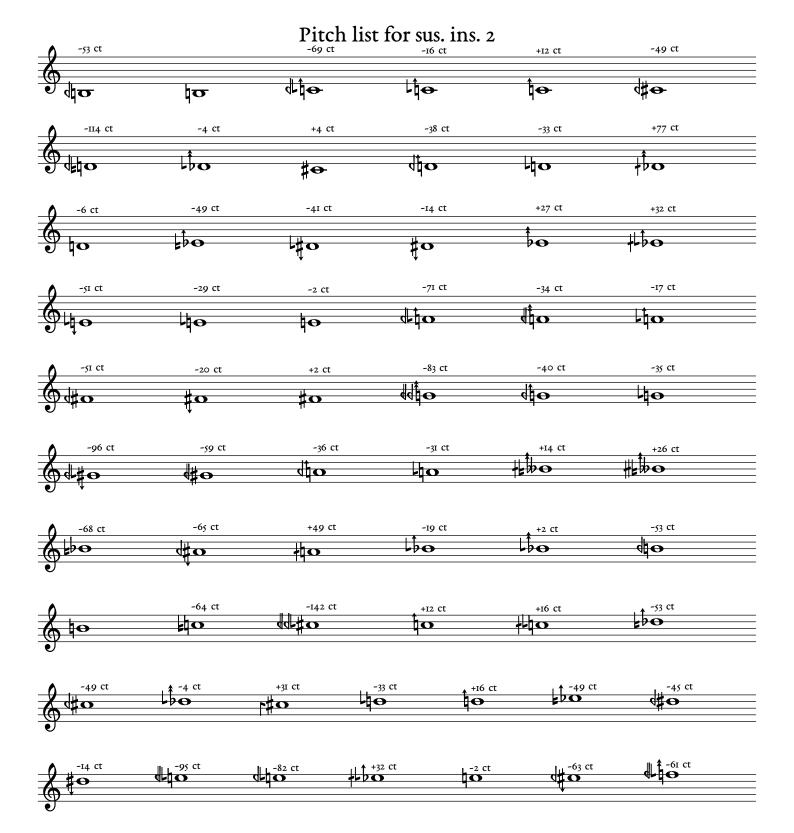
further symbols representing the relevant ratio alterations.	
PTOLEMAIC JUST INTONATION PRIMES up to 5	includes the consonant just major third $5/4 \approx \pm 386.3$ cents (ca. 14c narrower than tempered)
	alteration by one syntonic comma $^{81}/_{80} \approx \pm 21.5 \text{ cents}$
	alteration by two syntonic commas $81/80 \cdot 81/80 \approx \pm 43.0$ cents
$^{\sim}\sharp=\flat$ $^{\sim}\flat=\sharp$	alteration by one schisma to notate an exact enharmonic substitution $^{32805/32768}\approx\pm2.0~\mathrm{cents}$
SEPTIMAL JI PRIME 7	includes the consonant natural seventh $7/4 \approx \pm 968.8$ cents (ca. 31c narrower than tempered)
r	alteration by one septimal comma (Giuseppe Tartini) $^{64}/_{63} \approx \pm 27.3 \text{ cents}$
Ł F	alteration by two septimal commas $64/63 \cdot 64/63 \approx \pm 54.5$ cents
UNDECIMAL PRIME 11	includes the undecimal semi-augmented fourth $^{11}/_{8} \approx \pm 551.3$ cents (ca. 51c wider than tempered) alteration by one undecimal quartertone (Richard H. Stein) $^{33}/_{32} \approx \pm 53.3$ cents
TRIDECIMAL PRIME 13	includes the tridecimal neutral sixth $^{13/8} \approx \pm 840.5$ cents (ca. 59c narrower than a tempered major sixth) alteration by one tridecimal thirdtone (Gérard Grisey) $^{27/26} \approx \pm 65.3$ cents
PRIMES 17 THROUGH 47	alteration by one 17-limit schisma $^{2187}/_{2176} \approx \pm 8.7 \text{ cents}$
	alteration by one 19-limit schisma $^{513/512} \approx \pm 3.4 \text{ cents}$
†	alteration by one 23-limit comma (James Tenney / John Cage) $^{736/729}\approx\pm16.5~\mathrm{cents}$
. ↑	alteration by one 29-limit sixthtone $^{261}/_{256} \approx \pm 33.5 \text{ cents}$
4 +	alteration by one 31-limit quarter tone (Alinaghi Vaziri) $^{32}\!/_{31}\approx\pm55.0$ cents
ls	alteration by one 37-limit quarter tone (Ivan Wyschnegradsky) $^{37}\!/_{36}\approx \pm 47.4~\mathrm{cents}$
_ +	alteration by one 41-limit comma (Ben Johnston) $82/81 \approx \pm 21.2$ cents
¥	alteration by one 43-limit comma $^{129}/_{128} \approx \pm 13.5 \text{ cents}$
∃ ₹	alteration by one 47-limit quartertone $^{752}/_{729} \approx \pm 53.8 \text{ cents}$

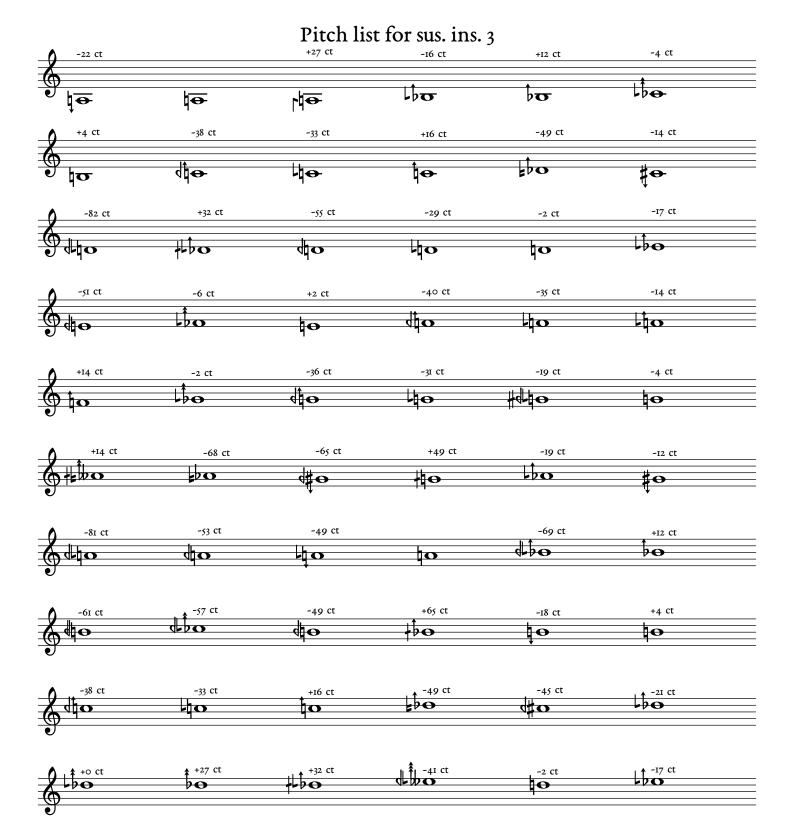
CENTS HEJI accidentals may be combined with an indication of their deviation in cents from equal temperament as read on a tuning meter; A\(\beta\) 440 Hz is usually defined to be ± 0 cents. If this deviation exceeds ± 50 cents, the nearest tempered pitch-class may be added: e.g. A\(\beta\) (-65 cents from A\(\beta\)) could include the annotation A\(\beta\)+35 placed above or below its accidental.

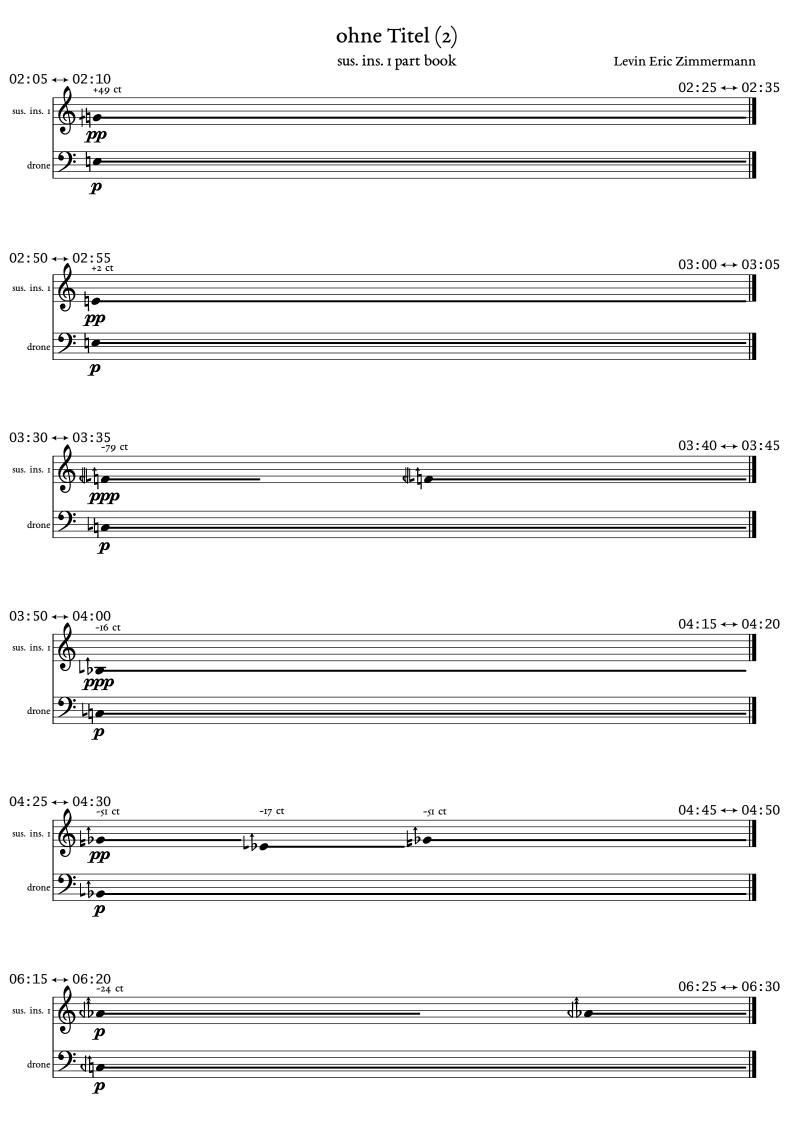
TEMPERED NOTES | may be combined with cents deviations to notate free microtonal pitches



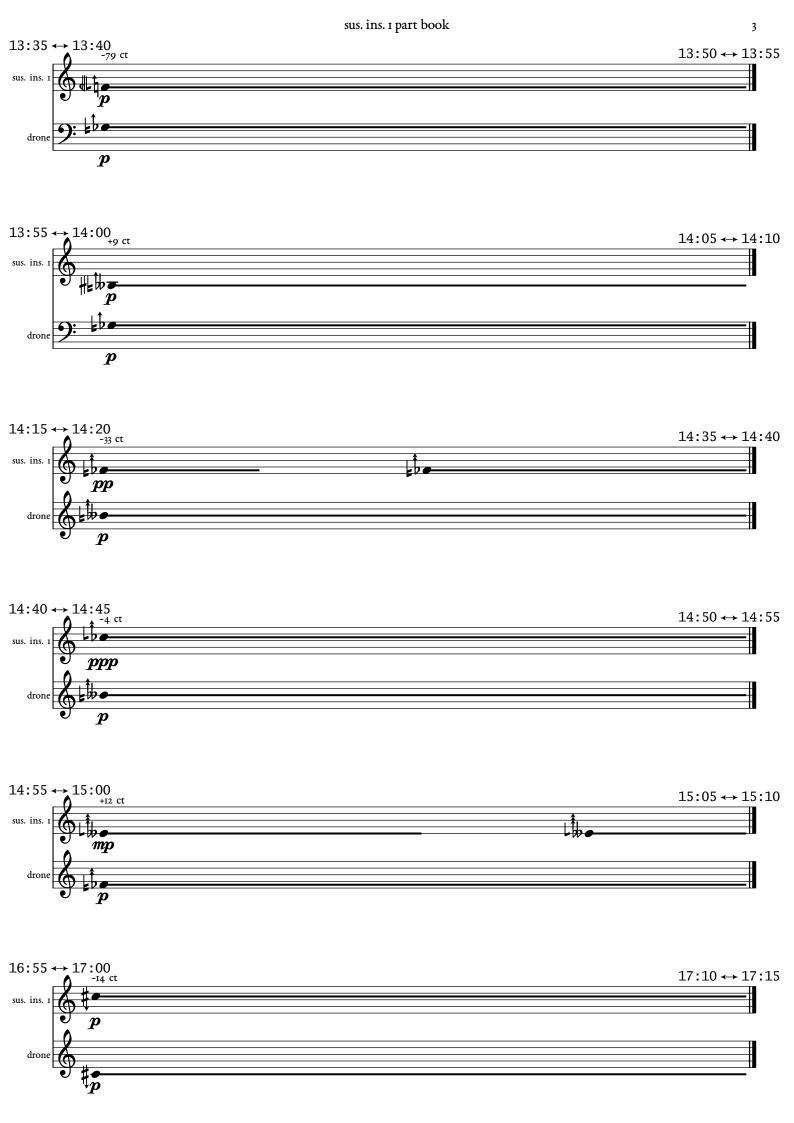


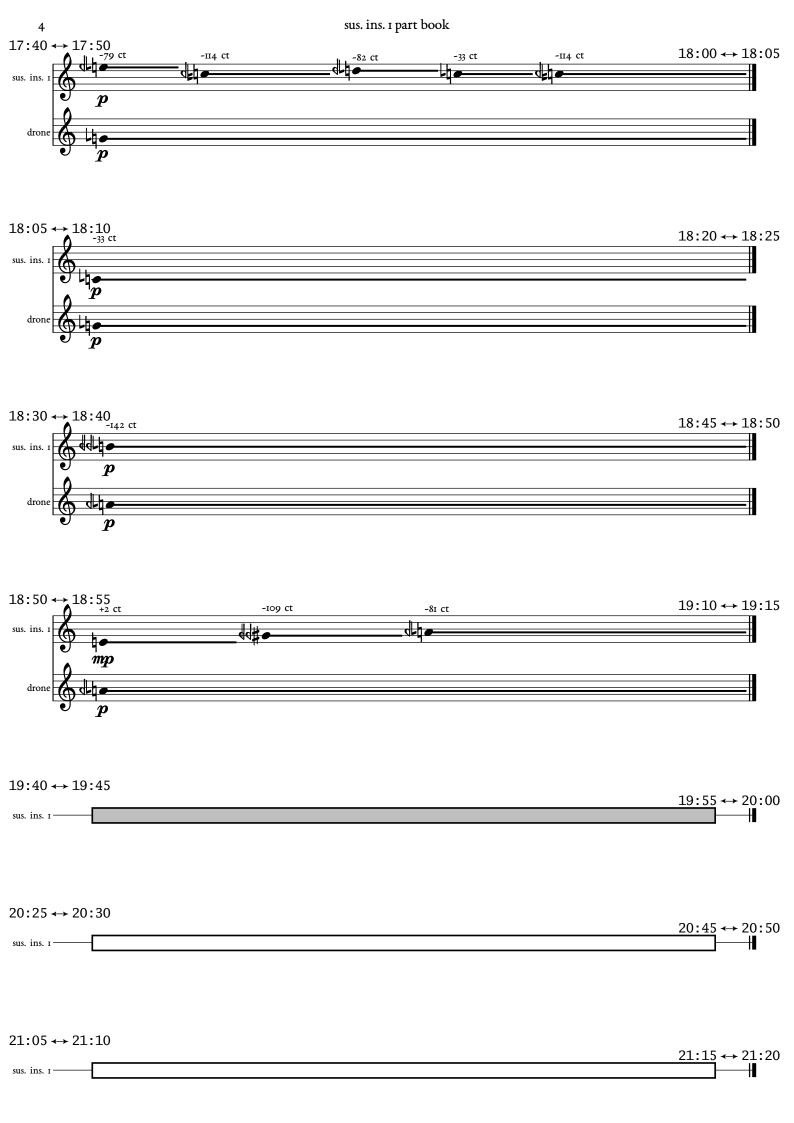






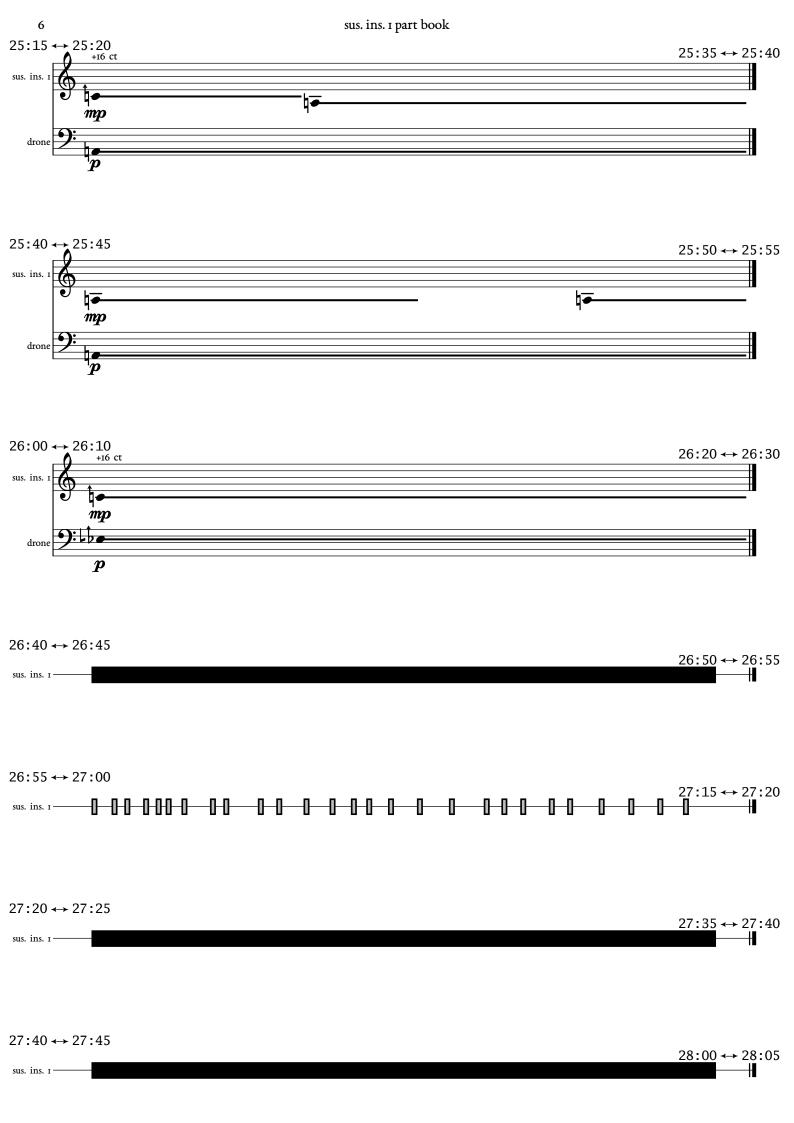








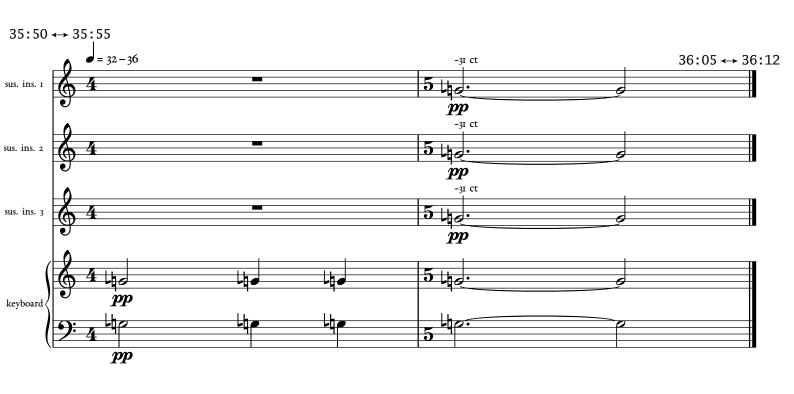














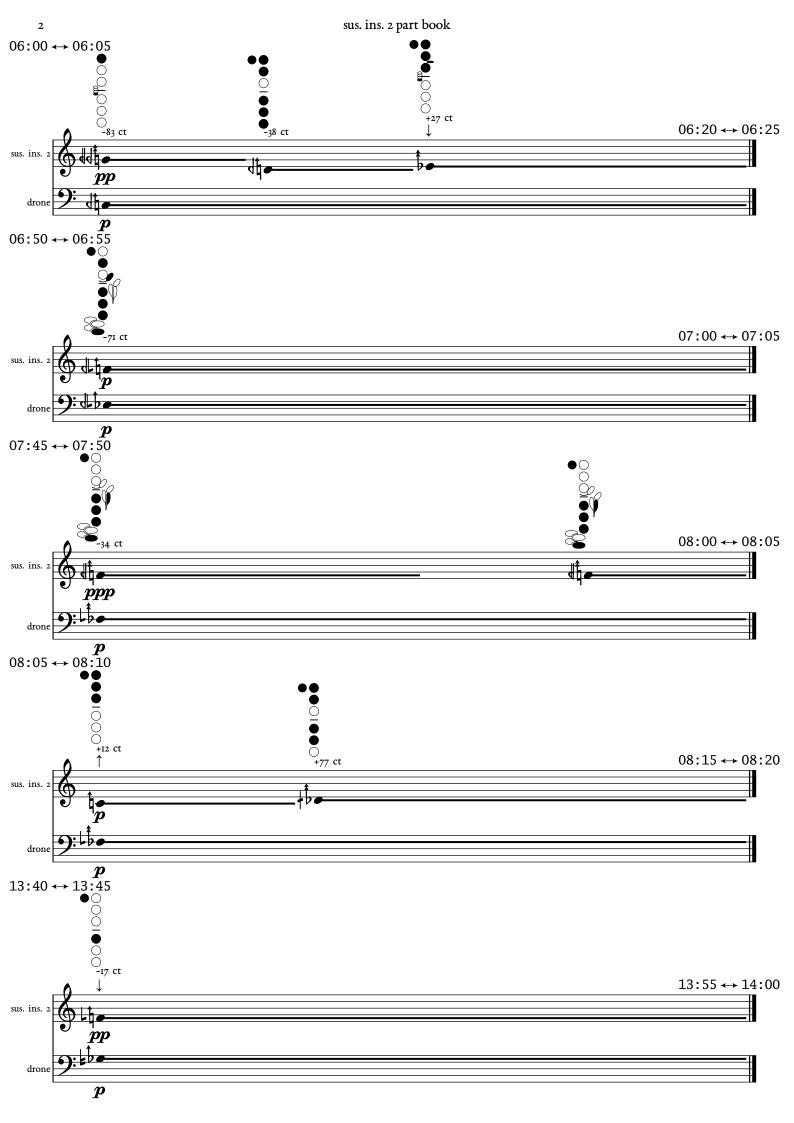


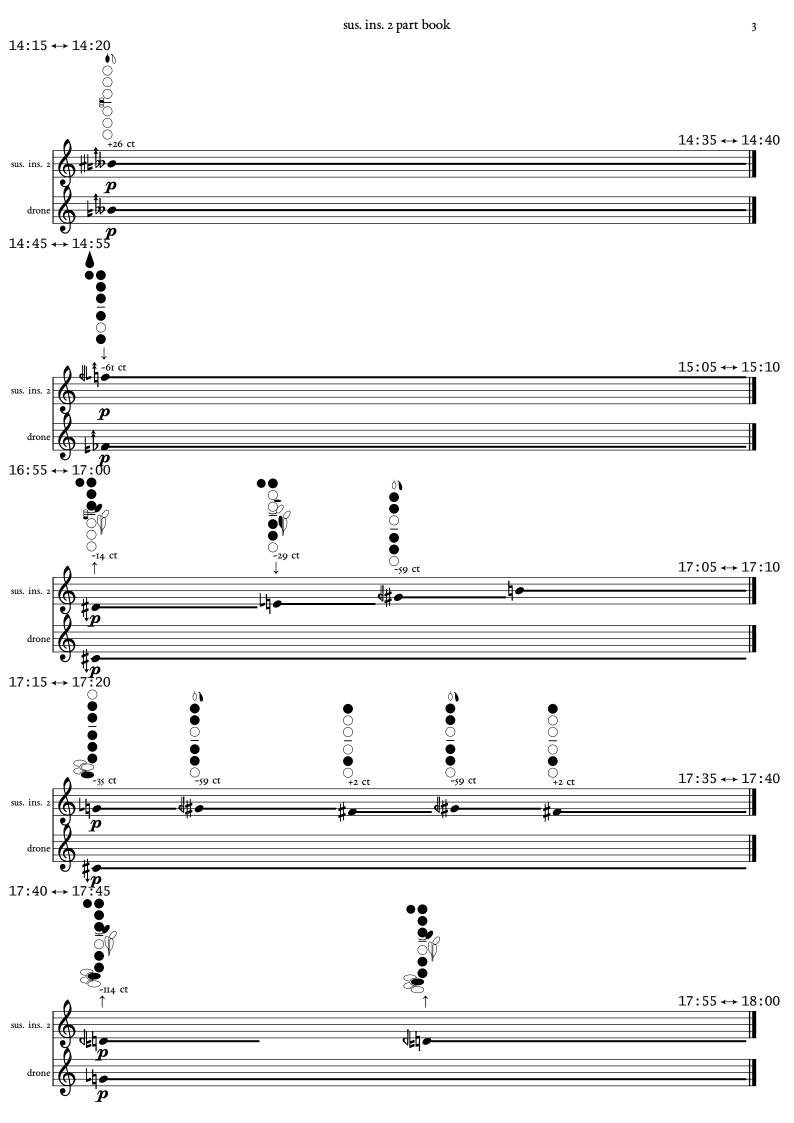


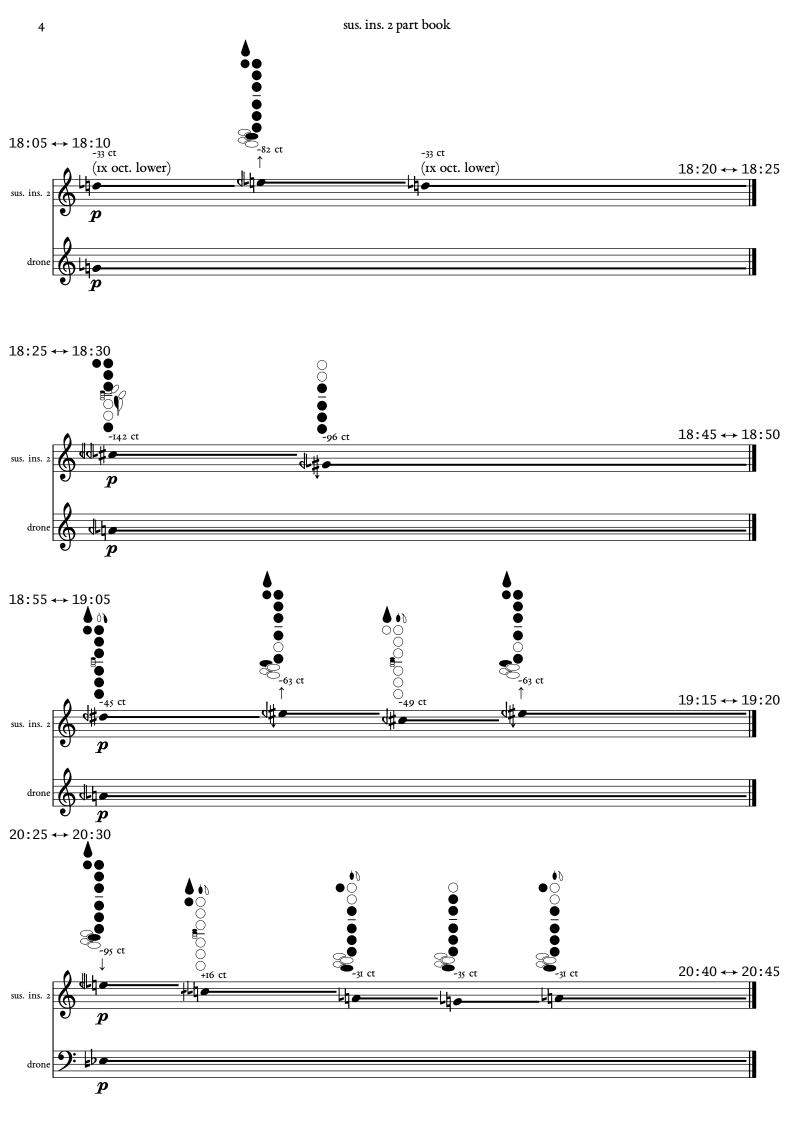


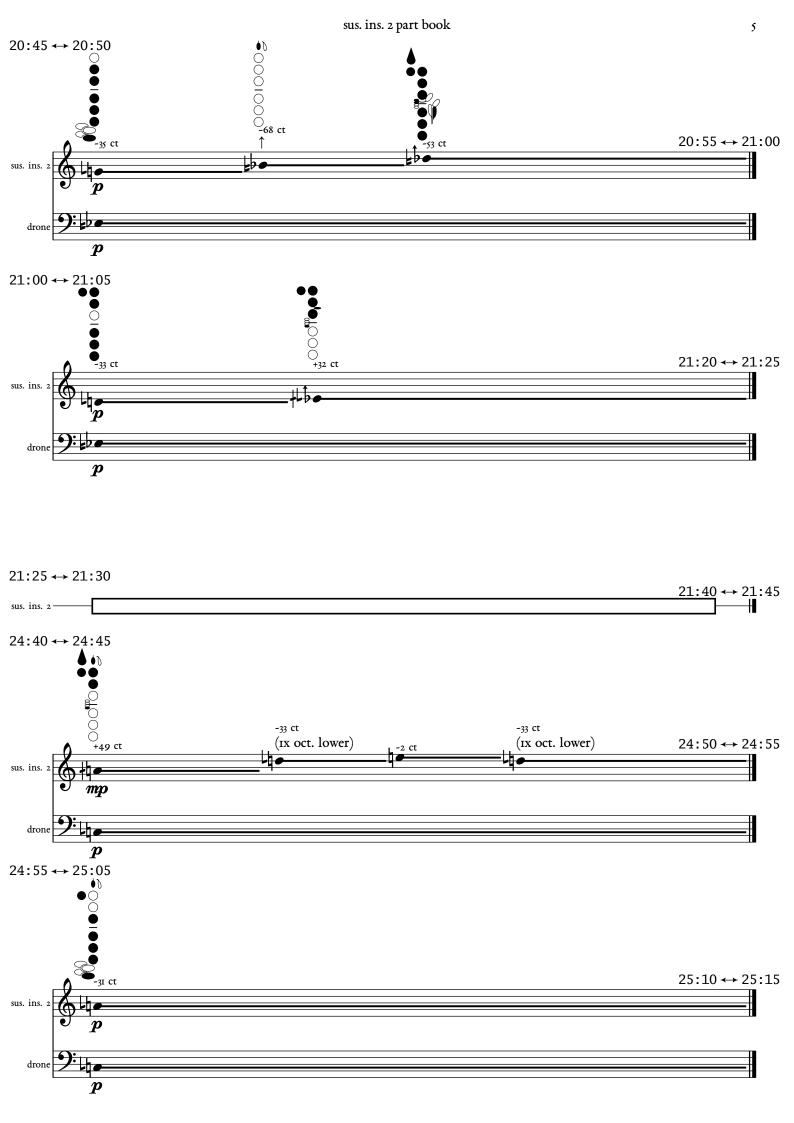


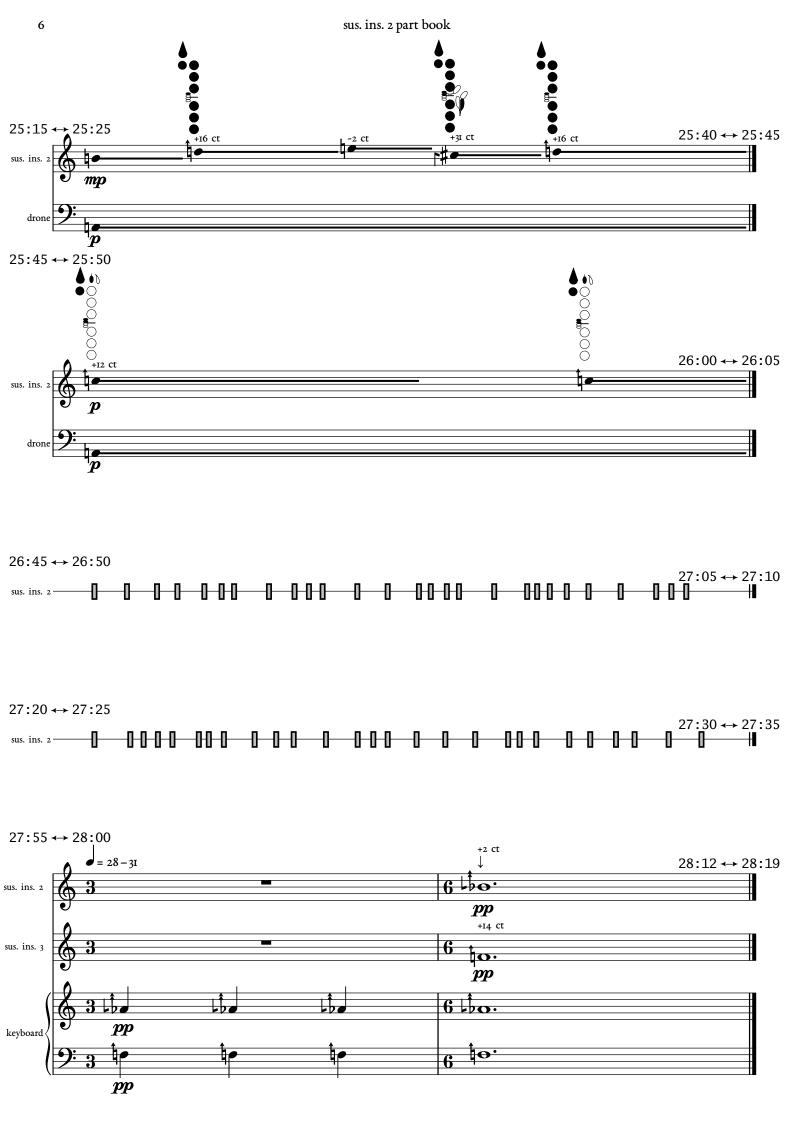


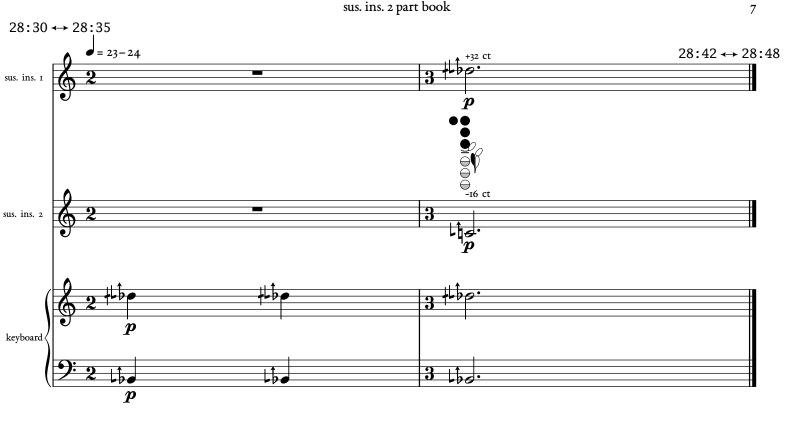


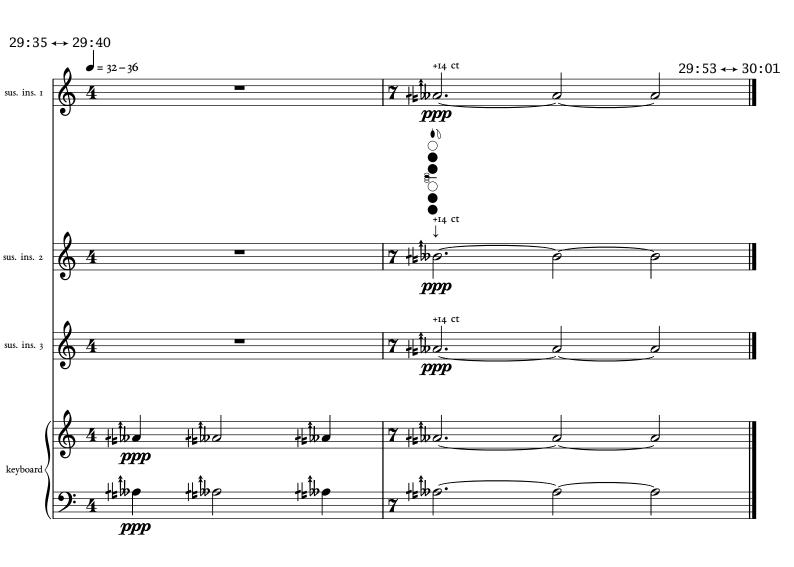


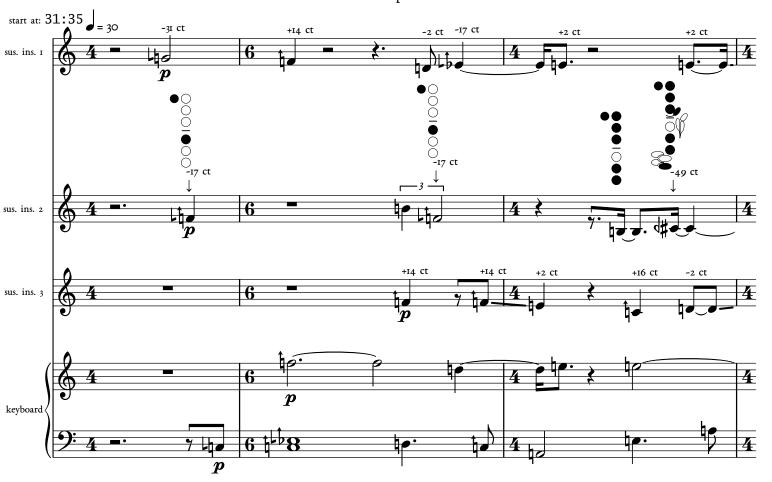


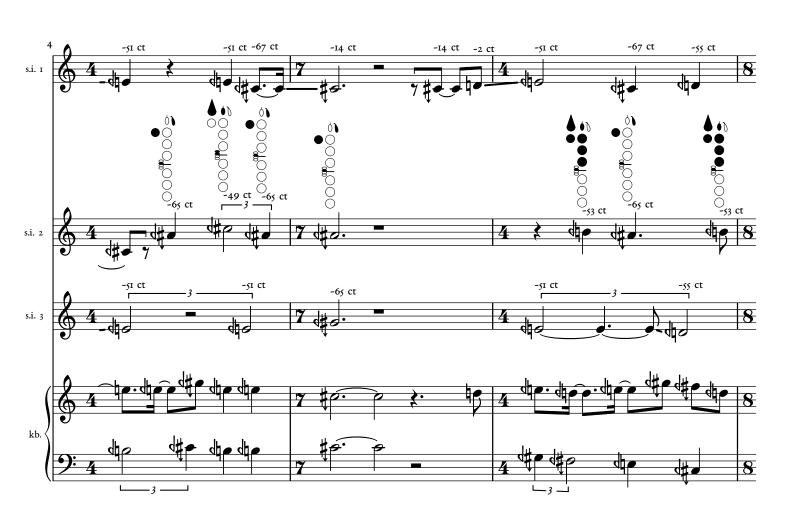




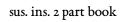


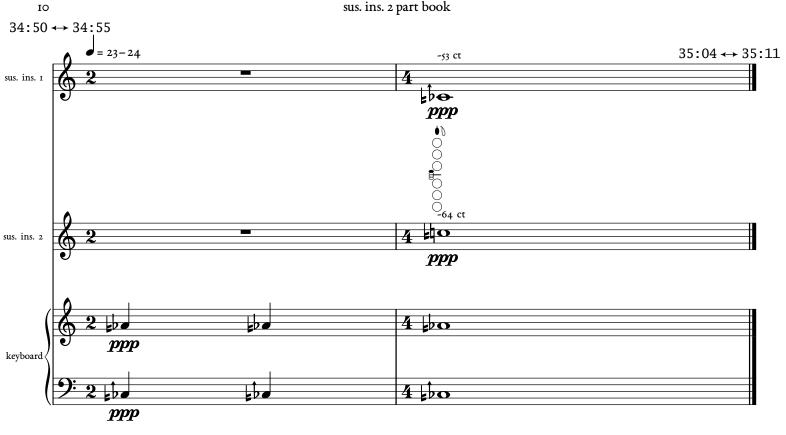


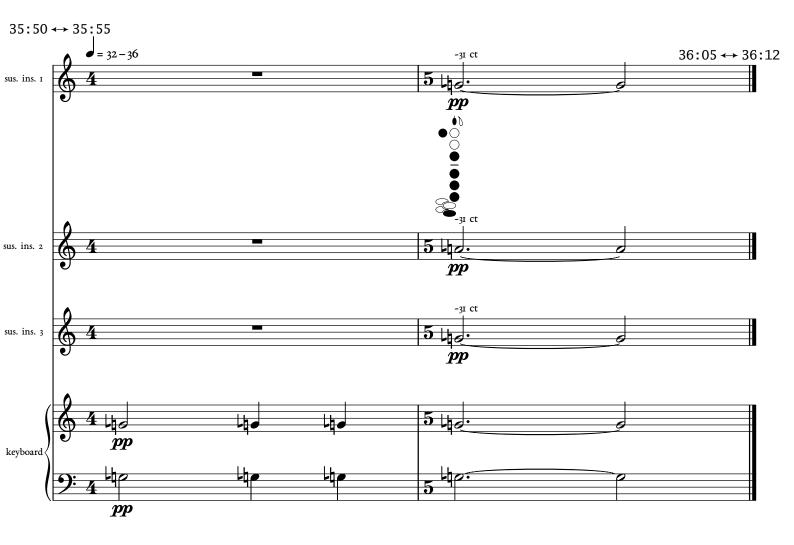




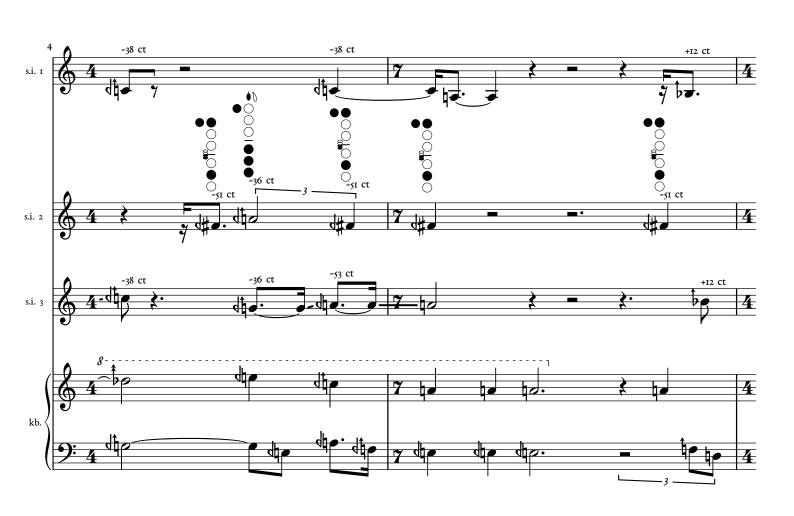












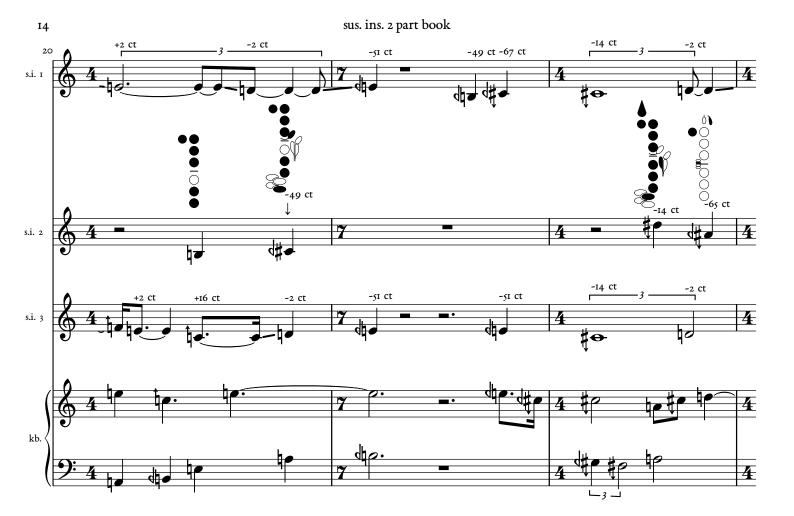
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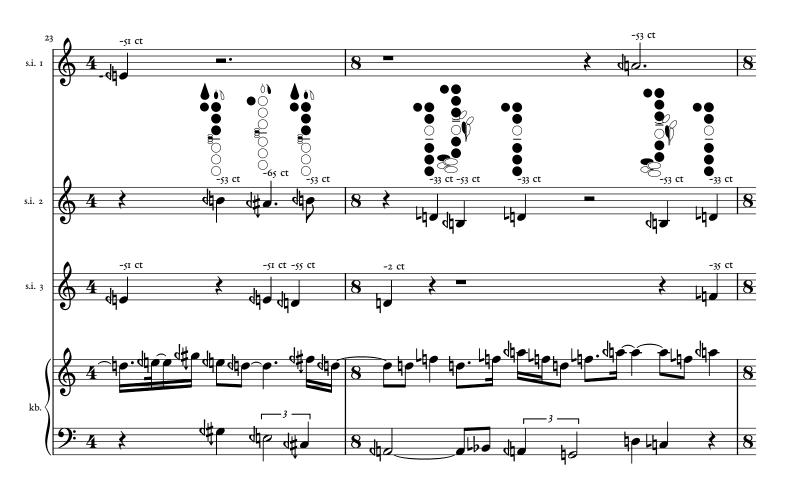
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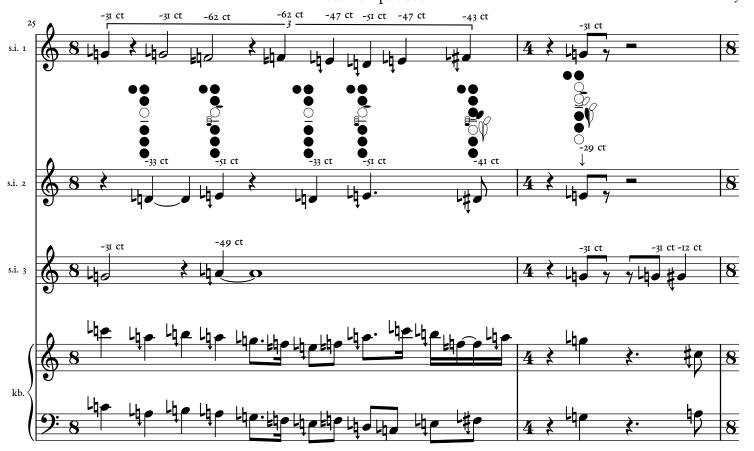
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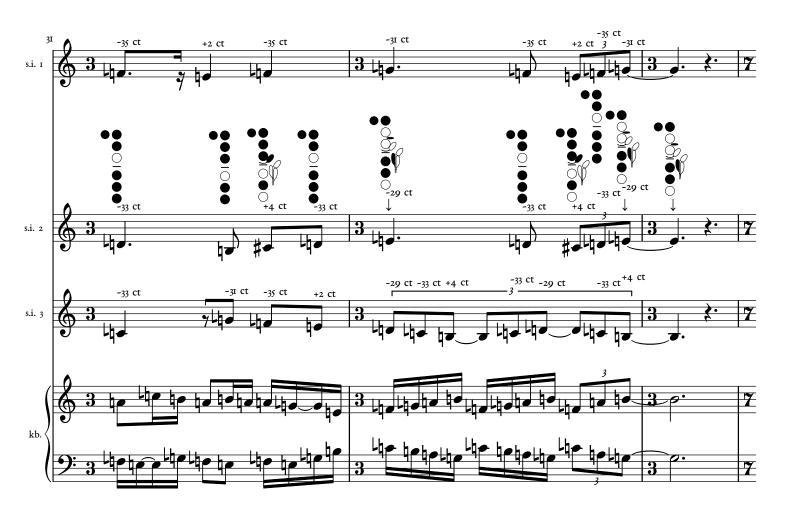




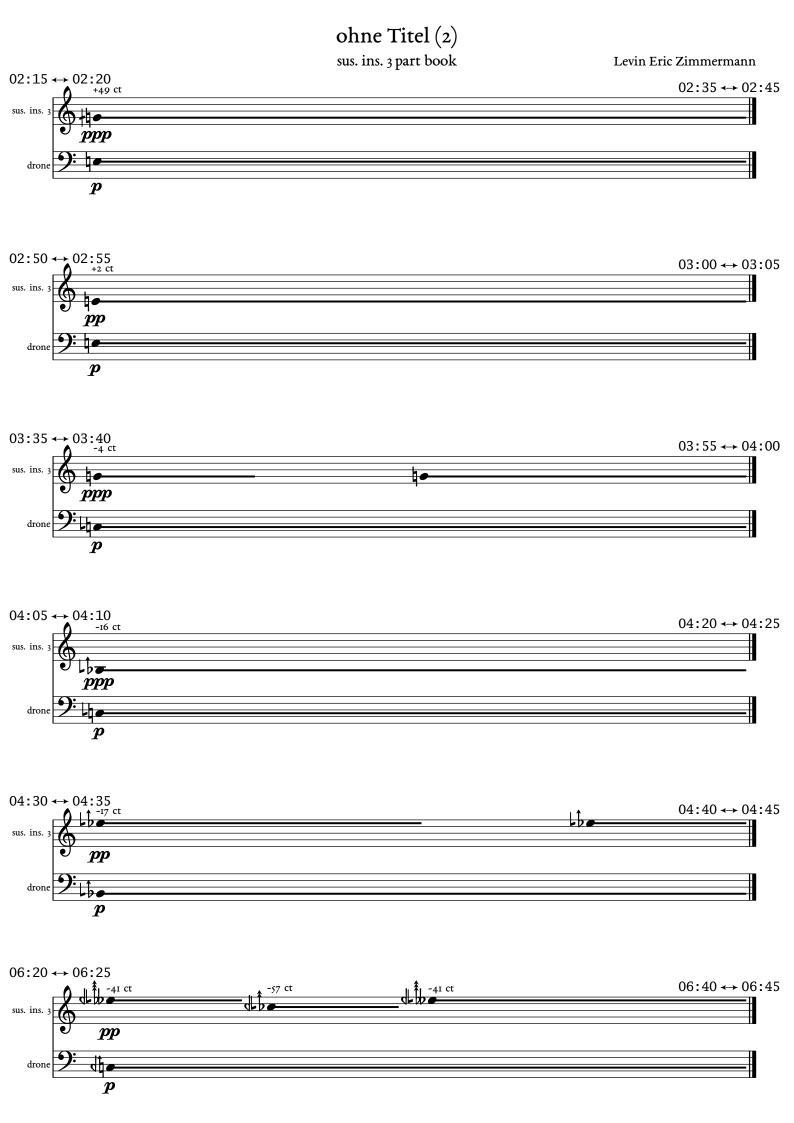




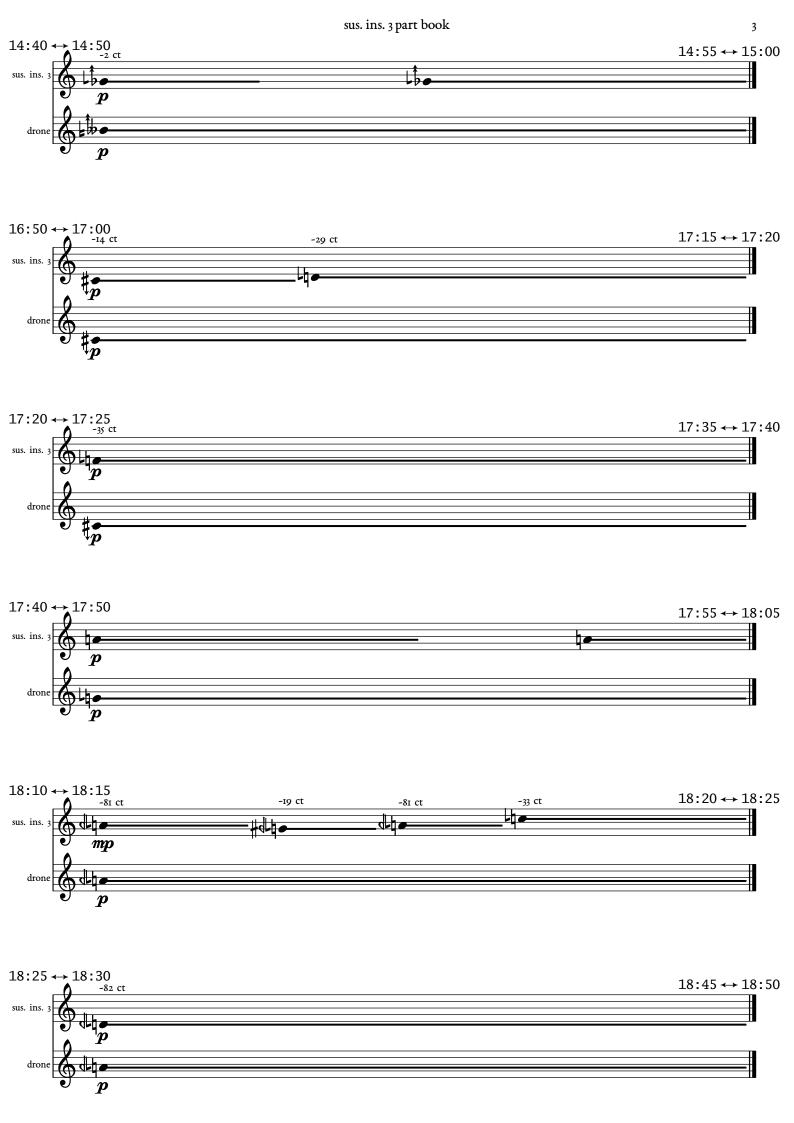


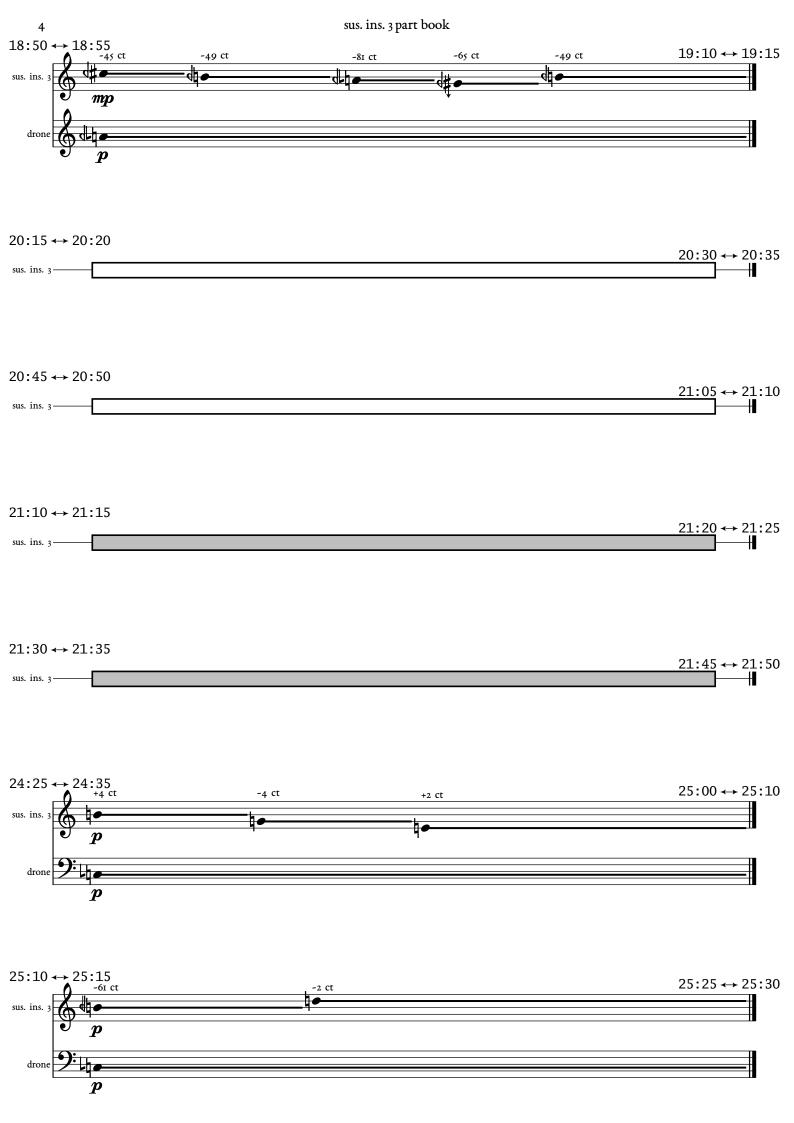


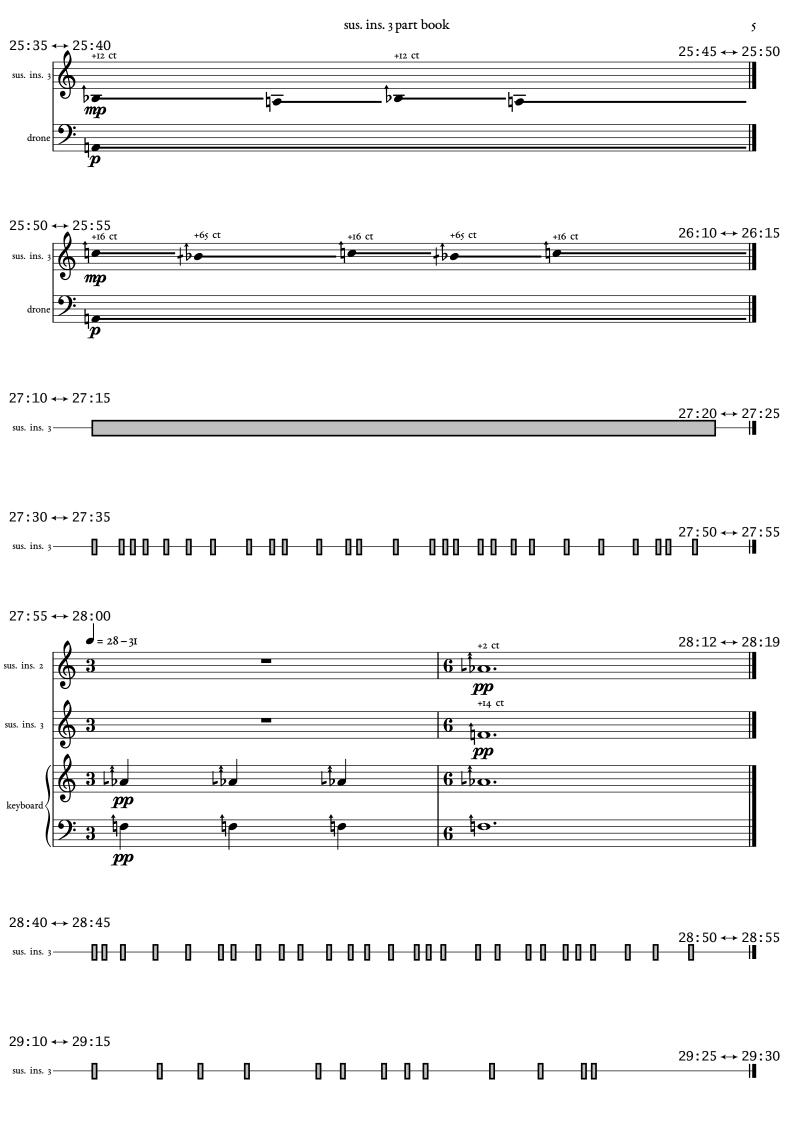






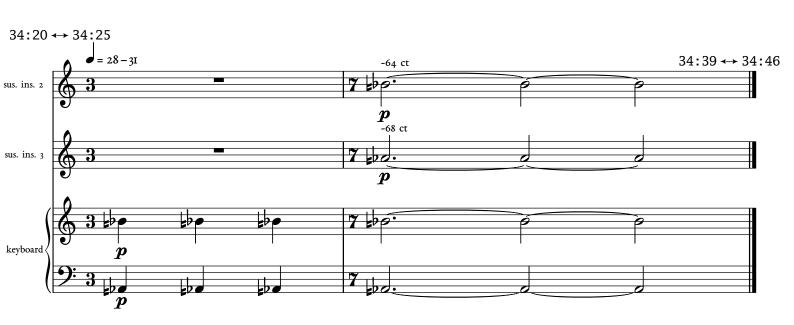














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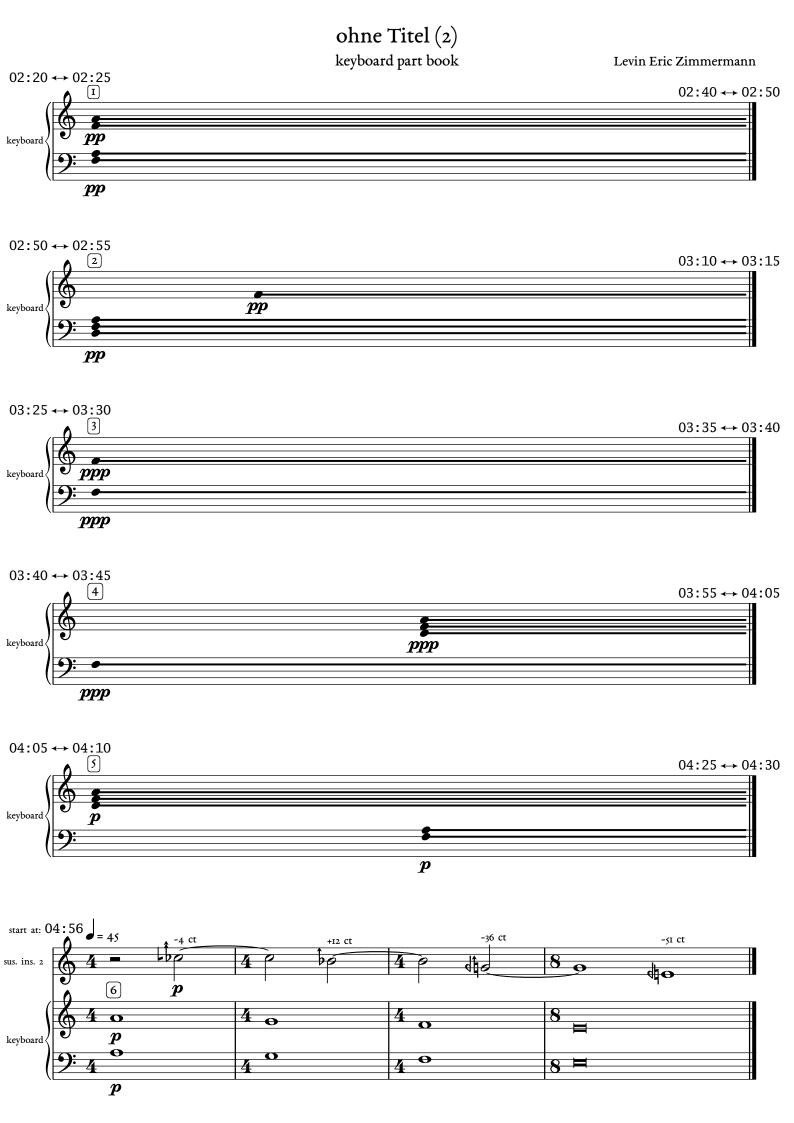
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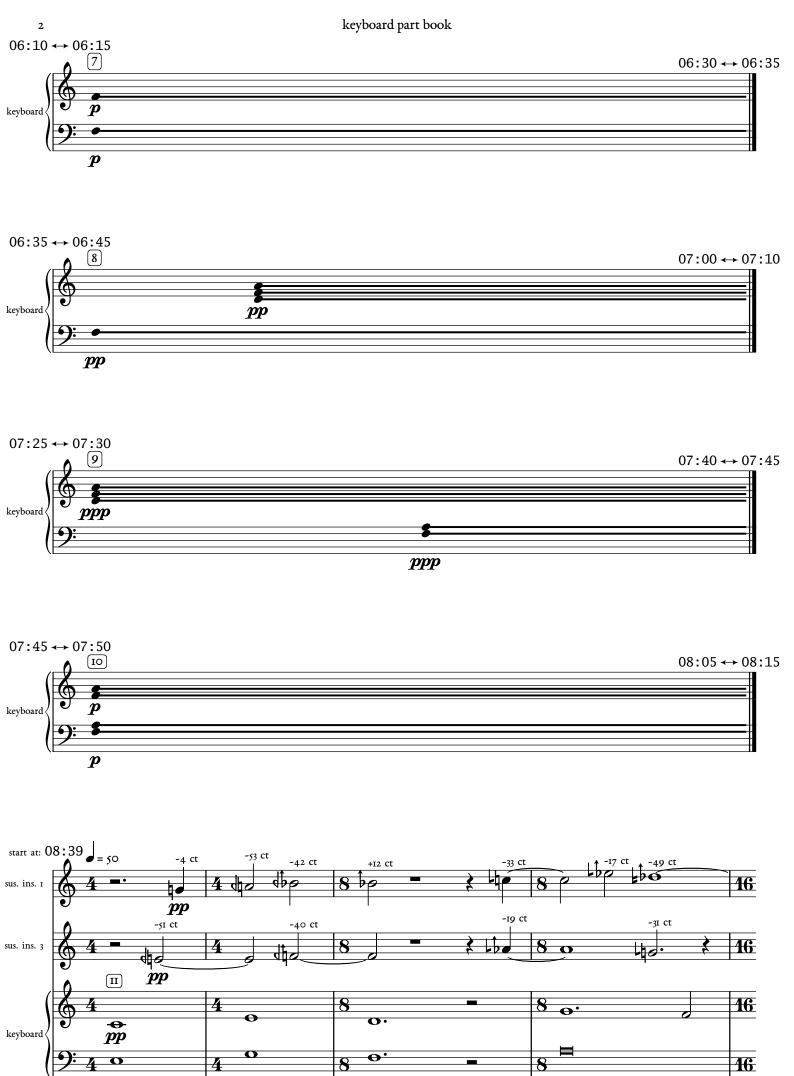




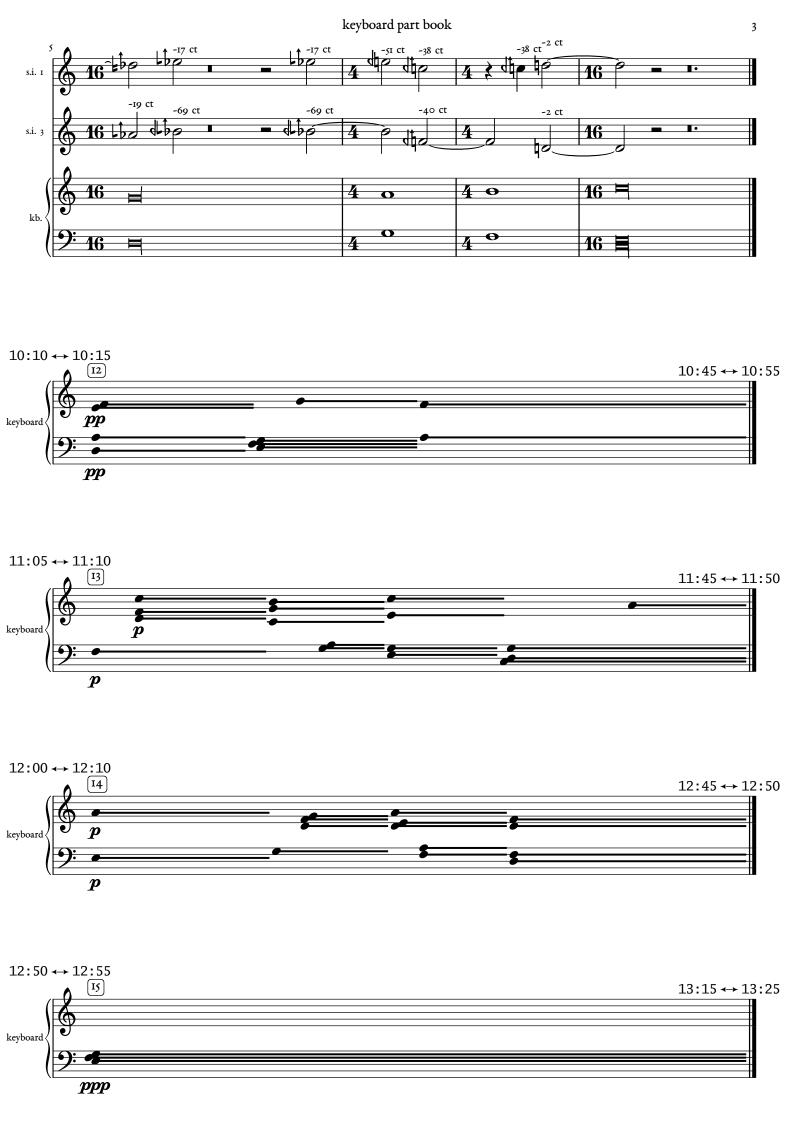


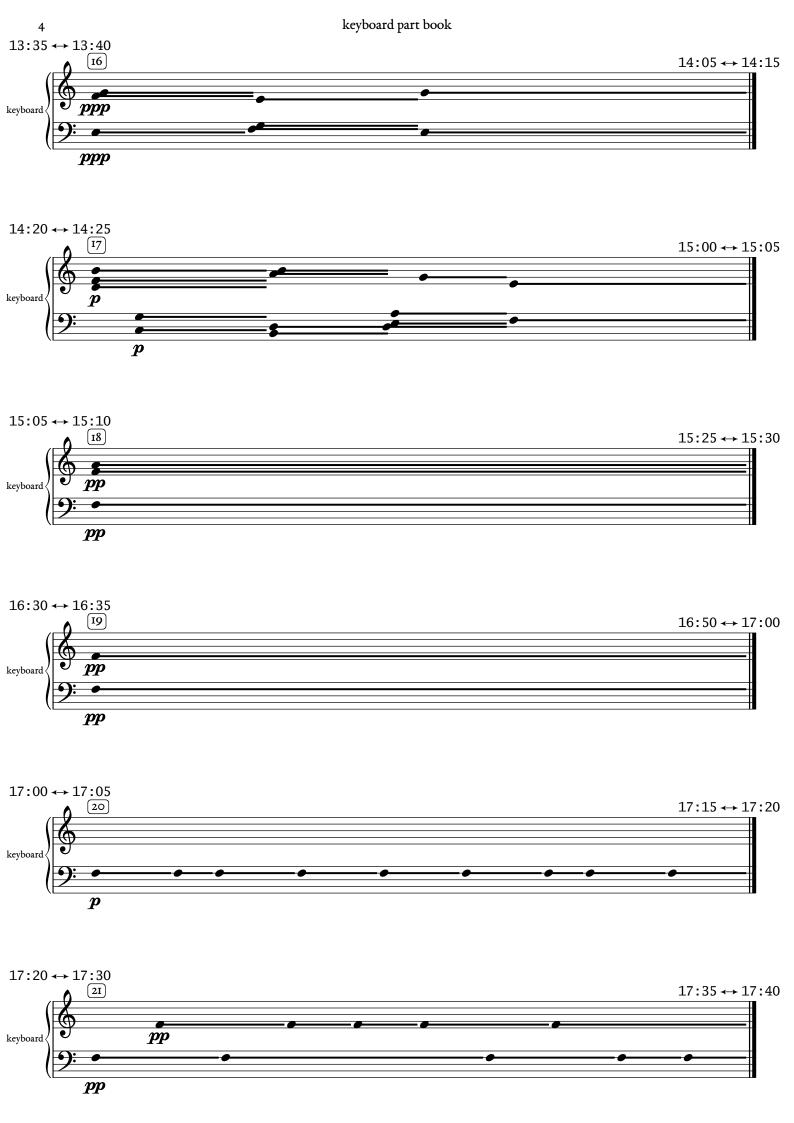


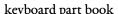




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 $17:40 \longleftrightarrow 17:45$

