world-line

2012-14 electric lap steel guitar, piccolo trumpet / quartertone flugelhorn, percussion, electronics

world-line

(2012-14) for electric lap steel guitar with trumpet/flugelhorn, percussion and electronics

commissioned by the Royal Melbourne Institute of Technology as part of the RMIT Art Collection's Sonic Archive, 2012 (rift and rasa commissioned by TRANSIT Leuven)

to Daryl, Peter and Tristram

duration: approximately 30 minutes

Trills, tremoli and gracenotes always as fast as possible.

Quartertones: (4) db b d 4 # # # (4) Eighth-tones are notated using arrows attached to these accidentals.

] = damp all sound, or, where indicated, damp selected sounds (guitar); abrupt and audible cutting-off of sound (flugelhorn).

 Δ = as high as possible

The flugelhorn is notated a major second higher than it sounds, the piccolo trumpet a minor seventh lower, the guitar an octave higher.

All instruments are to be amplified, the percussion using as many microphones as necessary to give equal presence to all the different groups of instruments.

piccolo trumpet/flugelhorn

The fourth valve of the flugelhorn is adapted to lower the pitch by a quartertone.

Circular breathing is assumed in long unbroken passages. Glissandi should be as smooth as possible, using half-valve technique as necessary.



. = "spreading" from a single pitch to a multiphonic (the opposite process can also occur), as smoothly as possible

The fourth valve tubing of the piccolo trumpet is pulled out sufficiently to lower the pitch by a further quartertone. The quartertones in the trumpet part are intended to be realised in this way, although of course players may find more appropriate ways of realising them in some cases. Departures from equal temperament caused by notated combinations of pitch and valve-combination should not be "corrected".

Normal staccato points indicate a shortening of the sound (and thus may occur at the end of a legato phrase); wedges indicate a more sharply percussive attack.



= "glissando" through natural harmonics on the fingering given.



= glissando to be produced by whatever means are appropriate (through harmonics and/or using half-valving and/or embouchure).

(See below under rasa for further indications relating to that section of the piece.)

<u>lap steel guitar</u>

A six-string instrument is used (mostly with a single slide), equipped with legs to allow free use of two pedals, with the following tuning (which includes three stringbenders each with a range of a major second, applied to the first, third and fourth strings):



The instrument for which *lens* was conceived and written was designed and built by David Porthouse of Morpeth (davidporthouselapsteelguitar.blogspot.co.uk), with pickups by Allan Price of Catswhisker Pickups (catswhiskerpickups.co.uk).



The string-benders are notated on a separate stave with one line for each bender to show glissandi or quasi-disjunct movements between the rest position (small notehead) and up to a major second higher (using accidentals up to and including double sharps). The principal stave shows only the pitches and glissandi produced by the slide, which may then be altered by the use of one or more benders. In some rapid passages, smaller glissandi are omitted for clarity (as for example in bar 4 of lens, where the overall slide movement is indicated separately).

Tenuto marks are used to indicate which sounds are plucked. Slurs are placed over legato phrases without plucking, dotted slurs indicated phrases formed by sequences of plucked sounds.

An EBow and a second slide are required in some parts of **world-line**. Where two slides are used, they are indicated by H (high) and L (low) - the low one should be a heavy chrome slide (Shubb or equivalent) held between second and third fingers, and the high one a brass bottleneck on the first finger.

Seven different numbered timbres are indicated, to be created using any suitable combination of effects pedals and/or multi-effects units. A minimal setup would include: volume and wah pedals; a ring modulator with an expression pedal to control its oscillator frequency; compression, distortion and EQ.

- timbre 1 highly distorted, splintered and harsh
 - 2 rich in overtones, perhaps with very slowly (but unpredictably) changing filters
 - 3 percussive and metallic, with distorted but clear attacks, and relatively little sustain
 - 4 clean, detailed, capable of long sustains
 - 5 uncompressed, bright sound which decays naturally (exponentially) to **ppp** over the course of an average duration
 - 6 as timbre 3 but less distortion, and with addition of ring-modulator whose oscillator frequency is controlled by an expression pedal
 - as timbre 2 but significantly more distorted

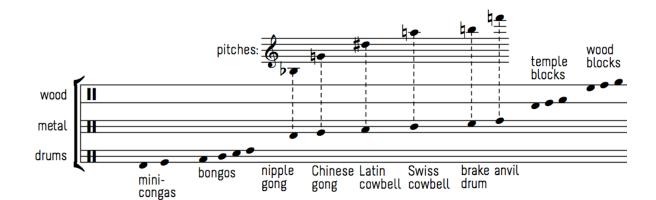
(See below under *rasa* for further indications relating to that section of the piece.)

percussion

instrumentation:

3 woodblocks
3 temple blocks
anvil
brake drum
Swiss cowbell
Latin cowbell
Chinese gong
nipple gong
2 pairs of bongos

2 "mini-congas" (eg. 22 and 25 cm)



All three temple-blocks should be lower in pitch than the lowest of the woodblocks. The largest temple block should be the largest available, the smallest woodblock very high and piercing in sound. The four bongos are notated from low to high, which may require thinking of the two pairs as "interlocked". The pitches of the metal instruments should be as shown in the diagram. The instruments should be placed as close together as possible to maximise fluency across the entire composite "instrument". The four mallets used should be as hard and incisive in sound as is compatible with hearing the timbral characteristics of each instrument (without these being dominated by the contact sound).

6 tuned wineglasses, tuned as follows:



several (as many as practicable) bowed instruments of flexible pitch capable of playing glissandi-different flexatones with different pitch-ranges, musical saw, daxophone etc.

several (as many as practicable) blown instruments of flexible pitch capable of playing glissandi –slide-whistles, noseflutes, recorder mouthpieces, sirens etc.

1 large pedal timpano (75cm or more, in any case capable of producing the low E with which the piece ends), prepared with different materials and objects so that the unadulterated timpani sound is never heard, played with superball mallets as well as with other types of beater.

electronics

The electronic part consists of nine stereo soundfiles labelled in the score A to J (D and E are combined into a single file), a Max patch which steps through their playback (programmed by Patrick Delges for Centre Henri Pousseur), with crossfades where necessary, and cues in the score which indicate starting, stopping and crossfading points and other adjustments to be made. No coordination is necessary between instrument(s) and the electronic sounds, which are for the most part static sound-textures, apart from soundfile D which is the only one that plays "solo" without any instruments playing simultaneously. All soundfiles apart from D are actually somewhat longer in duration than is nominally required by the score, in case the performed tempo is slower than indicated, so that they can always be started, stopped and crossfaded at the indicated points. The dynamics of the electronic part are intended to be realised in real-time at the mixer.

The Max patch requires an input from the guitar, since at two points -dust (1) and (5), affecting soundfiles A and J - its signal acts as a gate for the electronic sounds so that they are only heard when the guitar plays.

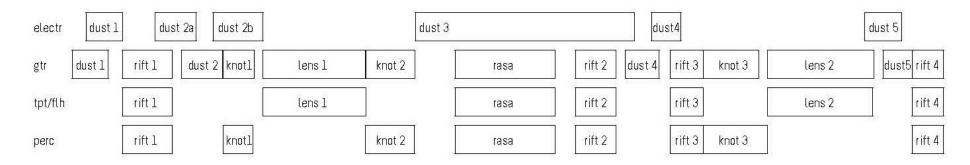
acknowledgements

thanks to Daryl Buckley, Centre Henri Pousseur, Mark Delaere, Patrick Delges, Lawrence Harvey, Peter Neville, Kathleen Van den Eynde, Tristram Williams

the form of world-line

World-line is a composite composition, formed from five separately-performable pieces each with a different instrumentation which places the electric lap steel guitar in a different context:

dust for electric lap steel guitar and electronics rift for piccolo trumpet, percussion and electric lap steel guitar knot for percussion and electric lap steel guitar lens for flugelhorn and electric lap steel guitar rasa for flugelhorn, percussion, electric lap steel guitar and electronics Specific performance indications for each of these are given below. However, they are not played in sequence, but the first four are fragmented into 5, 4, 3 and 2 sections respectively, and distributed through the 30-minute duration of **world-line** in this way:



The electronic parts of *dust*, as may be seen, overlap with other parts at many points. The electronic part of *rasa* is incorporated into that of *dust (3)* when the entire *world-line* is performed. Both *dust* and *rasa* use alternative versions of the electronic material when performed alone.

additional notes on rift

The **dynamics** form a crucial aspect of the structure of *rift*. Firstly, the accented and non-accented sounds should be clearly distinguished from one another: the accented sounds are notated throughout two degrees louder than the non-accented ones. Secondly, this scheme is subject to rapid and often extreme variation in the trumpet and percussion parts, for example between *p/ppp* and *fff/f*. The lap steel guitar part, on the other hand, consists mostly of gradual *crescendi* and *diminuendi* to be executed using the volume pedal.

The **barring** of the entire composition is intended as an aid to coordination and has no metrical implications. The constantly-changing "metre" of the music should be associated principally with the aforementioned accentual framework.

additional notes on knot

Knot contains a minimum of notational information and is basically a free improvisation with indications of instrumentation, duration, dynamic range and general approach. It consists of three parts which play continuously and are delineated by guitar timbre and percussion instrumentation. Dynamics may occasionally exceed the limits given for each of the three sections, but not so much as to negate the gradual broadening of dynamic range from one part to the next.

In rehearsal, find as many as posssible ways of "tying the instruments together" for each of the three sections, given the percussion instrumentation used: in articulation, dynamic envelope, pitch-movement-shapes (glissandi), timbres –suggestions for guitar or percussion techniques don't exclude the use of these materials in the parts where they aren't mentioned!

additional notes on lens

The second section of *lens* consists in each instrument of a sequence of disjunct sounds/phrases separated by short rests, initially mostly synchronous but later increasingly alternating and overlapping, between which no sense of continuity should be attempted; rather, each new sound/phrase should sound almost as if played by a different instrument.

additional notes on rasa

The pitch-material of *rasa* consists solely of eighteen eighth-tone pitches, six per instrument, divided as follows:



The notated pitches for flugelhorn (here and in the score notated in Bb) are intended to be realised thus (giving the valve position and partial number for each):



The pitches notated as eighth-tone inflections are therefore slightly different in practice from equal-tempered eighth-tones.

The pitches used by the lap steel guitar are:

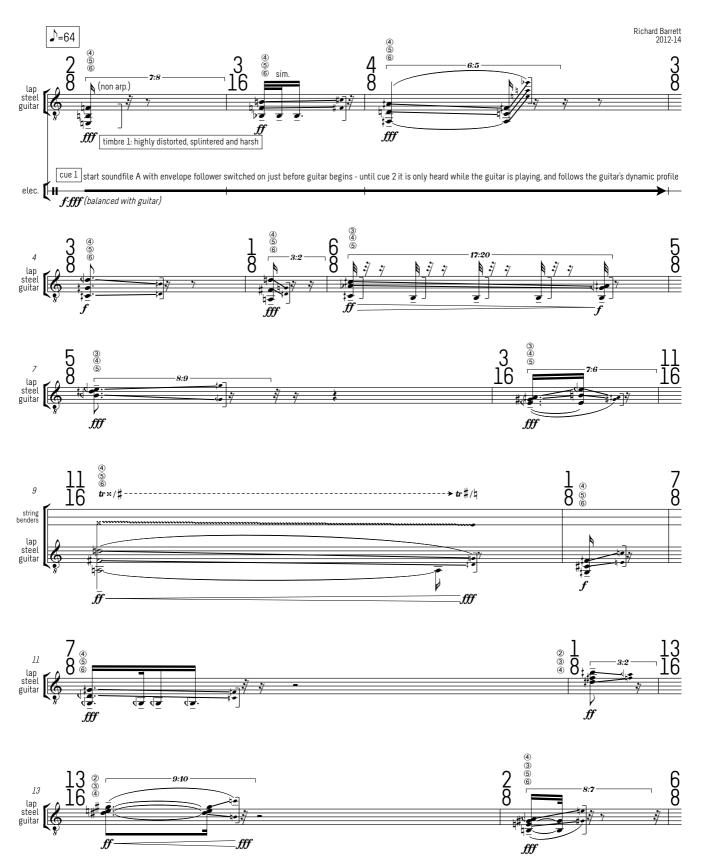


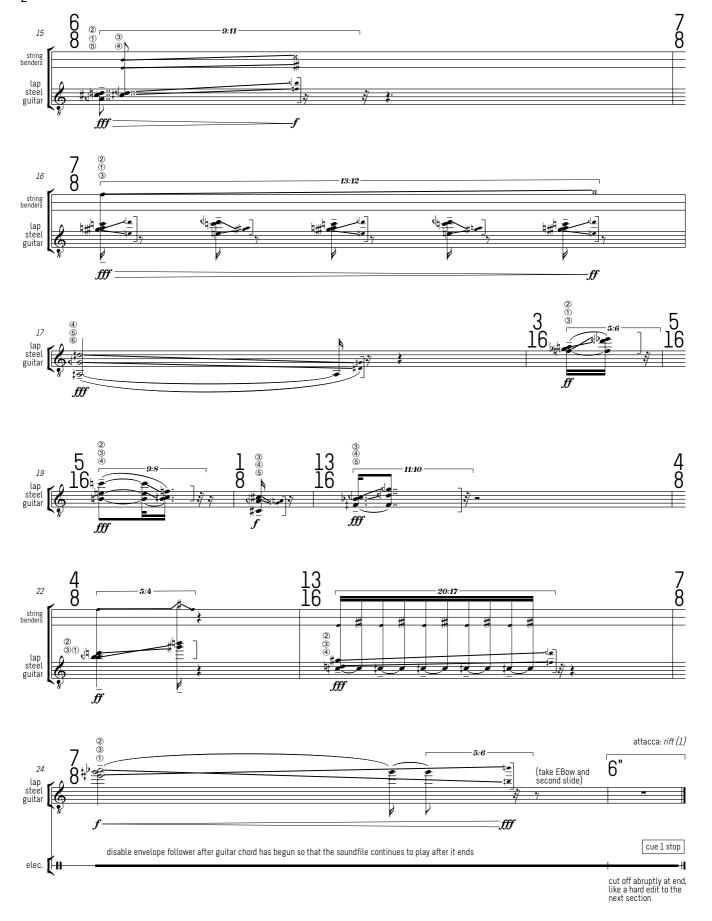
A card with the precise slide-positions for each of these pitches on the 1st string (calibrated for the scale of the instrument being used) might be attached to the neck at the appropriate position using Blu-Tack or similar.

rasa is a Javanese word meaning both "feeling" (one of the five senses in Javanese tradition) and "meaning" (not only the meaning of words but also the significance of allusive or suggestive communication). In the context of Javanese music **rasa** signifies the feelings of the performer(s) and the communication of the music's emotive qualities to the listener(s), a quality which is indefinable but crucial to the musical experience.



world-line dust (1)

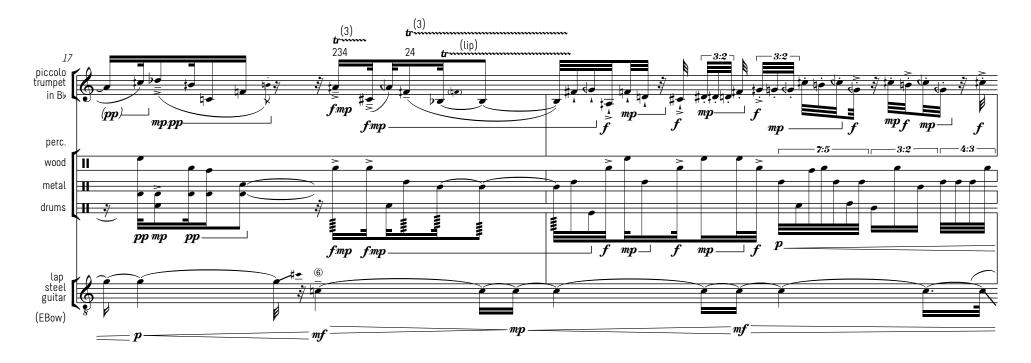


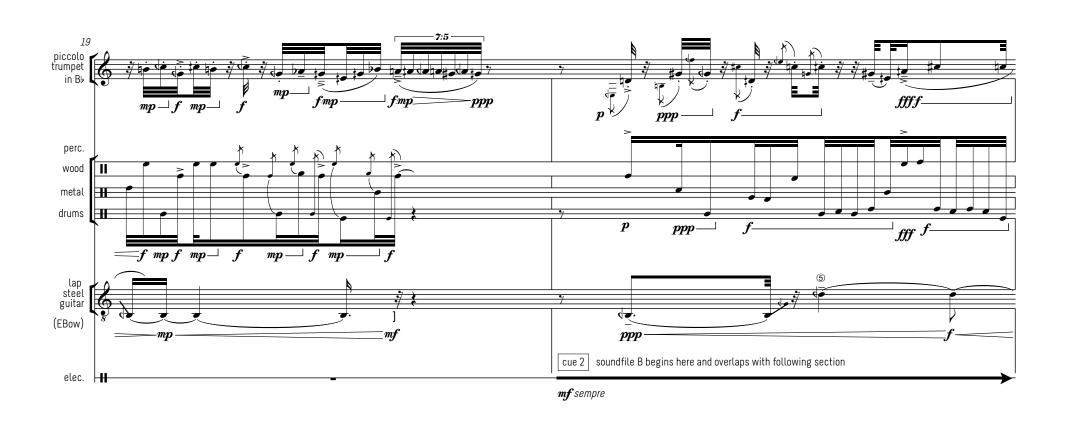






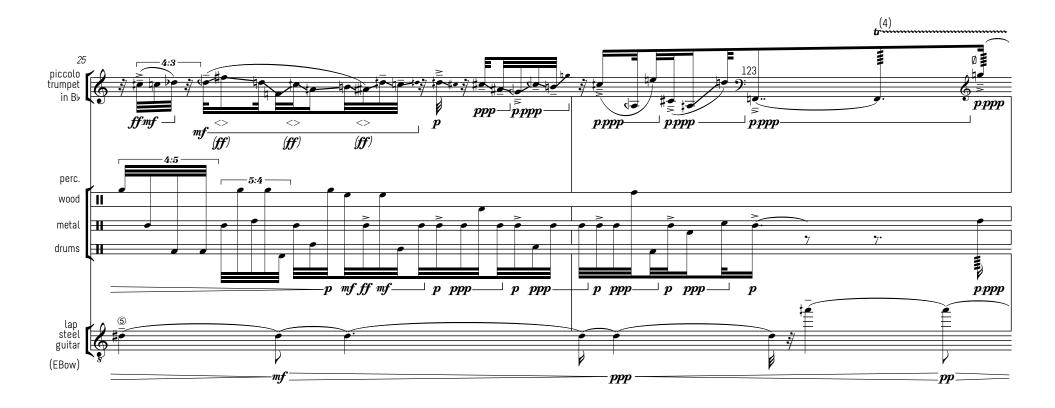


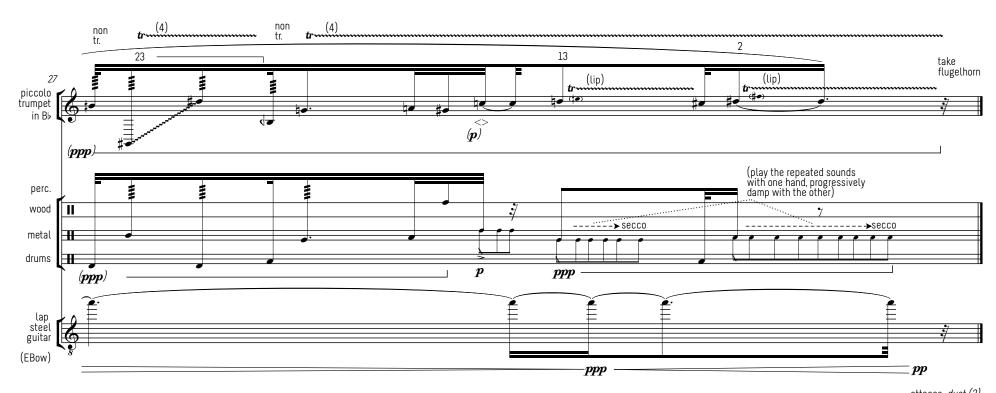






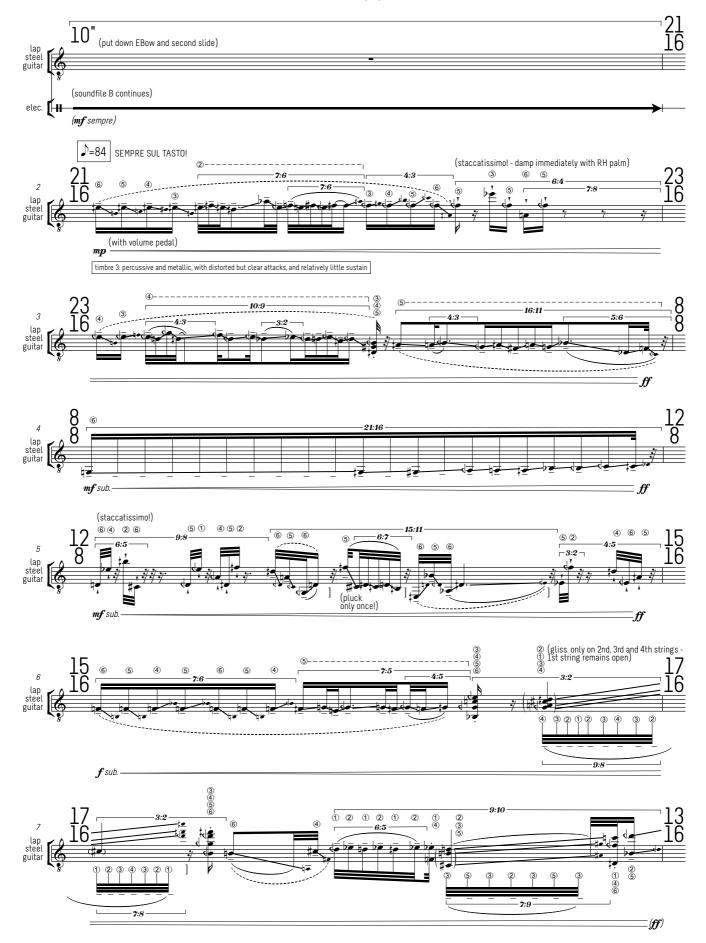


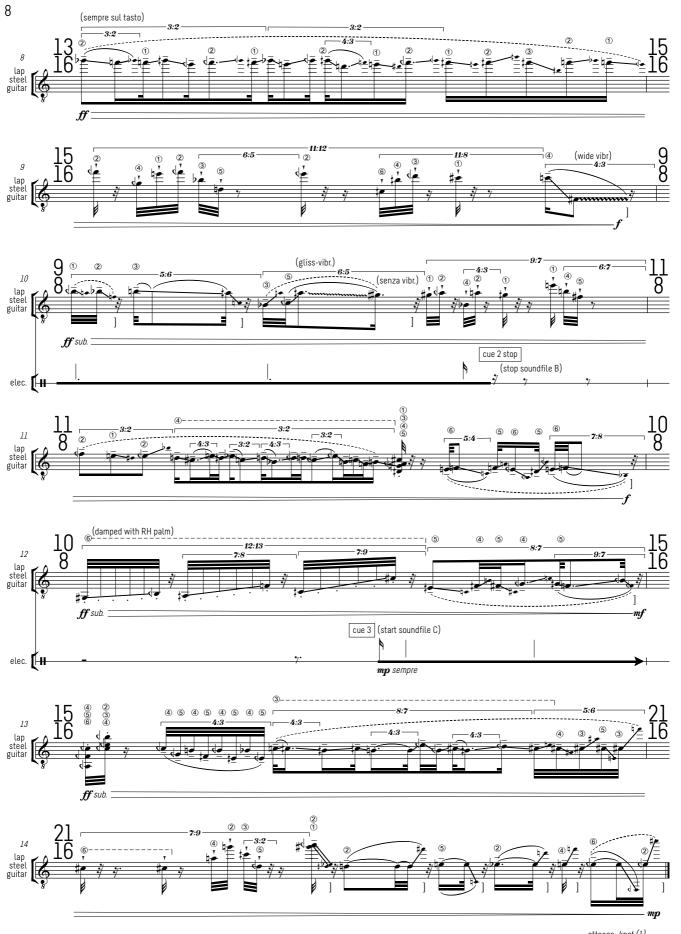




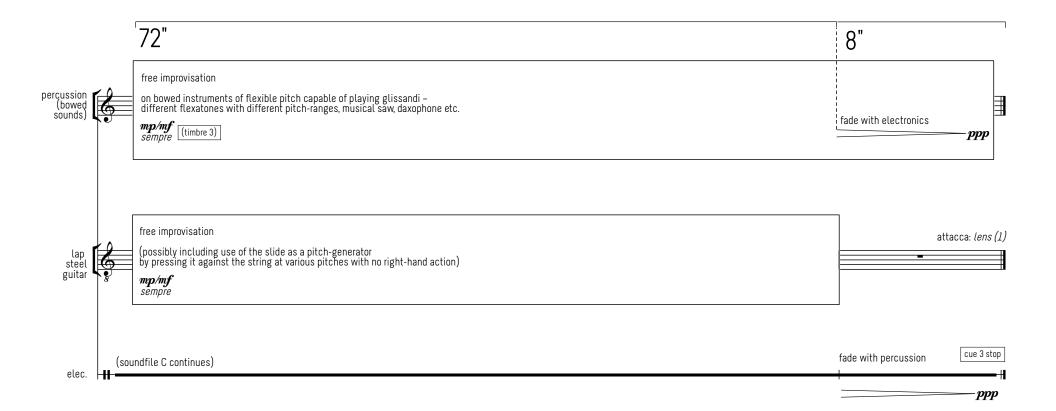
attacca: dust (2) (electronic sounds continue)

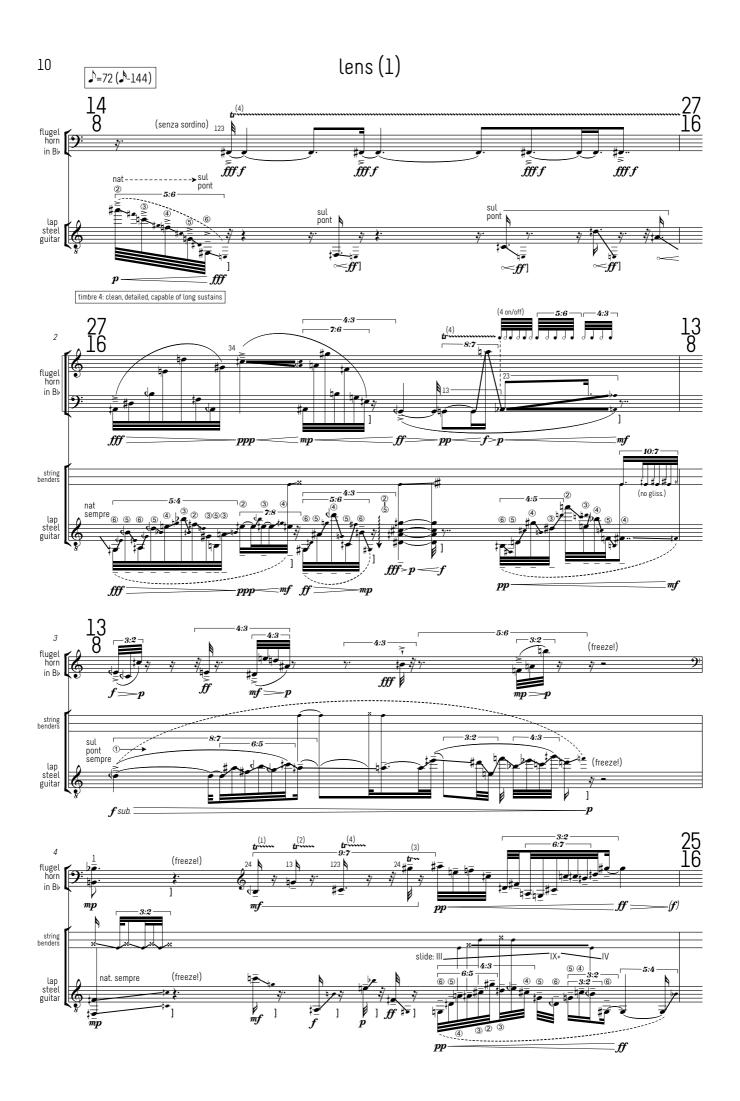
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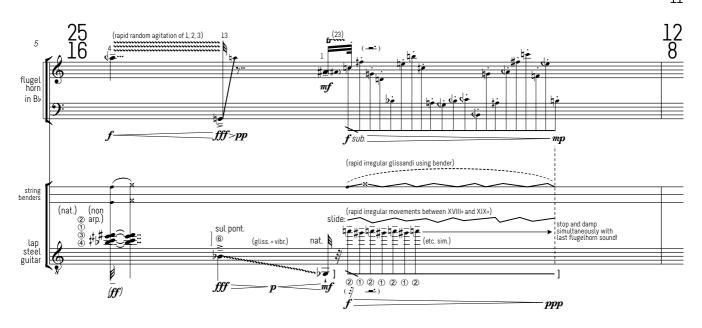


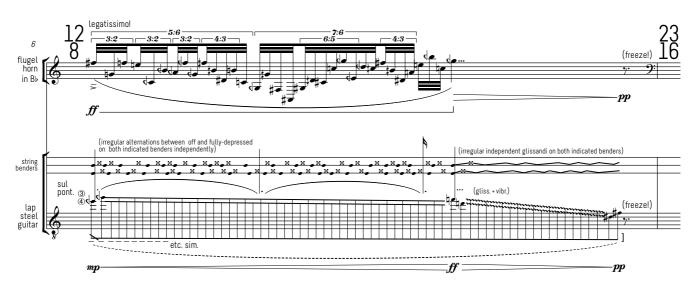


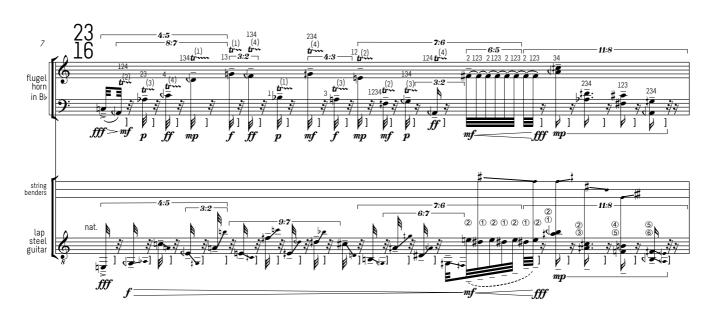
knot (1)





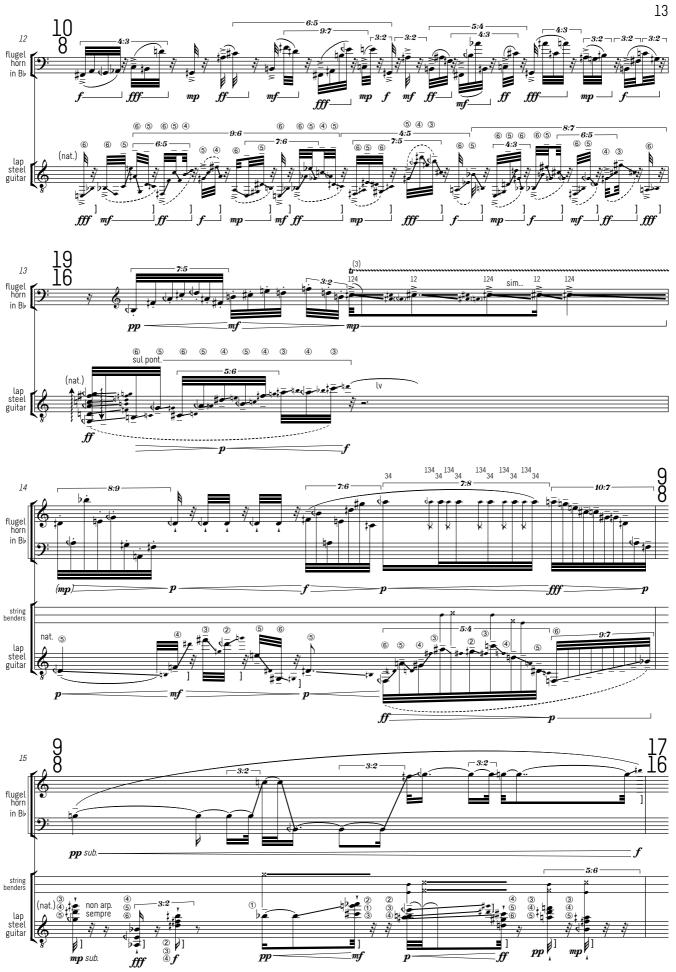






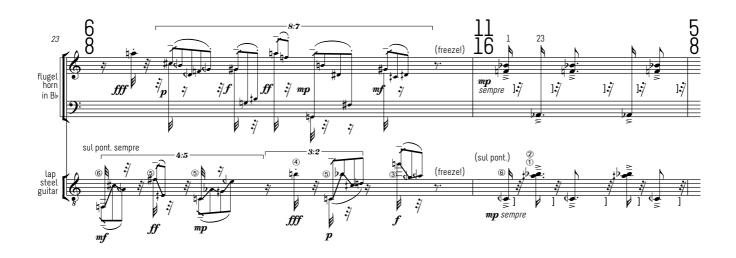


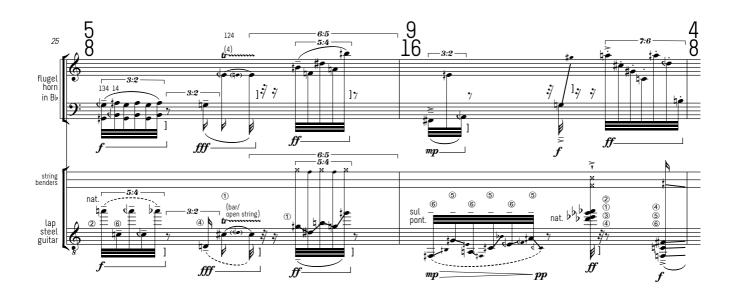


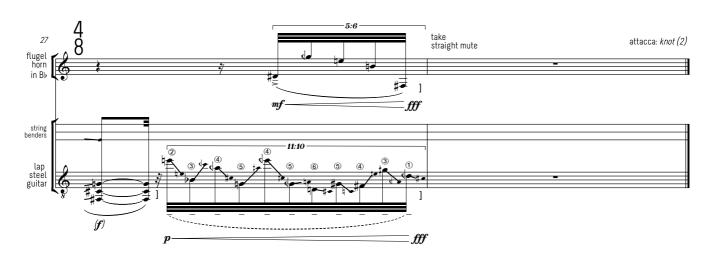




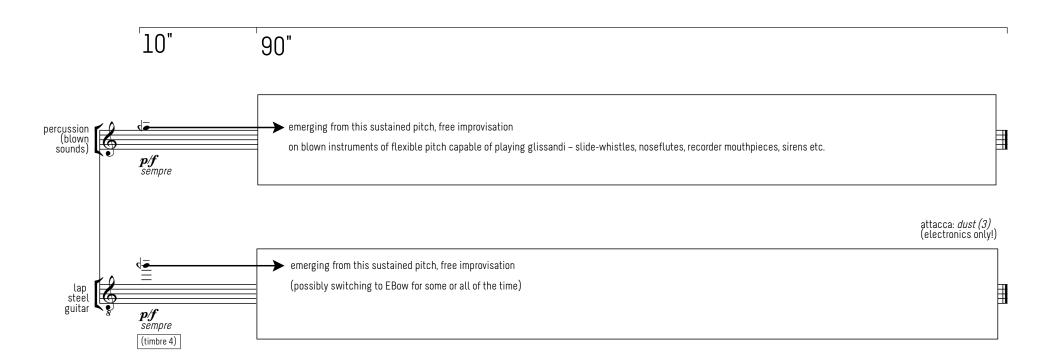




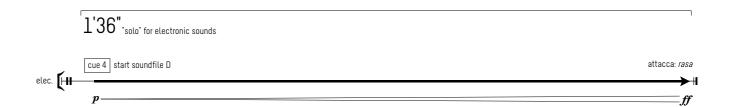




knot (2)

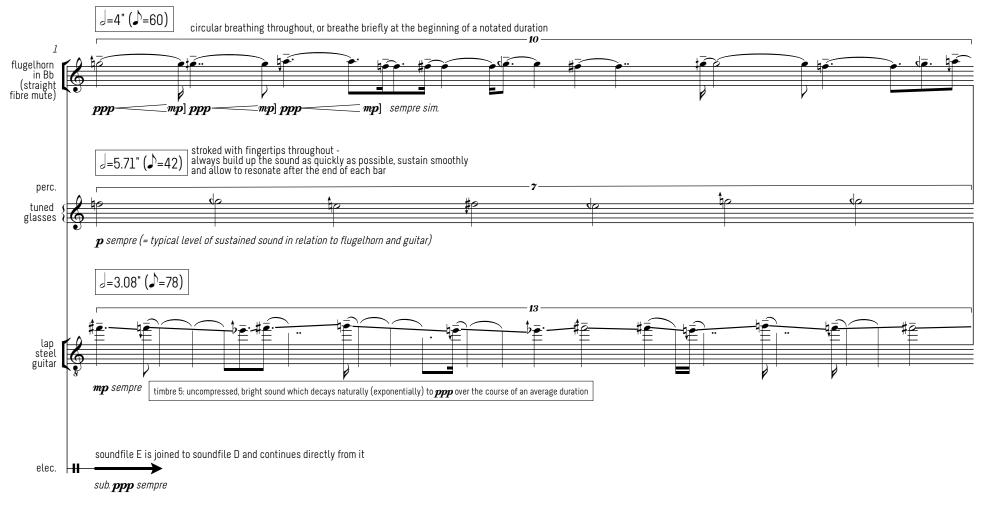


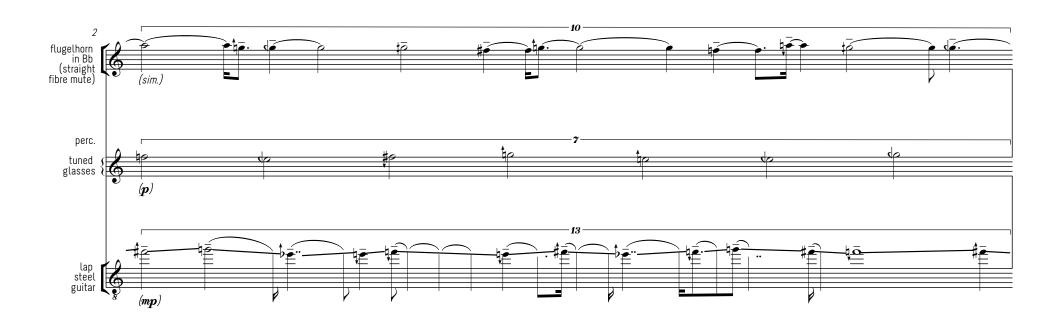
dust (3)

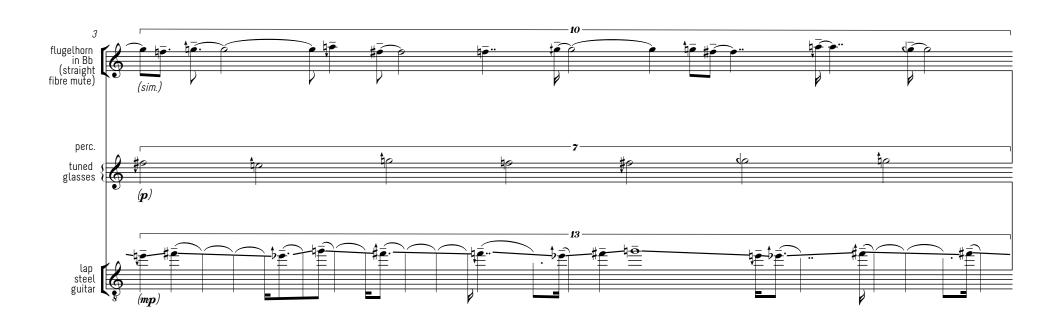


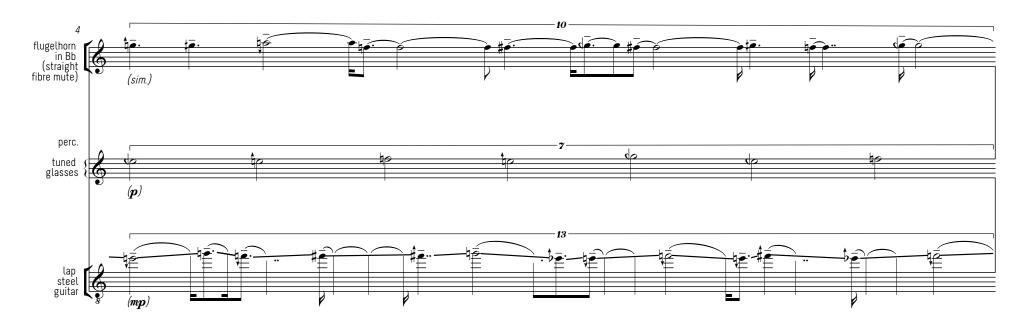
rasa

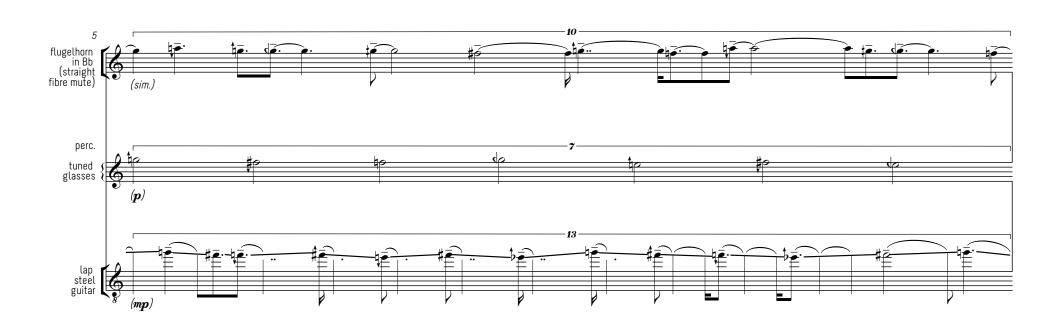
each bar 40" in duration

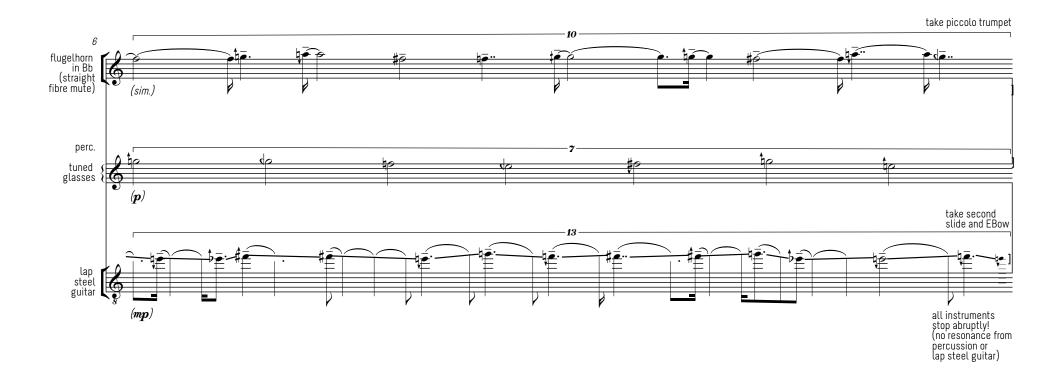


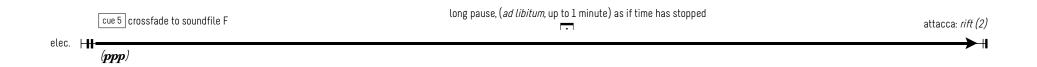


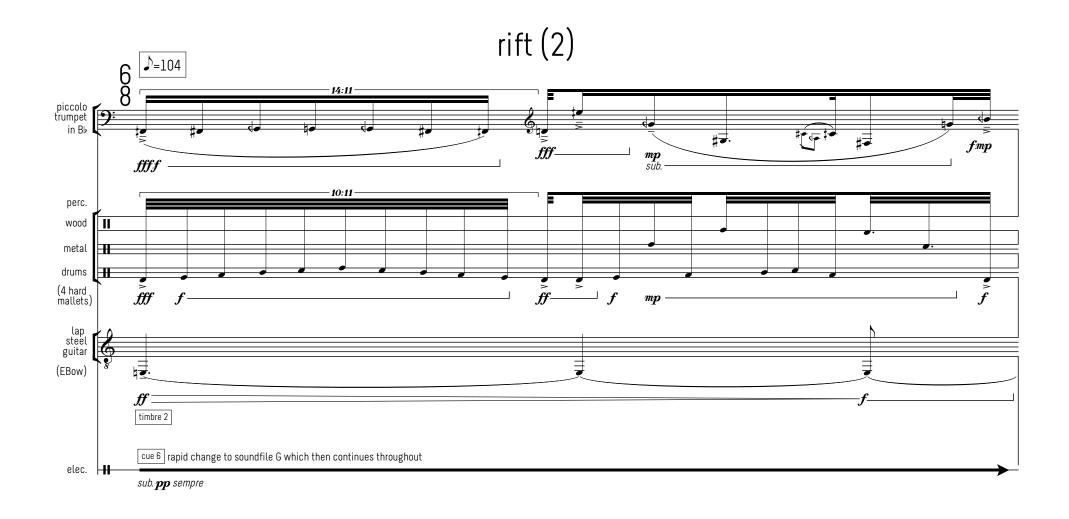


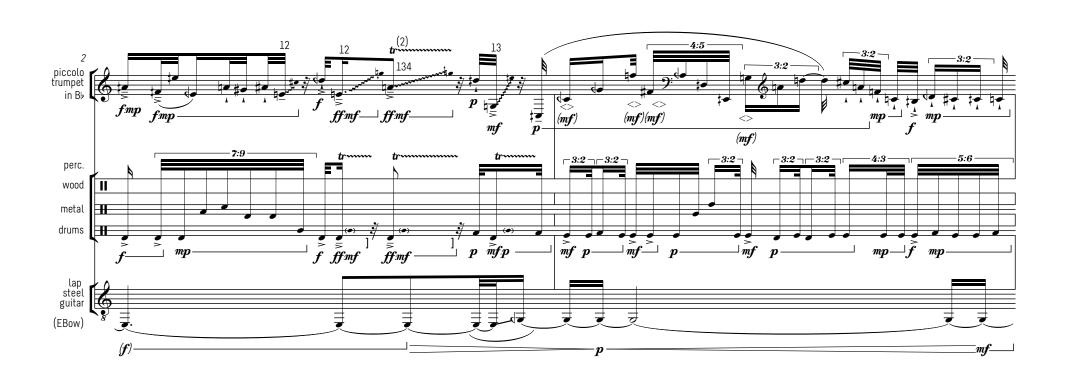


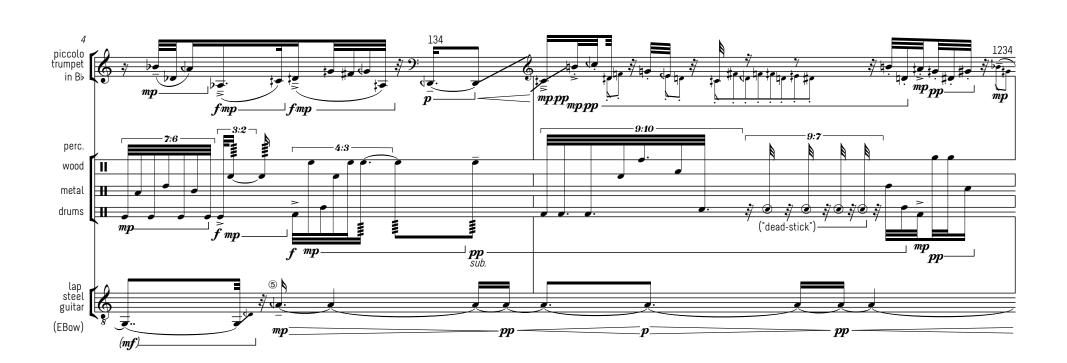






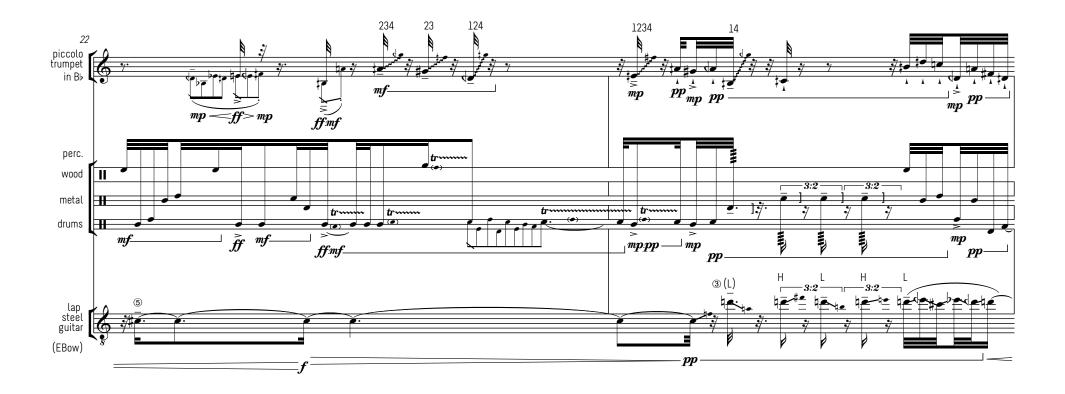








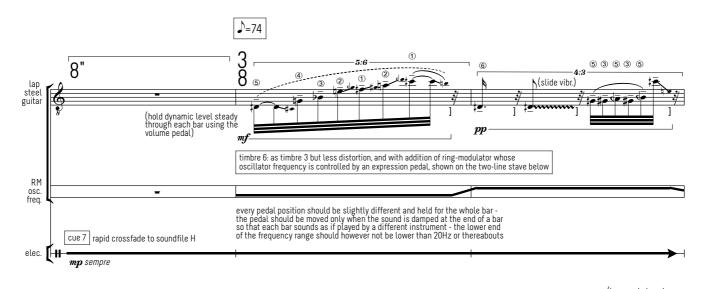


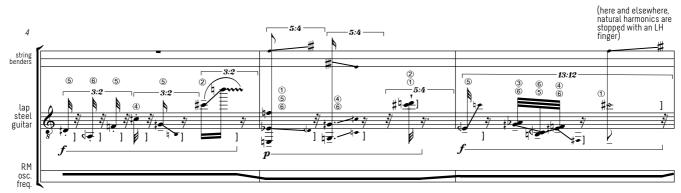


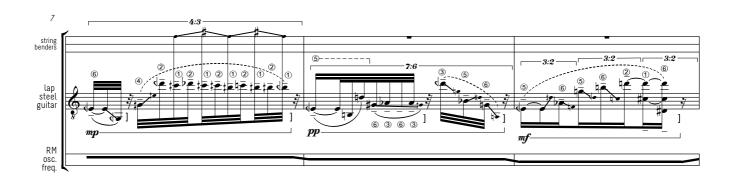


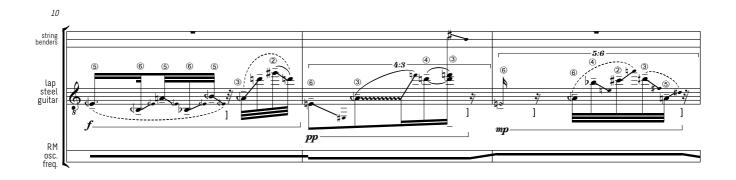


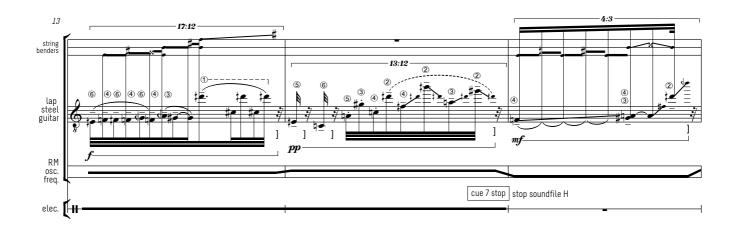
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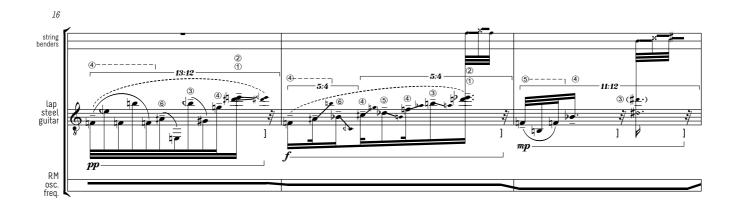


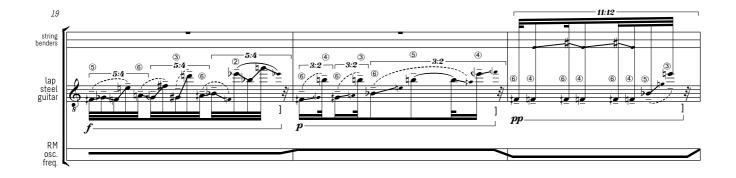


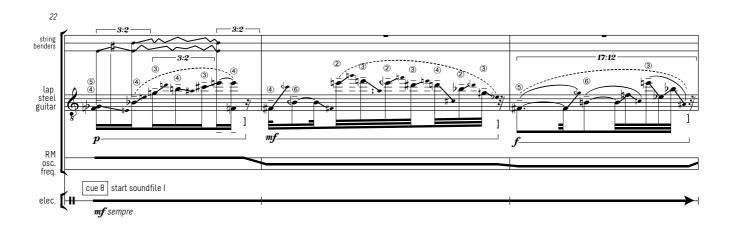


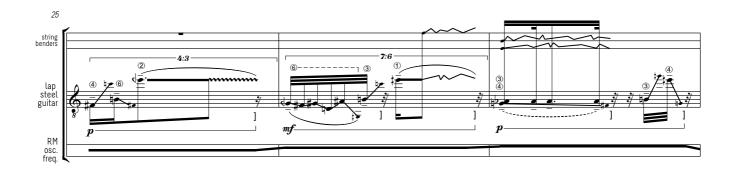


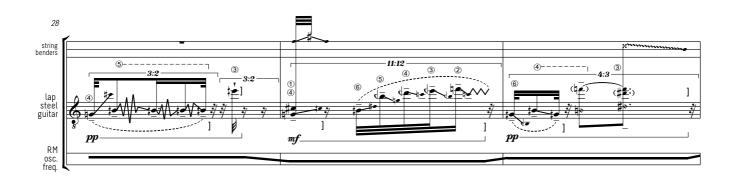


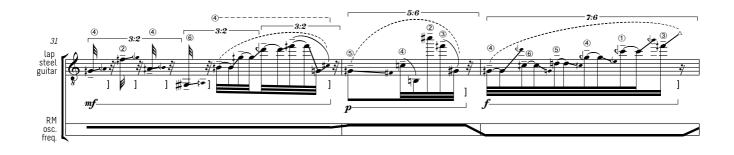


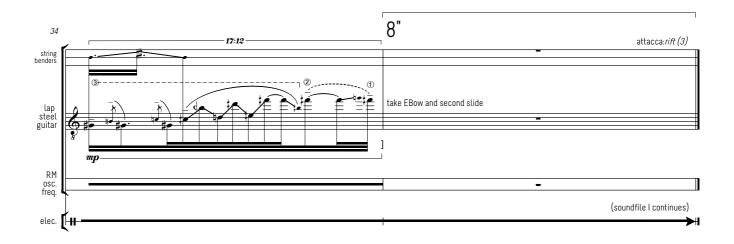


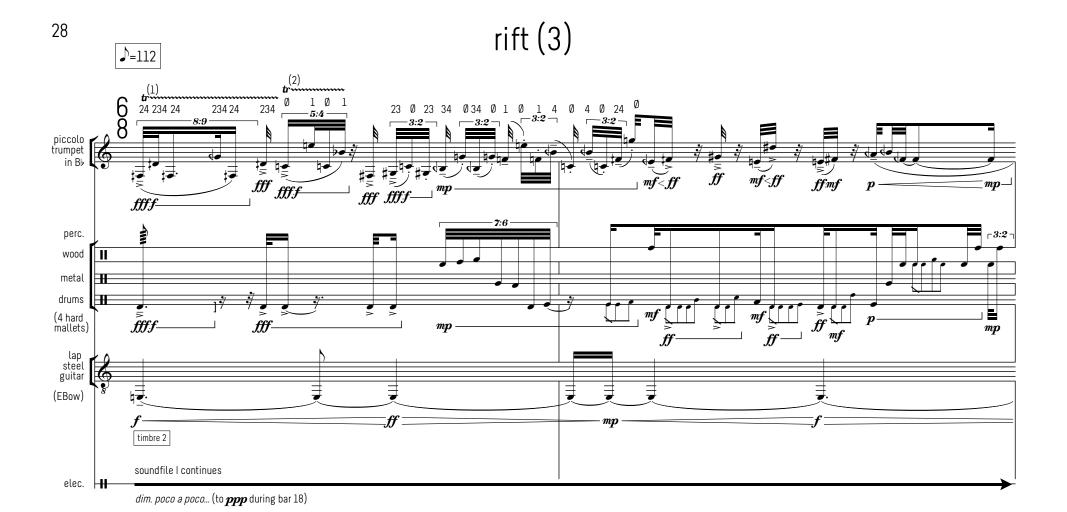


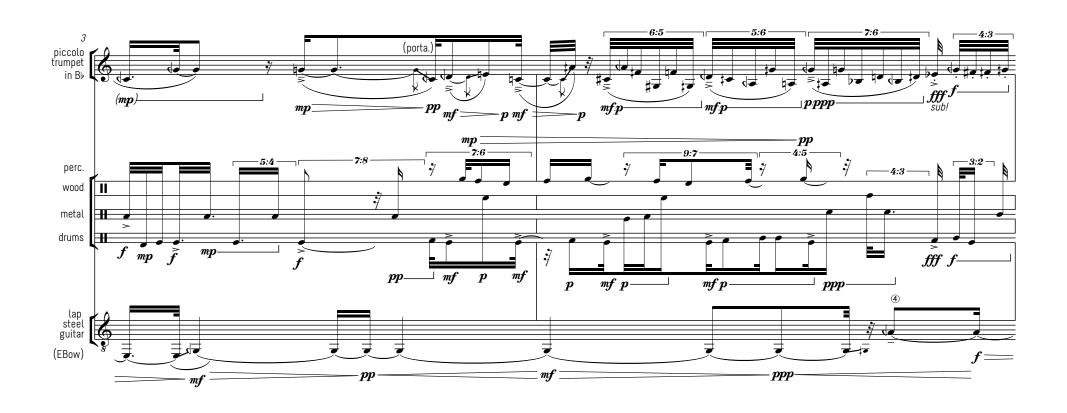






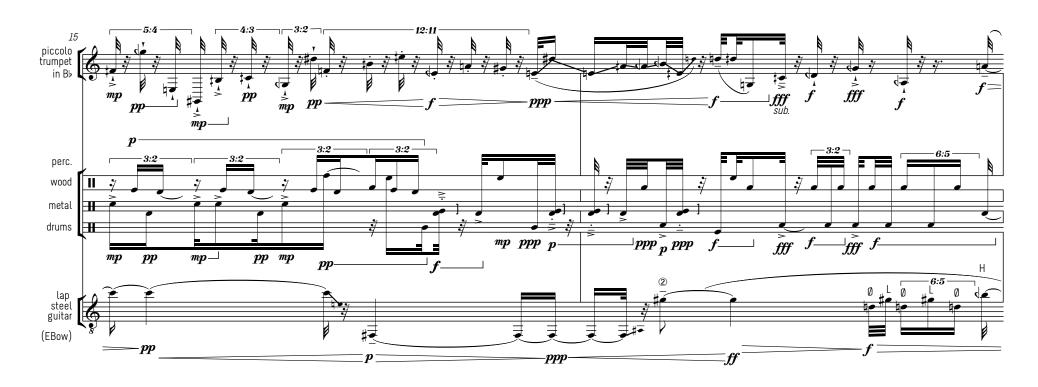


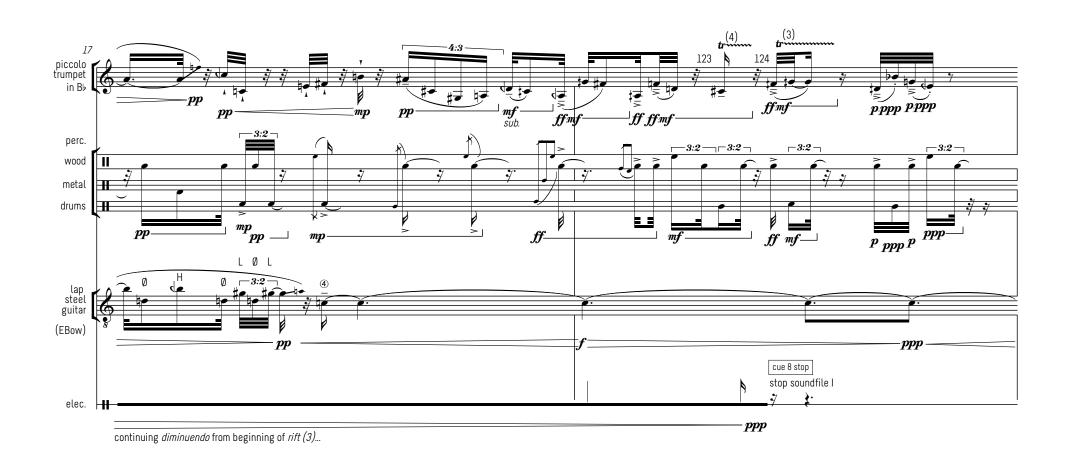


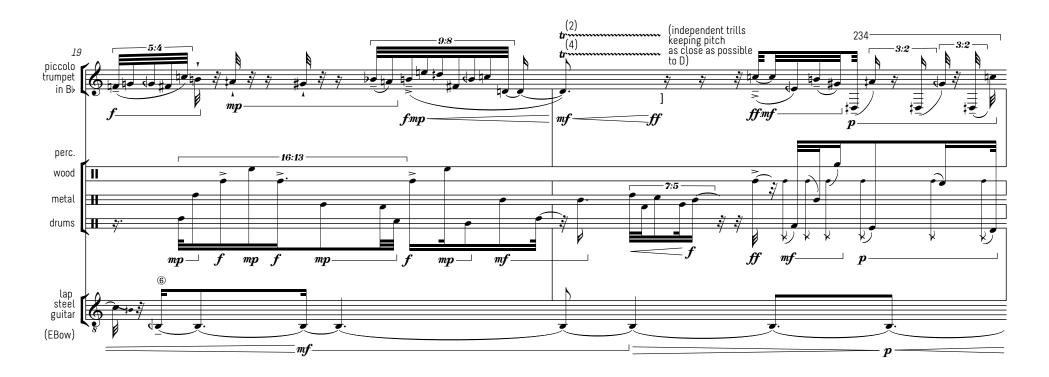






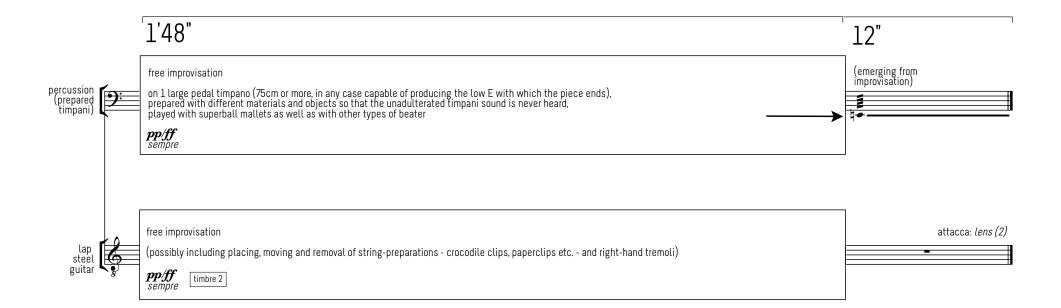


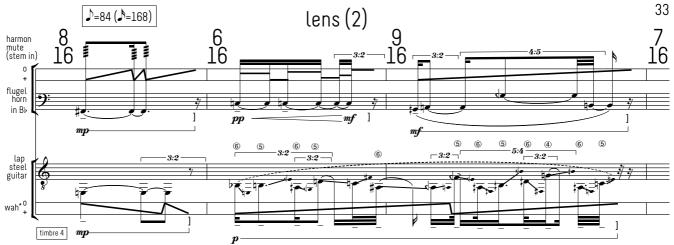


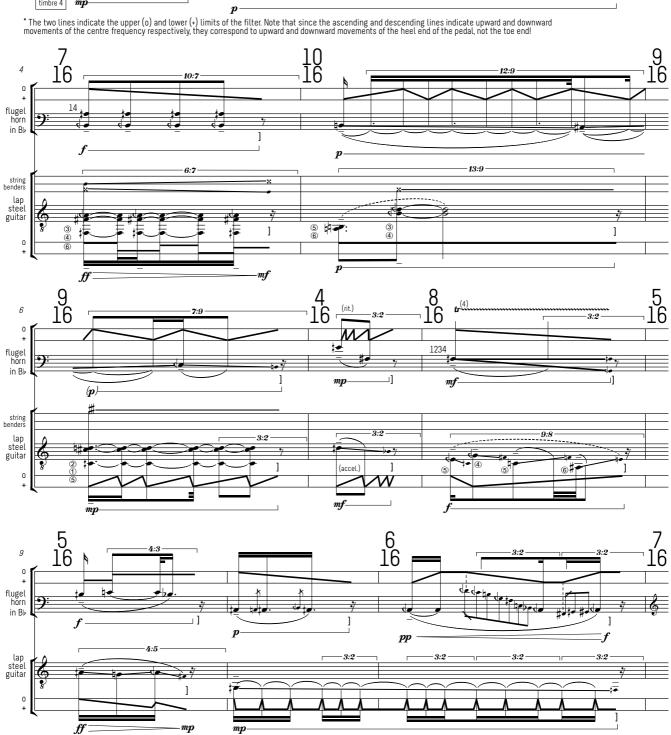


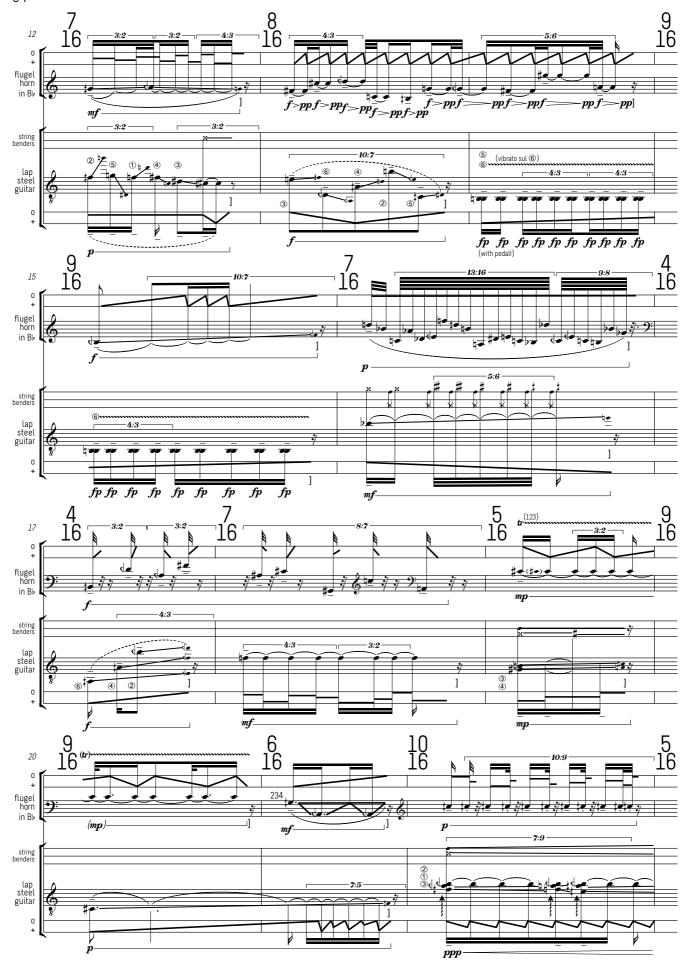


knot (3)

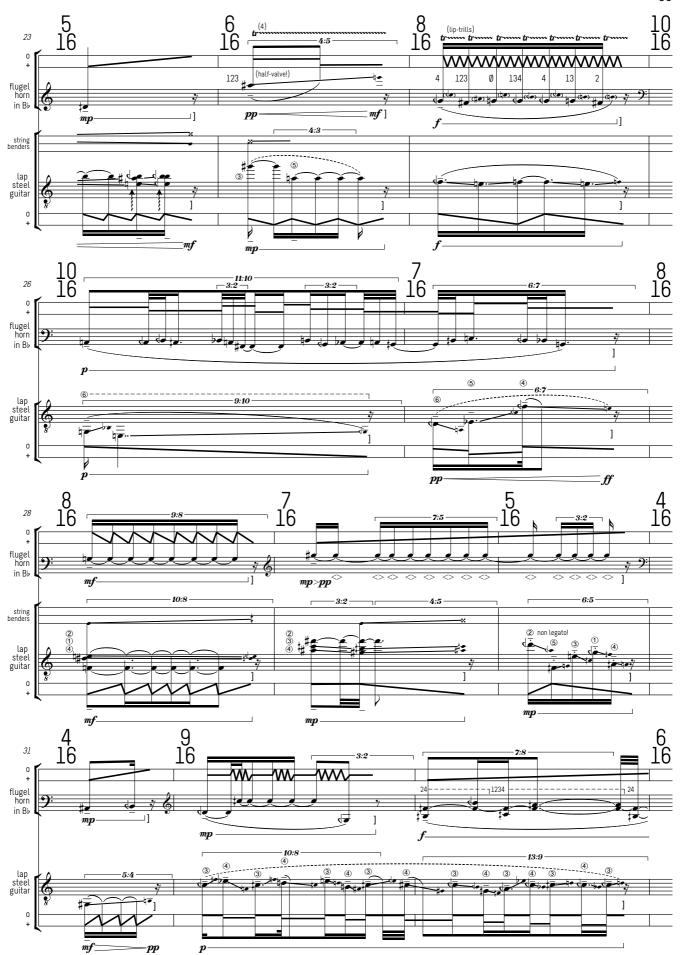




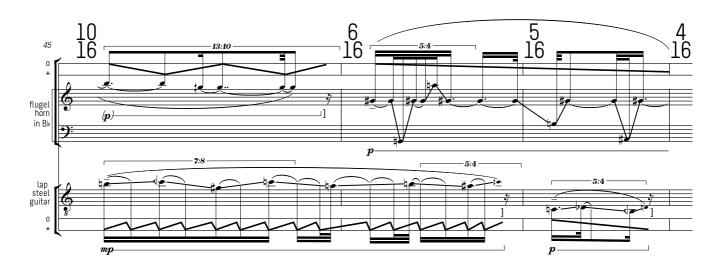


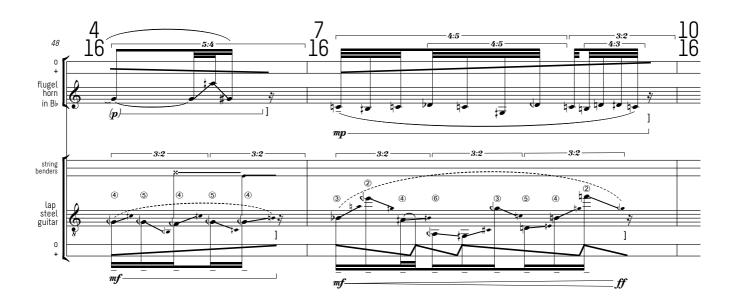


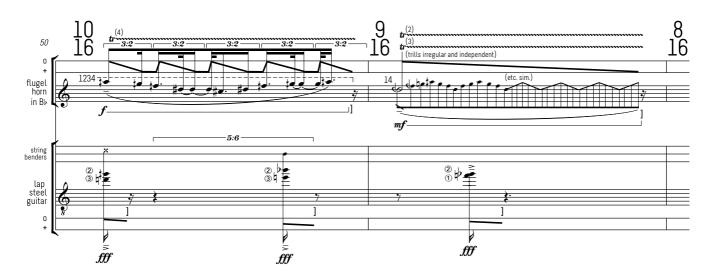


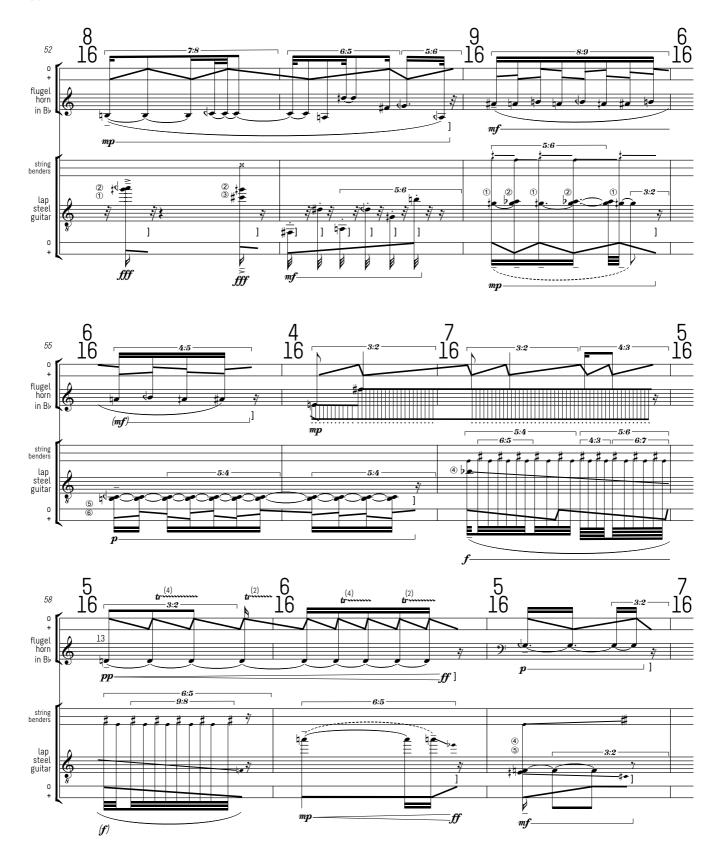








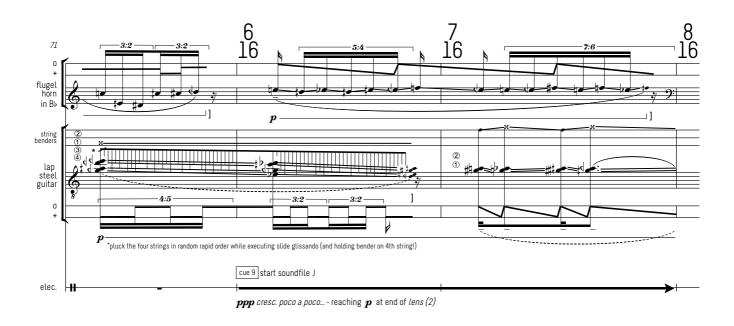


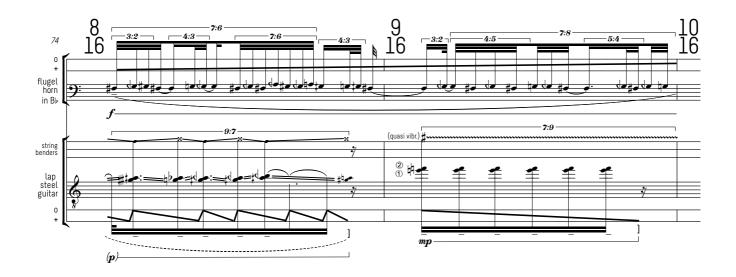


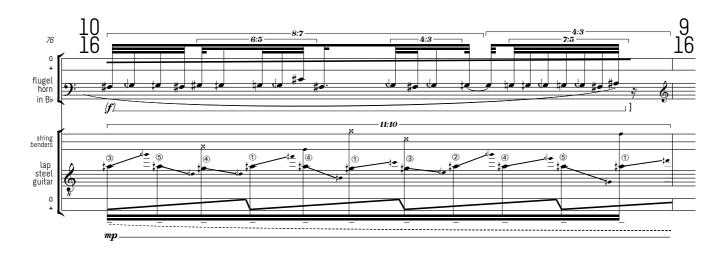


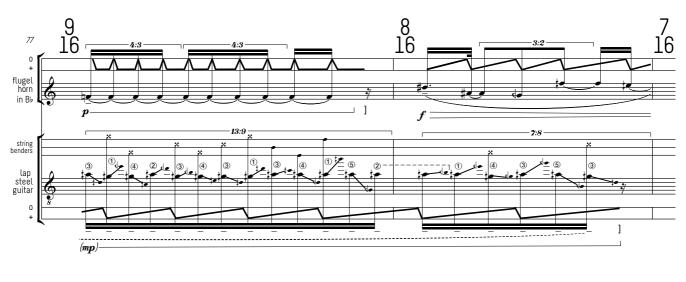


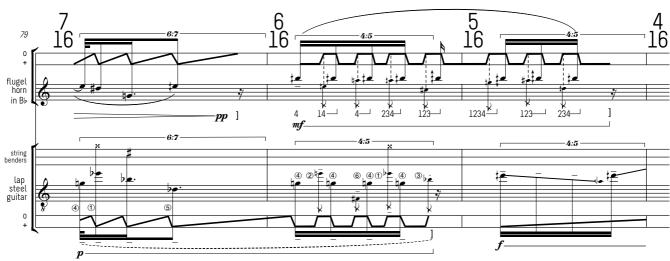
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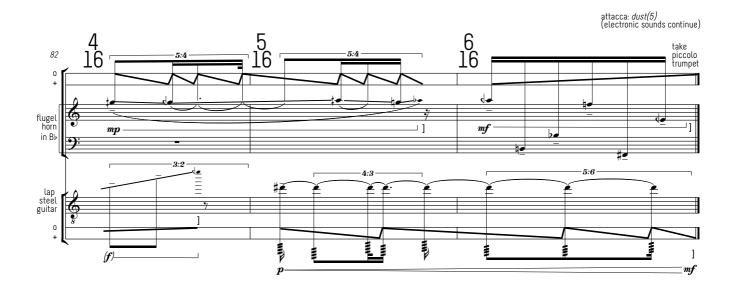






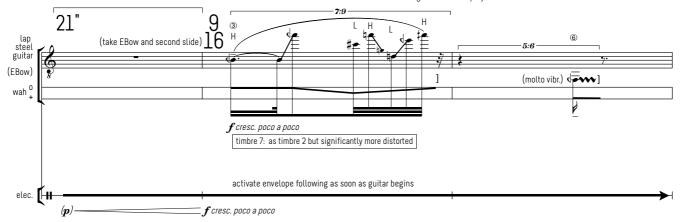


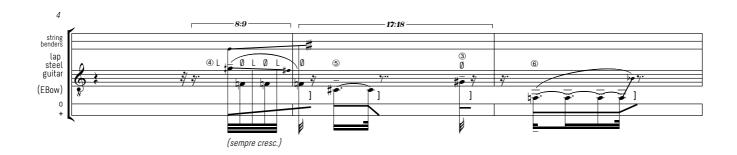


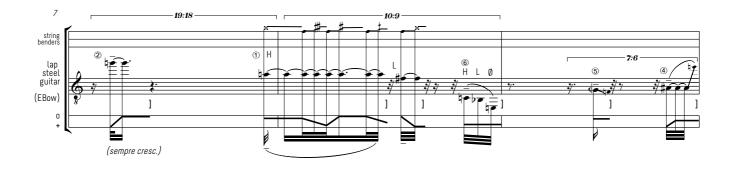


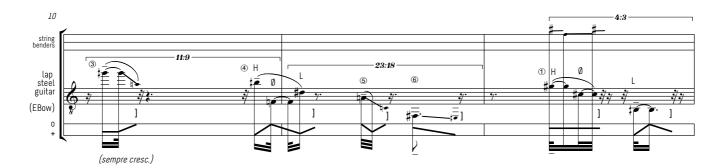
♪=94 (**♪**=188)

always damp completely where rests are marked, so that no extraneous movements of slides or pedals are heard and the electronic sounds are not activated when the guitar does not play.











(fff)

