Richard Barrett

CONSTRUCTION

full score

... in memory of Cornelius Cardew

CONSTRUCTION

(2003-11)

for voices, ensemble and electronics commissioned by the City of Liverpool

duration: approximately 2 hours

first complete performance: 19 November 2011, Huddersfield Town Hall, by ELISION conducted by Eugene Ughetti

Instrumentation and participants in the first performance:

piccolo/bass flute/alto flute (Paula Rae) tenor recorder/bass recorder/2 soprano recorders/2 sopranino recorders* (Genevieve Lacey) **oboe/english horn*** (Peter Veale) tenor saxophone/alto saxophone/contrabass clarinet/clarinet in A/bass clarinet* (Carl Rosman) baritone saxophone/contrabass clarinet/clarinets in Bb, A and Eb/bass clarinet (Richard Haynes) bass saxophone/alto saxophone/bass clarinet (Timothy O'Dwyer) **bassoon** (Dafne Vicente-Sandoval) quartertone flugelhorn/piccolo trumpet (Tristram Williams) alto trombone/tenor-bass trombone* (Benjamin Marks) percussion (1 player) (Domenico Melchiorre) - see below for instrumentation electric guitar/electric lap steel guitar** (Daryl Buckley) baroque triple harp (Marshall McGuire) violin (Graeme Jennings) viola (Erkki Veltheim) cello (Séverine Ballon) contrabass (Joan Wright)

soprano (Deborah Kayser) alto (Ute Wassermann) **baritone/countertenor**** (Carl Rosman)

live electronics (laptop/keyboard)*** (Richard Barrett) prerecorded electronics and spatial sound projection **** (Steve Adam, Lawrence Harvey, Michael Hewes)

Any of the performers may augment their instrumentation for the improvisational elements of CONSTRUCTION.

* the four soloists in part 10 news from nowhere are asked to use at least three wind instruments each, which may or may not be the same ones used elsewhere in CONSTRUCTION. See score of part 10 for details. The soloists may or may not be the instrumentalists listed above; any four of the wind players may take part.

** This vocal part was written to be performed by the same performer as the first of the three reed players although it may be given to a separate singer as necessary

*** This part is not specific with regard to technology and occurs primarily in improvisational contexts. It needs to be capable of the same degree of fluency and flexibility as the acoustic instruments but any combination of hard- and software may be used.

**** The sound projection system was conceived and designed at the Spatial Information Architecture Laboratory (SIAL) at RMIT University in Melbourne under the direction of Lawrence Harvey.

Components of CONSTRUCTION with durations:

				page
1	Strange lines and distances	8-channel electronic composition	2′	1
2	Politeia	13 instruments	9′	3
3	Hekabe-α	contralto and 6 instruments	4'	43
4	wound I	violin, oboe and cello	2′	53
5	Kassandra	soprano and 6 instruments	4'	57
6	heliocentric	10 instruments	15′	73
7	Omaggio a Chirico	3 voices, violin, viola, cello, contrabass and electronics	6′	121
8	Andromakhe	contralto and 6 instruments	4'	123
9	wound II	violin with english horn, Eb clarinet and cello	4'	135
10	news from nowhere	variable ensemble	7′	149
11	storming	variable ensemble	3′	159
12	Helene	soprano, tenor recorder, marimba and triple harp	4'	161
13	wound III	violin and 5 instruments	5′	169
14	Island	2 improvising soloists and 8 instruments	11′	185
15	Simorgh	8-channel electronic composition	11′	219
16	wound IV	violin and ensemble	3′	221
17	Hekabe-β	soprano, contralto, countertenor and ensemble	4'	233
18	wound V	violin and ensemble	1′	251
19	Germania	soprano, alto, baritone and ensemble	3′	257
20	ON	tutti improvisation	20'	263

Generally the twenty parts follow each other without a break, though some overlap and some begin after a pause - see the score for further details.

All instruments and voices are amplified and spatialised using a sound system which is able to move virtual sound-sources vertically as well as horizontally. The stage arrangement should place strings to the left of the conductor, winds to the right (with brass behind woodwinds), harp and vocalists centrally, computer/keyboard, percussion and electric uitar to the rear. The ideal staging would place the performers in the centre of the performing space, surrounded by the audience who are surrounded in turn by a dome-shaped array of loudspeakers. This ideal should be borne in mind when adapting the layout for spaces where this is not possible.

The percussion setup requires several microphones to ensure that all sounds can be given sufficient presence and balance. In particular, the kalimbas used in part 6 heliocentric (unless they have built-in pickups) should have a microphone of their own to which the player can hold the instruments as close as necessary, and the four Udu drums used in parts 13 and 16 wound III/IV should preferably each have a microphone of their own.

Both the laptop/keyboard player and the electric guitar player need to have local amplification as well as going through the spatialisation system. The guitar can use one or more clean-sounding guitar amplifiers; the laptop a stereo pair of speakers located behind the performer at ear level.

The following are general indications for spatialisation, which may be adapted or augmented as circumstances allow. Ideally the ensemble is placed in the centre of the performing space surrounded by the audience, everyone in turn surrounded by a dome-shaped array of loudspeakers. The virtual positions of instruments and voices in the "static" sections should vary from one to the next. In particular they may be spread out as if the ensemble occupied the entire performance space.

- 1 static (inbuilt spatialisation) but distributed vertically as a cube or dome
- 5 players (recorder, flugelhorn, trombone, electric guitar, marimba) wander slowly through the space independently of one 2 another; the rest of the ensemble remains static
- 3-5 static
- 3 duos making concentric "orbits" at different (slow) speeds and at different vertical levels duo members opposite one another as 6 they rotate:

recorder/bass flute (lowest, closest to centre) 2 clarinets (intermediate)

flugelhorn/trombone (highest, around the edge)

4 plucked instruments (kalimbas, harp, guitar, cello) at centre, with/without reverb

in addition to inbuilt spatialisation of fixed media: each sound from each source from a different place, at a different distance (use 7 reverb as well as spatial positioning)

8-9 static

4 soloists and percussion are static, the "drones" distributed through entire space also vertically, moving slowly and randomly 10

11 free/chaotic

12-13 static

- 14 octet positioned at 8 points around space, rotating very slowly; soloists freely spatialised including vertically
- 15 inbuilt spatialisation - the five sections may be differently configured
- 16 voices in slow motion with variable reverb, otherwise static

17-18 static

- 19 voices static, everything else slow independent rotations at different levels, gradually accelerating until just before sense of movement is lost
- free improvisation (highlighting different groups at different times) 20

The score is at **playing pitch**, with the exception of part 10 *news from nowhere* and part 11 *storming* since these are not fixed in instrumentation. Otherwise, all instruments are transposed and their parts are identical to the score. The harp is tuned to A=415Hz and sounds a semitone lower than notated. The quartertones played by the scordatura electric guitar in part 2 *Politeia* is notated as such; the scordatura lap steel guitar in parts 13, 16 and 18 wound *III/IV/V* is notated both at (one octave above) sounding and played pitches.

No vibrato unless indicated.

All transitions including glissandi as smooth as possible.

All **trills, tremoli and grace-notes** as fast as possible. The intervals for trills and mordents are normally indicated by the notated auxiliary pitches, or by fingerings (in wind instruments); if neither of these is present, trills and mordents are to the nearest semitone(s). Grace-note groups separated from notated durations by dotted "barlines" are added to the notated durations. Otherwise they are subtracted from the notated duration in which they occur. Occasionally the second note in a pair of tied notes is omitted, with the tie going instead to an "empty stem". Such omissions are made for reasons of clarity, for example where a grace-note group covers the place where the missing notehead would have been.

Dynamics: The dynamics given in the score are absolute, ie. after amplification, although of course the full dynamic range of the instruments themselves should be used. Where for example bass recorder and flugelhorn are both marked *p* what they might actually be *playing* relative to one another is f and *pp* respectively, brought into balance at the mixing desk.

All instruments:] is an indication to damp all sound, implying a tongue-stop (winds) or stopping the bow audibly on the string (strings) as well as damping of percussion and guitar resonance. In the harp part, all or only some of the sounding strings might be damped, depending on the position and extent of the bracket. [in strings indicates (re) starting with the bow already on the string.

Woodwind instruments:

Glissandi are sometimes to be executed using the embouchure, sometimes with the fingers and sometimes by a combination of both. Where no indication of embouchure-glissando (as a sloping line above the stave prefixed by *emb*.) is given, the glissando is intended to be produced by changes in fingering.

The use of circular breathing is assumed wherever a continuous unbroken passage occurs.

Flutes: $\triangle =$ "pizzicato"; $\diamond =$ "breathy" sound (as opposed to \bullet)

Recorders:

Dynamic changes should be realised with a combination of breath-pressure (for relative intensity) and moving the instrument relative to the microphone (for volume). The notated pitches indicate *fingerings* (and therefore also timbres) rather than precise resultants. Dynamic profiles of phrases will accordingly be more complex than those notated. A wide range of timbral shades, rather than consistency of tone, is the intention. For multiphonic, very slight shading of some fingerings might be becessary to obtain optimal timbre and/or stability.

Oboe/english horn:

The numbers given to multiphonics refer to the listing in Veale & Mahnkopf, The Techniques of Oboe Playing (Bärenreiter, 4th ed. 2001).

Clarinets and saxophones:

 \bigcirc or \succ = slaptongue (not necessarily staccato!) \bigcirc = diaphragm-tremolo

The numbers given to saxophone multiphonics refer to the listing in Kientzy, Les sons multiples aux saxophones (Editions Salabert, 2003). The passages in two-part counterpoint for a single clarinet work by juxtaposing multiphonic dyads which have one pitch in common so that, with care, one pitch will sound as sustaining while the other changes.

 = pitch produced by "normal" fingering, when this fingering is altered (typically by adding trill keys) to produce a different pitch or microtonal sequence. This pitch is shown only as a shorthand for its fingering and is not intended to be heard! Resultant pitches are shown

with normal noteheads.

In part Andromakhe the second and third of the three bass clarinet parts are detuned by an eighth-tone and a quartertone respectively. Discrepancies in intonation within/between the detuned instruments should not be "corrected".

Bassoon:

The bassoon part uses many unorthodox fingerings for which a shorthand notation was devised. The notated pitch gives the basic fingering (but not necessarily the pitch which emerges, since this is often more or less higher than notated), to which one or more named keys and/or holes may be added, in addition to which the encircled numbers 0 to 9 indicate the following sequence:

0 = fingering as given	1 = close low Bb (left thumb)	2 = open low Bb
3 = open low B	4 = open low C	5 = open low D, close E
6 = close low D (E still closed)	7 = close low C (E still closed)	8 = close low B (E still closed)
9 = close low Bb (E still closed)		

Apart from producing differences in timbre and sometimes also pitch, these sequences also often consist partly or wholly of multiphonics

and/or beating sounds. Where the sequences are not used as such, key names are given individually and N indicates the normal fingering for the given pitch. Multiphonics created by reducing embouchure pressure are indicated by 🖬 above the stave, with "normal", nonmultiphonic sounds indicated by 🗌 where this is necessary for clarity. The transition between these may be gradual (notated, like all gradual transitions, using a dotted arrowed line) or abrupt.

Brass instruments:

In the flugelhorn/trumpet part, the number after the "tr" in a trill indicates the valve to be trilled; "tr(L)" indicates a lip-trill. All multiphonics are "split sounds" rather than involving the voice.

Arrows on accidentals indicate justly-intoned deviations from equal temperament, although these may, depending on context, also be approximated to the nearest quartertone. The flugelhorn quartertones in part 2 Politeia are intended to be realised by pulling out the thirdvalve tubing so that it sounds a quartertone lower. The fourth-valve tubing is to be removed altogether. Elsewhere, quartertones are produced using a fourth valve whose tubing is half the length of that of the second valve. Valves are notated in the score as necessary, as are trombone slide positions (i-VII) and harmonics (pedal=1).

• (above stave) = "normal" tone production.

◊ = "air sound" (extremely faint pitch sounding a major seventh lower than the played pitch - these resultants are shown as small notes) Intermediate between these (a "breathy" sound but with "normal" pitch still audible).

 $\bigcirc \oplus + =$ open, half-closed and closed mute (plunger or harmon).

[x:] = throat-flutter (x = "ch" as in "loch") for indicated duration, sometimes simultaneously with fluttertongue.

Percussion instrumentation:

part 2 Politeia, part 12 Helene and part 19 Germania

4 high woodblocks

5 temple blocks (not pentatonic!)

3 slit drums (2 pitches each)

The above instruments should form a single "scale" of 15 pitches so that the lowest woodblock is higher in pitch than the highest templeblock, and the lowest templeblock higher than the highest slit drum pitch. The "instrument" formed by the combination of slit drums and blocks is notated thus:

marimba (4 octaves C-c´´´)

part 6 heliocentric

2 (or more) kalimbas

Two are specified in the score (kalimba 1 smaller and higher in general pitch-range, kalimba 2 larger and lower) but these may be augmented ad libitum, particularly by instruments with distinctively different timbres, to replace the specified ones for one or other section of the score. Kalimbas in tempered tuning should be retuned so that their tuning is irregular. In particular, no two tongues should be exactly in unison. Pitches are not specified in the score. Each instrument is notated using one line to represent the central and longest tongue, and noteheads without lines either side to represent however many other tongues the instruments used may have. Therefore the pitch goes up the further away (in either direction!) from the centre line. Kalimbas with a larger number of tongues are to be preferred, kalimbas with buzzing metal rings around the tongues are welcome. Instruments with built-in pickups are desirable.

part 10 news from nowhere

a single instrument able to produce at least 4 distinct timbres, in rapid succession where necessary (examples: Udu, djembé, bodhran, darabukka, washboard...)

part 11 storming, part 20 ON

any or all instruments used elsewhere (and possibly others ad libitum)

parts 13, 16, 18 wound III/IV/V

5 castanets, fixed to a board to form a "keyboard"

4 Udu drums of different sizes, placed on cushions in a row with the necks pointing outwards

2 bongos

3 congas

This composite instrument is notated thus:



For the Udu drums, ^O • • indicate an open stroke (on the side of the drum), a half-closed stroke (on the hole, partially covering it) and a closed stroke (sealing the hole with the palm of the hand). Transitions between these strokes also occur.

For the bongos and congas, 🔿 🗵 • indicate respectively: strike near the edge, strike near the centre, strike with the flat of the hand. \checkmark = drumsticks ?? = hard-headed beaters ?? = medium-headed beaters ?? = soft-headed beaters \checkmark = bow

Hybrid electric/acoustic and lap steel guitar

The hybrid electric/acoustic guitar is tuned thus in part 2 Politeia:

E 6 8 8 0

Notations:

(a) Crescendi on single notes imply the use of one or both of two volume pedals (one for electric and one for acoustic outputs), which should be set so that when the pedal is fully up no signal passes through at all. Both volume pedal outputs should be sent to the multi-effects processor if this is used, if necessary using a small onstage mixer.

- (b) Fingernail technique (or E-Bow) is assumed throughout, although plectra may be used where convenient.
- (c) For natural harmonics, the fingered pitch is notated using diamond-shaped noteheads.
- (d) msp and mst indicate molto sul ponticello and molto sul tasto respectively.

Each of the five sections played by the electric guitar in part 2 Politeia uses a different processor setting:

- 1 should, with the E-Bow, combine with the sounds of recorder and (muted) flugelhorn so as to produce a coherent but heterogeneous trio of sustaining instruments.
- 2 applies equalisation to the acoustic output of the guitar so as to merge with the (amplified) baroque harp into a single complex instrument.
- 3 should produce an incisive sound (but still capable of sustaining), equal in volume and presence but distinguishable in timbre between the acoustic and electric outputs. No distortion!
- 4 should be similar to 1 but more "soloistic" more high-frequency content (distortion?), perhaps depending on (triggered by) input volume so as to react differently to fingering- and string-changes.
- 5 should be similar to 1 but more blended with recorders and (unmuted) flugelhorn.

In part 6 *heliocentric* the electric guitar is retuned to its normal tuning and should use as default a "clean", semi-acoustic type sound: brigh but without distortion or significant compression. A volume pedal should be used to realise the often gradual and/or wide changes in dynamic. In the first and fifth sections the lowest three strings are "prepared" using crocodile clips or circular paperclips clipped to the strings near the bridge. In the first section, these preparations are also to be moved to unspecified different positions as indicated, in order to produce a variety of different timbres at different times. In the fourth section, the open B string is played throughout with an E-Bow and varies only in timbre - alternations between 5 basic "sounds" are indicated, to correspond to 5 different basic effect-combinations, which should be highly distinct from one another except in dynamic (although without clear pitch-shifting, or delays or other effects which produce a discernible regular "rhythm" or pulsation), but each of these may be slowly varied *during* their duration by gradually adjusting one or other parameter. The most practical way to organise the effects would probably be to assign each of the five sounds to a different effects pedal (with all five pedals connected in series), so that each change would involve simultaneously switching one pedal off and the next on. If this is done accurately the resultant audible clicks will be masked by the kalimba sounds.

The lap steel guitar used in parts 13, 16 and 18 wound III/IV/V is tuned thus:

A volume pedal is used to assist the dynamic changes produced with the volume knob; a "traditional" lap steel sound is preferable, without much in the way of added effects, except in part V in which distortion is added.

Either instrument (or both, or yet another) may be used in part 11 storming and part 20 ON.

Baroque triple harp

Tuning:



For part 6 heliocentric the harp requires five "preparations: for the lowest five strings. Crocodile clips or circular paper clips may be used, or some other means of producing a "metallic" inharmonic sound.

Bowed strings

(a) **psp**, **msp** = poco and molto sul ponticello respectively, the former already being noticeably different in timbre from **nat**., the latter being as extreme as possible consistent with the fundamental pitch remaining audible. **pst**, **mst** = poco and molto sul tasto (similarly).

(b) ↓ ↓ ↓ = ascending degrees of bow pressure: flautando; "normal"; exaggerated and distorted (pitch only just discernible); completely pitchless scraping. The exact timbral result will arise from the combination of bow pressure with bow position and dynamic level, any or all of which might be simultaneously changing.

(d) clb = col legno battuto, clt = col legno tratto

In part 6 heliocentric the cello is "prepared" with crocodile clips or circular paperclips attached to all four strings near the bridge.

Voices

The texts in parts 3, 5, 8, 12, 16 and 17 are taken from Euripides' *Trojan Women*. The ancient Greek text and a phonetic transliteration both appear in the score, the Greek text divided conventionally into syllables and the phonetic symbols indicating more precisely the starting point and duration of each sound. Where a consonantal sound is given a specific duration this is indicated by a colon after the symbol. (In the interest of clarity this is omitted for vowels. The text of parts 18 and 19 is taken from Hugo von Hofmannsthal's libretto for Richard Strauss' Ariadne auf Naxos.

In part 5 Kassandra, many of the more extended vowels are split up by staccati and/or rests: care should be taken to distinguish between the retaking of a vowel with or without a glottal stop. Some gradual transitions between the vowel sounds of diphthongs are also notated. These latter features are not "authentic" to ancient Greek of course: where vowel sounds are greatly extended and/or reshaped in this way, the voice has as it were become an instrument and partakes of the articulational and morphological characteristics of the other instruments.

Instrumentations and performing notes for the individual sections:

1 strange lines and distances (2')

This 8-channel fixed media composition should be set at approximately the same volume level as the beginning of part 2 *Politeia*, which begins just before the final resonance becomes inaudible. The eight tracks should be assigned to output channels thus:

The text was spoken by Siân Wassermann.

2 Politeia (9')

for 13 instruments:

QUINTET

recorders (tenor, bass, 2 sopranos)

flugelhorn in Bb (third-valve tubing pulled out to be a quartertone lower than normal, fourth-valve tubing removed altogether) percussion (see above)

baroque triple harp (tuned in quartertones - see above)

electric guitar (quartertone scordatura - see above)

OCTET

tenor saxophone baritone saxophone bass saxophone bassoon tenor-bass trombone violin viola cello

3 Hekabe- α (4')

for contralto and 6 instruments: piccolo sopranino recorder 2 contrabass clarinets in Bb baroque triple harp

contrabass

Text: from Hekabe's first monologue in Euripides' Trojan Women (lines 98-152), where she raises herself wearily from the ruins to bemoan her fate and that of Troy.

4 wound I (2')

for violin, oboe and cello

5 Kassandra (4')

for soprano and 6 instruments: oboe clarinet in Bb

> alto saxophone quartertone flugelhorn in Bb (with fourth-valve tubing transposing by a quartertone only) baroque triple harp viola

Text: from two of the prophetess Kassandra's monologues in Euripides' *Trojan Women* (lines 308-314 and 455-461). The first is from Kassandra's first entry, in which she sings an exuberant and formulaic wedding-song in "celebration" of her forthcoming abduction into slavery as the concubine of Agamemnon. While an intervening chorus describes her state as insane, Kassandra goes on to relate how, instead of a wife, it will be one of the three Furies that Agamemnon takes back to Greece and that she will take revenge by bringing down the house of Atreus. Thus the second part of the text used here is determined, implacable and free of the (ironic?) delirium of the first part.

6 heliocentric (15')

for 10 instruments:

DUO 1	bass flute
	bass recorder in F
DUO 2	2 clarinets in A
DUO 3	quartertone flugelhorn
	alto trombone
QUARTET	percussion (see above)
	baroque triple harp (also prepared)
	electric guitar (normal tuning; also prepared)
	cello (also prepared)

The score consists of four components which are consecutive in the score, although they are superimposed in performance: the quartet score, which is used by the quartet and by the conductor, and the three duo scores (which also exist as separate duo compositions: Adocentyn for bass flute and bass recorder, Hypnerotomachia for two clarinets in A and Aurora for quartertone flugelhorn and alto trombone). The versions of those scores used for heliocentric differ slightly from the duo versions in that there are more and subtler tempo changes, and the music is mostly split into fragments with numbered cues, sometimes necessitating a division of long sustained passages into separate "phrases". The changes in tempo are mostly close to the conducted tempo and are intended principally to desynchronise the layers of the music from one another. Some sections are also rebarred relative to the duo versions to make conducting easier, without altering the material. The cues are given by the conductor, generally to one duo at a time but sometimes two, at which point the duo plays until the end of that fragment, usually at its own tempo independently of the rest of the ensemble, and then stops to await the next cue. In some places one of the duos plays continuously for an extended period together with the conductor.

The quartet score contains all the cues for all duos. The rehearsal numbers next to the boxes refer to points in the duo scores. A box with an attached arrow indicates that the activity continues until the end of the arrow. A box without an arrow indicates that the activity continues until (approximately!) the vertical position of the end of the box.

7 Omaggio a Chirico (6')

for 3 vocalists, violin, viola, cello, contrabass, live electronics (laptop/keyboard using sampled and/or electronic sounds, and/or live processing applied to the voices and strings) and 8-channel fixed media

The eight tracks should be assigned to output channels in the same configuration as part 1 strange lines and distances.

The parts of the performing instructions in italics are quoted from Italo Calvino's novel Invisible Cities.

8 Andromakhe (4')

for contralto and 6 instruments:

3 bass clarinets (2nd tuned an eighth tone flat, 3rd tuned a quartertone flat) bassoon baroque triple harp cello

Text: from Andromakhe's scene in Euripides' Trojan Women (lines 636-646, 657-660, 740-741 and 761-765), forming three "strophes" which focus respectively on death as a state beyond suffering, on Andromakhe's loyalty to her dead husband Hektor and its implications for her forced marriage to a Greek, and finally on a lament for her young son Astyanax whom she has just heard is to be taken from her by the Greeks and thrown to his death from the ramparts of Troy.

for violin with english horn, clarinet in Eb and cello

10 news from nowhere (7')

for variable ensemble:

4 wind players each using at least 3 different instruments, up to a maximum of 12 (one for each indicated change of instrument) 1 percussionist using a single instrument able to produce at least 4 distinct timbres, in rapid succession where necessary (examples: Udu, djembé, bodhran, darabukka, washboard...)

(optional) drone instruments, as many as possible, able to produce sustained sounds (winds, strings, electric guitar with E-Bow, bowed piano or vibraphone, organ, theremin...)

Winds: One or more of the instruments (preferably as many as possible!) used by each player should be an "early" and/or "folk" and/or home-made instrument. Choices of instruments for each entry may be made spontaneously or in advance, taking into account that the score sometimes specifies that octave transposition should not be used (where this instruction does not appear it can be assumed that any pitch may be transposed into any octave) and that the individual character in timbre, intonation, articulation etc. of each instrument should have an opportunity to be emphasised. Each performer plays a sequence of 15 events (numbered 1-15 at the top left-hand corner of the "box" containing the indications for this event - these indications are to be taken as holding from its beginning to its end unless otherwise specified) whose starting and ending points are indicated in relation to the notated melody (sometimes in the middle of one of its notes). One or more of the players will at any given time be playing the melody more or less "as written", while others might be relating to it more tangentially according to the instructions, or improvising freely (which might include any kind of relation to the melody, including none). The result should be that the melodic line is constantly changing in colour and character, sometimes going out of focus or becoming partly submerged but never entirely disappearing. Dynamics may be taken as average values for the event in question; extreme deviations should however be rare. An important aspect of performance technique should be the attention paid by each player to imagining and creating interrelationships between the sound-structures implied by the skeletal notated materials, and between the activities of the other players. The word "microtonal" in the indications means, for the present context, simply an interval smaller than a semitone. M = follow the notated melody (with any additional obligatory or optional indications - see below)

∞ = free improvisation (also with optional indications)

§ = optional suggestions, for example "§ multiphonics". The presence of some type of material or behaviour as an option somewhere in the score in no way precludes its appearance elsewhere (at points where it is not mentioned).

A double-headed arrow means "between these limits" (of dynamic, duration etc.)

C = change instrument - possibly to one you have used previously, but not the one used in the previous event

Percussion: each of 16 sections is prefaced with 1, 2, 3 or A (all) to indicate how many of the different sounds are to be used in that section. The "1" sections should naturally use different sounds rather than always the same one, especially in the last section, and the rhythmical and dynamic characteristics of the notated material might suggest which sounds and combinations would be most suitable for each section. Rests in the part are there to avoid excessive numbers of tied notes and have no implications for whether a sound is damped or allowed to ring.

🗢 = free improvisation

Drones are to be played by as many performers as available, not less than 3 (unless this part is omitted altogether). The notated pitches may be played in any octave, except where indicated, and may be inflected by as much as a quartertone in either direction but (again except where indicated) with no further "ornamentation", so that the "drones" always stay in the background of the main melody. If a sound is reattacked (when necessary to take a breath or change bow direction, but also in other types of instrument *ad lib*, as long as the overall "drone" texture is perceived as continuous) may begin with different intonation and/or in a different octave, but always with as little audible attack as possible. The arrows before and after new pitches indicate a timespan within which players individually stop playing the previous pitch and begin the new one, so the entry of new pitches is usually staggered to a greater or lesser extent through the ensemble. The new pitch may be attacked directly or reached by legato or glissando from the previous one. All attacks should be unobtrusive or nonexistent.

News from Nowhere is the title of a post-technological "utopian romance" written around 1890 by the artist, designer and socialist William Morris, whose protagonist finds himself waking up in early 21st century London which seems like a kind of neo-mediaeval world, although private property and government have been abolished and the inhabitants are almost without exception happy, healthy and long-lived. (The text can be read here: http://www.marxists.org/archive/morris/works/1890/nowhere/nowhere.htm) This music attempts to reflect Morris' naïve fantasy of a non-futuristic future by taking the ancient concept of a melody with "ornamentation" in diverse "new" directions.

11 storming (3')

for variable ensemble - all performers except the vocalists, with free choice of instruments where applicable and 8-channel fixed media

The eight tracks should be assigned to output channels in the same configuration as part 1 strange lines and distances and are divided into eight sound-events which are triggered either by the conductor or under his/her direction.

The notated material consists initially of five "tracks" which gradually narrow down to a single one. Each track consists of defined pitches and undefined sounds (denoted by "empty" note-stems), and the five tracks are characterised by register. At the beginning at least two players should be playing from each track; by the end, all players converge on track 3. Players may switch tracks (and instruments) between cues even if they are not obliged to do so by the termination of a track.

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Each performer plays an independent sequence of mostly separate sounds, mostly short in duration, at a rate which enables each sound potentially to be heard while at the same time the overall density of sounds should be mostly high, sounding as responses to (not imitations of) the dense and jagged electronic part.

The rate at which each player produces sounds will depend on the number of performers taking part, although each player may also vary his/her rate freely, as a rule between one sound every two seconds and six sounds per second. These durations may be extended somewhat as the music progresses and the amount of defined pitch-material decreases.

The undefined sounds do not need to stay within the register of the defined ones in a track; in fact they do not need to be pitched at all each sound should be as differentiated as possible from all others in pitch (or pitchlessness), timbre, articulation, duration (within the limits mentioned above) and dynamic (using the entire range specified for the section). The repeat signs apply only to the defined pitches; the others may be freely varied at all times. The notated pitches may be microtonally varied by up to (but not including) a quartertone in either direction, and should not in general be either emphasised or de-emphasised relative to the others. The alternation between electronic and instrumental sound-events should always be instantaneous (unless a general pause is indicated), which might involve beginning to play a fraction of a second before an electronic sound-event ends.

The score is at sounding pitch. The should be no octave transpositions, and as few as possible pitches omitted for lying outside the range of an instrument.

12 Helene (4')

for soprano, tenor recorder, marimba and baroque triple harp

Text: from Helene's scene in Euripides' Trojan Women (fragments from lines 914-964), in which she defends her life and actions with an offhand sophistry in sharp contrast to the brutality and agony which suffuses the rest of the play.

13 wound III (5')

```
for solo violin and 5 instruments:
oboe
contrabass clarinet
percussion (see above)
electric lap steel guitar (see above)
cello
```

14 Island (11')

for two improvising soloists and 8 instruments:

```
alto flute
alto recorder
flugelhorn in Bb (the part is written for an instrument with the third-valve tubing pulled out to lower it by a quartertone,
but may also be played on a quartertone flugelhorn)
tenor-bass trombone
violin
viola
cello
contrabass
```

Duration: the more improvised sections of the piece have been given overall durations, but these are intended as a guide rather than as a specification, and may vary under numerous circumstances: the acoustic of the performing space, the choice of instruments for the two solo parts, on-the-spot decision-making by conductor and/or soloists, and so on

Solo parts: these may be taken by any acoustic/electronic instruments or voices, similar or dissimilar. There is no implied precedence between the two parts. Solo 2 must be able to play/sing sustained pitches; solo 1 may do so but doesn't need to. The solo parts are completely improvised. The score contains only directions as to where one or both parts enter and exit, and (sometimes) the briefest possible descriptions of what kind of activity might be appropriate. While the entry/exit indications should be closely adhered to, all other indications (eg. "quiet") may be understood as general pointers which don't need to be scrupulously followed all the time. The intention is that the soloists should be as far as possible unrestricted in their choice of musical material. However, the context of the ensemble and its material should always be borne in mind, so that a mutual "influence" between soloists and ensemble is constantly in evidence. (d) No musical material should be ruled out a priori on the grounds of taste or consistency.

Ensemble and conductor: these parts vary between precise notation and improvisation. Again, improvisatory activity should both reflect the context of the notated music and embody spontaneous interaction between soloists and ensemble, and this applies to the conductor as much as to the instrumentalists. Any instructions may be departed from as long as the structure of the composition isn't thereby confused and disrupted. The eight sections A-H play continuously and should "flow" as naturally as possible into one another. The improvised elements should similarly "flow" from the notated ones so that the composition retains an overall coherence. The completely-notated sections thus function to "seed" the overall musical identity, as a context against which spontaneous musical decisions are made. The score contains a mixture of conventional and unconventional notation, and verbal indications. It is essential that the verbal indications be "learned" in rehearsal so that they don't need to be referred to at all during performance.

15 Simorgh (11')

8-channel fixed media composition. The eight tracks may be assigned to output channels ad libitum.

16 wound IV (3')

for violin and ensemble: oboe clarinet in Eb percussion (see above) electric lap steel guitar 3 voices: soprano, contralto, countertenor cello

Text: from a choral ode in Euripides' Trojan Women (lines 1078-1080)

17 Hekabe-β (3')

for soprano (chorus I), contralto (Hekabe), countertenor (chorus II) and ensemble:

piccolo/alto flute bassoon piccolo trumpet in Bb trombone baroque triple harp violin

18 wound V (1')

for violin and ensemble:

alto flute english horn contrabass clarinet alto saxophone flugelhorn in Bb percussion (see above) electric lap steel guitar 3 voices: soprano, contralto, baritone contrabass electronics (laptop/keyboard)

Text: from Hugo von Hofmannsthal's libretto for Richard Strauss's opera Ariadne auf Naxos The contrabass clarinet and electronics (laptop/keyboard) parts begin at bar 92 of part 17 Hekabe- β

19 Germania (3')

for soprano, contralto, baritone and ensemble:

alto flute english horn contrabass clarinet alto saxophone bassoon flugelhorn in Bb tenor-bass trombone percussion (see above) baroque triple harp electric lap steel guitar

violin viola cello contrabass electronics (laptop/keyboard)

Text: from Hugo von Hofmannsthal's libretto for Richard Strauss's opera Ariadne auf Naxos

20 ON (20')

improvisation for ensemble (tutti with free choice of instruments)

General notes

CONSTRUCTION is the eighth and final part of a series of eight compositions collectively entitled resistance & vision, which will eventually consist of the following:

1	NO	orchestra	21′
2	Dying Words	voice, flute, piano, electronics	50′
3	cell	alto saxophone, accordion, contrabass	14'
4	L	music theatre	75′
5	Mesopotamia	17 instruments & electronics	25′
6	IF	orchestra	16′
7	nacht und träume	cello, piano, electronics	20′
8	CONSTRUCTION	voices, instruments, electronics	120′

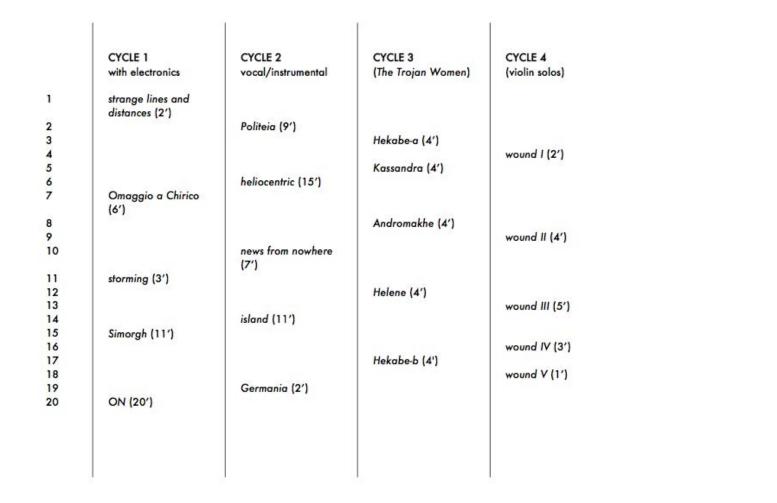
CONSTRUCTION then is by far the largest element in this cycle, occupying about a third of its total six-hour duration, and forms a conclusion to it. The title is to be explained principally by the frequent presence in my mind, while I was working on it, of the image of Vladimir Tatlin's unrealised architectural project, the "Monument to the Third International", a huge steel structure containing symbolic/functional elements rotating at different speeds which was intended to be built in St Petersburg in the years after the Russian Revolution, but was never actually started owing to material shortages. Despite existing only in the form of plans and models, this tower became a defining symbol for the Constructivist movement, the avant-garde of the early years of Bolshevik Russia, and for me is a kind of non-existent monument to all unrealised and unrealisable utopian visions. Hence CONSTRUCTION.

On the largest scale, CONSTRUCTION takes the form of four interwoven strands or cycles, each consisting of five parts. Two of these cycles relate in diverse structural/poetic ways to utopian ideas, one of them principally vocal-instrumental, and the other featuring electronic sounds. The other two cycles represent realities with which these utopias are confronted: one is a highly-abridged setting in ancient Greek of the *Trojan Women*, a tragedy by Euripides, and the other is a series of "laments" which feature solo violin and together form a five-movement composition entitled wound.

Euripides' play has little in the way of action, focusing on the women of Troy outside their burning city after it's been sacked by the Greek army, who have murdered their husbands and children and are about to take them back to Greece as slaves and concubines. The first production of this play took place in 415 BCE, and in its time seems to have been an explicitly political piece of theatre, in that Euripides depicts the Greeks as marauding barbarians rather than the pinnacle of civilisation their intelligentsia tended to believe themselves to be: this was a comment on the recent slaughter by Athenian forces of the population of the island of Melos after they refused to join Athens in its alliance against Sparta. The theme of (the ruling class of) a country priding itself on its moral and cultural superiority while laying waste to other countries and subjugating their populations is of course just as current now as it was two and a half thousand years ago. Each of my five "scenes" is taken from a speech by one of the Trojan women, except the fifth and last in which a "chorus" of two voices is added in dialogue with the character Hekabe.

In the violin solos, on the other hand, the violin is intended to "inhabit" its accompaniment in an analogous way to that in which the tortured figures in the paintings of Francis Bacon inhabit their backgrounds.

The diagram below shows how the four cycles are combined into the complete two-hour structure.



Various structural proportions are visible on this large scale: for example, cycle 3 consists of five elements of equal duration which are increasingly separated as the form progresses, while cycle 4 consists of elements with durations 1, 2, 3, 4 and 5 minutes (though not in this order) which become closer together. Cycle 1 and 2 pieces are always paired with one another. What the diagram doesn't show is that sometimes these elements overlap with one another so that part 19 actually begins before the end of part 17 and continues throughout part 18, and that sometimes the cycles "touch" each other as in *wound IV* which contains a setting of a chorus from the Euripides play. Another aspect of structural planning on the level of the whole piece is the instrumentation: the violin in cycle 4 begins accompanied by two other instruments, and the accompanying group expands according to a Fibonacci series so that in *wound V* it contains 13 instruments and voices. (Although the version of *wound* which is played separately involves 2, 3, 5, 3 and 2 instruments alongside the violin in its five movements.) Each piece in cycle 3, on the other hand, has a distinctive and different instrumentation, using between them almost all the available instruments although the harp appears in all five.

Cycles 1 and 2 don't form consistent series like the others, and tend to contain longer elements: one part of cycle 2 lasts as long as all of cycle 4, and the final part of cycle 1 is as long as all of cycle 3. So the shortest "movement" is one minute long and the longest is twenty - the extended duration of CONSTRUCTION in its entirety doesn't involve a corresponding extension in the durations of its constituent parts so much as an extension in the *range* of their durations.

Various selections from CONSTRUCTION may be made for concert performance. Any of the pieces in cycles 1 and 2 may be performed individually, as may cycle 3 in its entirety (as Troiades) or cycle 4 (wound). The concert version of wound is scored for solo violin with oboe/english horn, Eb/contrabass clarinet, percussion, electric lap steel guitar and cello. The three duos from heliocentric (Adocentyn for bass flute and bass recorder, Hypnerotomachia for two clarinets in A and Aurora for quartertone flugelhorn and alto trombone) may also be performed separately, without the breaks indicated here and with fewer tempo changes (see the separate scores).

There exist many other kinds of reflection, resonance and correspondence between the twenty sections so that when performed as a whole they're perceived as elements in a single entity constructed from diverse materials, rather than as separate pieces compiled into a collection. On the other hand, the transitions between them proceed by confrontation more often than by continuity, this feature being of course an expression of the overall concept of confronting utopias and reality. A provisional way out of all these confrontations is to be found by the entire performing ensemble as a collective in the final part, and found anew in each performance, each time evolving in a different way from the previous music and - I dare to hope - discovering a new music which couldn't have been brought into being any other way, certainly not through the imagination of a single person, and perhaps opening perspectives for the future development of thinking and practice both in musical terms and beyond.

Acknowledgements

For their assistance in making this composition possible I should like to thank Steve Adam, Robyn Archer, Séverine Ballon, Katja Blischke, Daryl Buckley, Rhodri Davies, Peter Evans, Lawrence Harvey, Richard Haynes, Michael Hewes, Graeme Jennings, Deborah Kayser, Genevieve Lacey, Adam Long, Marshall McGuire, Graham McKenzie, Ben Marks, Domenico Melchiorre, Peter Neville, Paul Obermayer, Tim O'Dwyer, Paula Rae, Carl Rosman, Shoel Stadlen, Kees Tazelaar, Eugene Ughetti, Peter Veale, Erkki Veltheim, Dafne Vicente-Sandoval, Siân Wassermann, Ute Wassermann, Tristram Williams and Joan Wright.

1 strange lines and distances

8-channel fixed media duration: approximately 2 minutes

Strange lines and distances should be set at approximately the same volume level as the beginning of the following instrumental section Politeia, which begins just before the final resonance becomes inaudible.

We have also sound-houses, where we practise and demonstrate all sounds and their generation. We have harmony which you have not, of quarter-sounds and lesser slides of sounds. Divers instruments of music likewise to you unknown, some sweeter than any you have; with bells and rings that are dainty and sweet. We represent small sounds as great and deep, likewise great sounds extenuate and sharp; we make divers tremblings and warblings of sounds, which in their original are entire. We represent and imitate all articulate sounds and letters, and the voices and notes of beasts and birds. We have certain helps which, set to the ear, do further the hearing greatly; we have also divers strange and artificial echoes, reflecting the voice many times, and, as it were, tossing it; and some that give back the voice louder than it came, some shriller and some deeper; yea, some rendering the voice, differing in the letters or articulate sound

from that they receive. We have all means to convey sounds in trunks and pipes, in strange lines and distances.

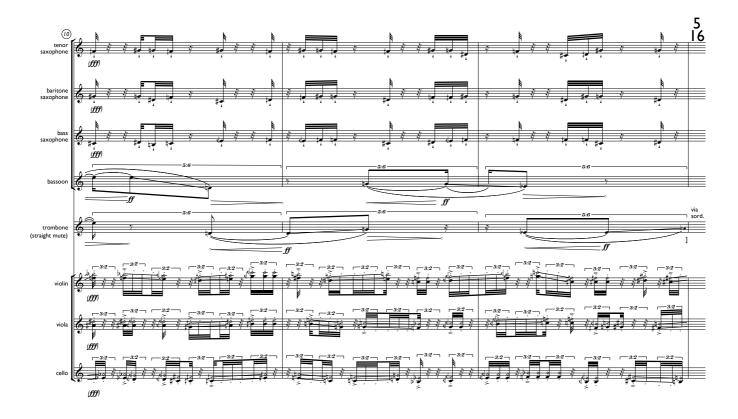
(Francis Bacon, The New Atlantis, 1605)

2 Politeia

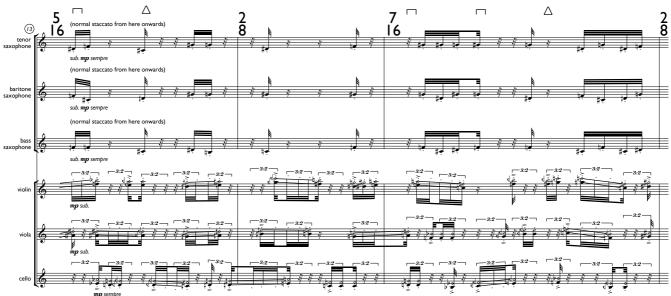








B The quintet (recorder, flugelhorn, marimba, harp and guitar) enters here and plays conducted alongside the saxes and strings until the end of bar 36







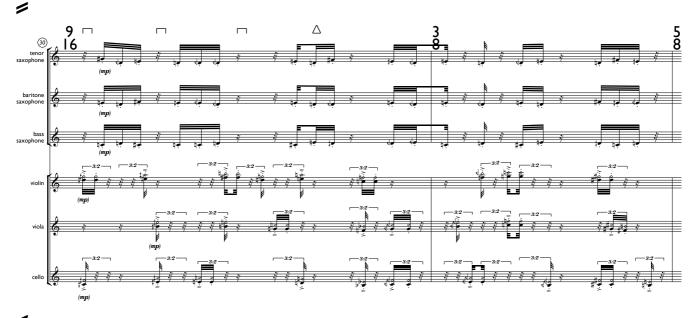
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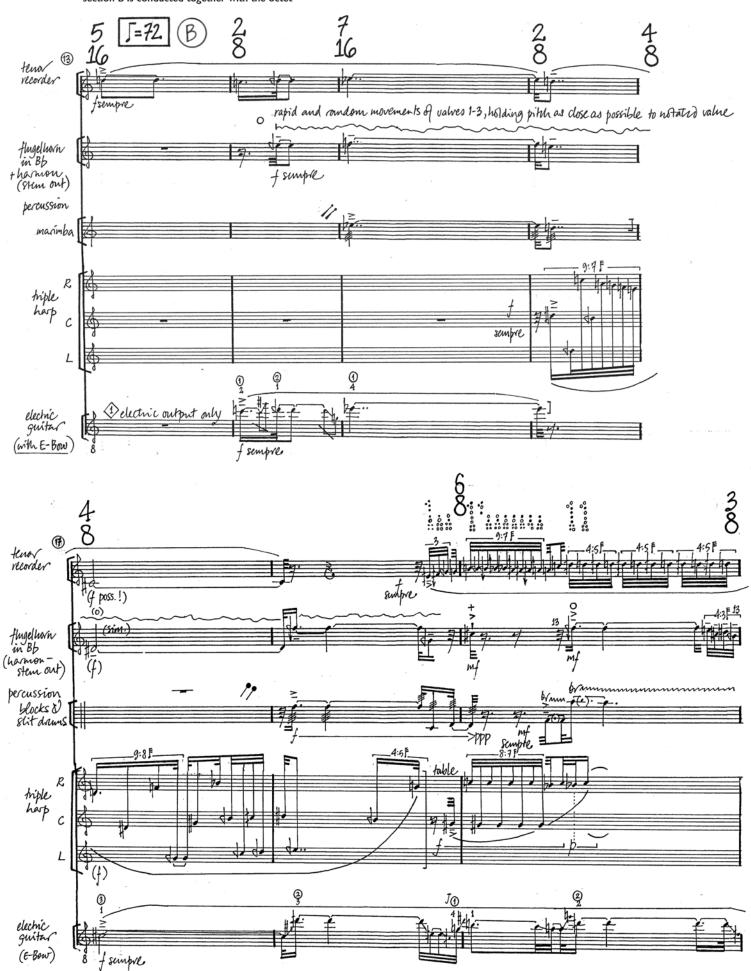


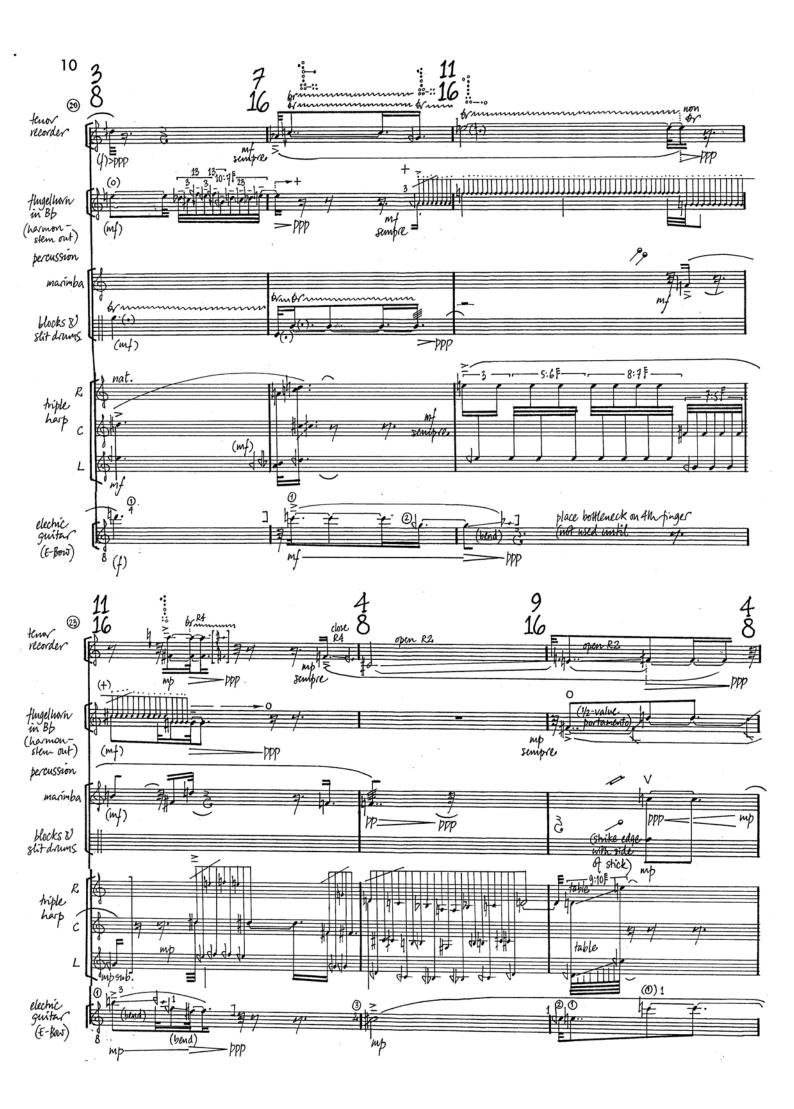




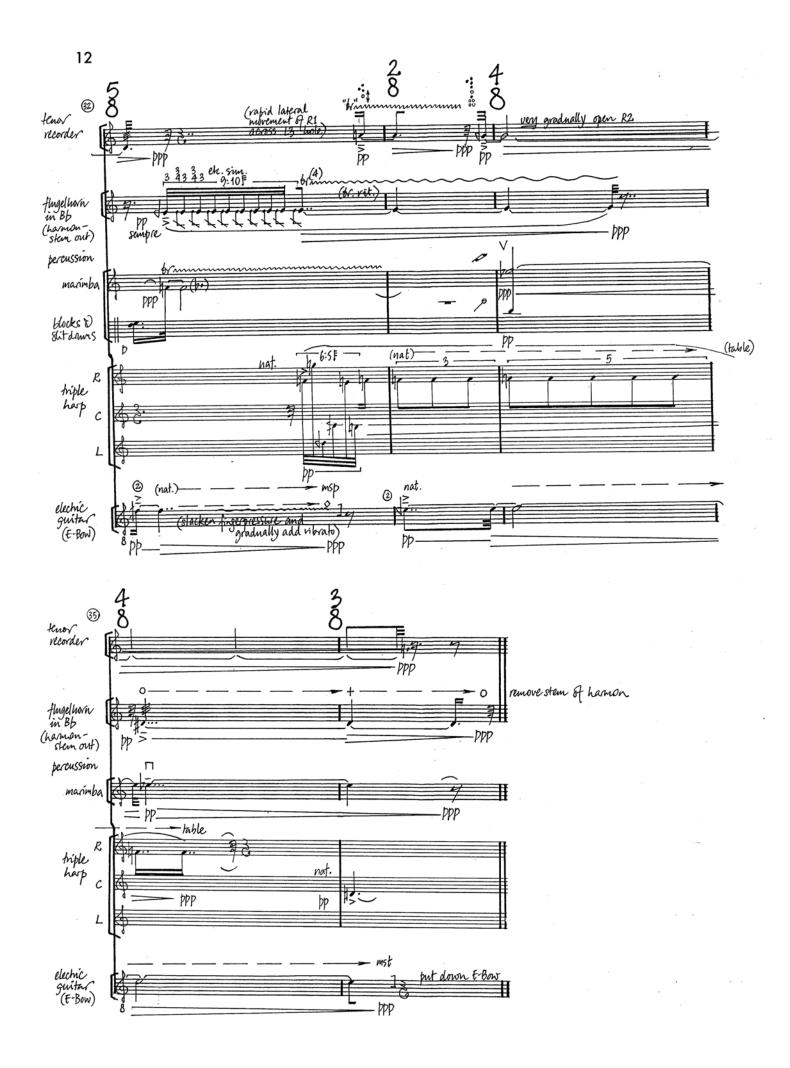


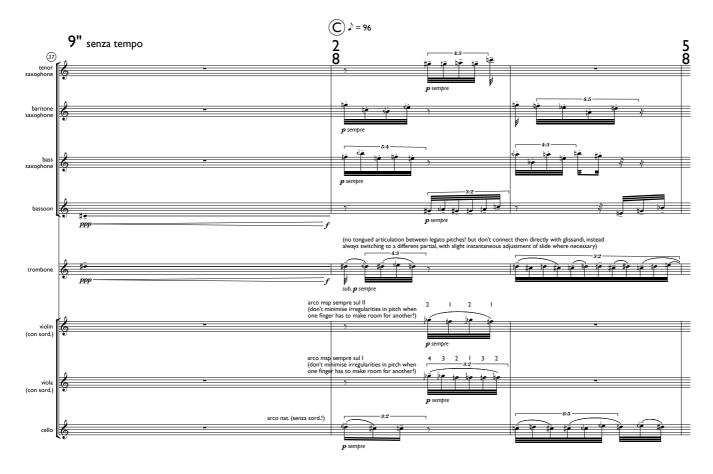
section A: tacet (12 bars of 3/8; 30 seconds) section B is conducted together with the octet



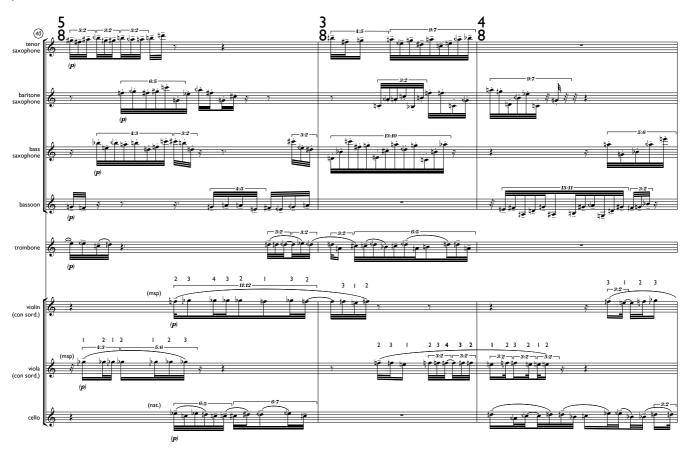








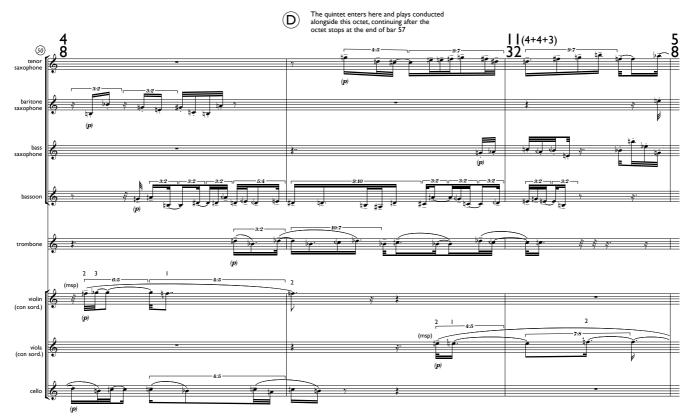




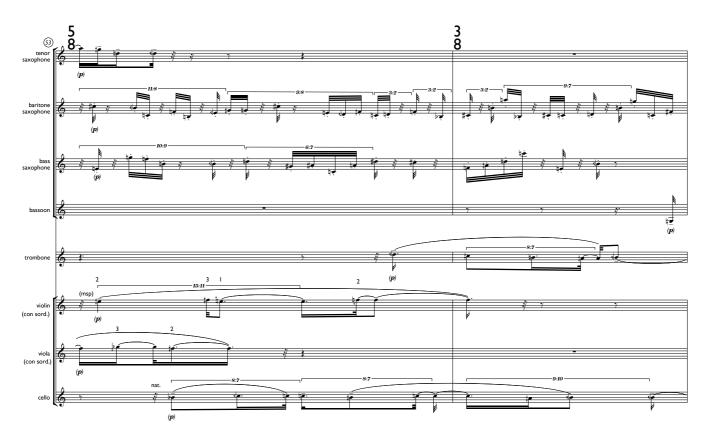






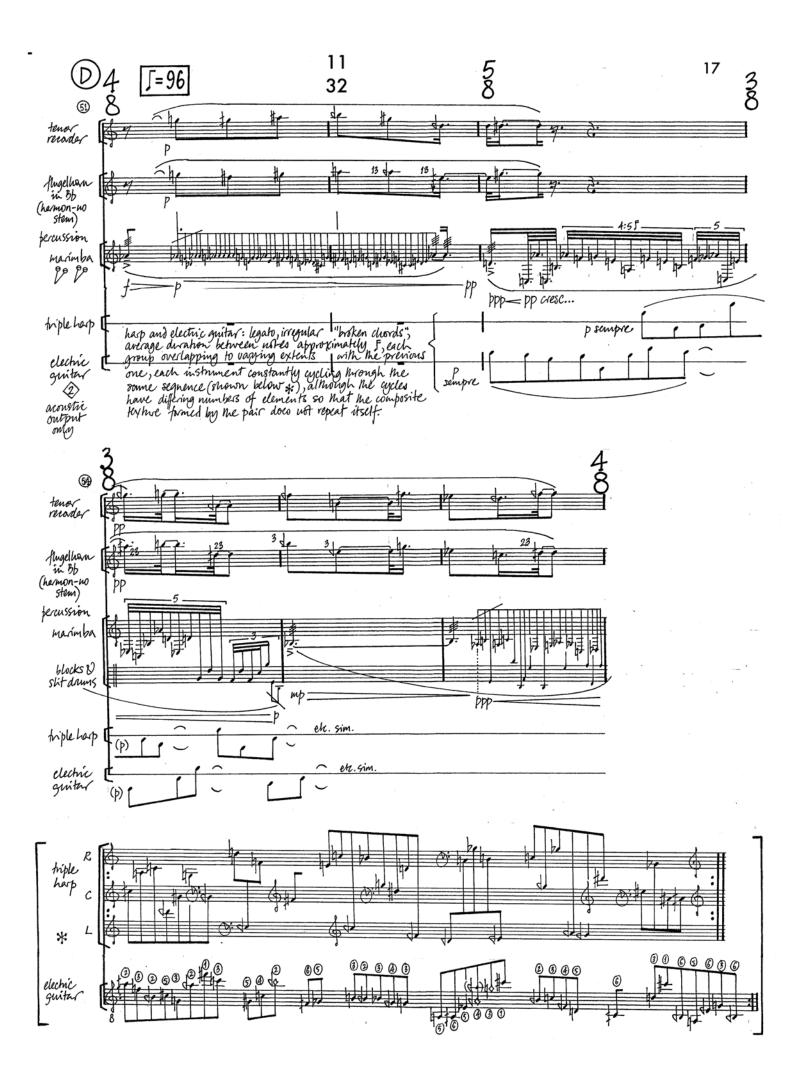


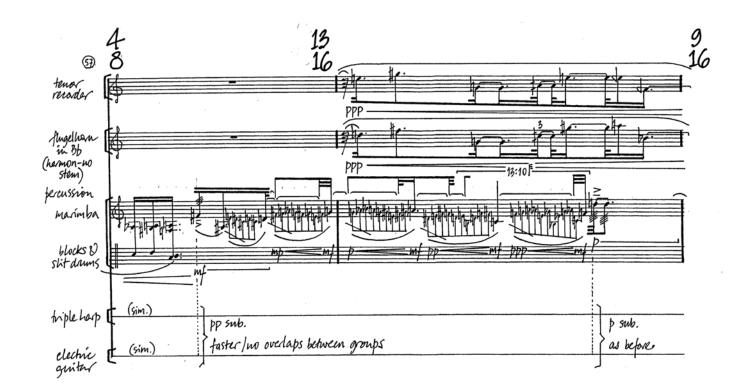


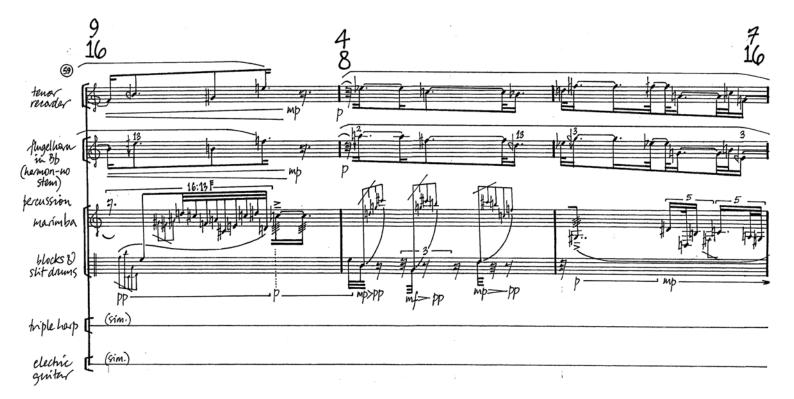


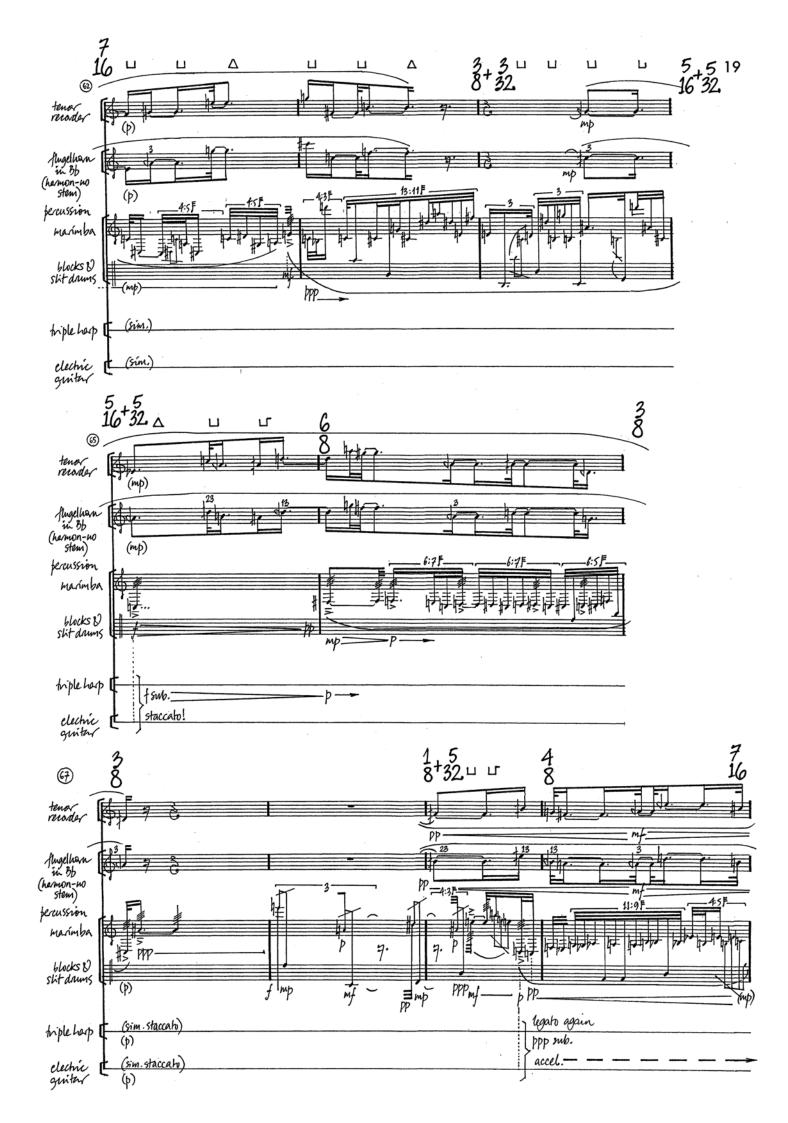


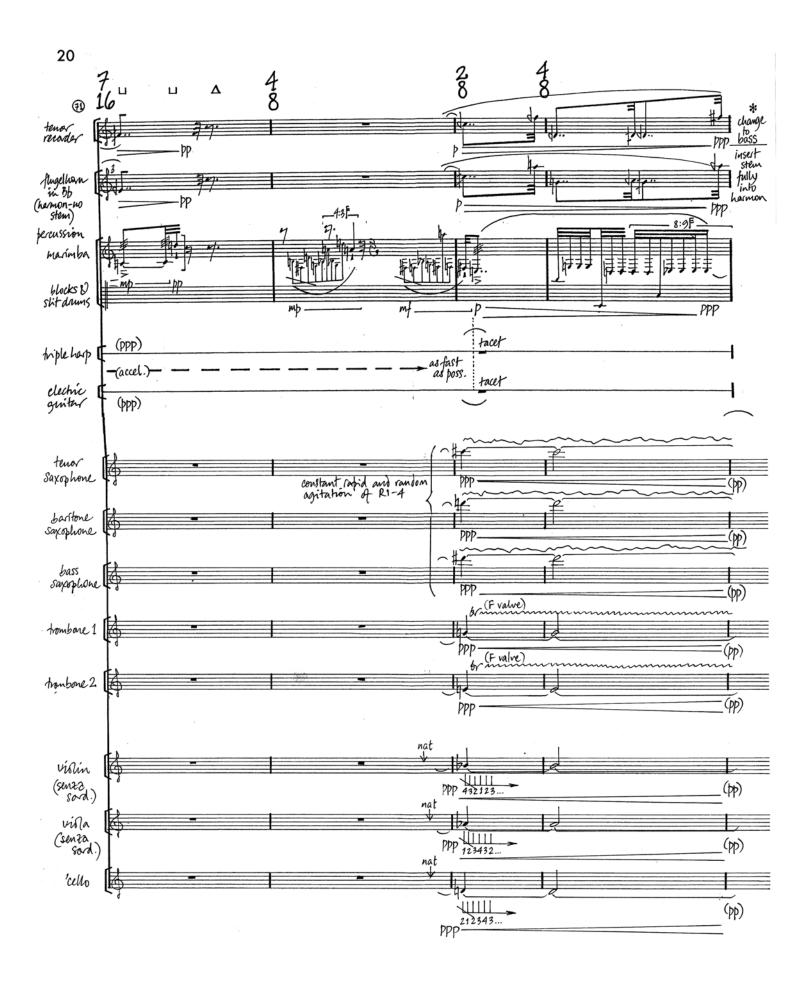
(quintet continues; octet rejoins at bar 73)

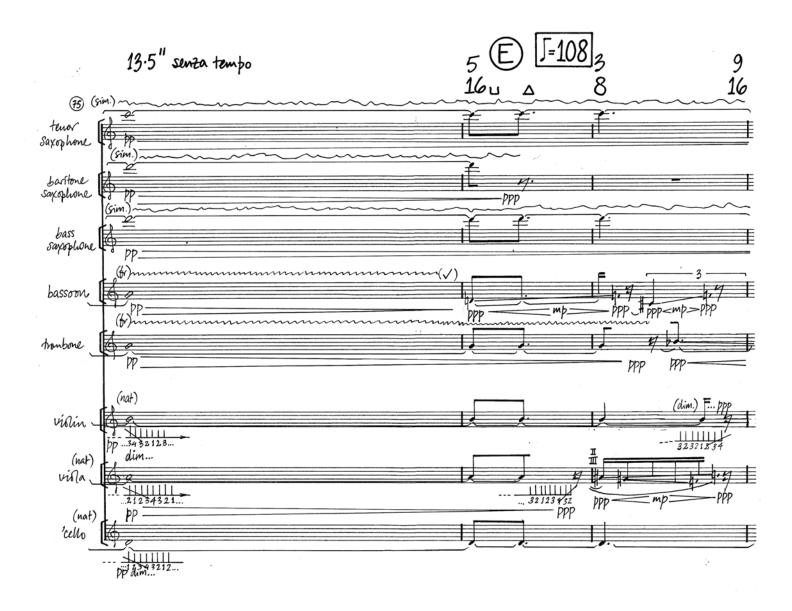


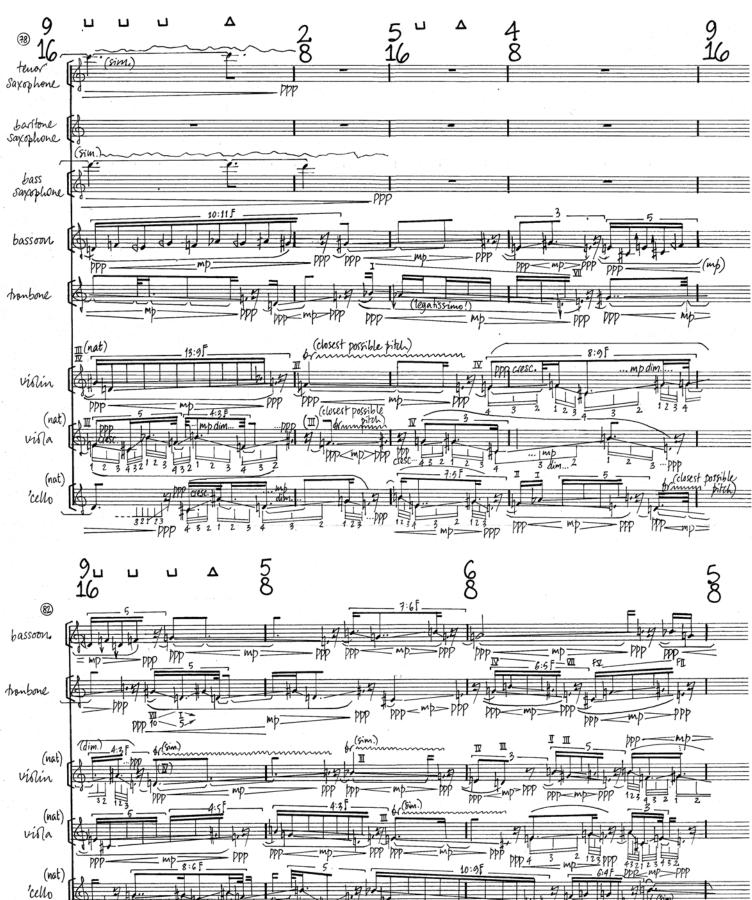












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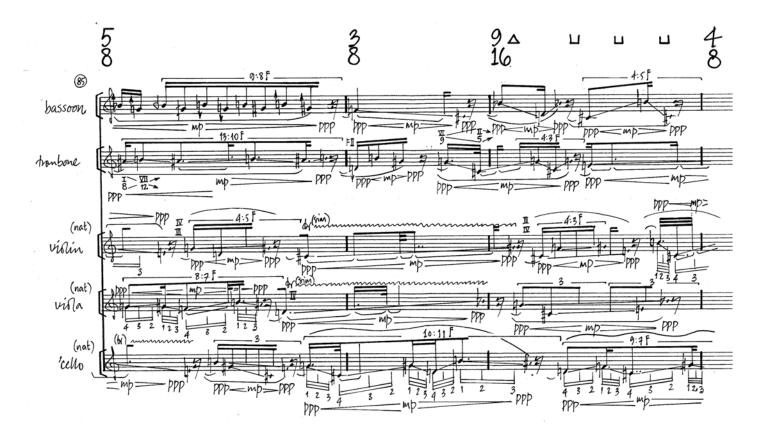
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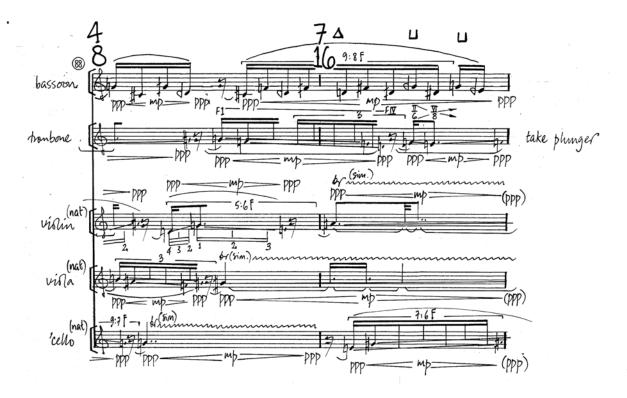
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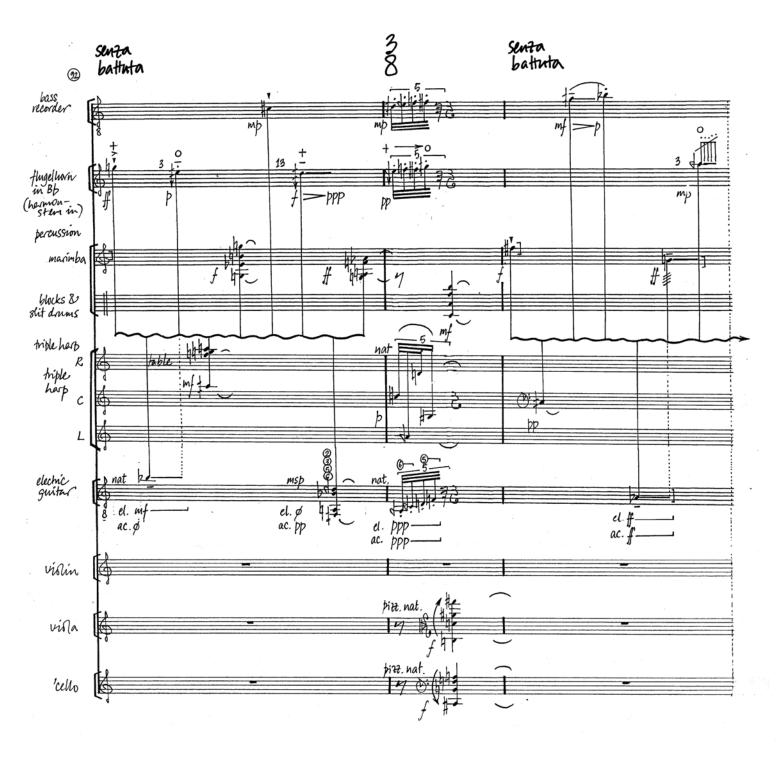
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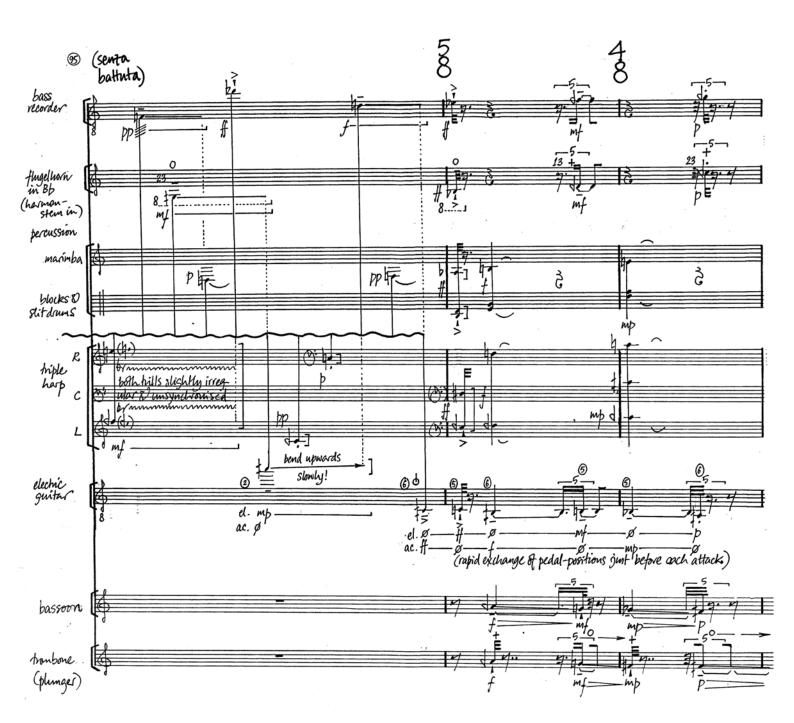
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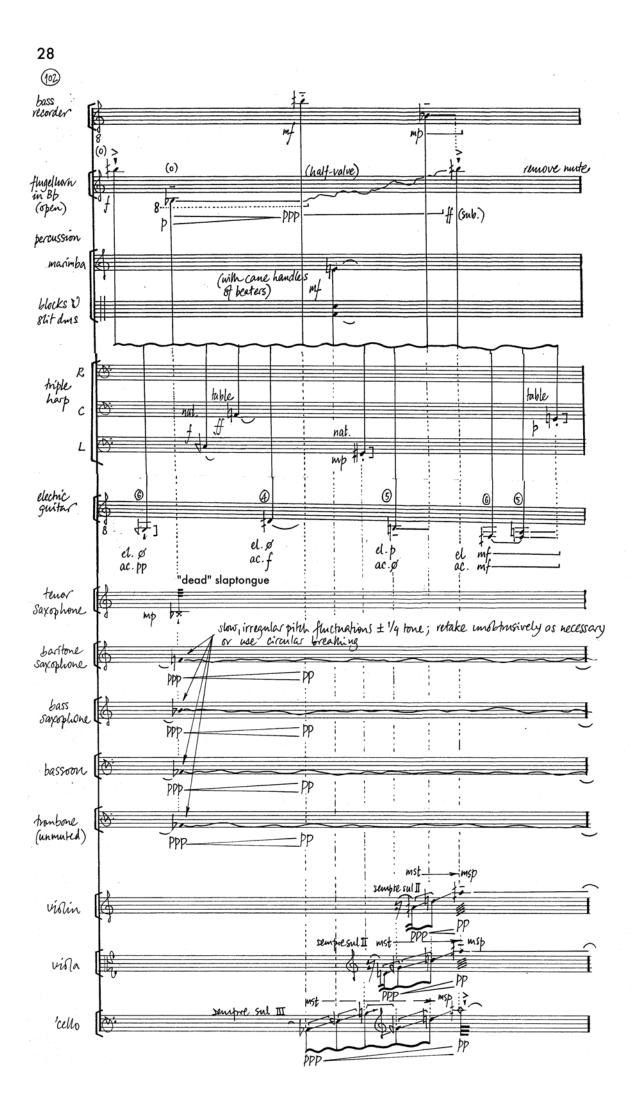










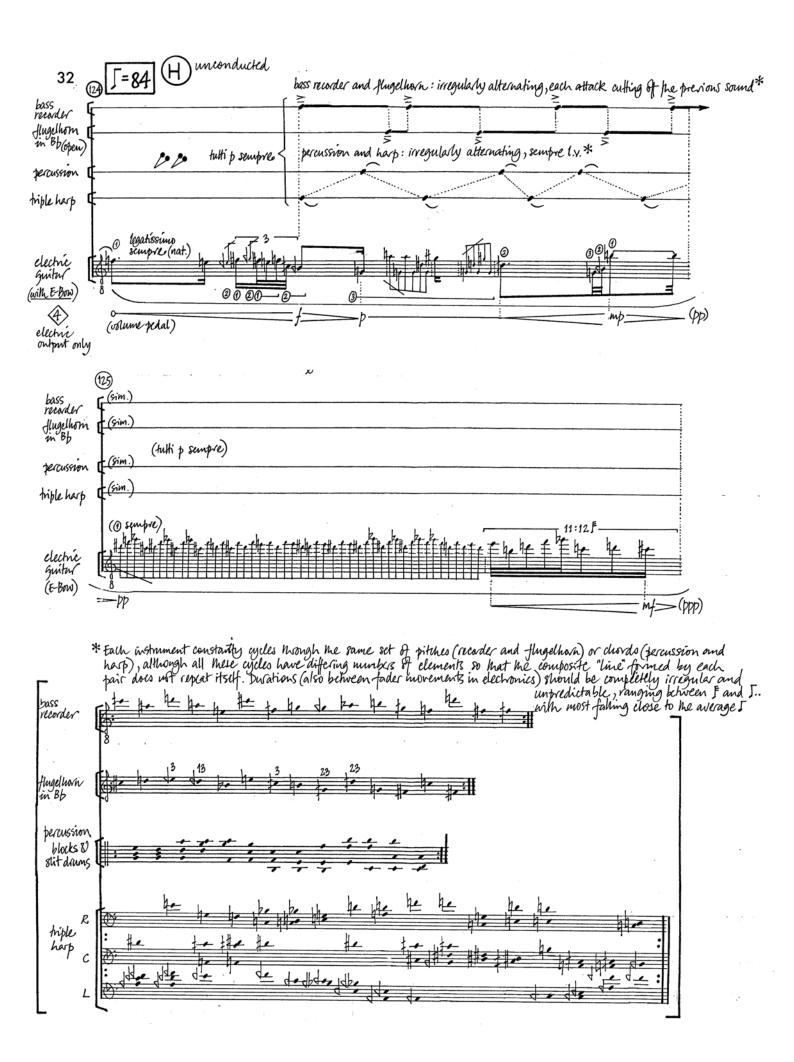


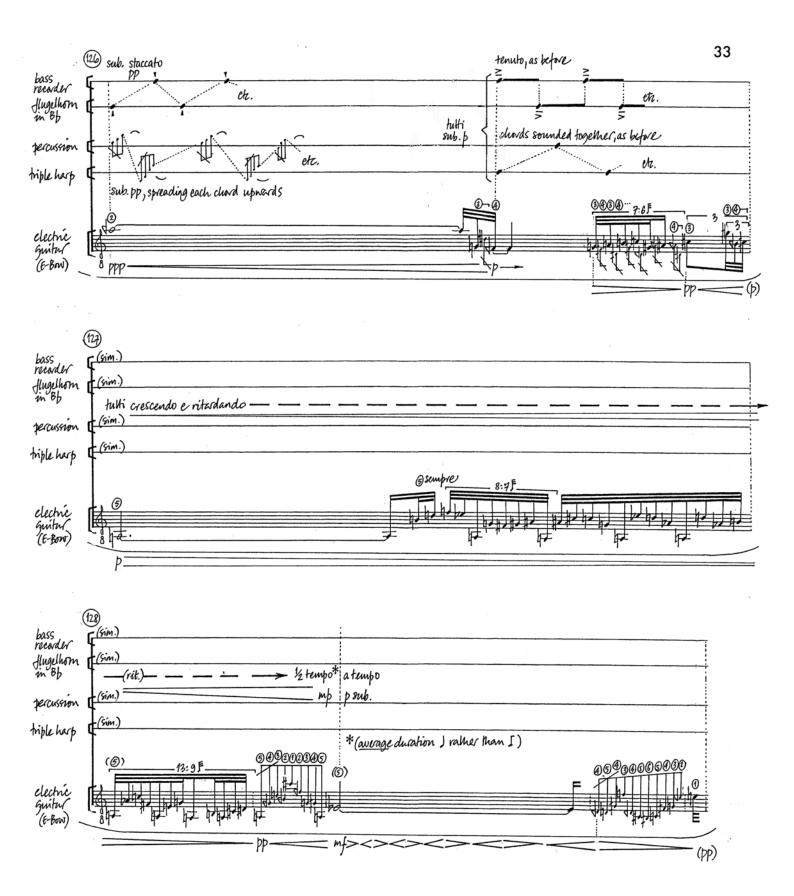


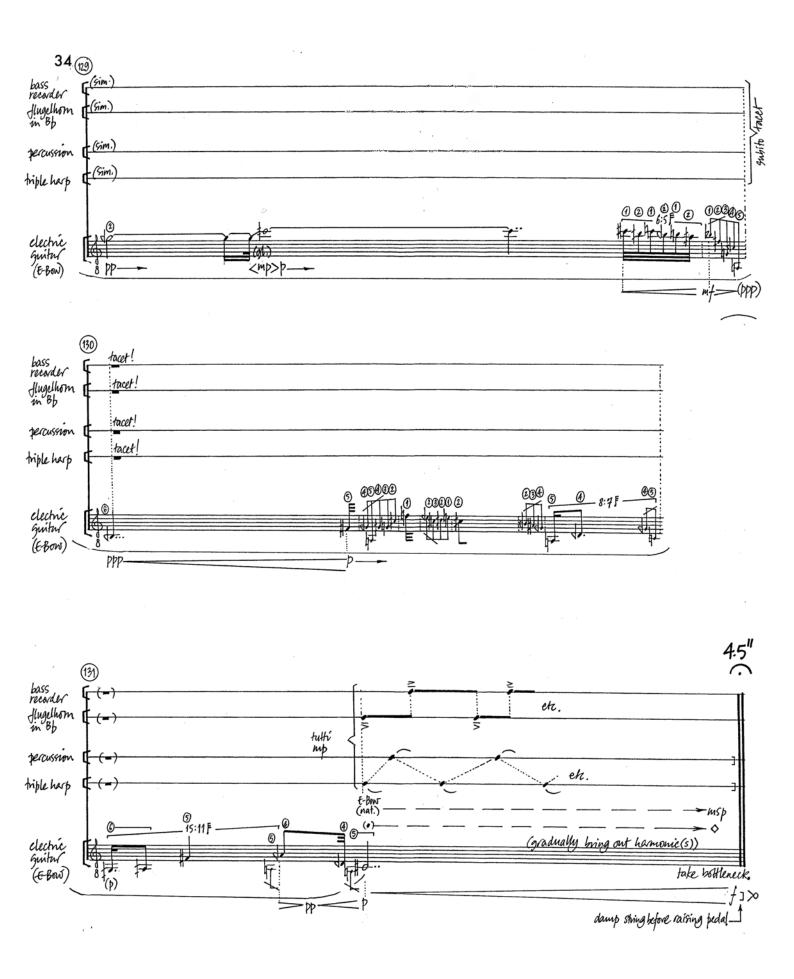


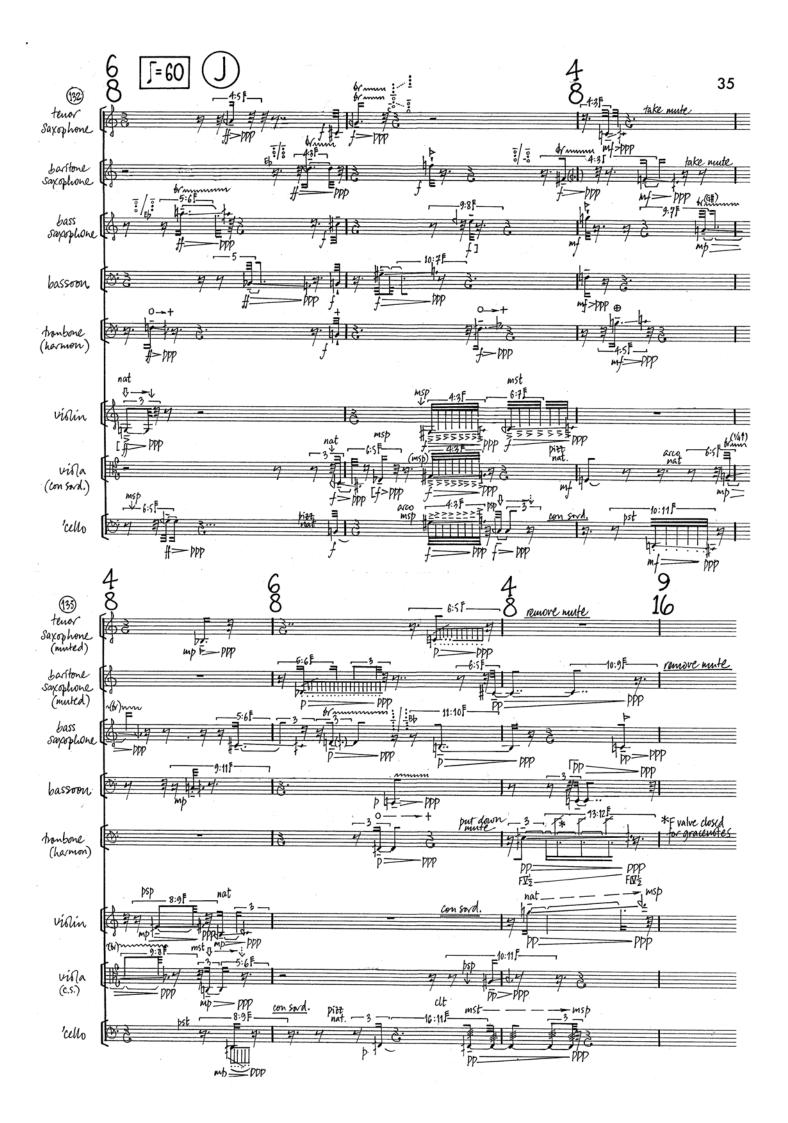




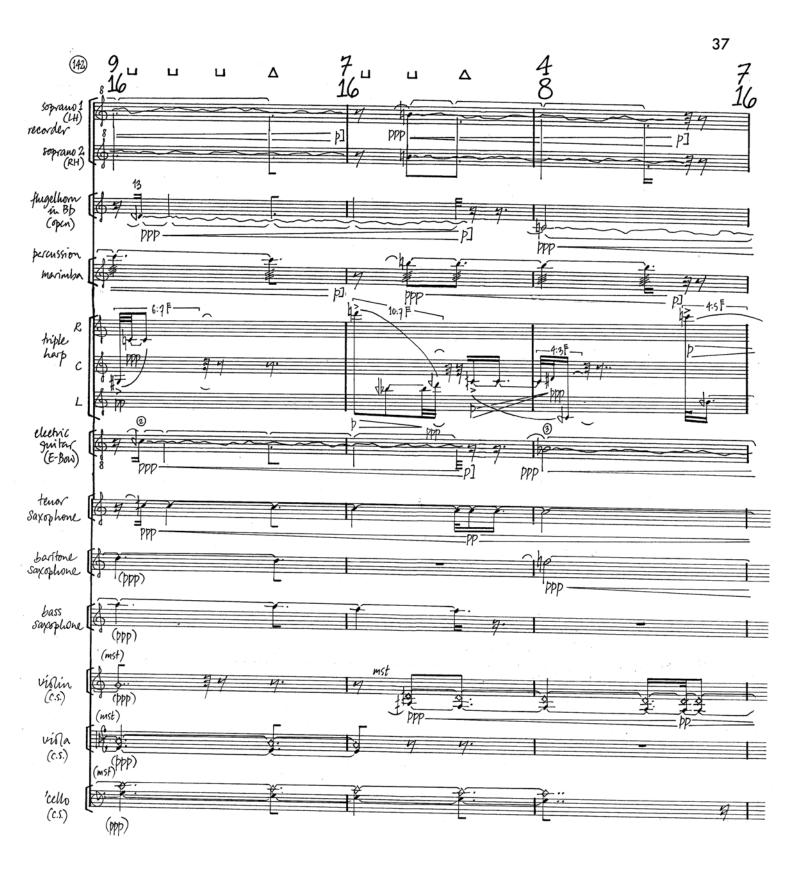


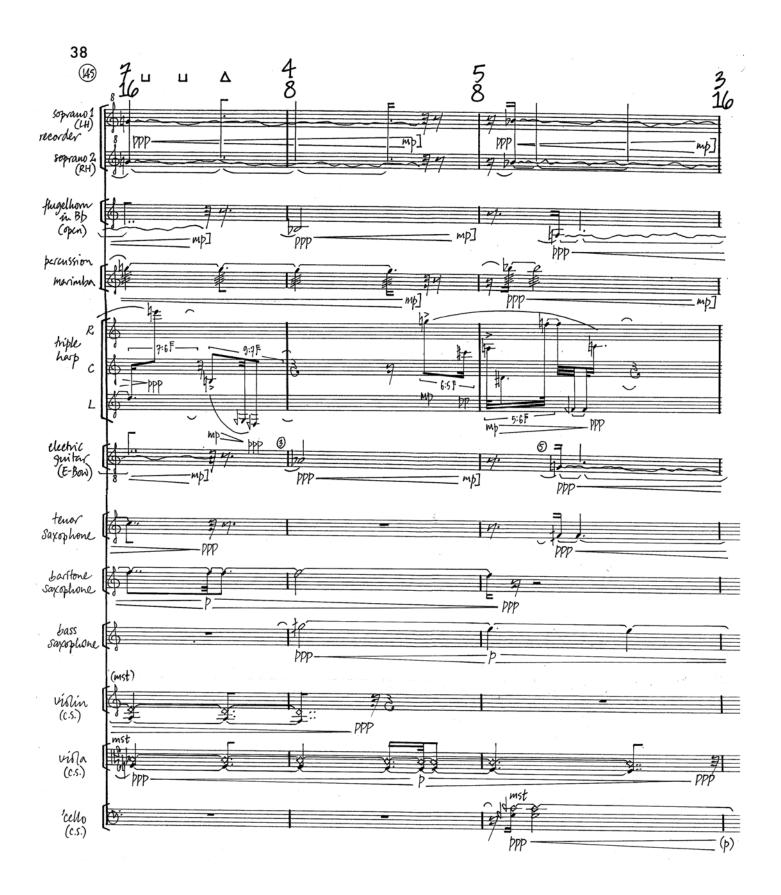


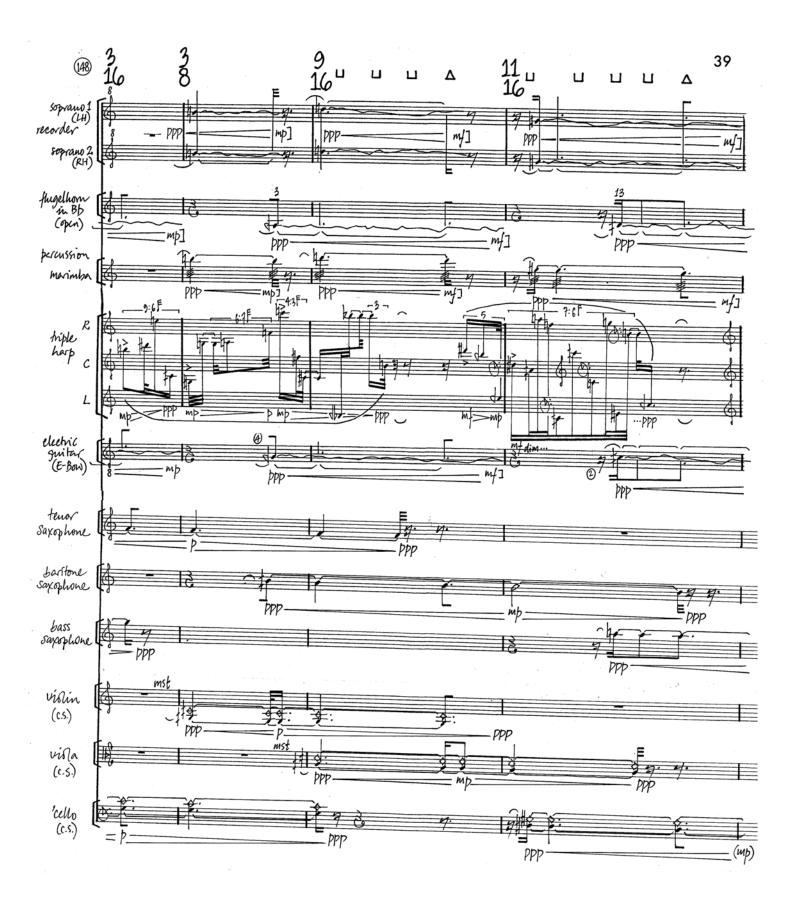




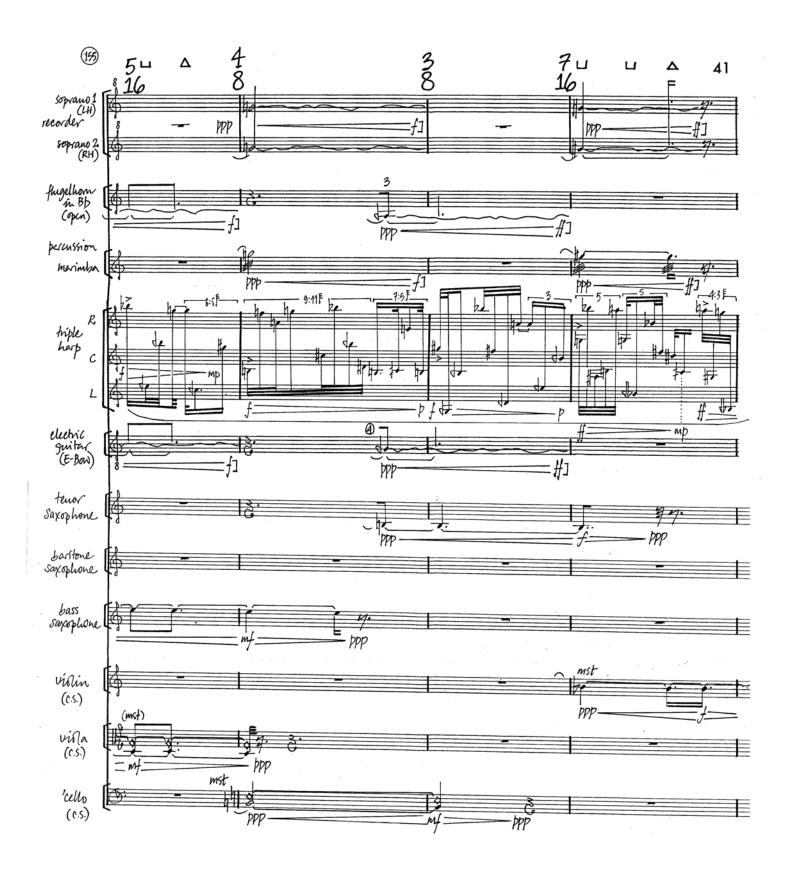


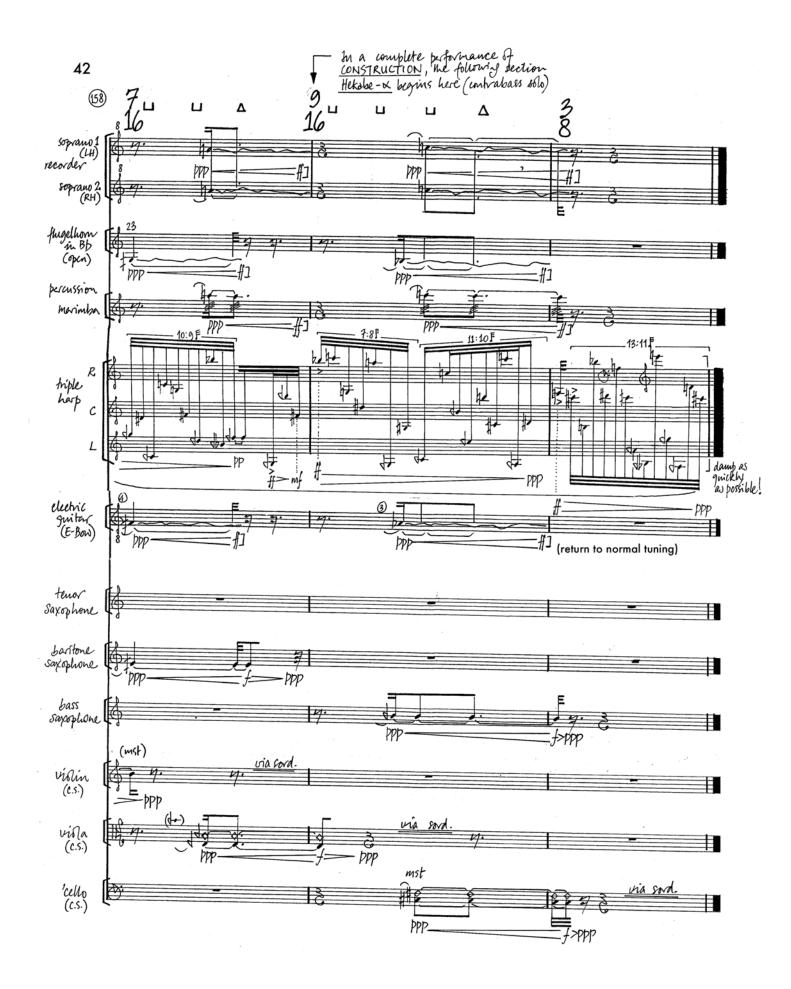




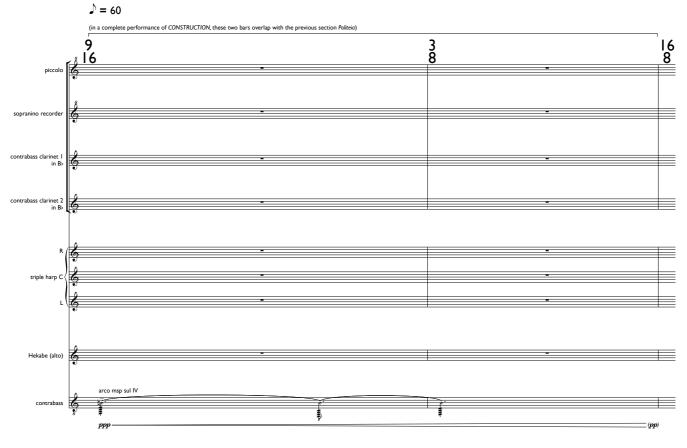


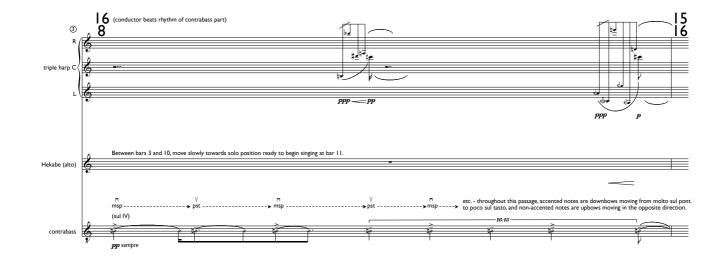


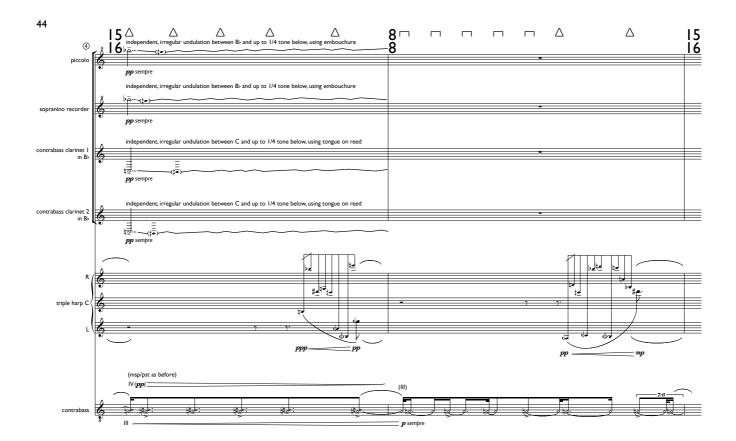


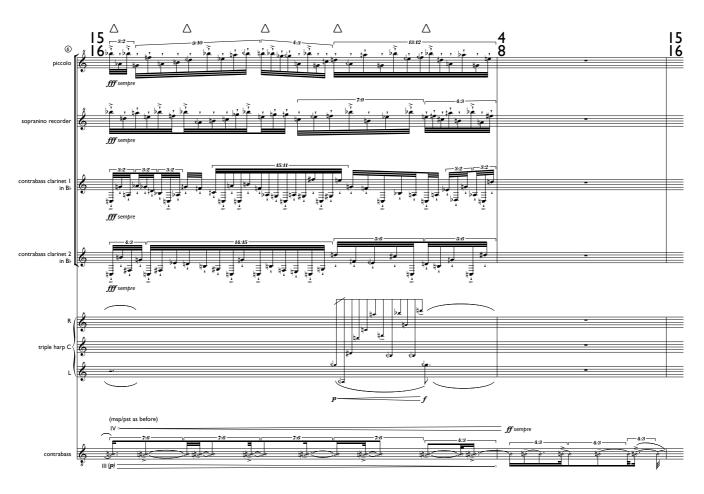


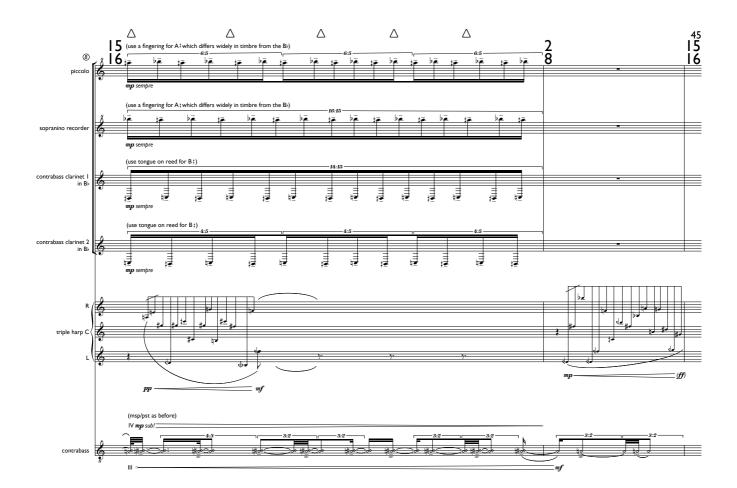




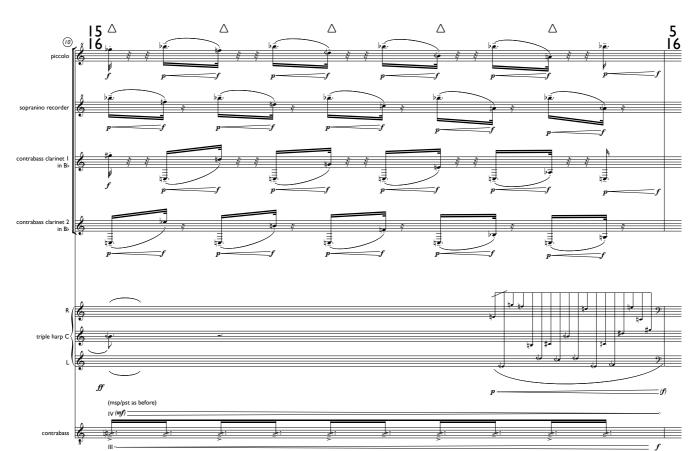


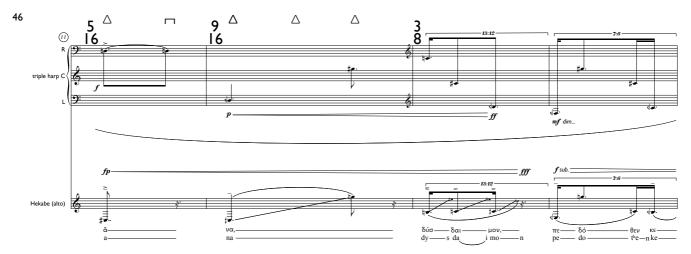


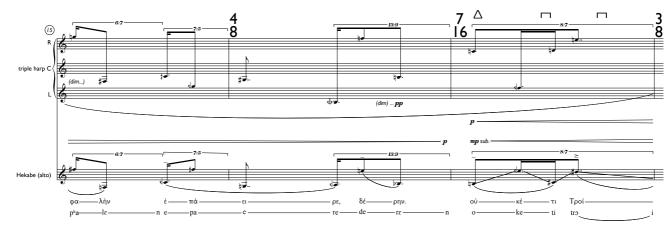




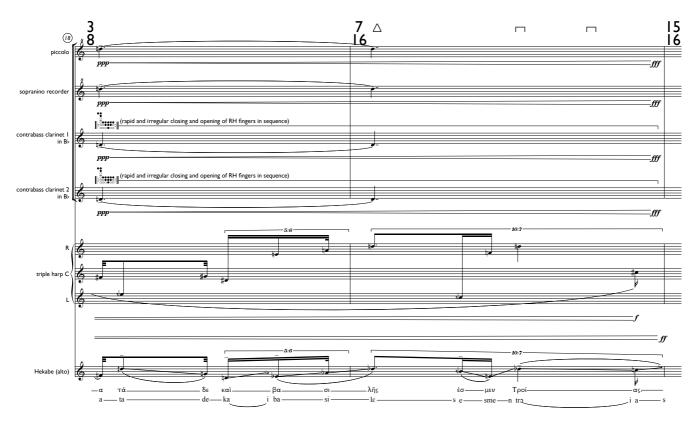


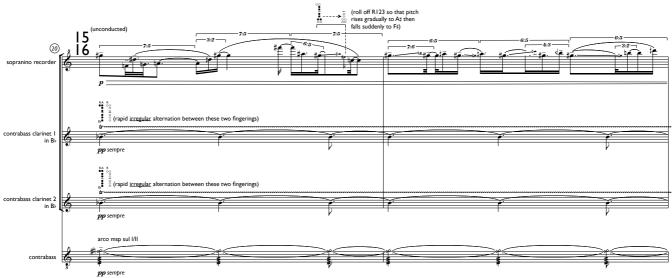


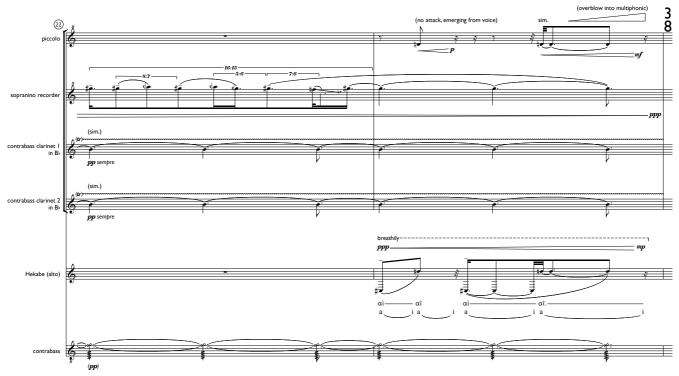


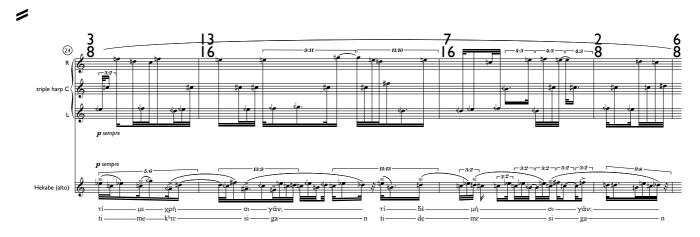




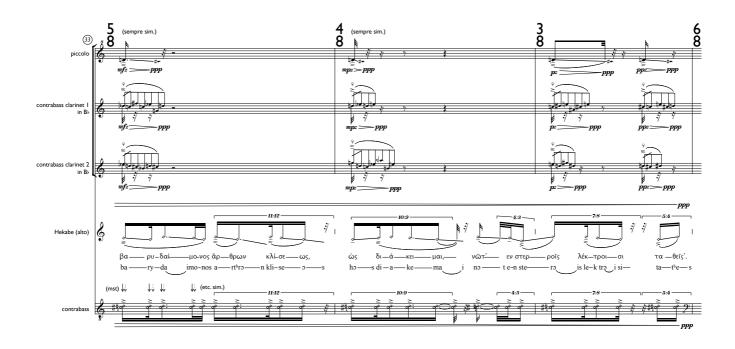














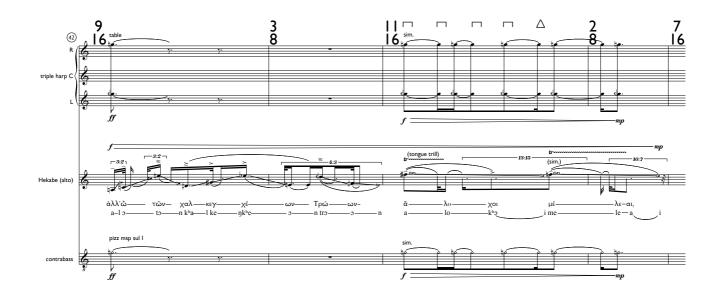


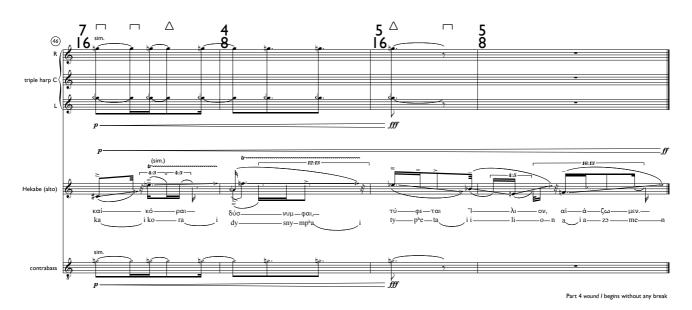
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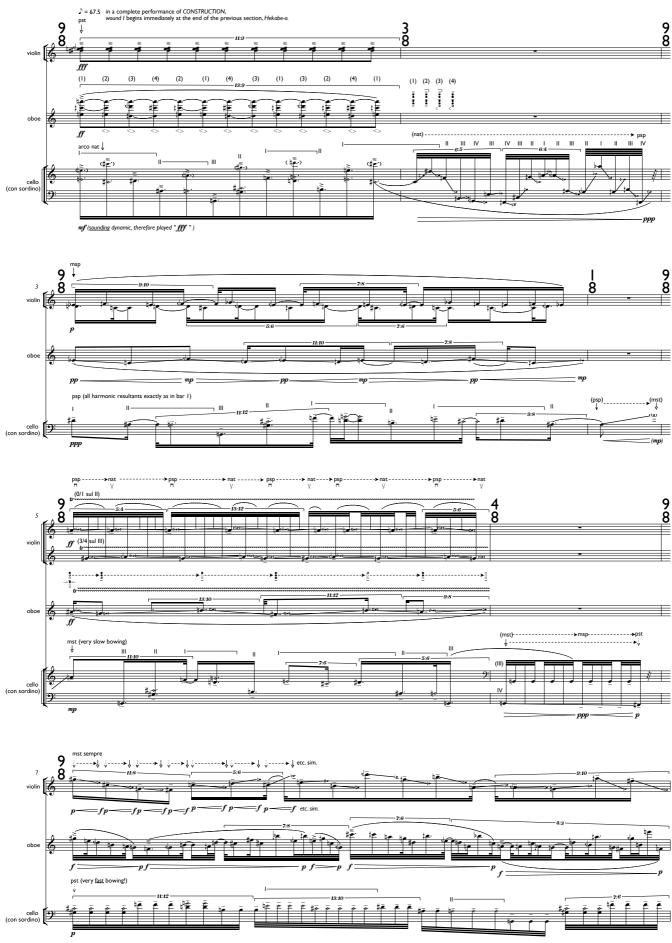
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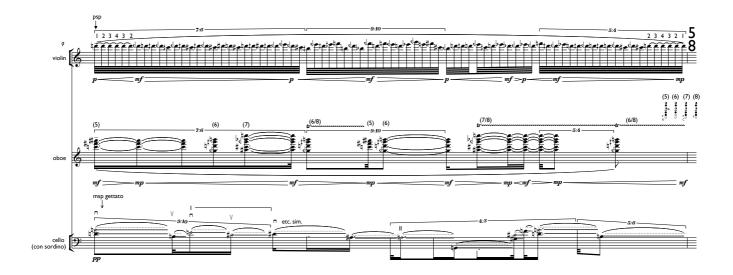


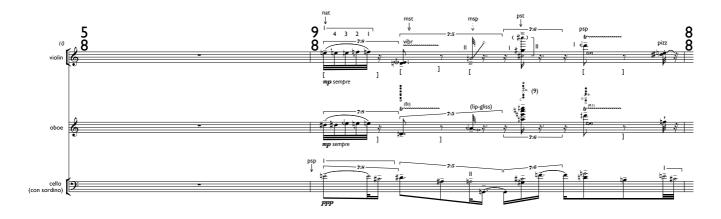


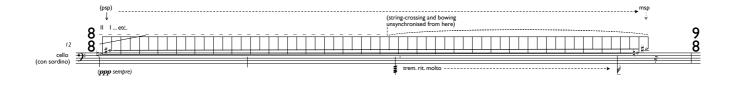
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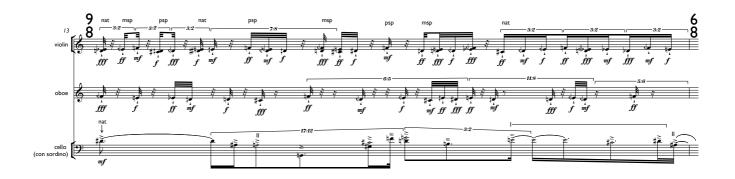


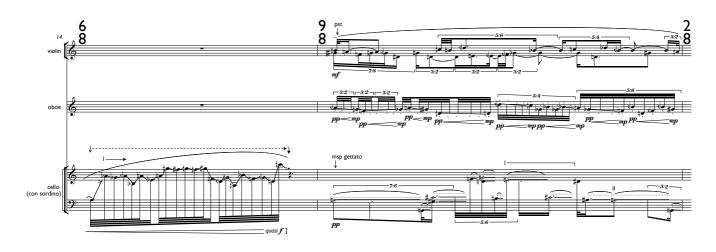


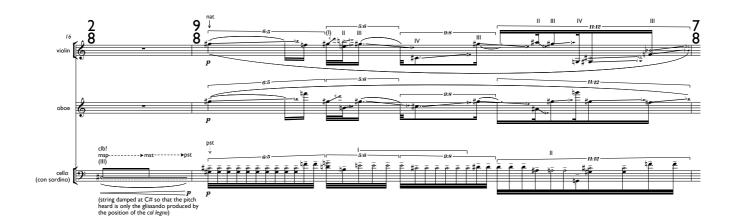


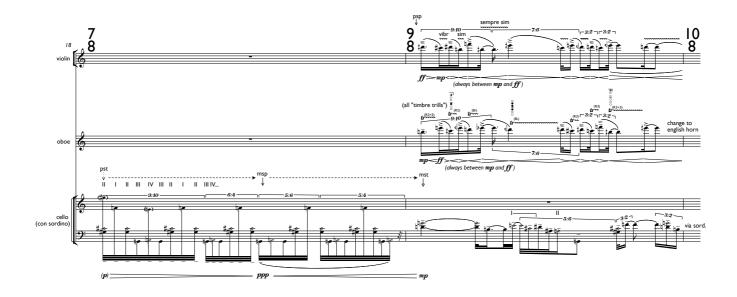


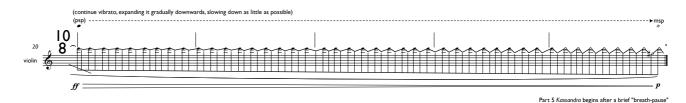




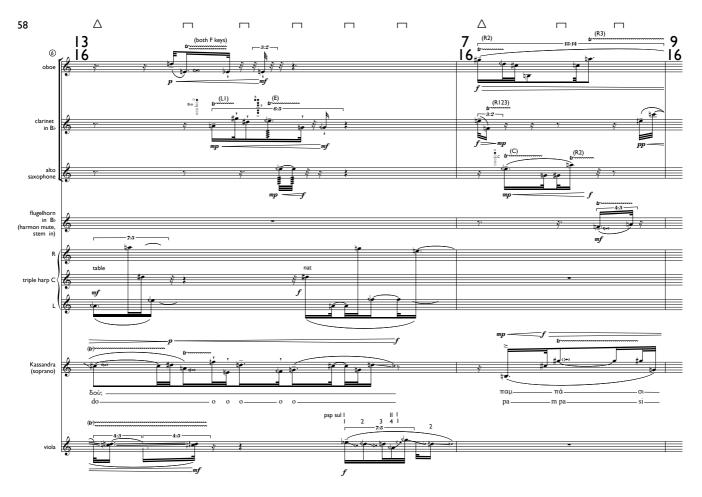










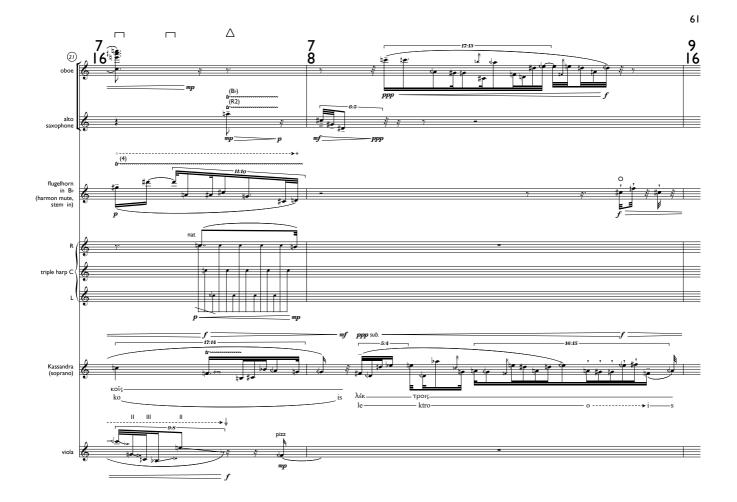




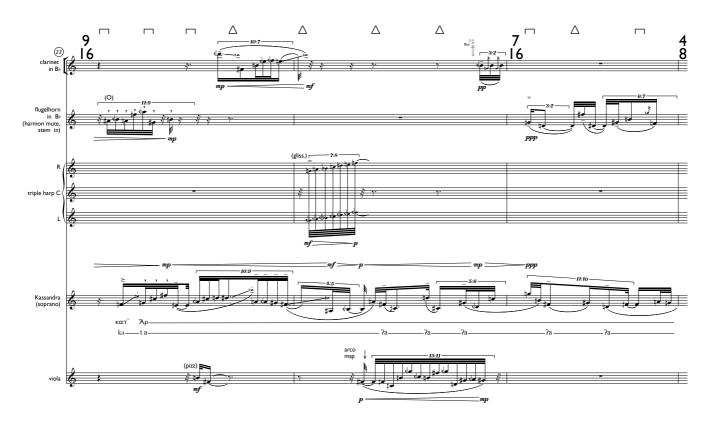


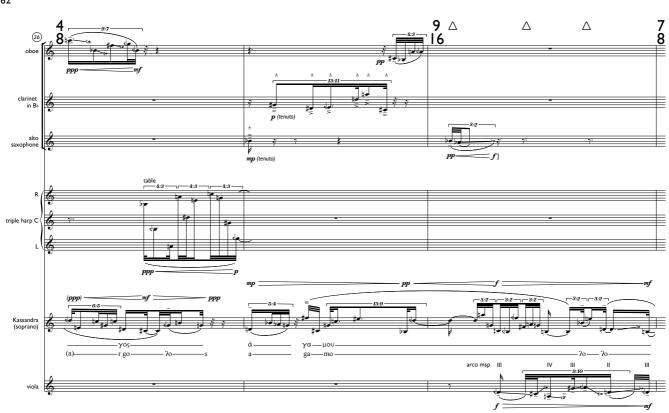




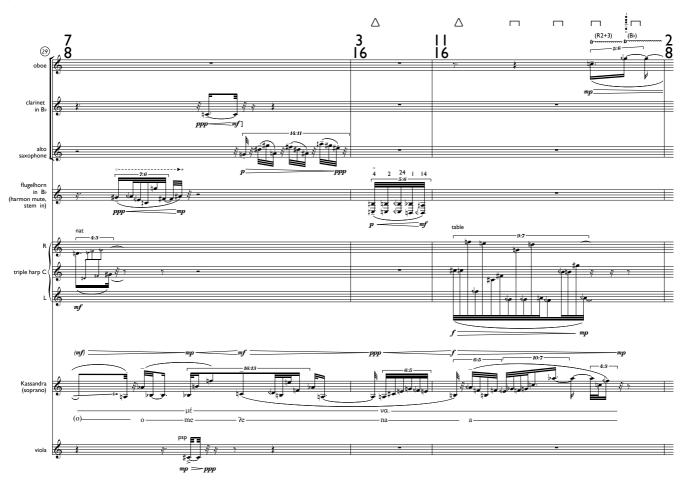


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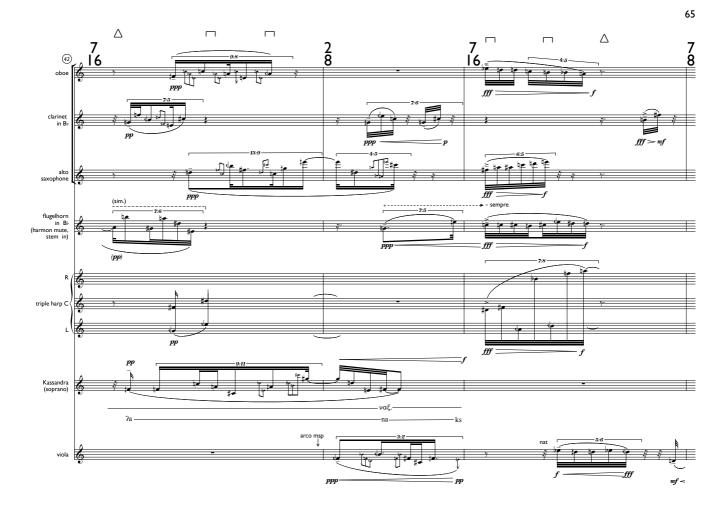
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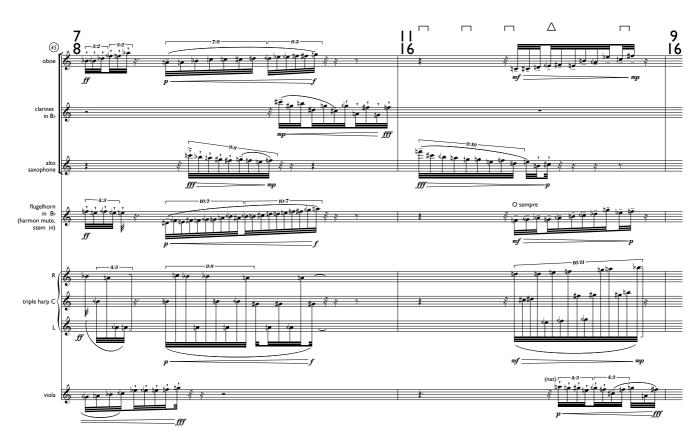
62







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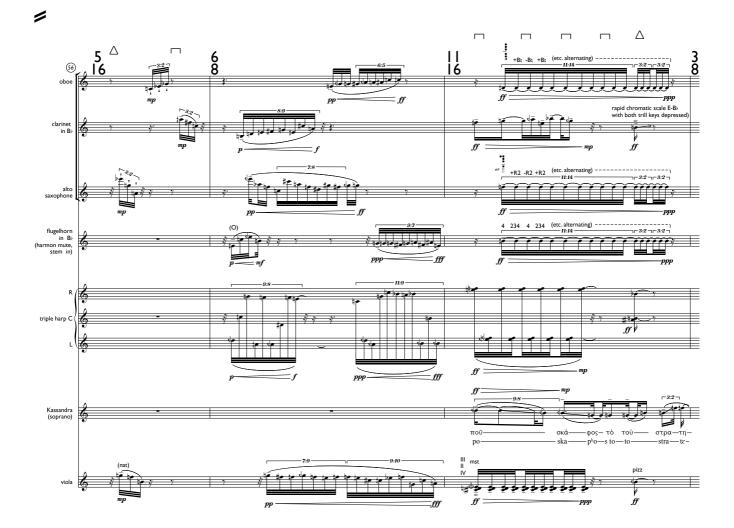


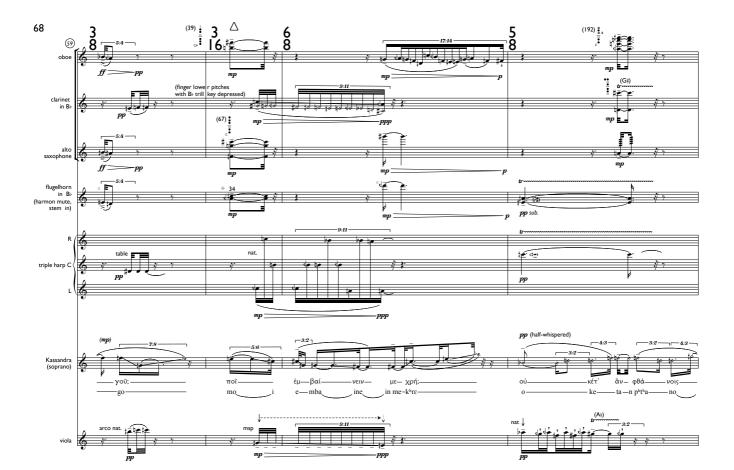




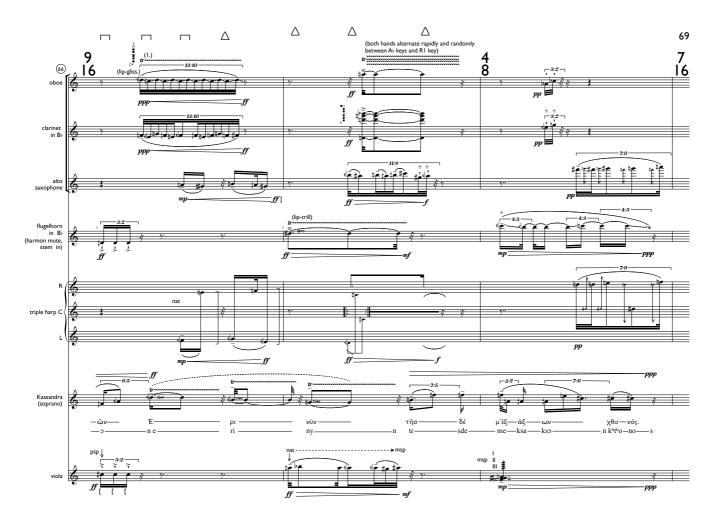




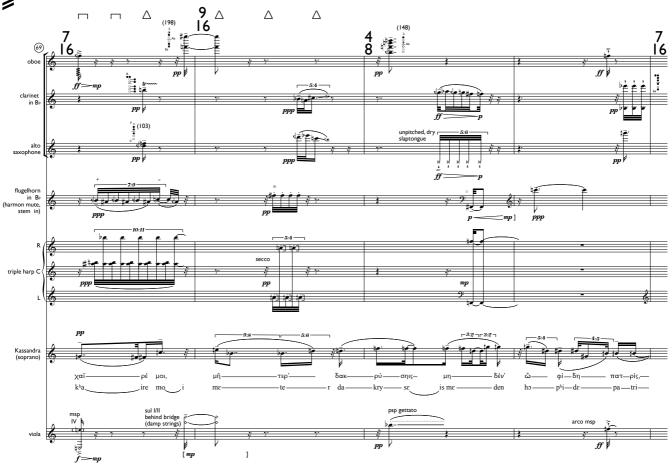


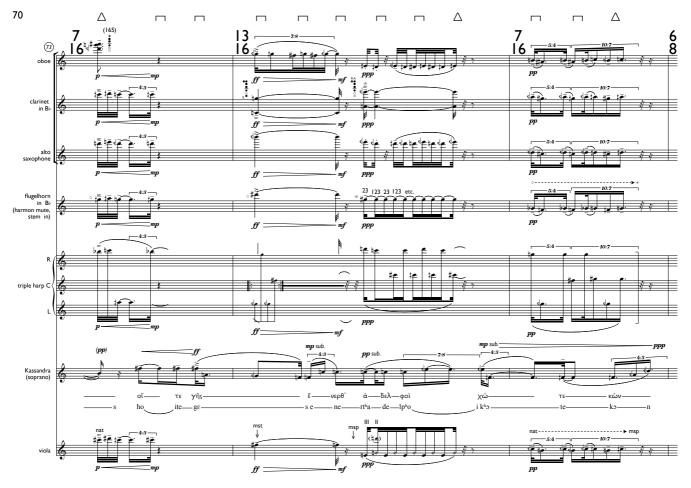










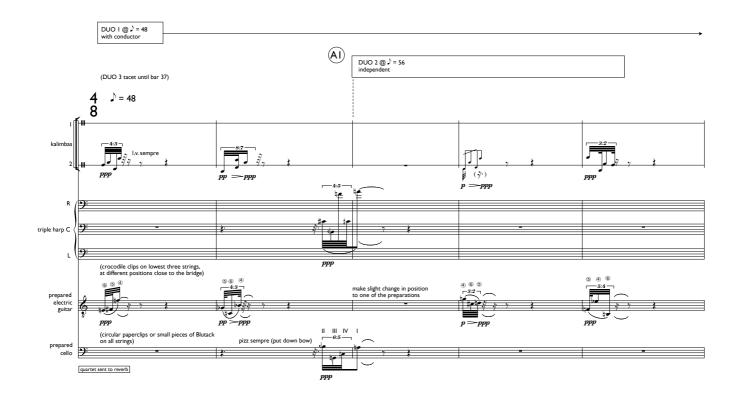


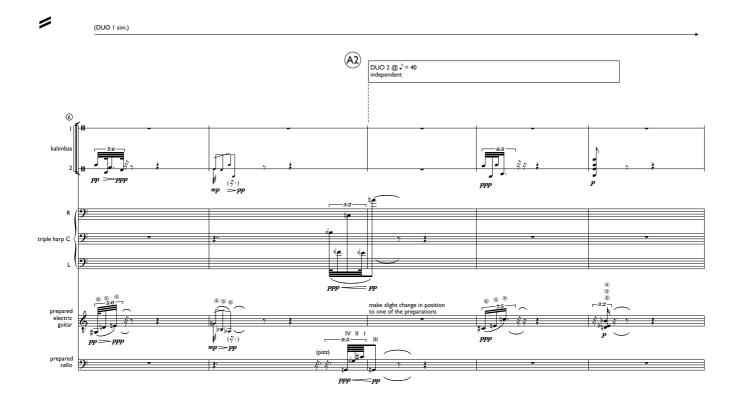


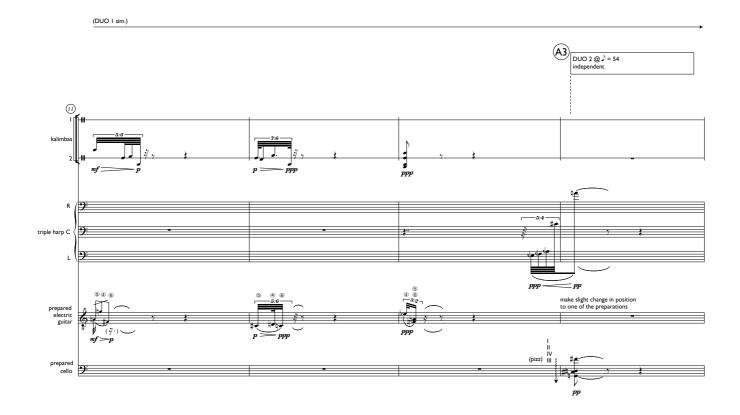


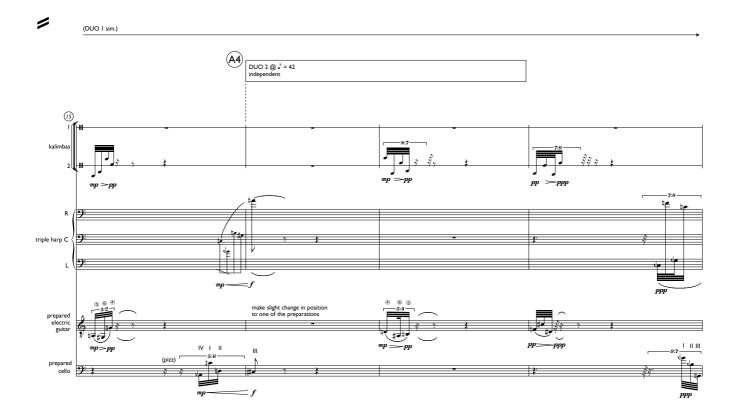


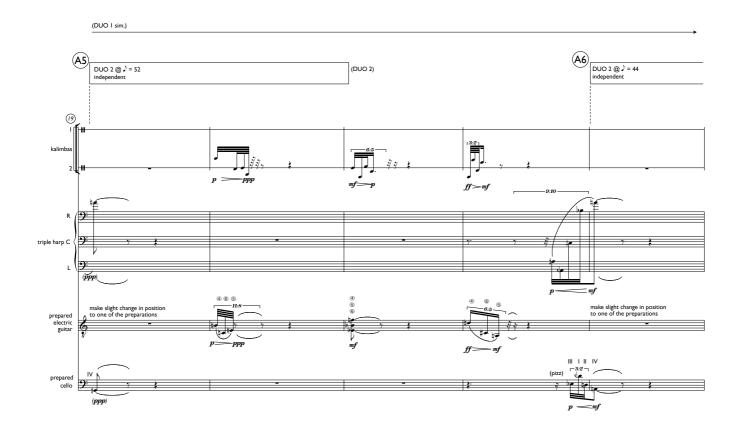
6 heliocentric

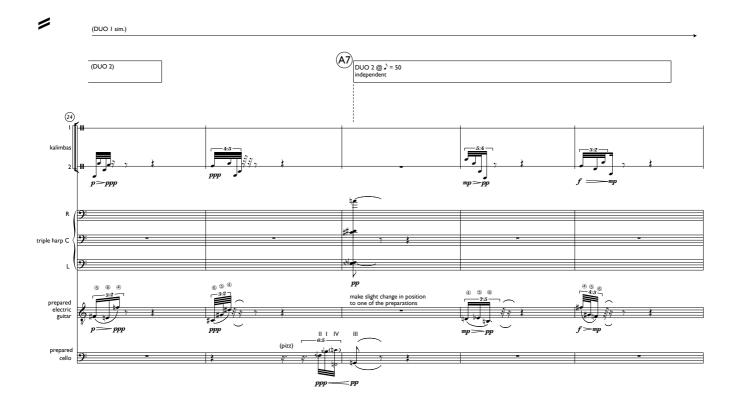


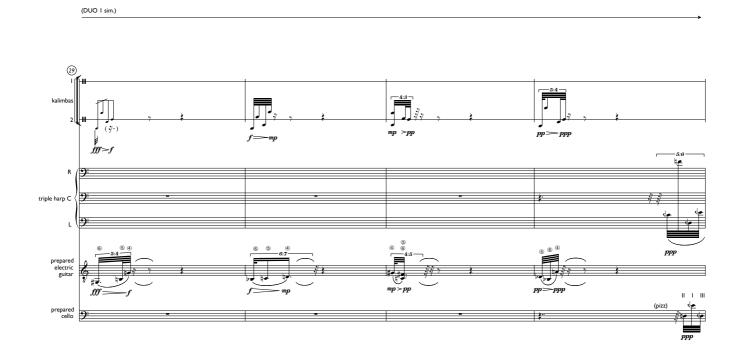


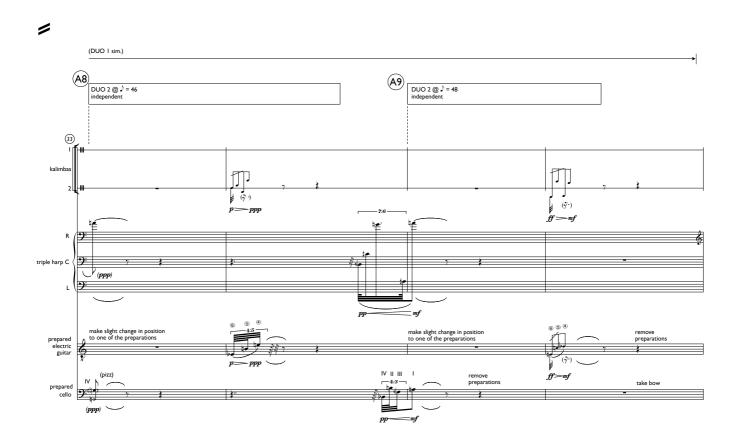


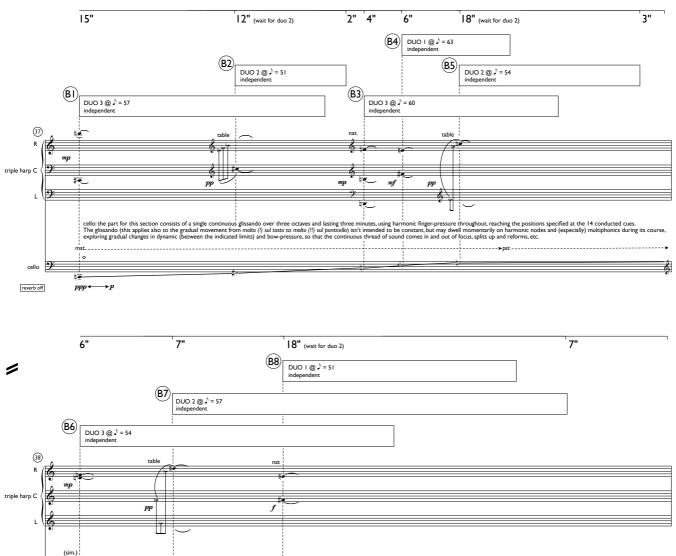


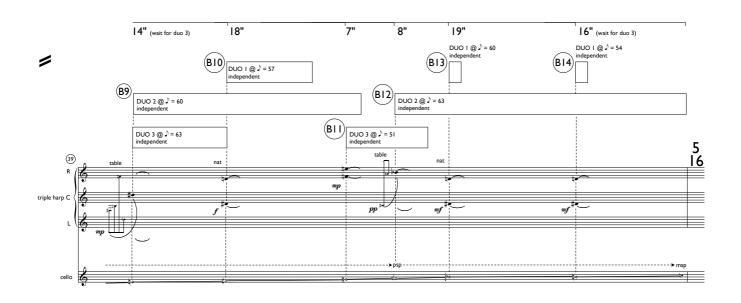












cello

 $\downarrow^{\overline{\diamond}}$ (ppp $\longleftrightarrow p$) 77







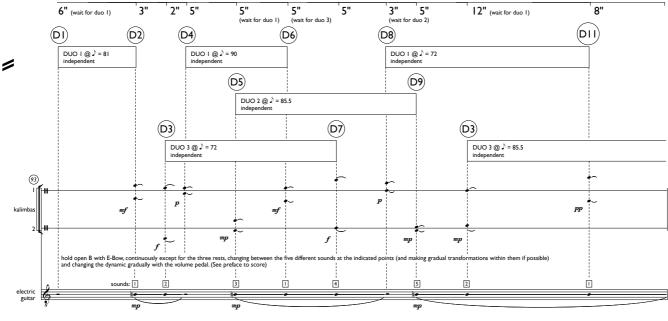
cello

79

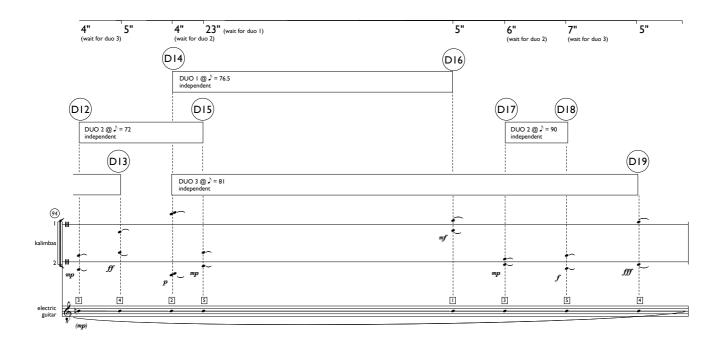
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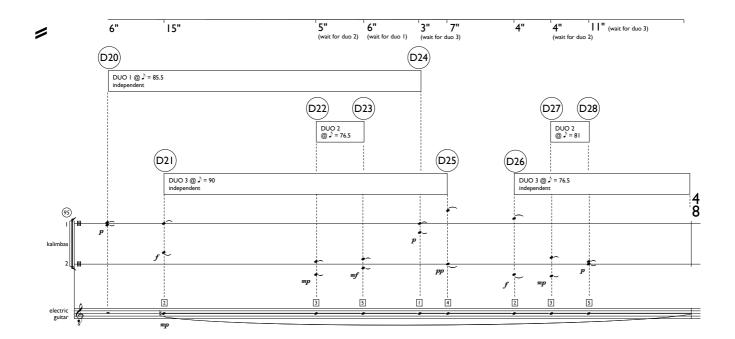


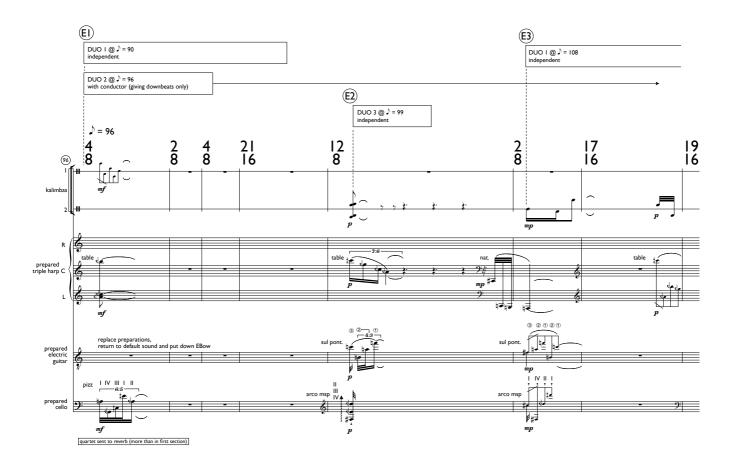


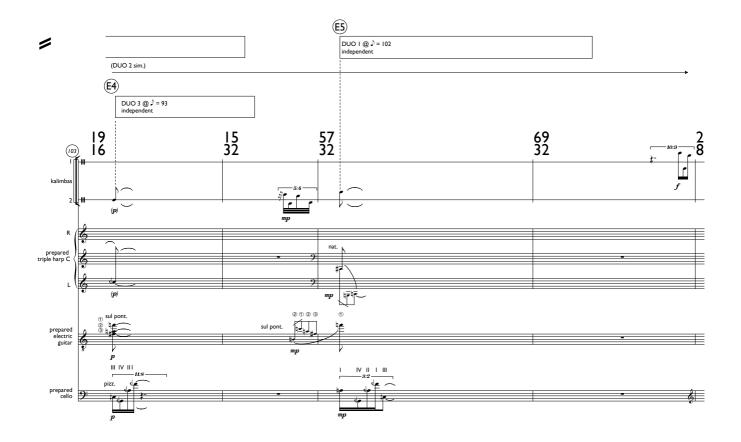


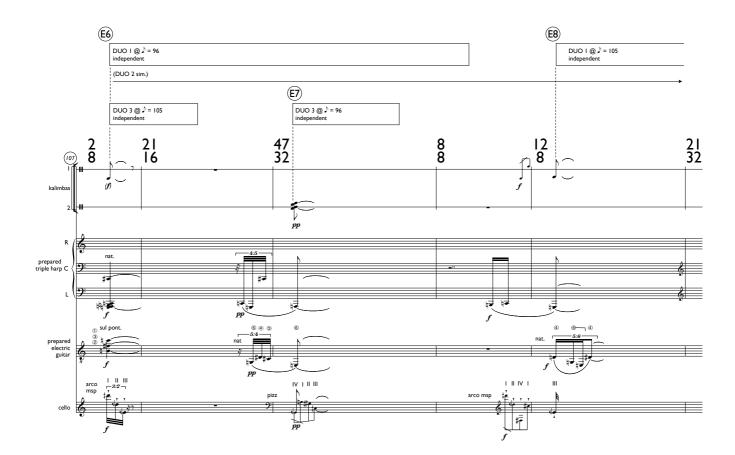
reverb off

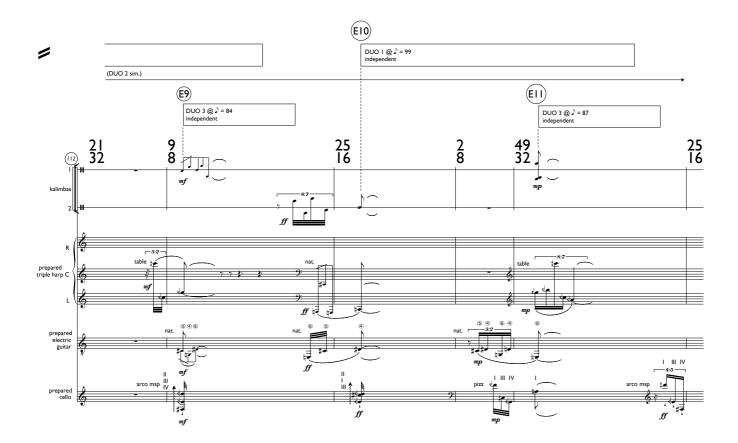


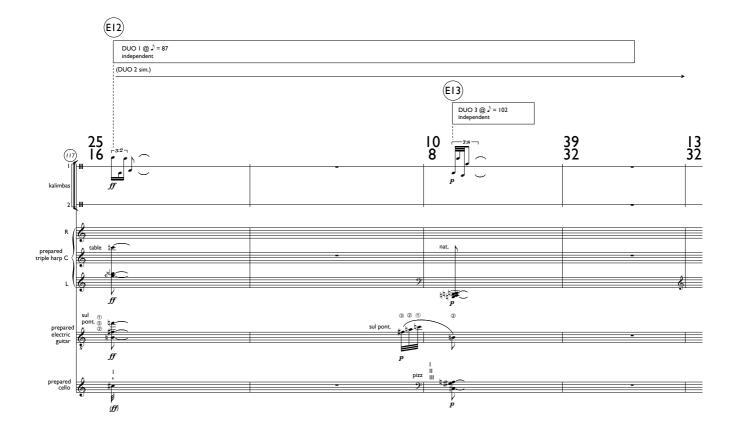


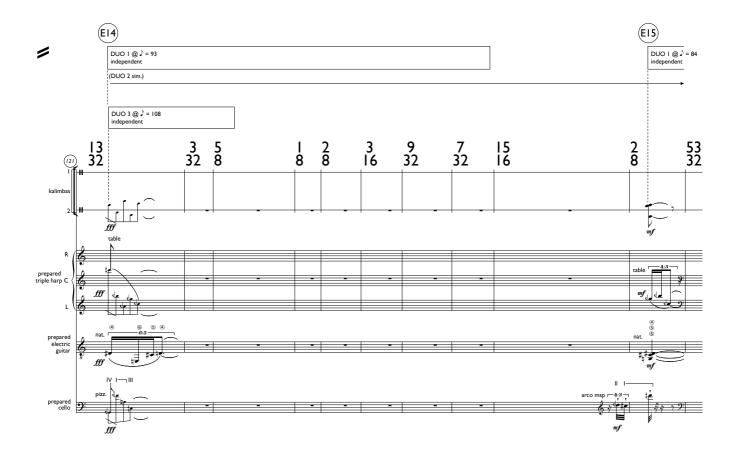


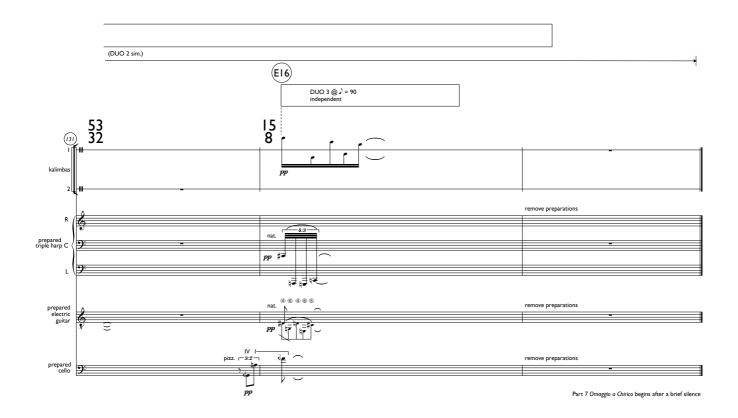






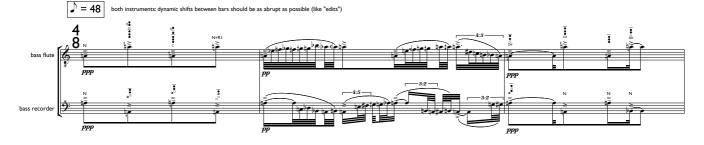


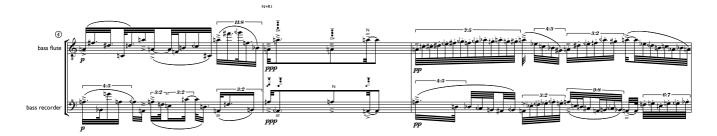


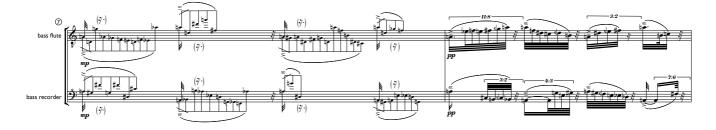


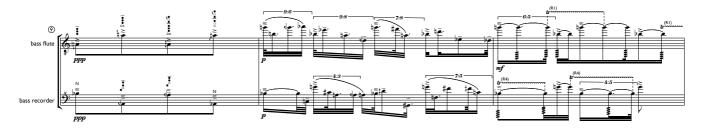
86 DUO I (bass flute and bass recorder)

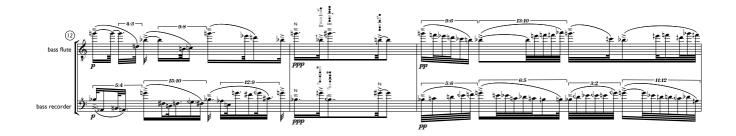
play continuously with conductor until end of bar 36

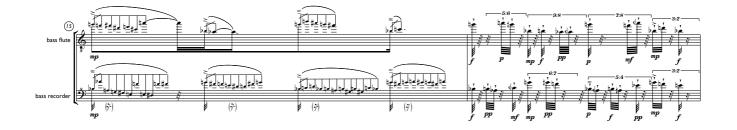


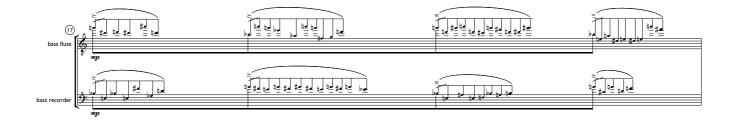


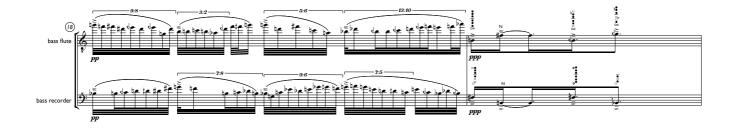


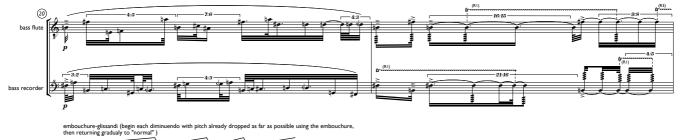


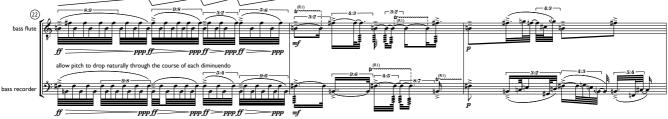




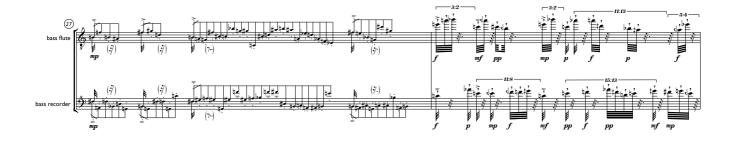


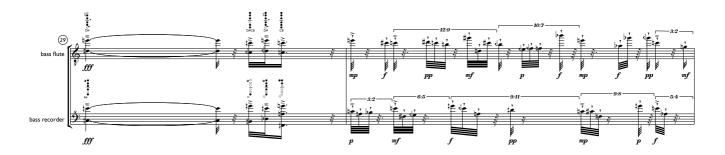






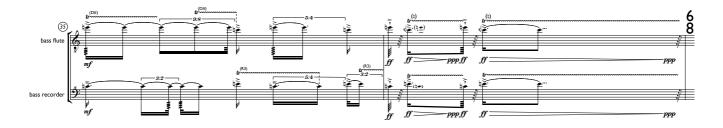




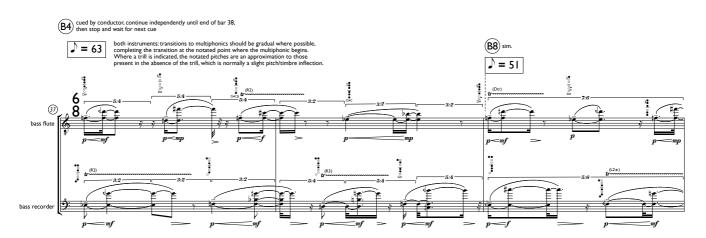


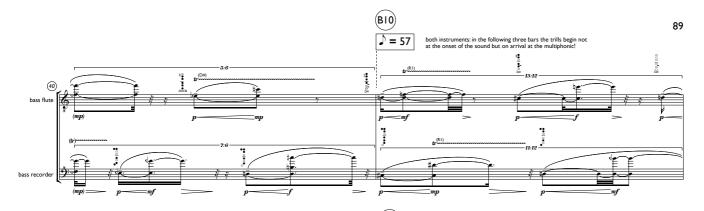


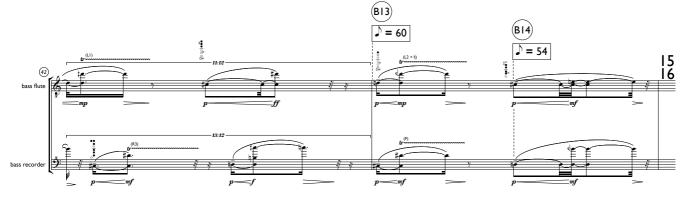




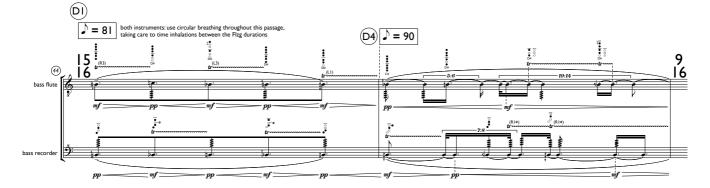
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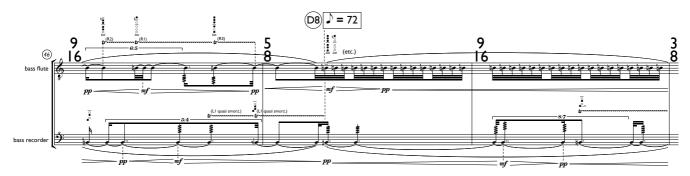


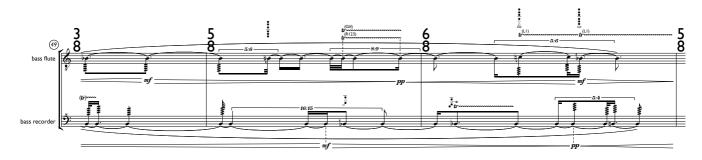


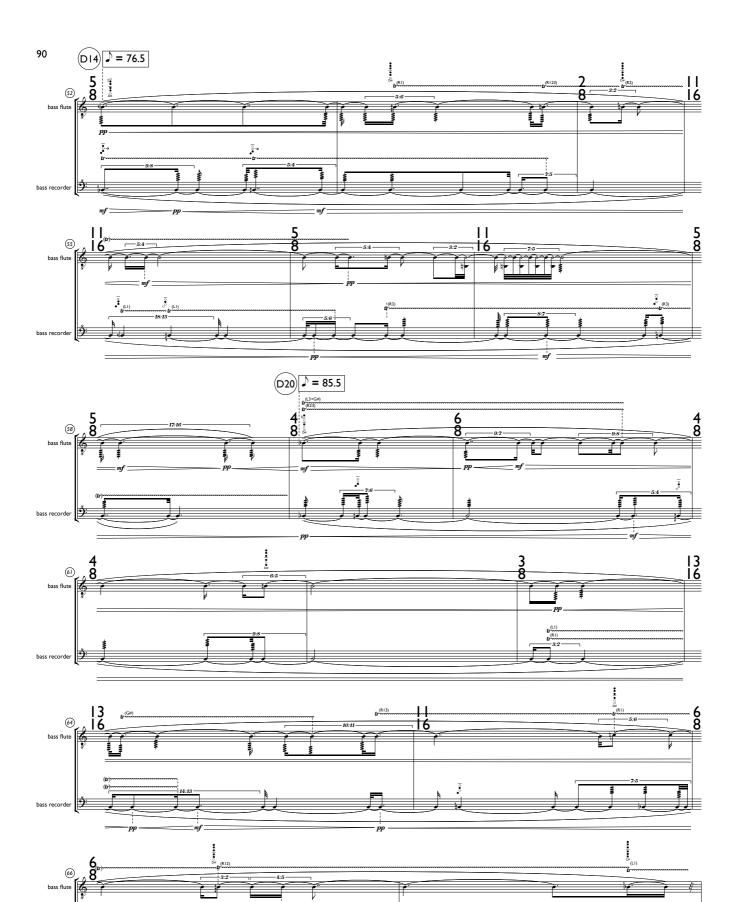


(tacet about 3 minutes)





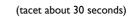




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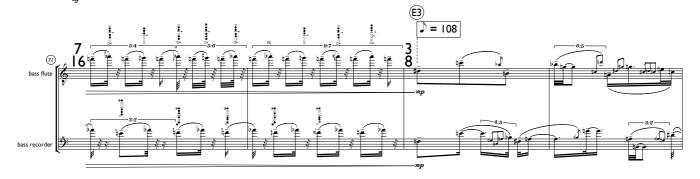
bass recorde

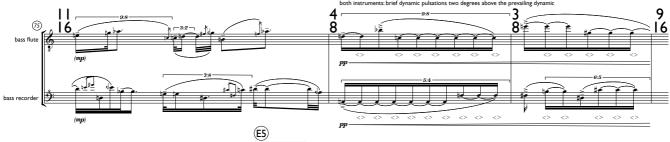


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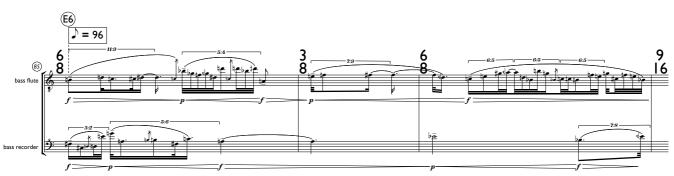


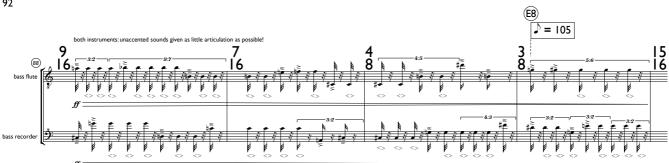




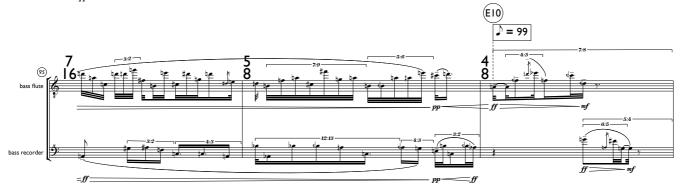


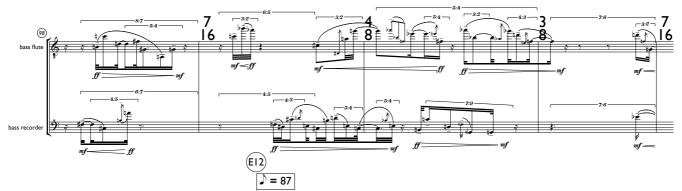


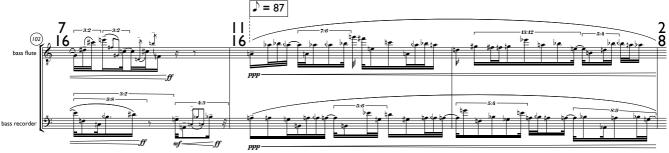




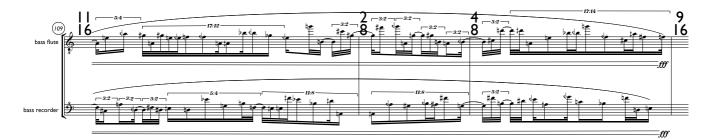


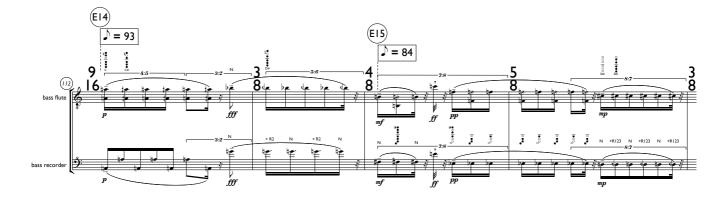


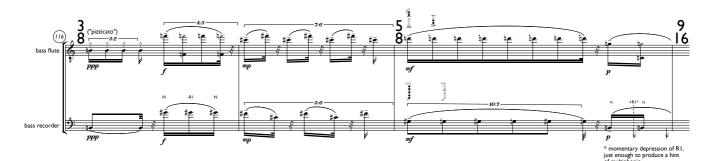


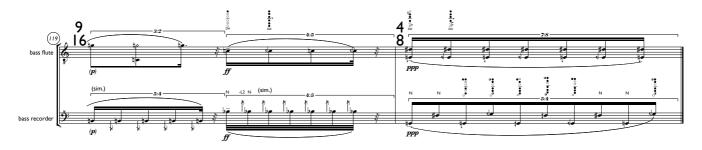


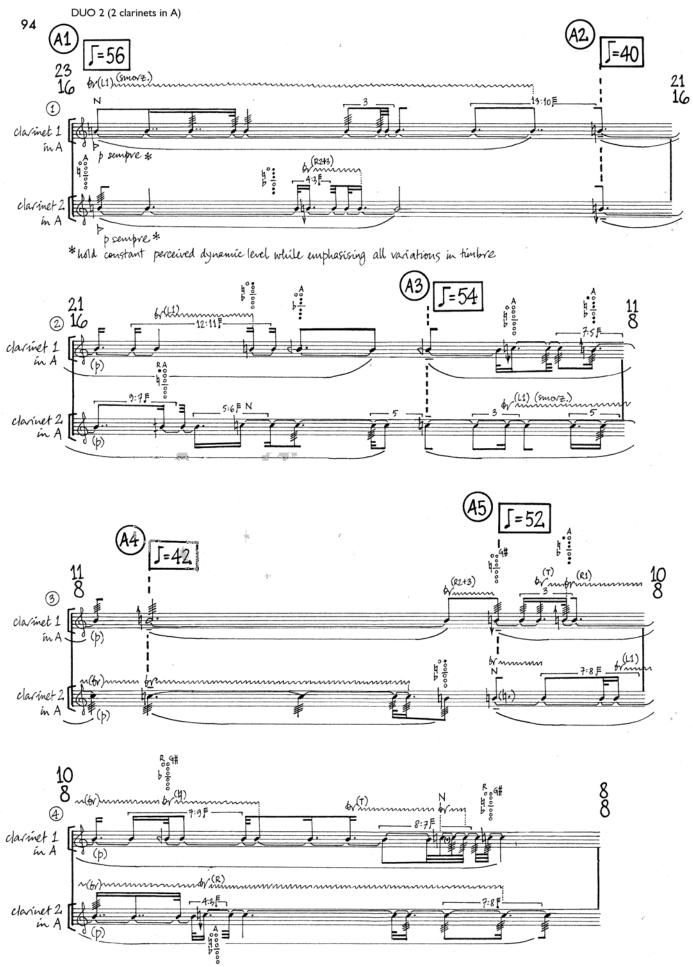


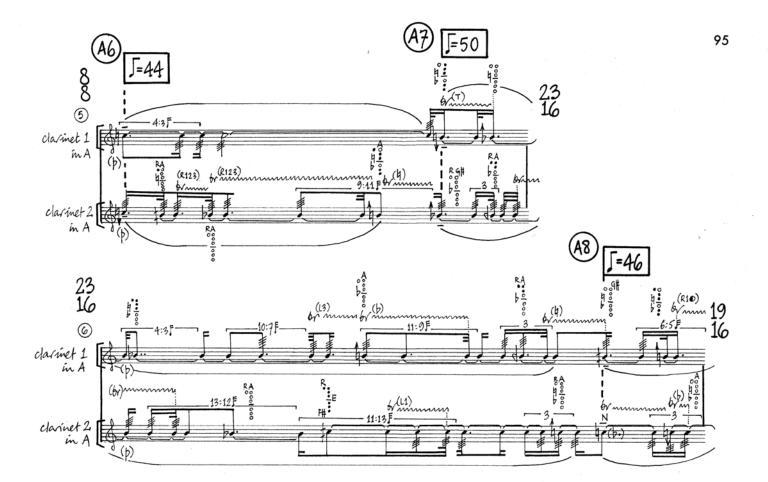


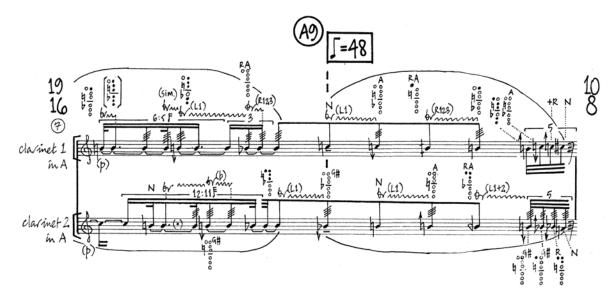


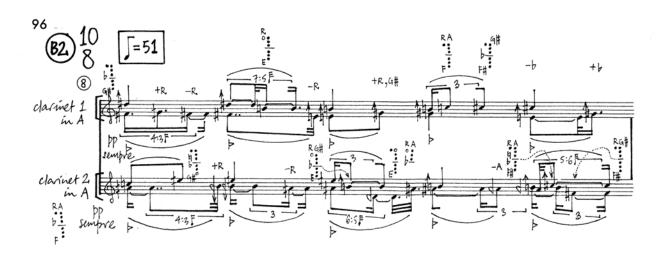


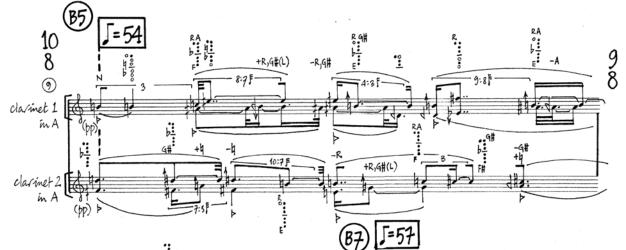


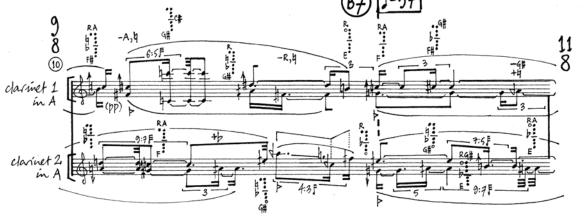


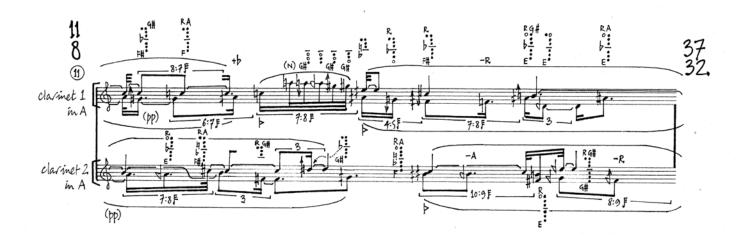


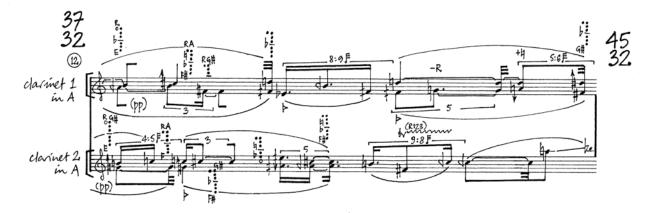


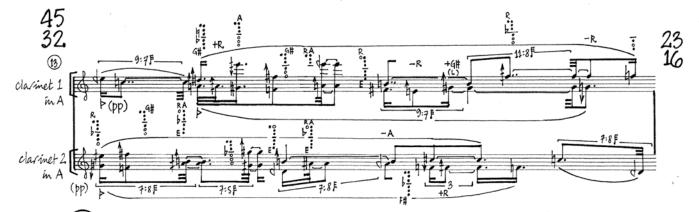


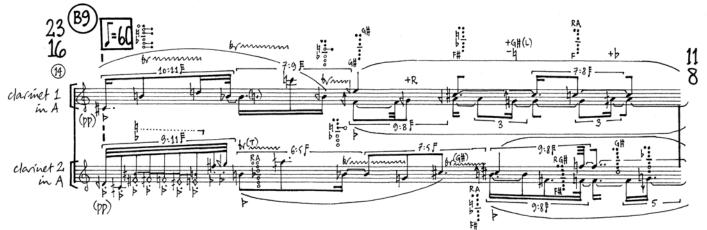


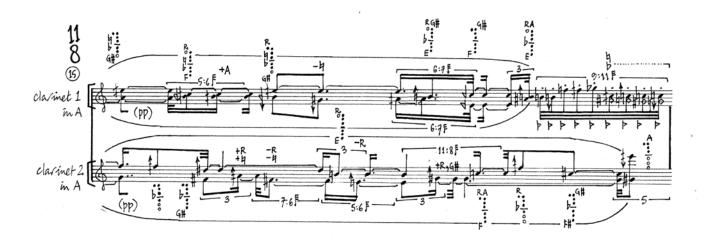


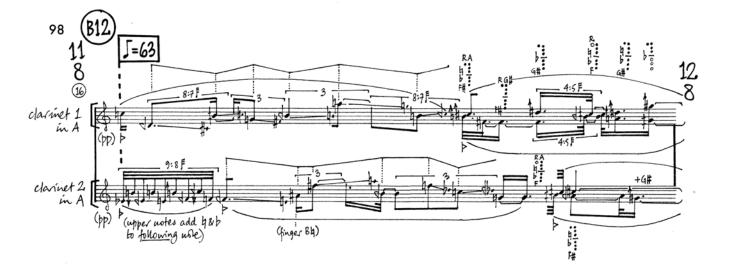


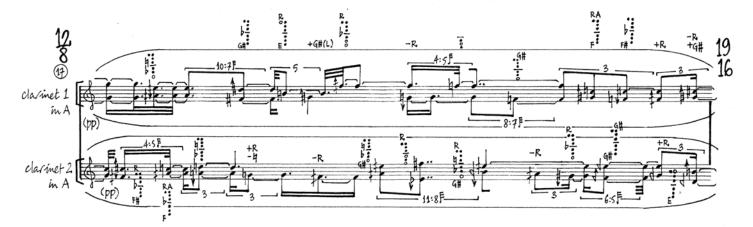


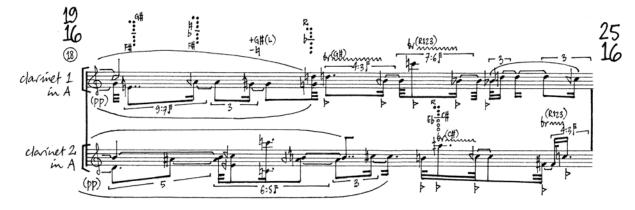


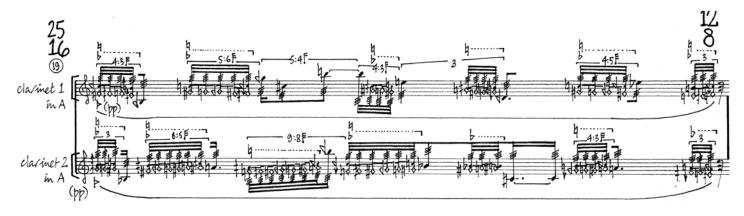




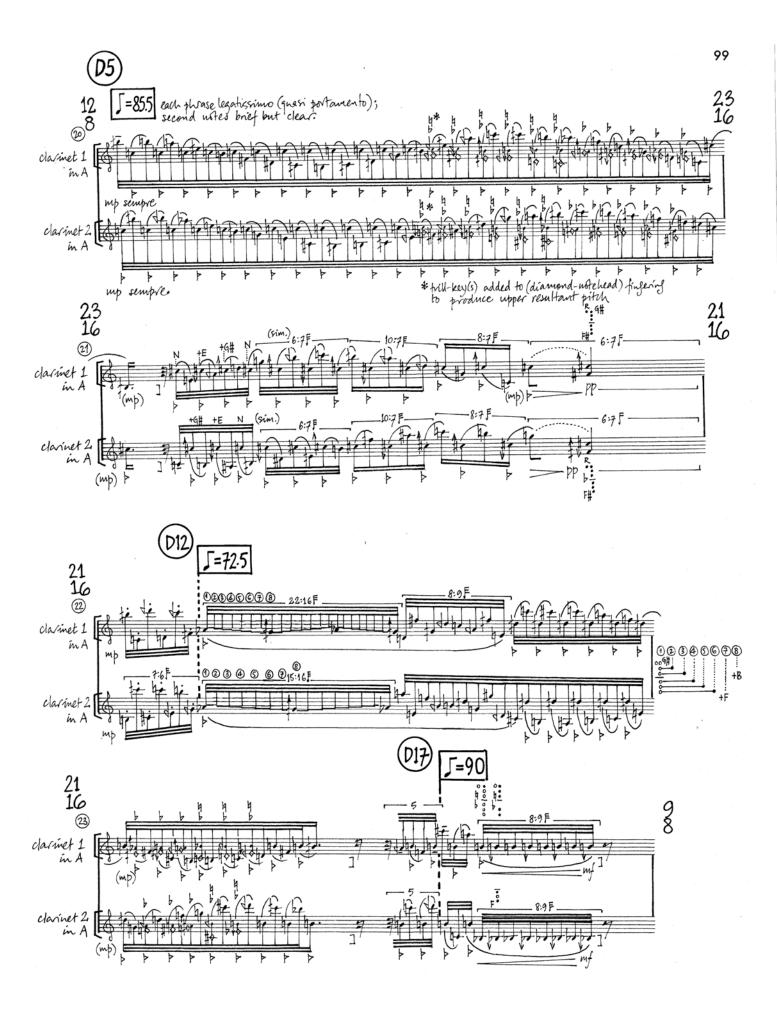


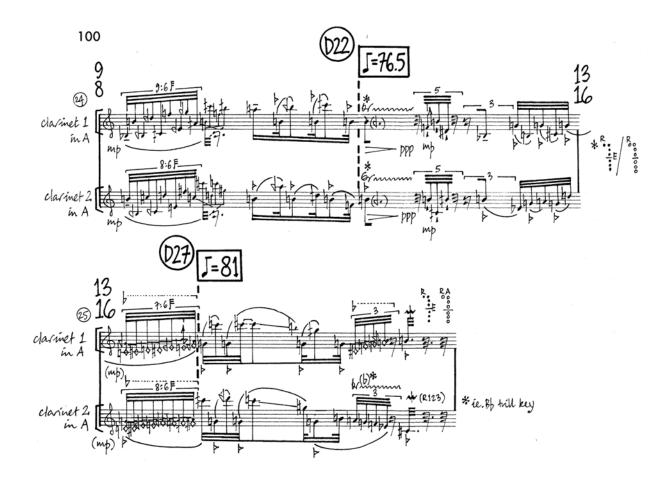


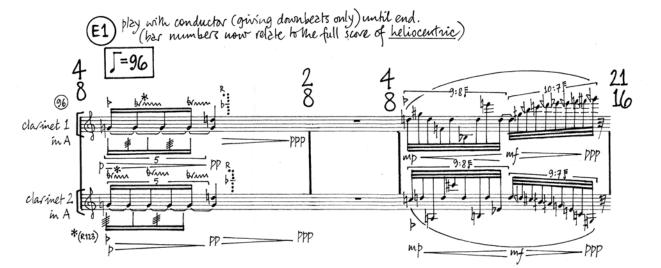


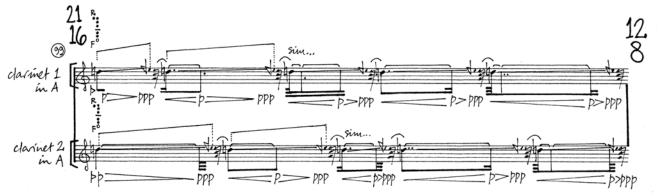


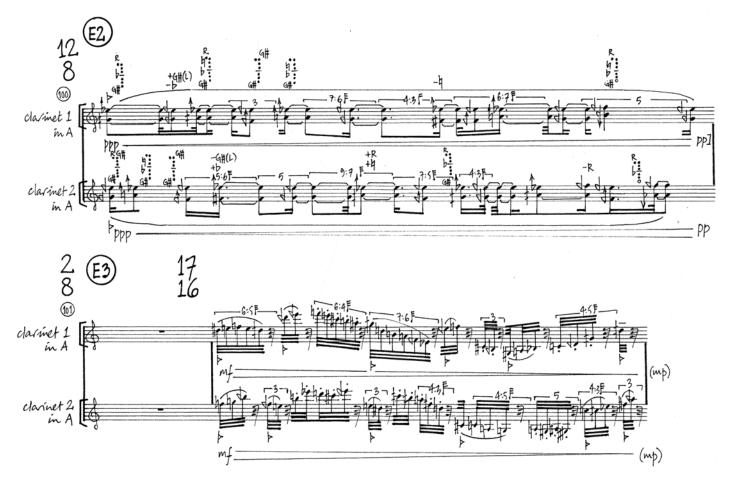
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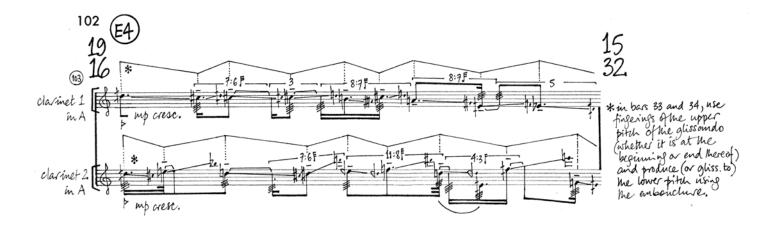


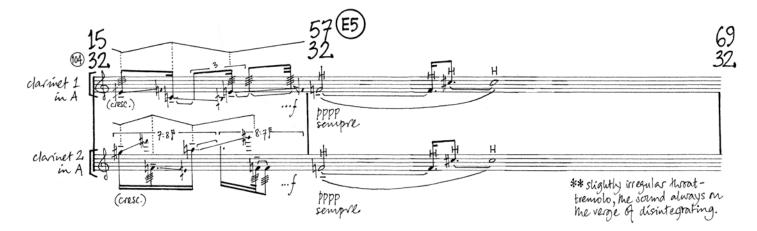


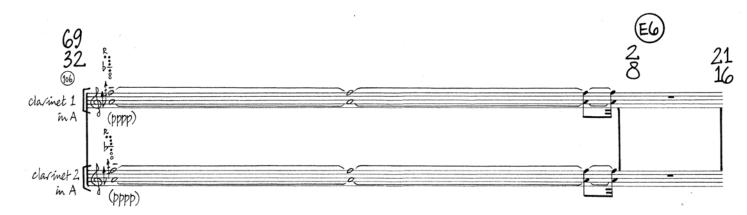




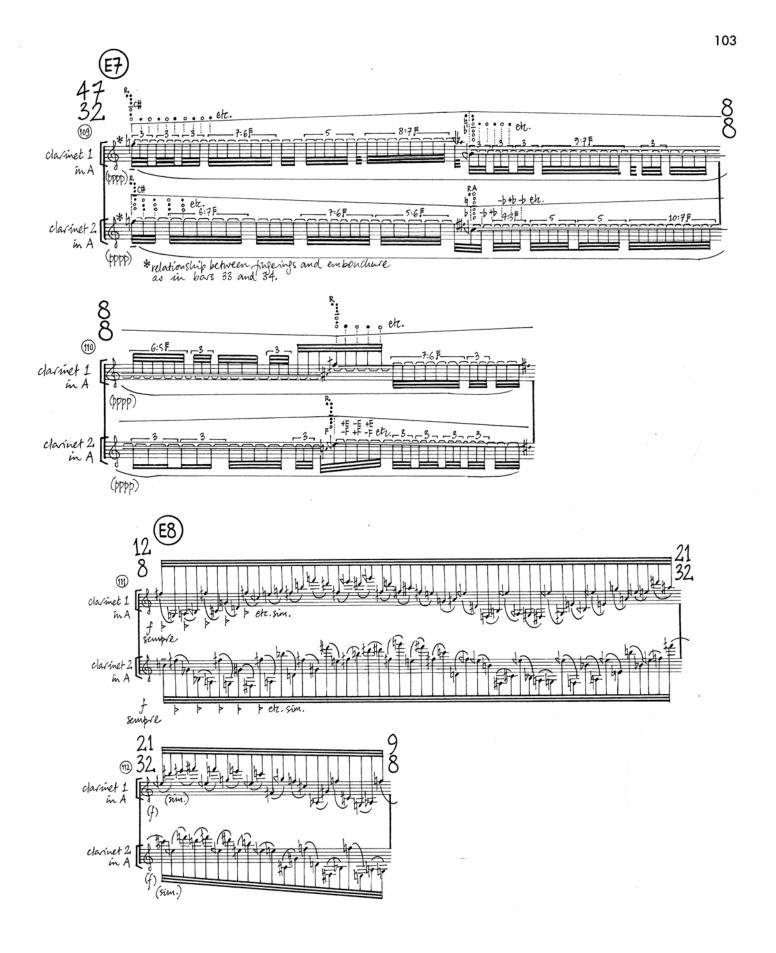


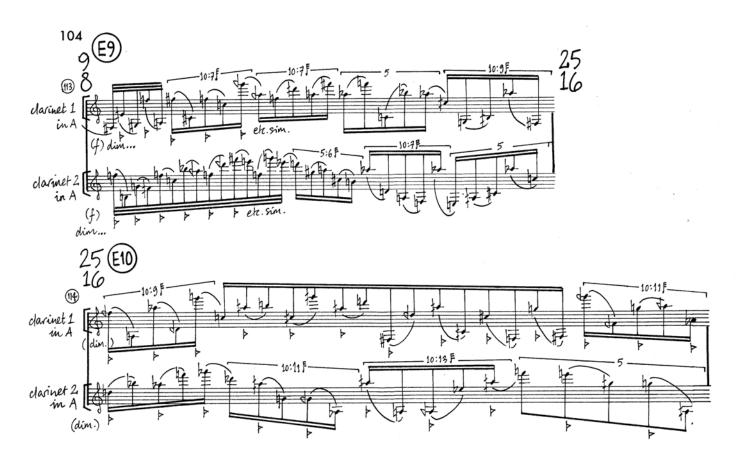


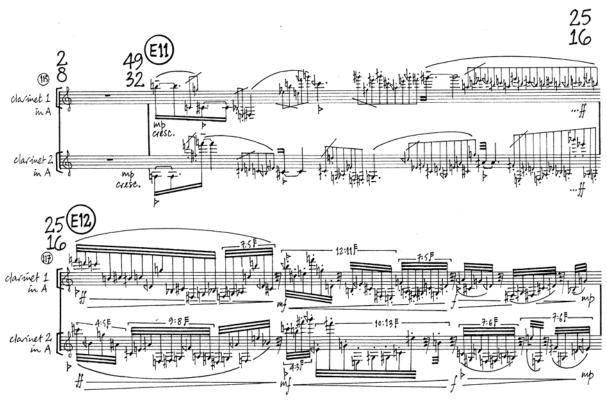


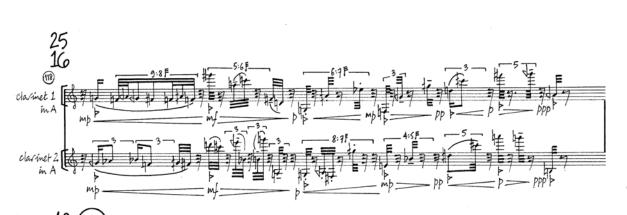




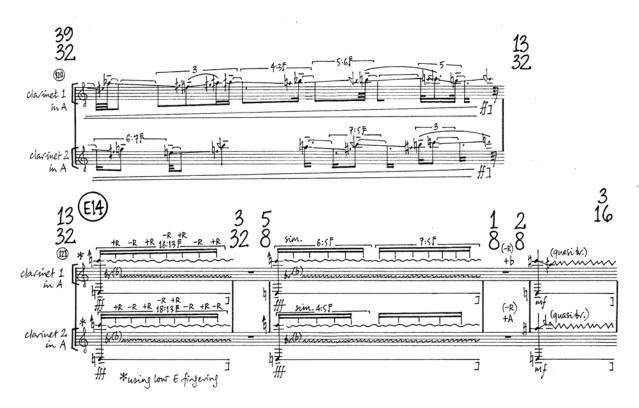


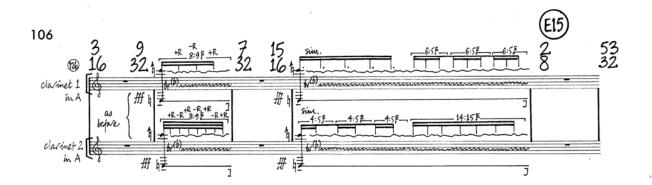


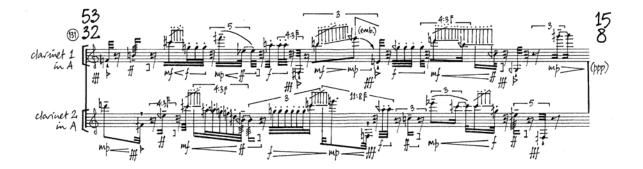


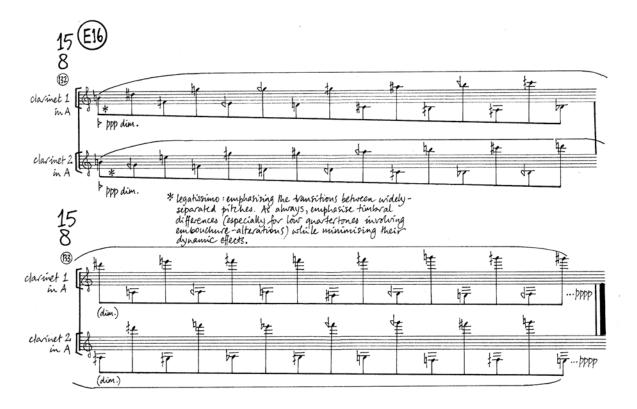


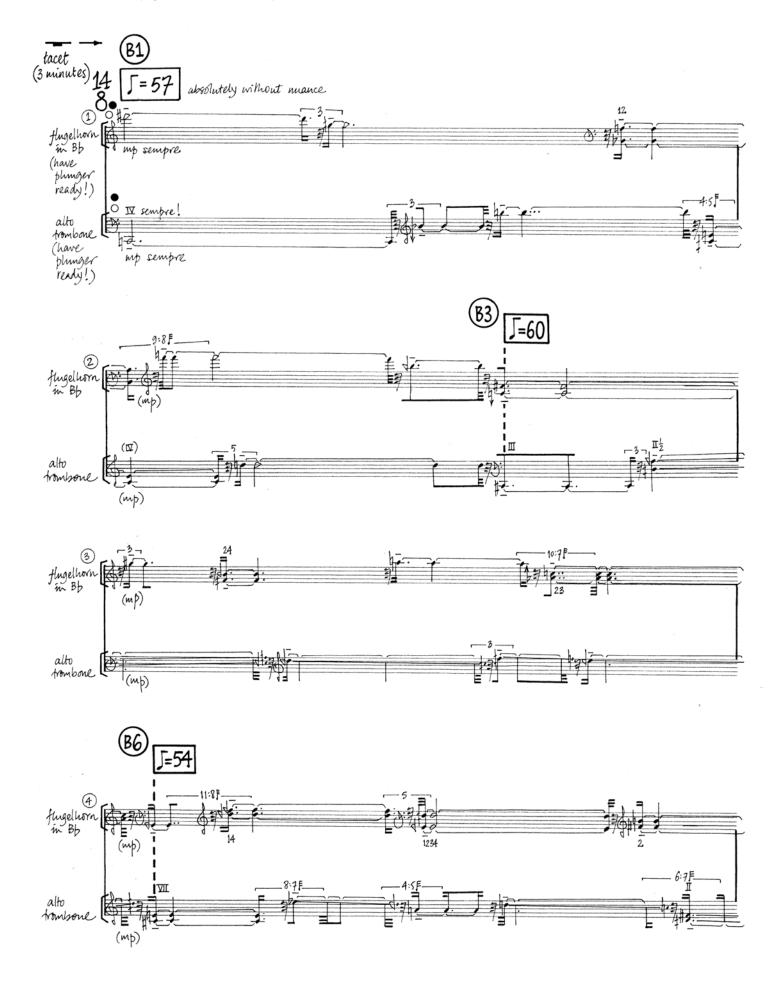


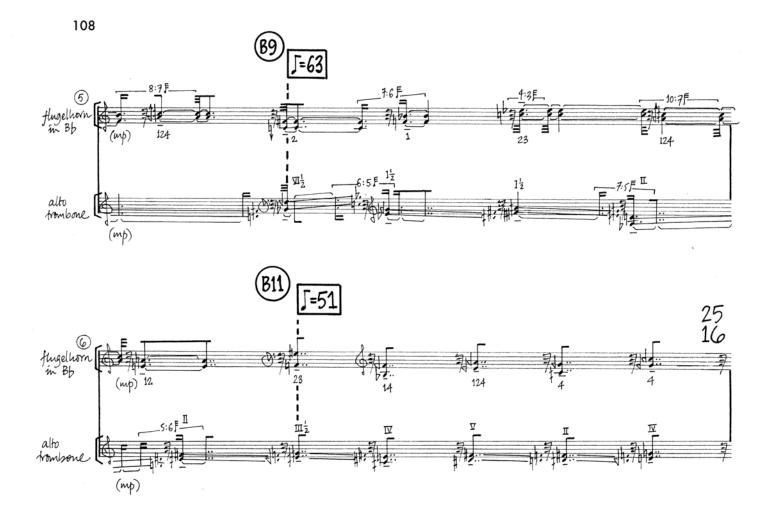


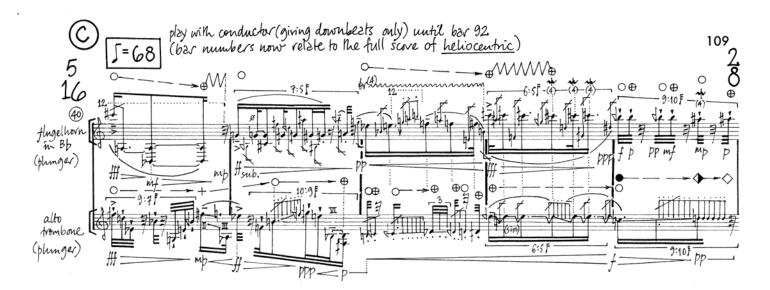


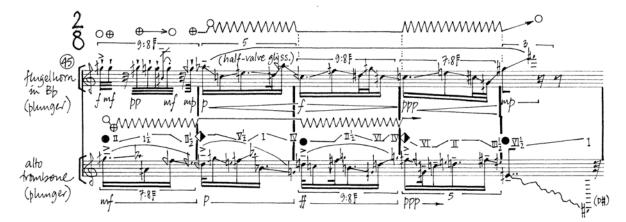


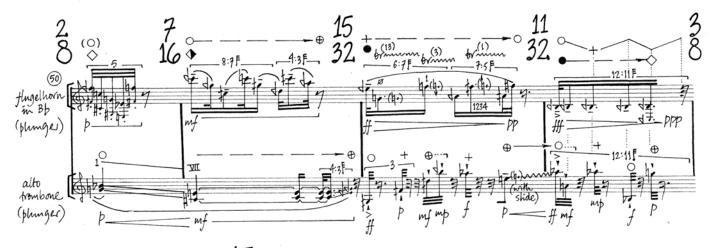




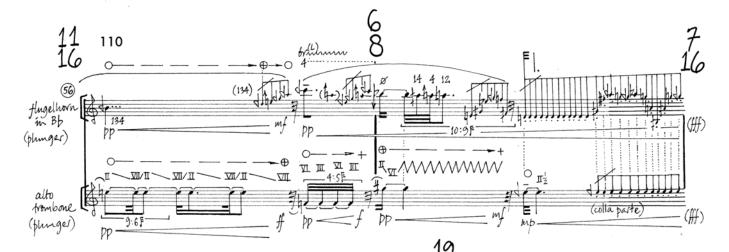


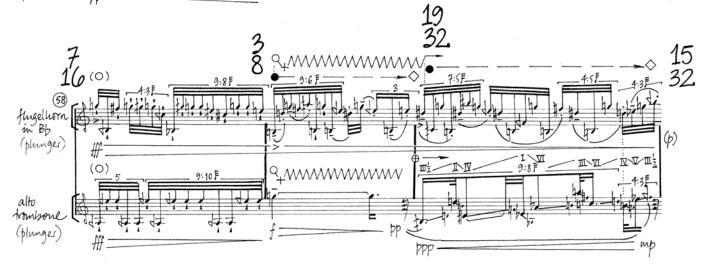


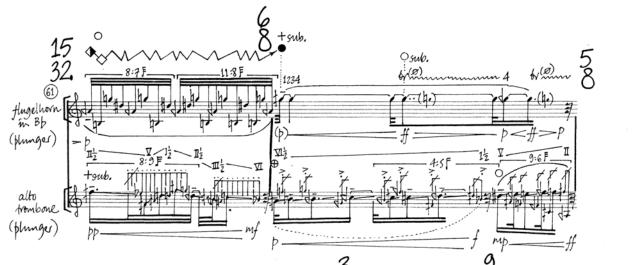


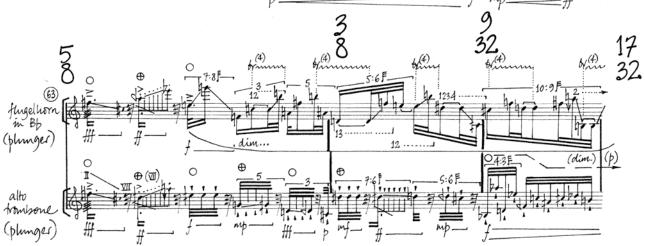


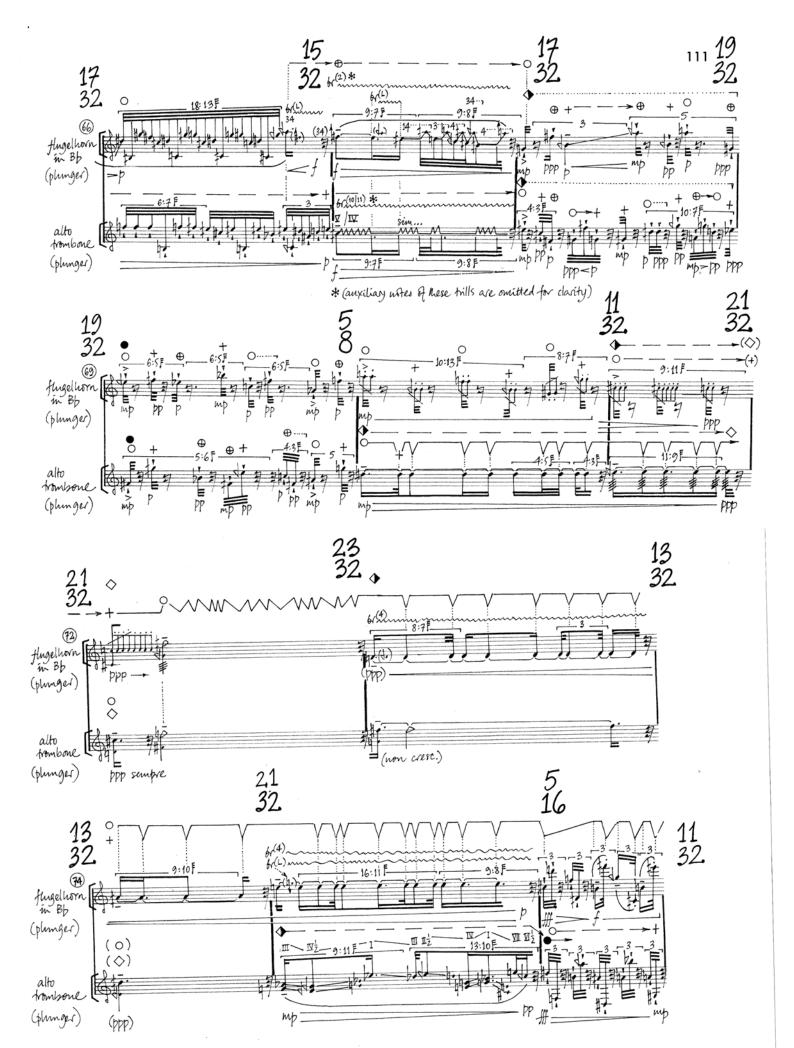


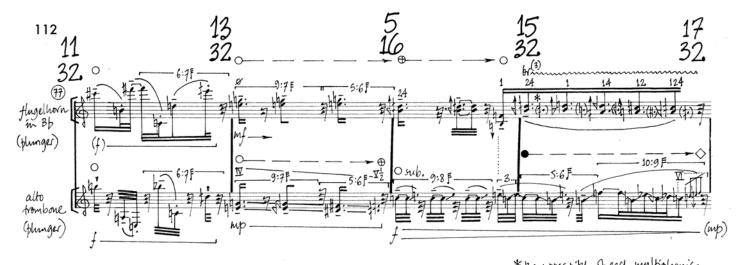


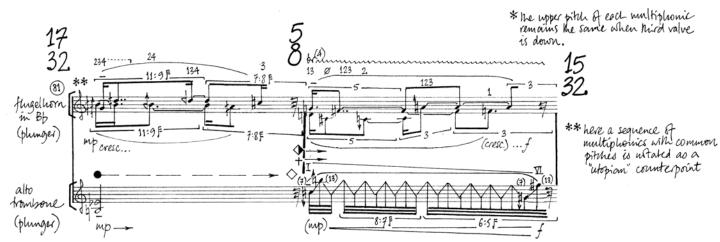


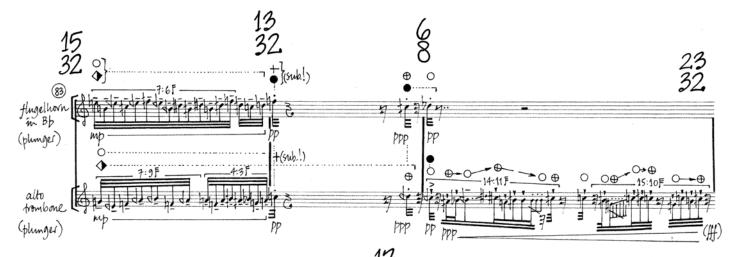


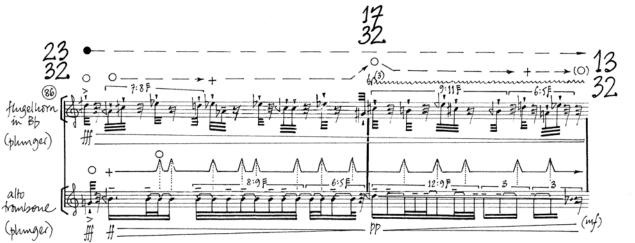


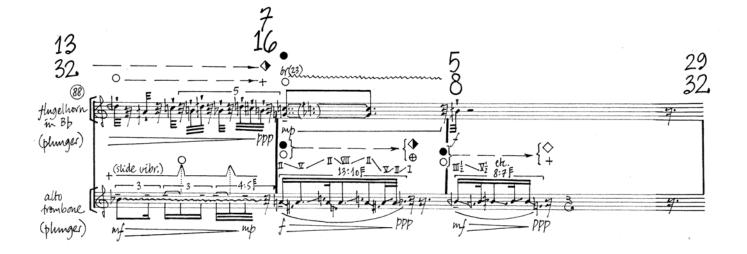


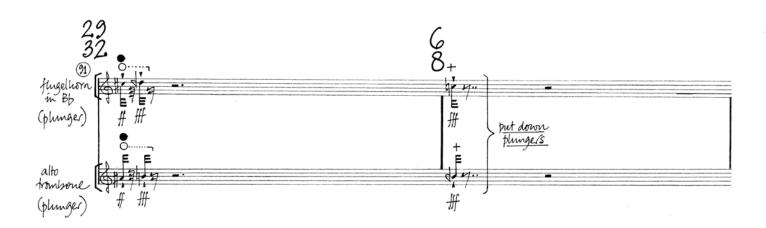


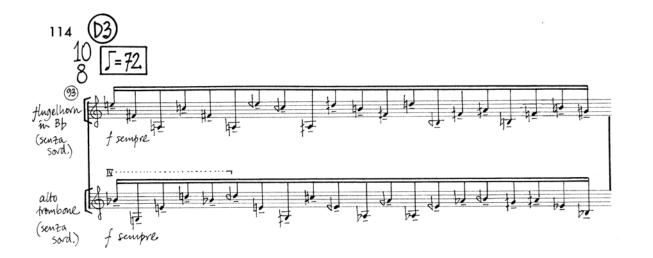


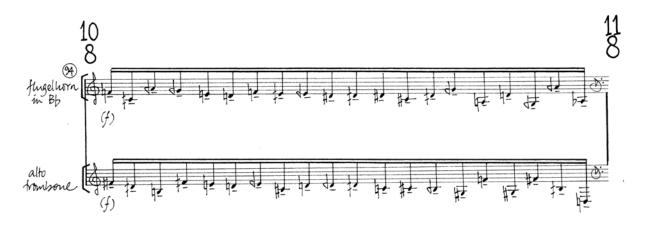




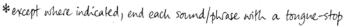


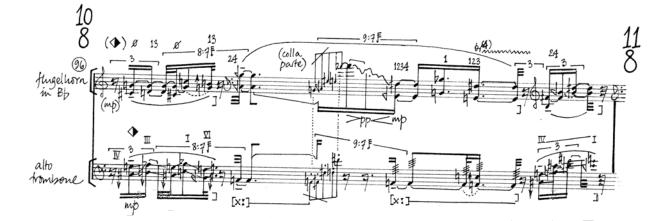


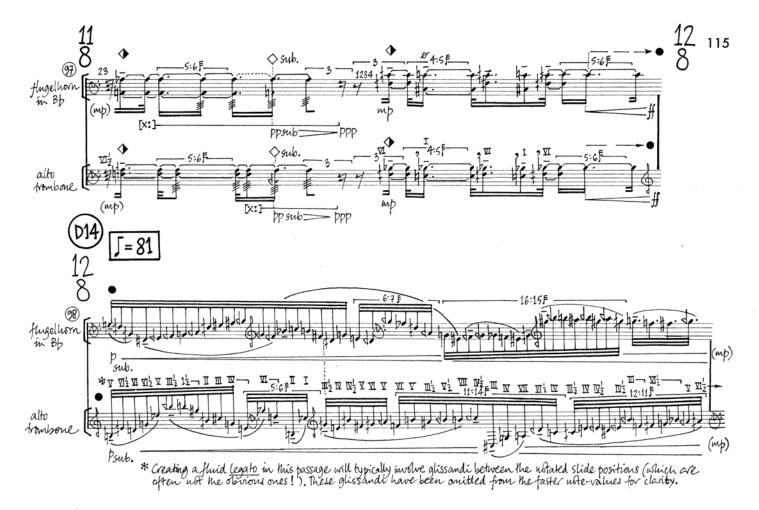


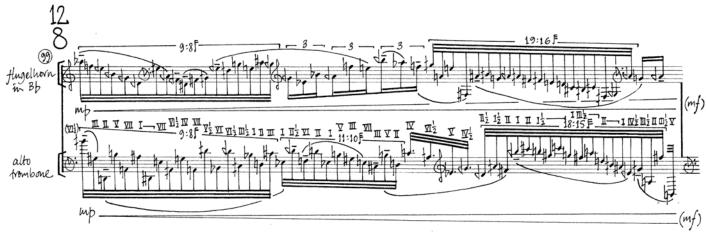


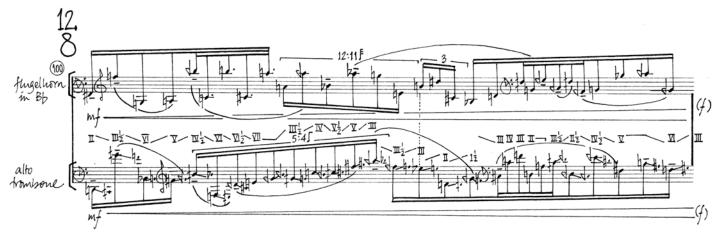


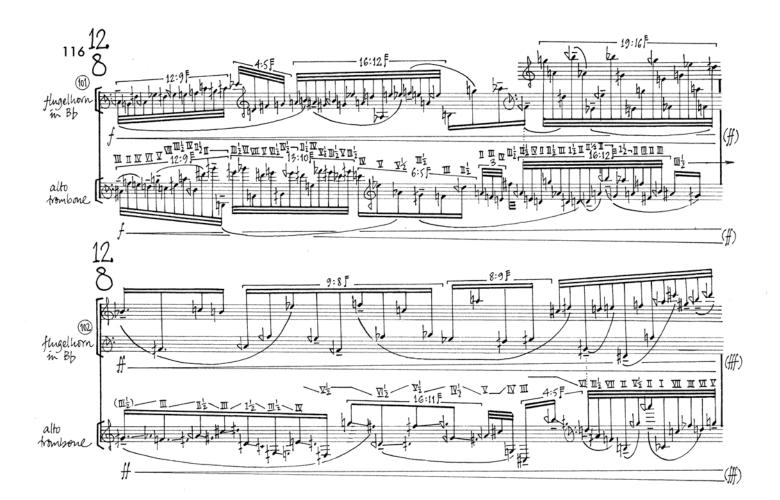


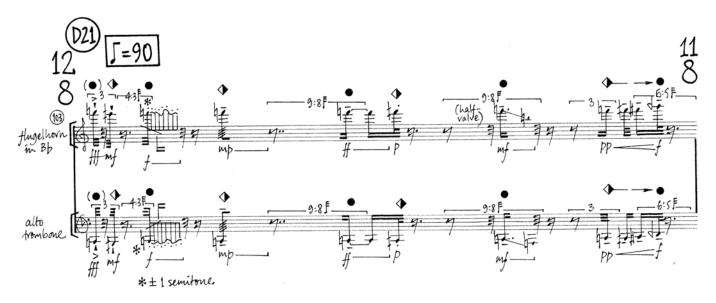


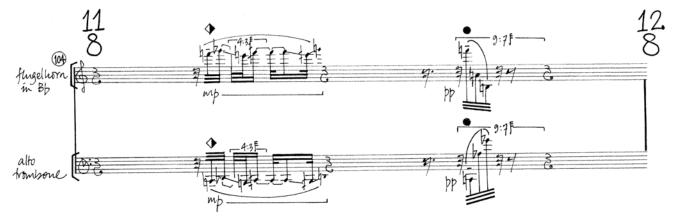


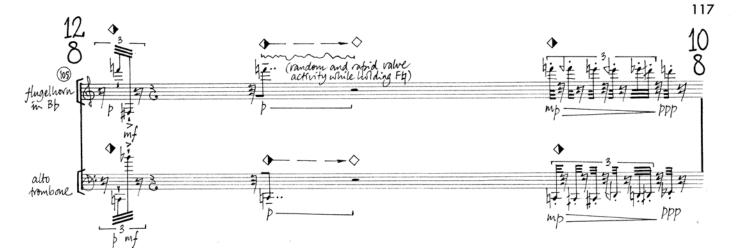


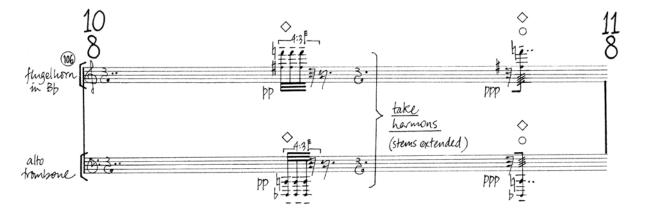


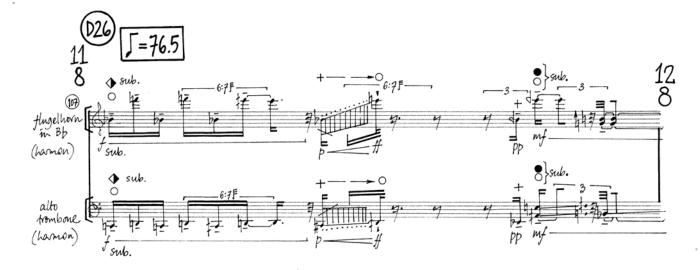


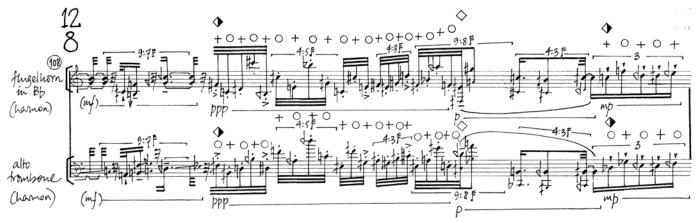




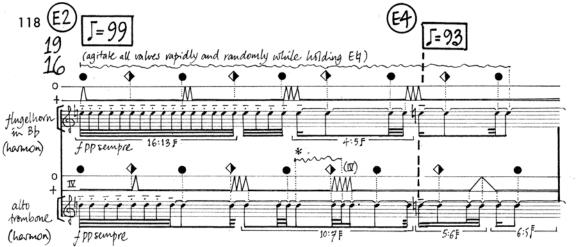




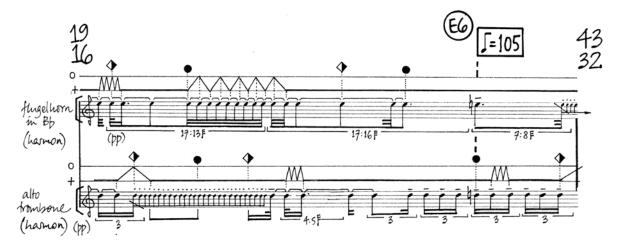


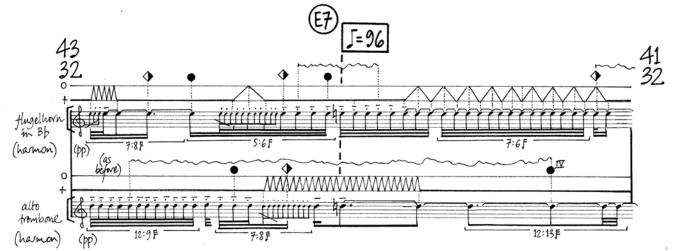


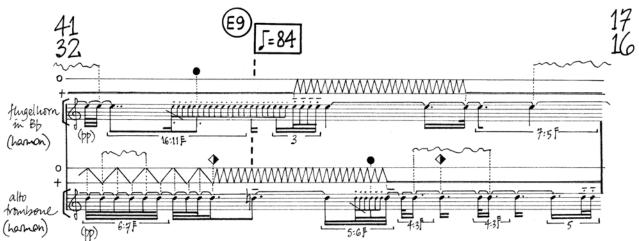
(tacet about 13")

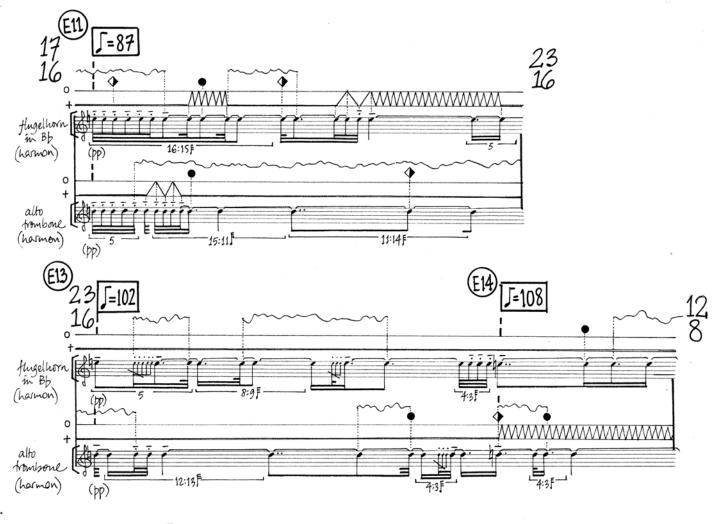


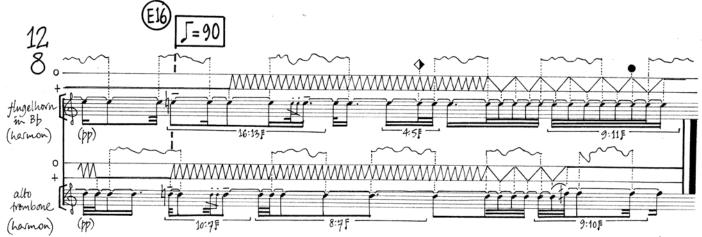
* random and rapid slide movements between II and II while holding Dy.











7 Omaggio a Chirico

duration: approximately 6 minutes

Elsewhere is a negative mirror. The traveller recognises the little that is his, discovering the much he has not had and will never have.

... imagine that the cityscape paintings of Giorgio de Chirico depicted different views of a single city...

... imagine a music to accompany this place as actual sounds accompany actual places,

such sounds as could not be heard in actual places...

... sounds with a particular kind of presence, with a particular kind of absence...

... which attracts the attention and then changes or turns a corner and disappears as soon as the attention falls upon it...

... imagine a stillness pregnant with sound, or a sound infused with silence...

... objects, perspectives, causalities become unfamiliar...

... or imagine that you dreamed such places and imagine a music to invoke memories of them...

Perhaps all that is left of the world is a wasteland covered with rubbish heaps, and the hanging garden of the Great Khan's palace. It is our eyelids that separate them, but we cannot know which is inside and which outside.

... if voices are heard they cannot be understood, being perhaps only shadows of voices...

•••

... if the music begins to cohere, be silent...

... or imagine being alone and that the sounds you hear are those of a surreal environment to which the music you make is a response...

... imagine sounds as connections between silences...

"Sire, now I have told you about all the cities I know." "There is still one of which you never speak." Marco Polo bowed his head. "Venice", the Khan said. Marco smiled. "What else do you believe I have been talking to you about?" The emperor did not turn a hair. "And yet I have never heard you mention that name." And Polo said: "Every time I describe a city I am saying something about Venice." "When I ask you about other cities, I want to hear about them. And about Venice, when I ask you about Venice." "To distinguish the other cities' qualities, I must speak of a first city that remains implicit. For me it is Venice." "You should then begin each tale of your travels from the departure, describing Venice as it is, all of it, not omitting anything you remember of it.

The lake's surface was barely wrinkled; the copper relfection of the ancient palace of the Sung was shattered into sparkling glints like floating leaves.

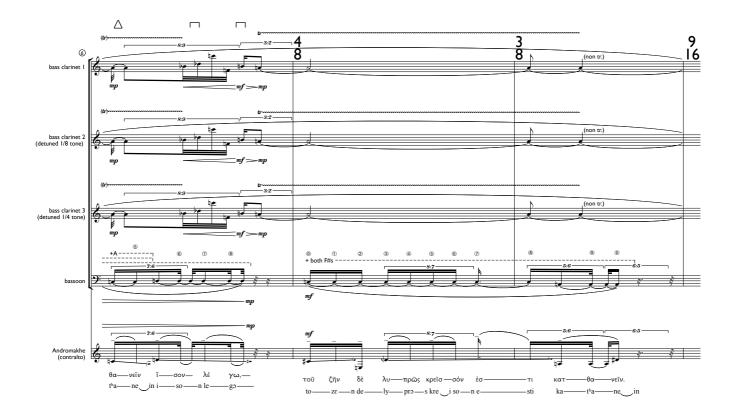
"Memory's images, once they are fixed in words, are erased," Polo said. "Perhaps I am afraid of losing Venice all at once, if I speak of it. Or perhaps, speaking of other cities, I have already lost it, little by little."

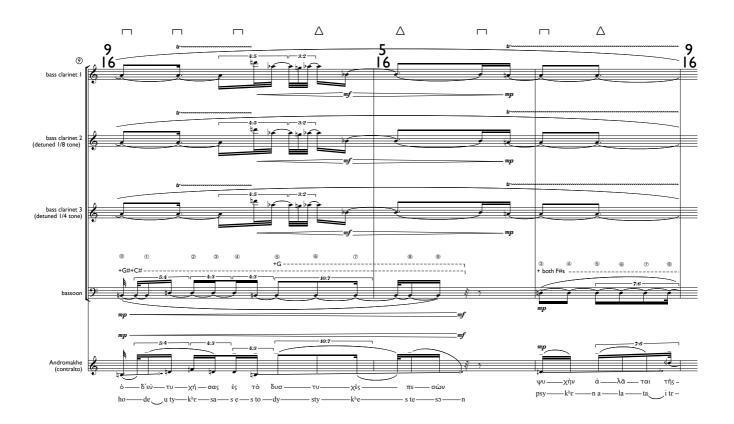
The following section, Andromakhe, begins after a silence of several seconds.

8 Andromakhe

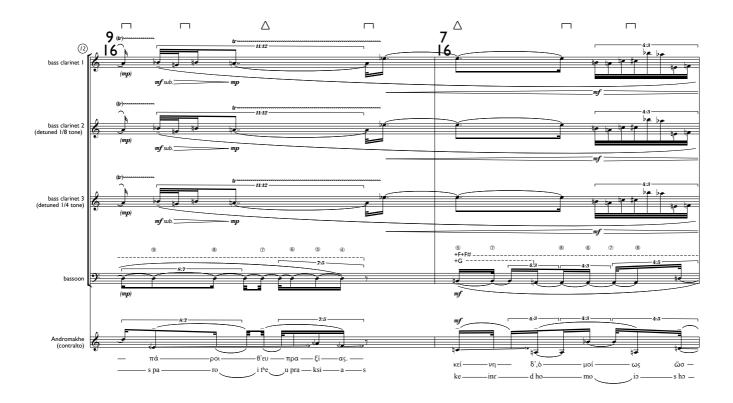


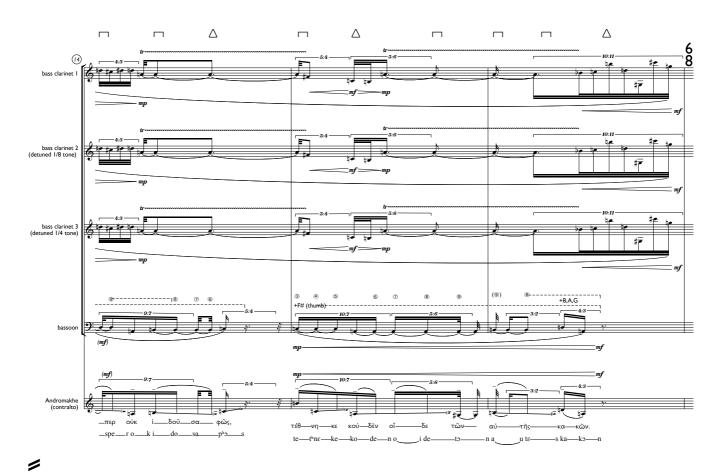
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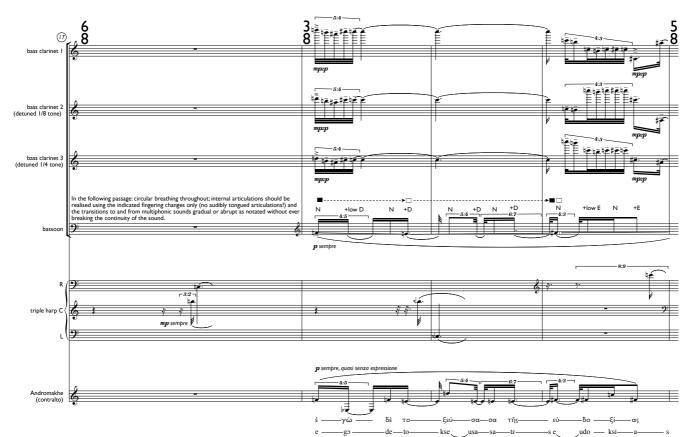




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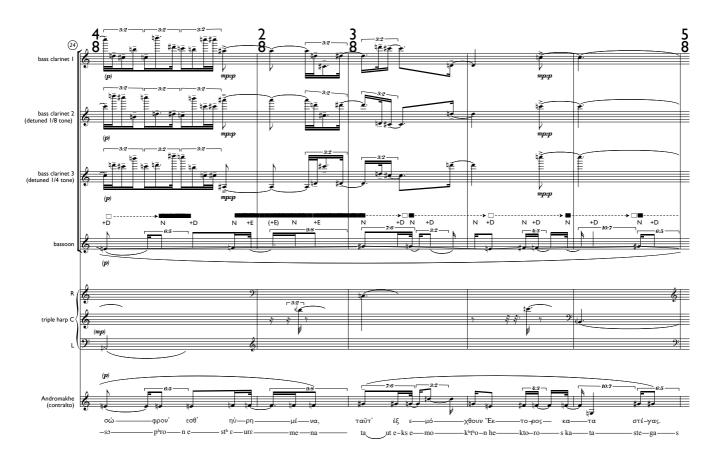














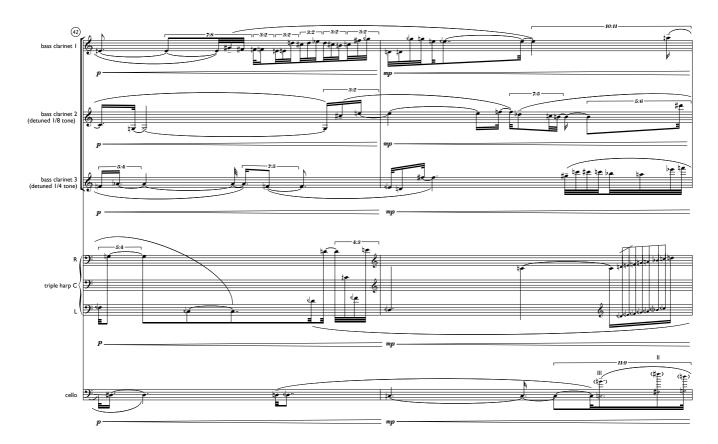




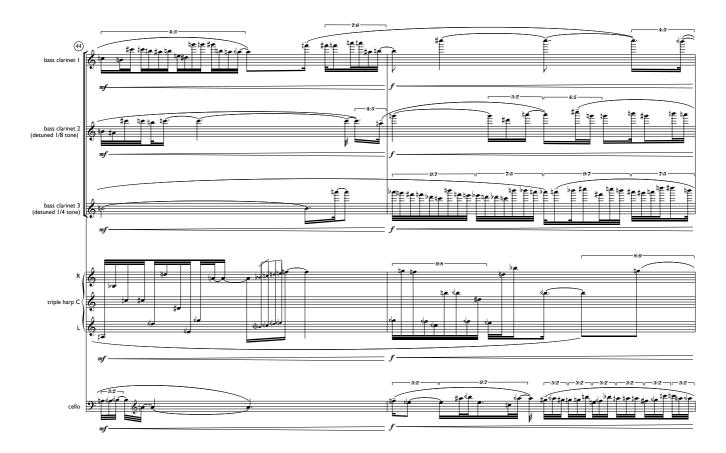








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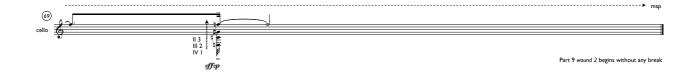


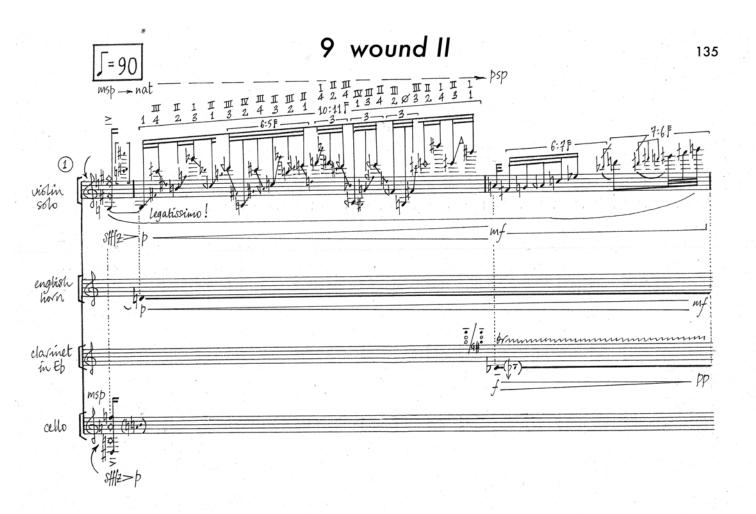


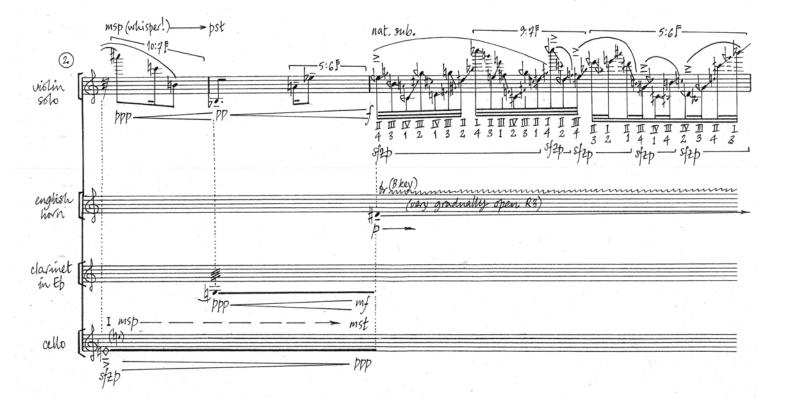


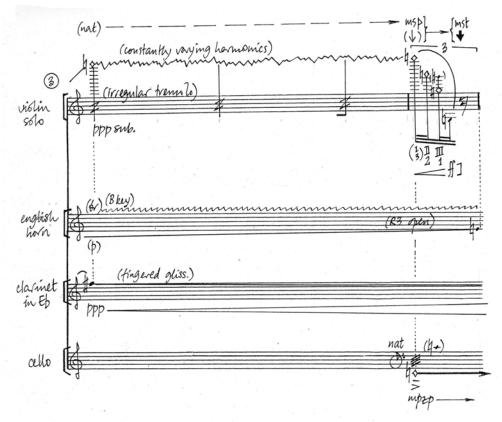


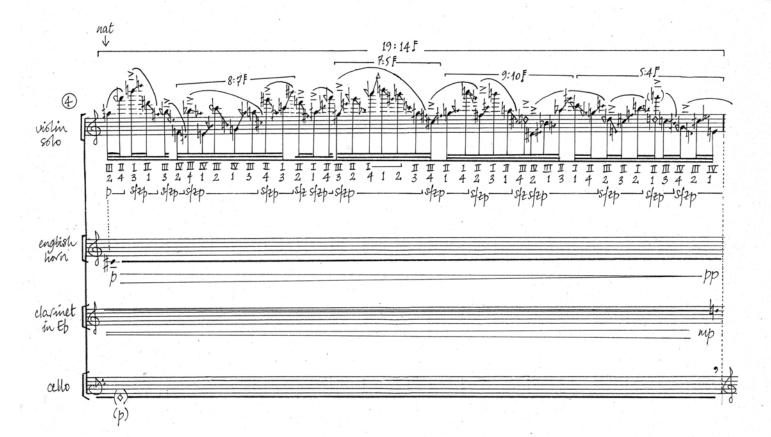
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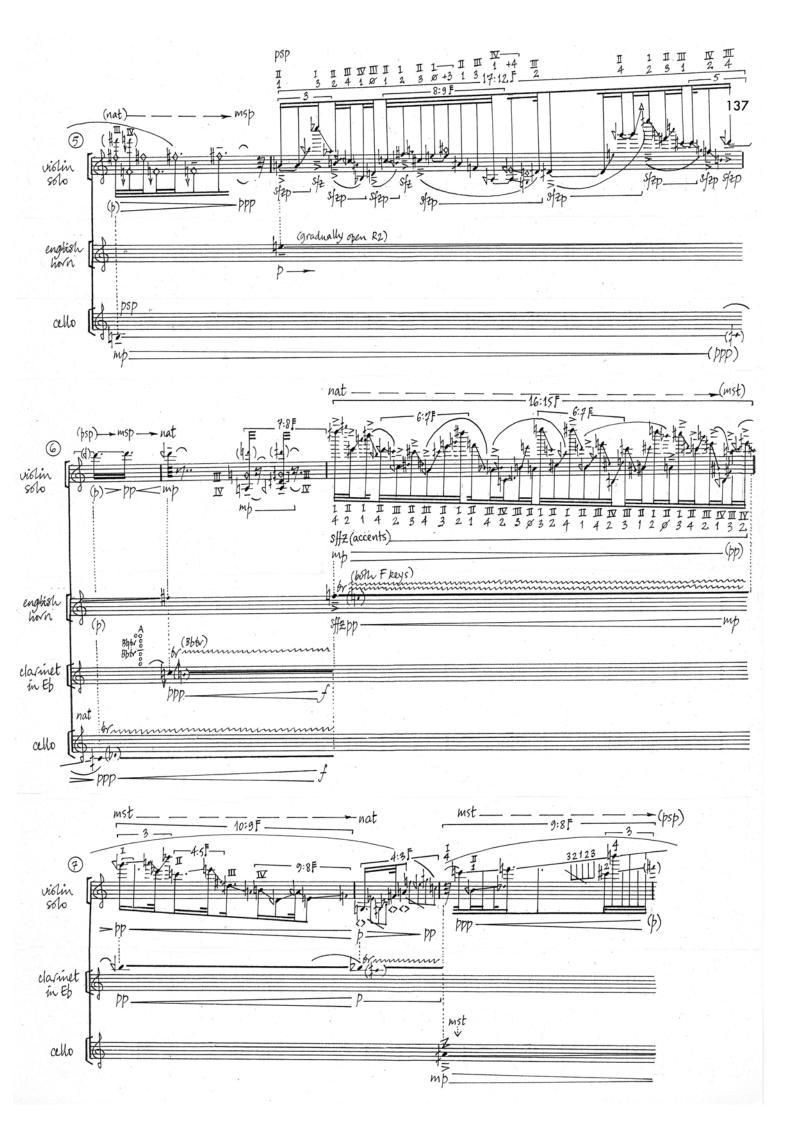




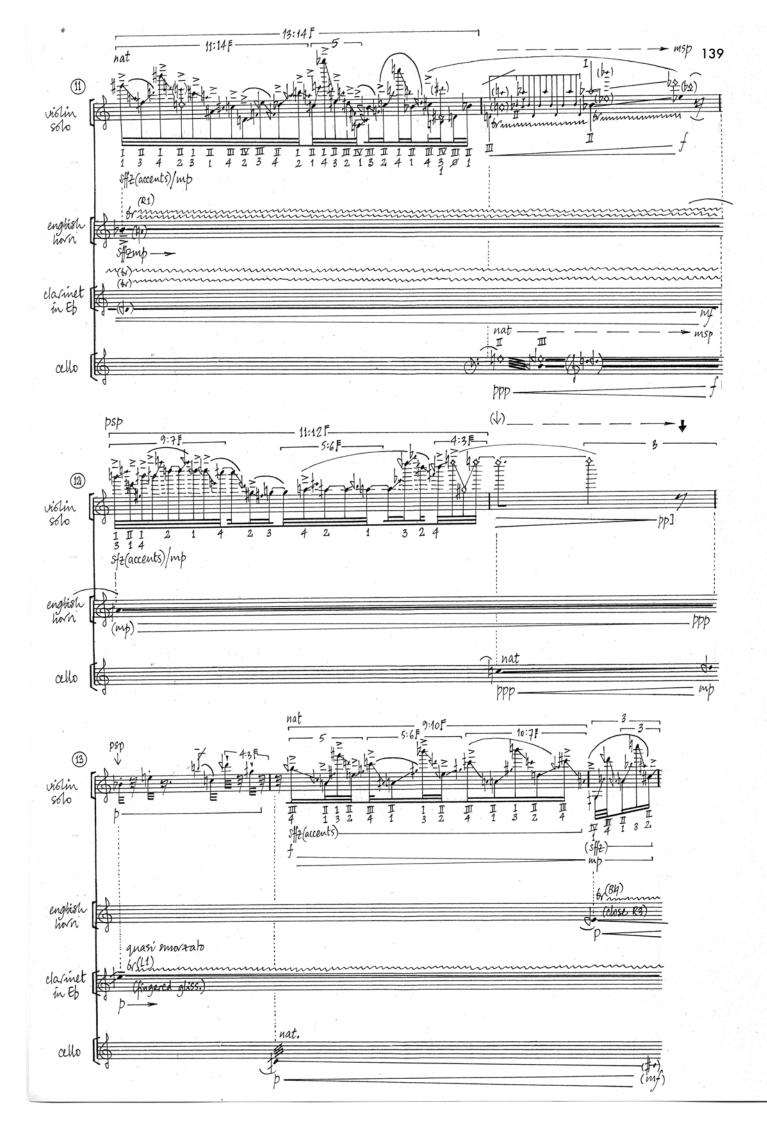


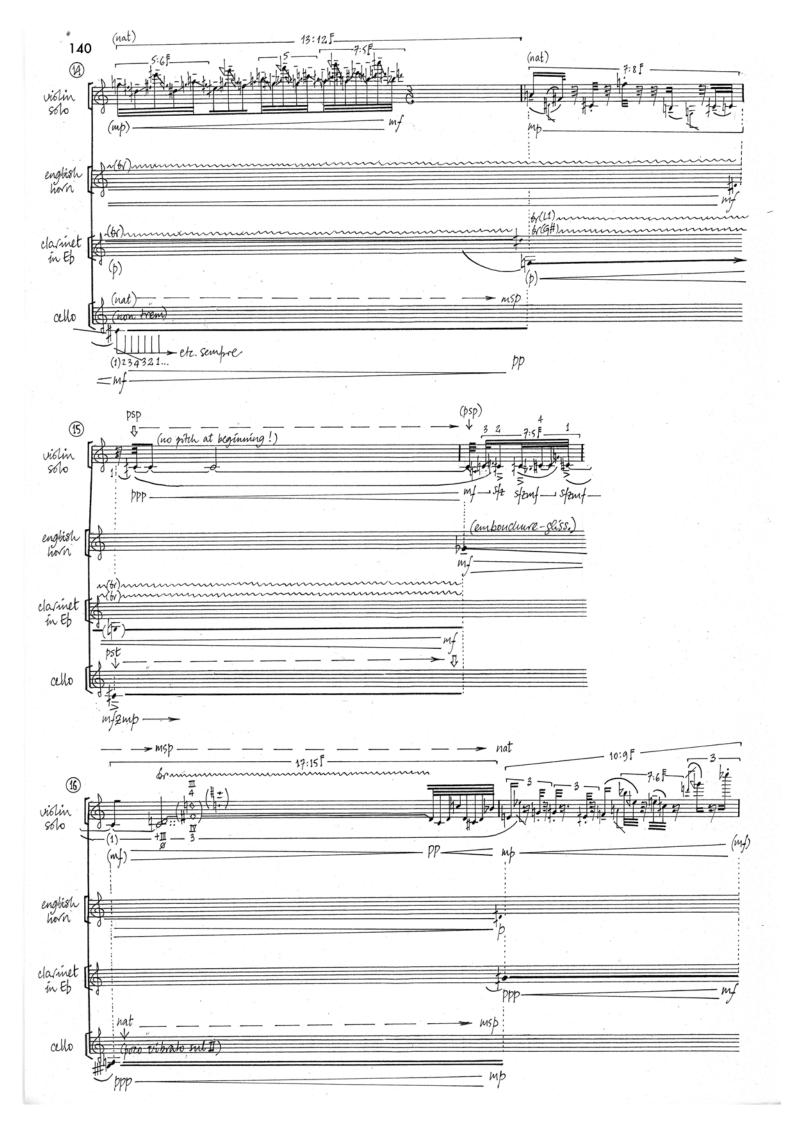


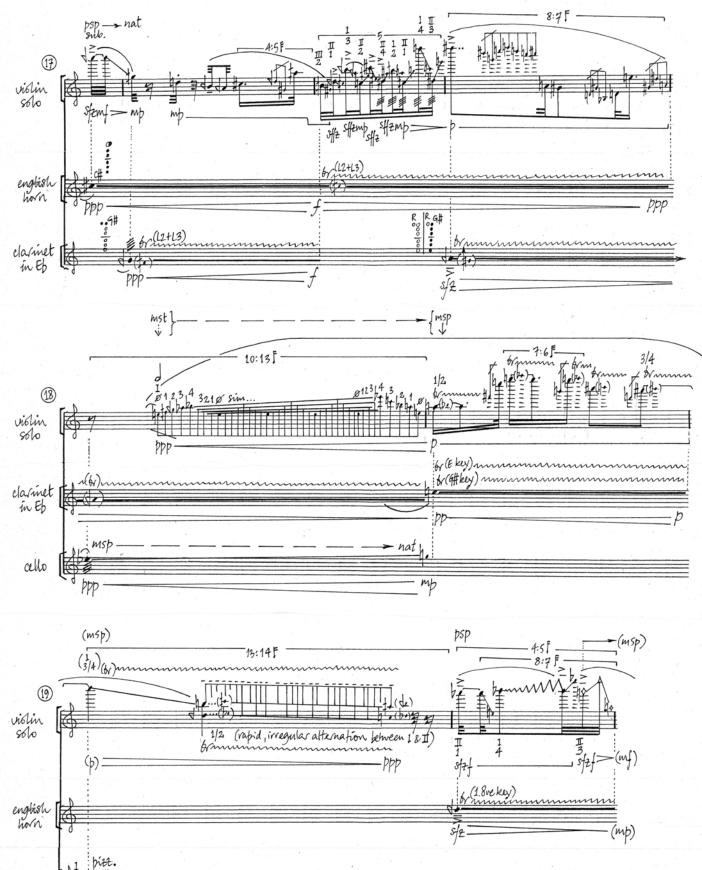








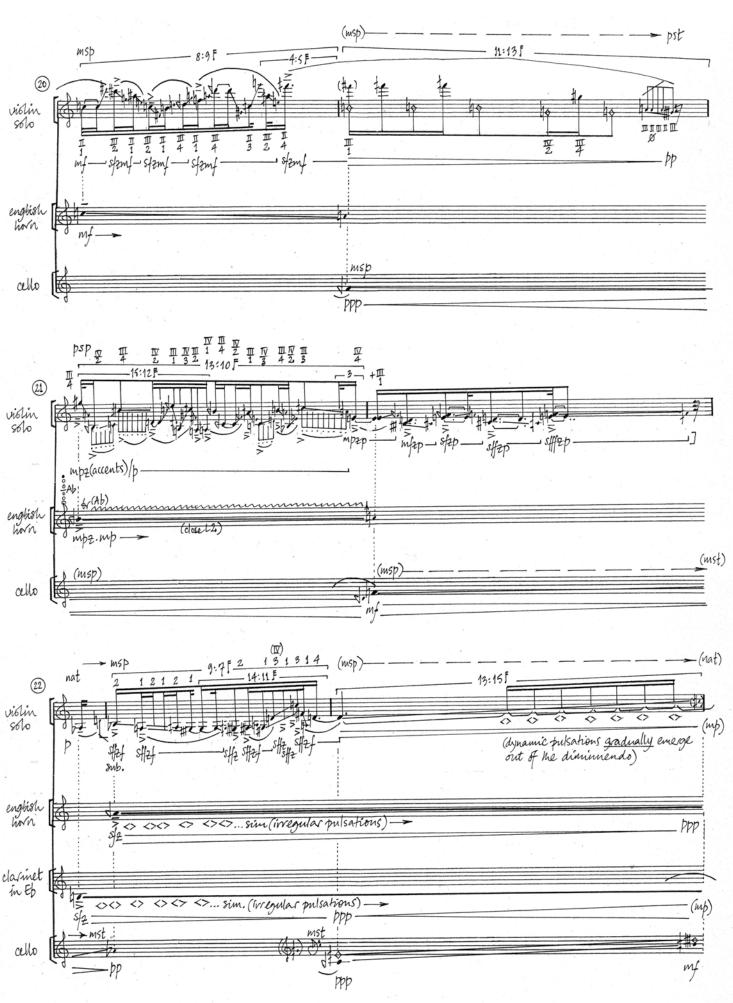


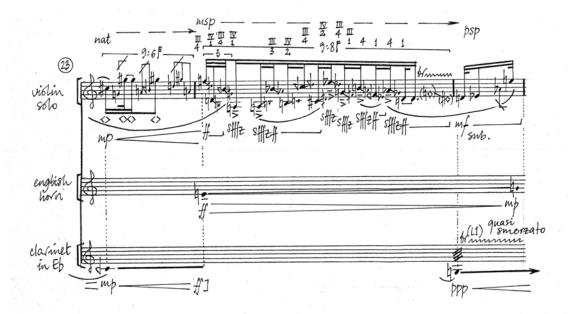


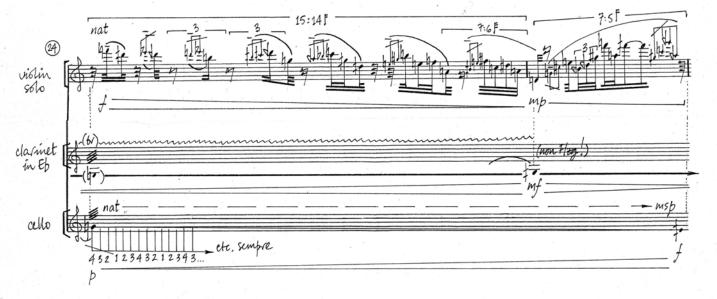
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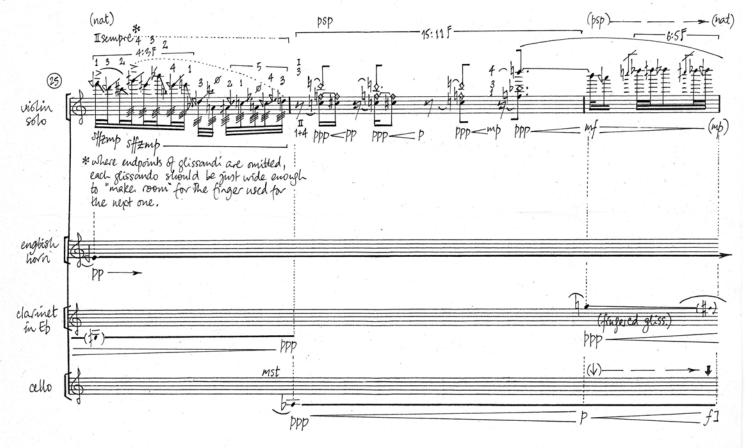
mf

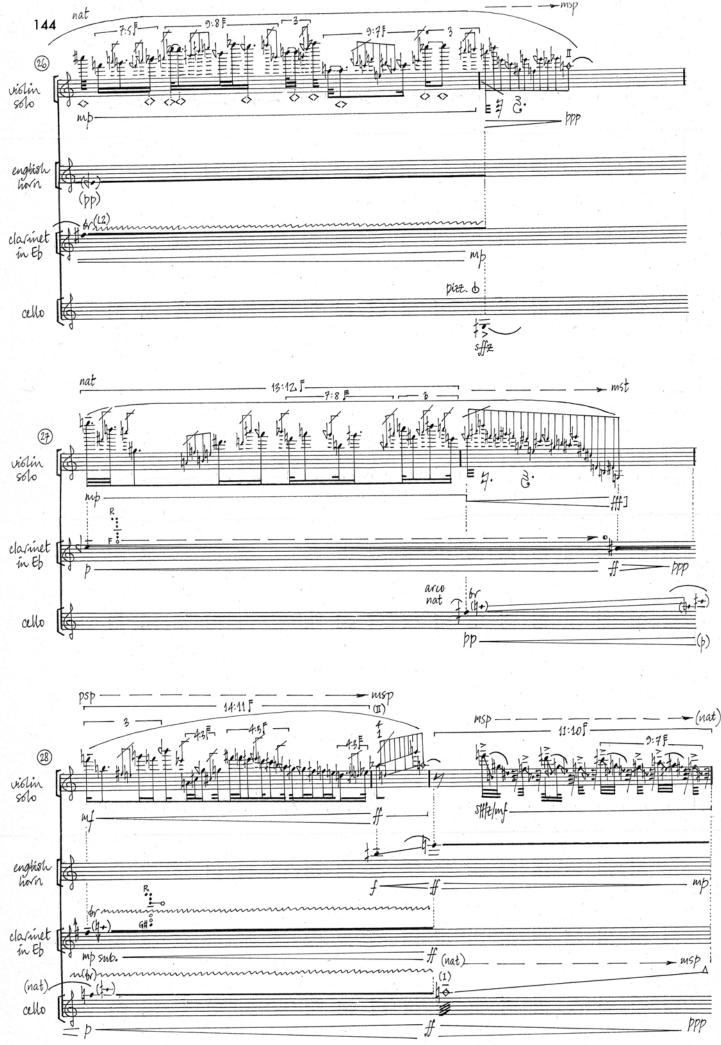
cello

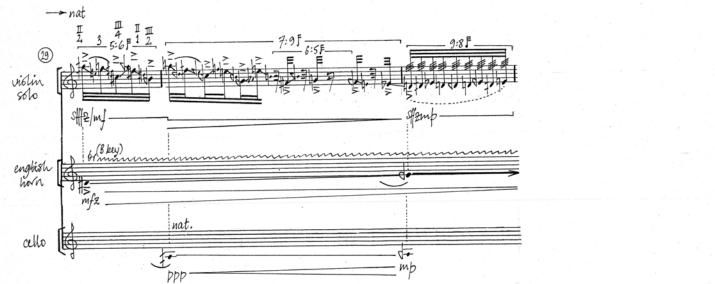


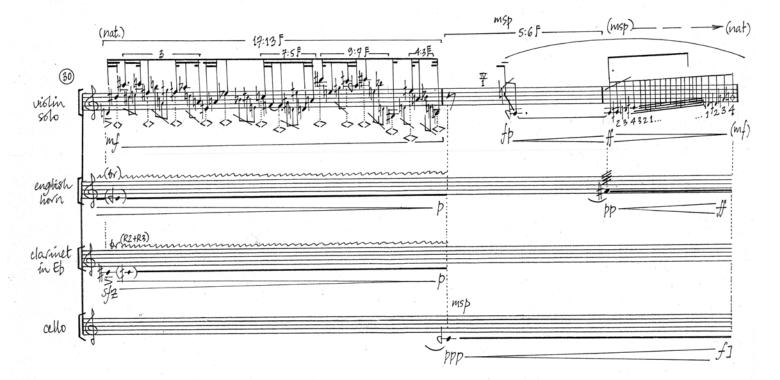


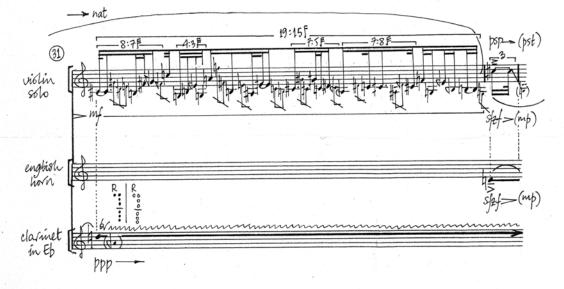


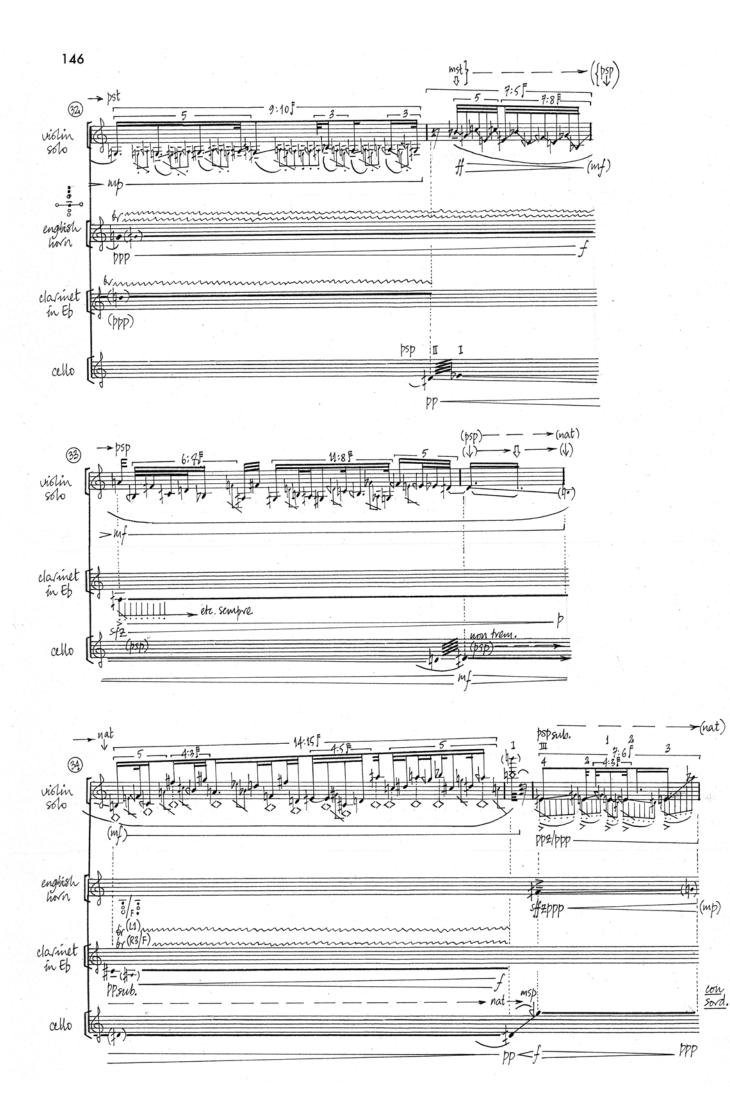


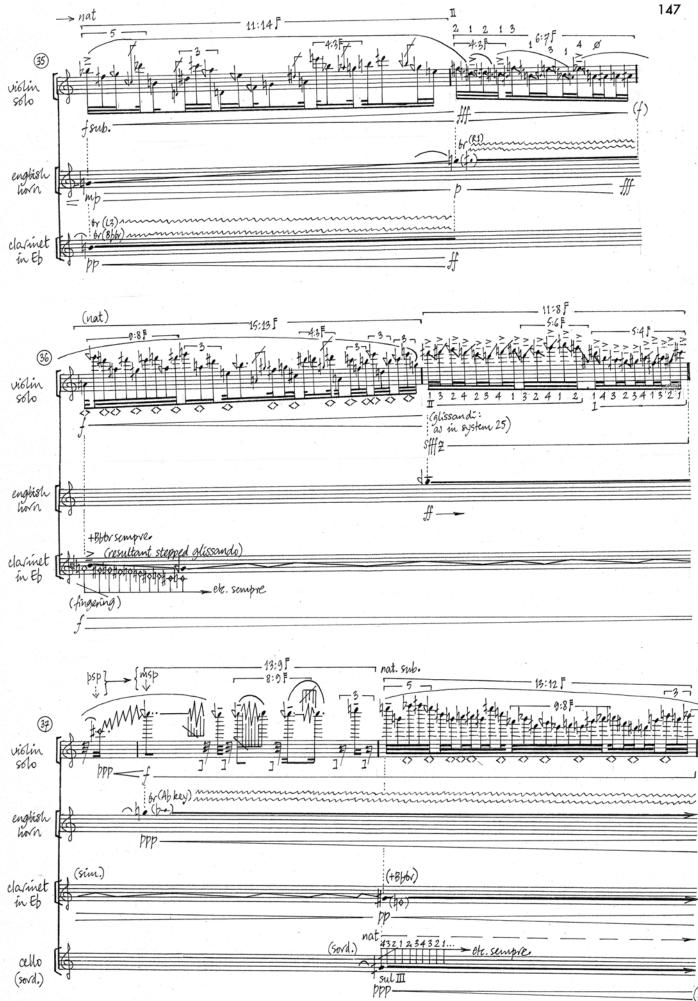




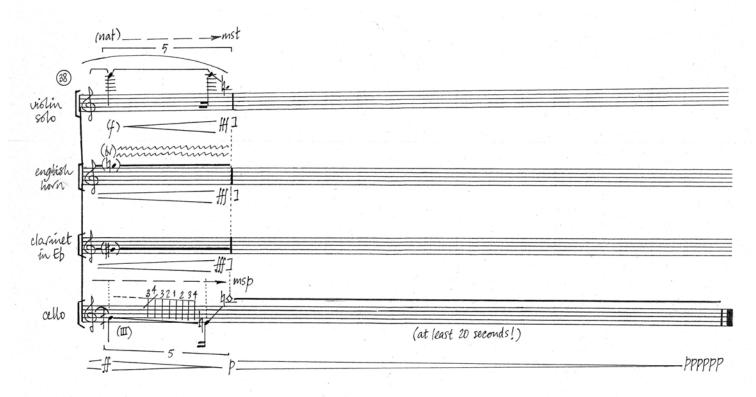






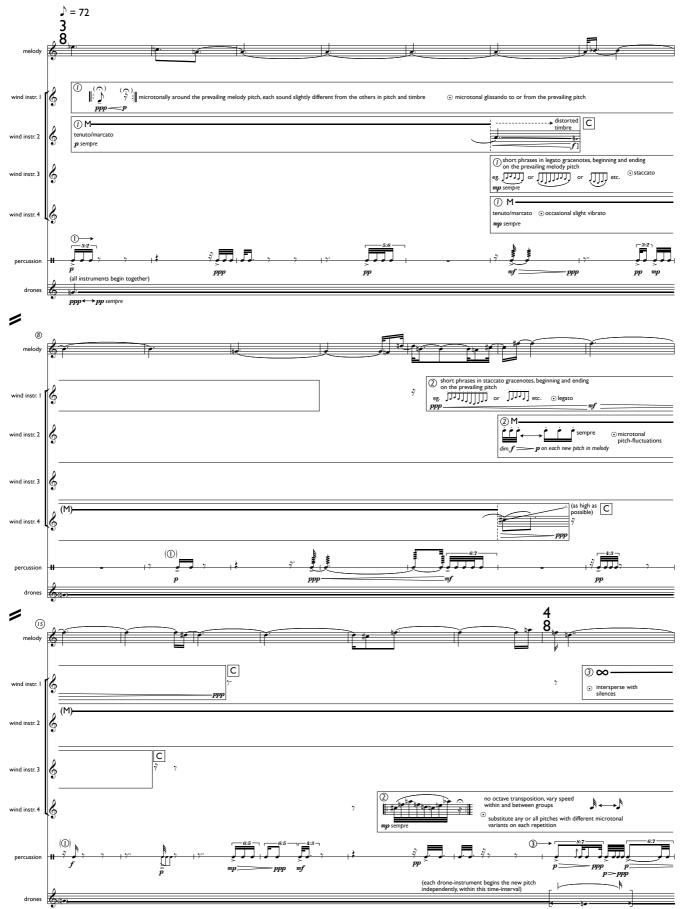


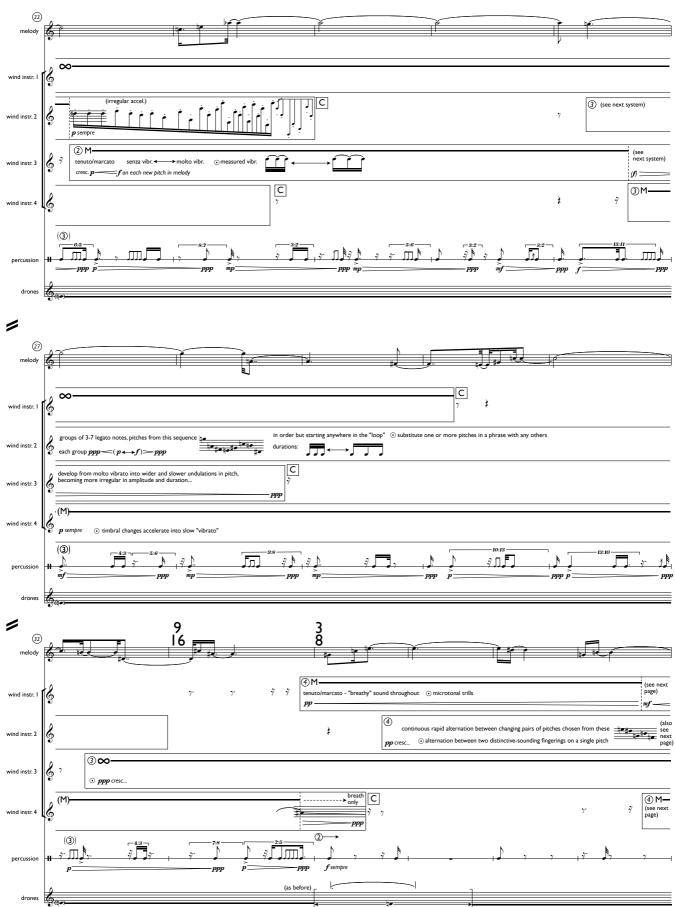
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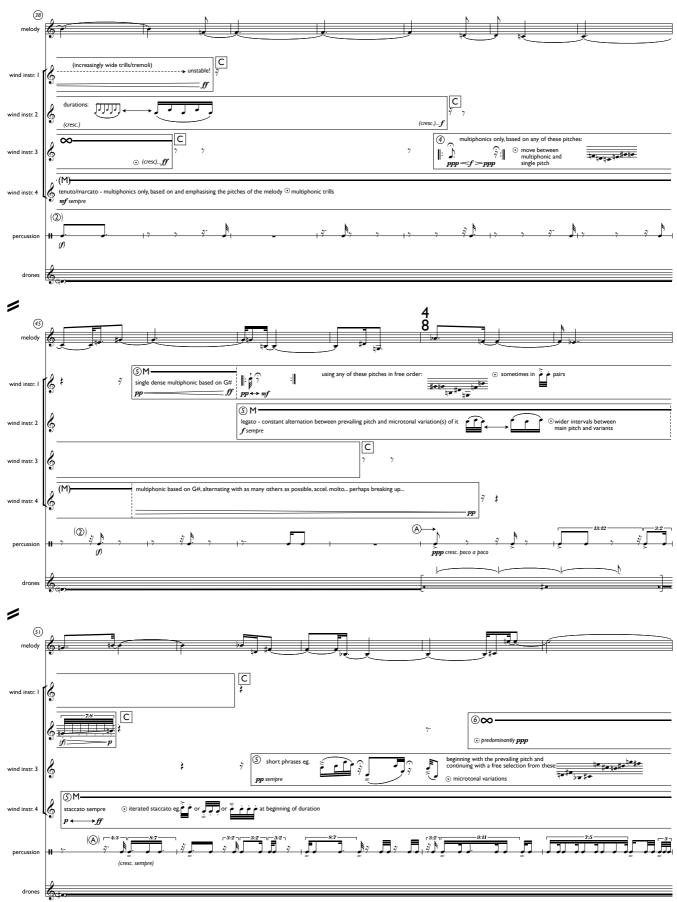


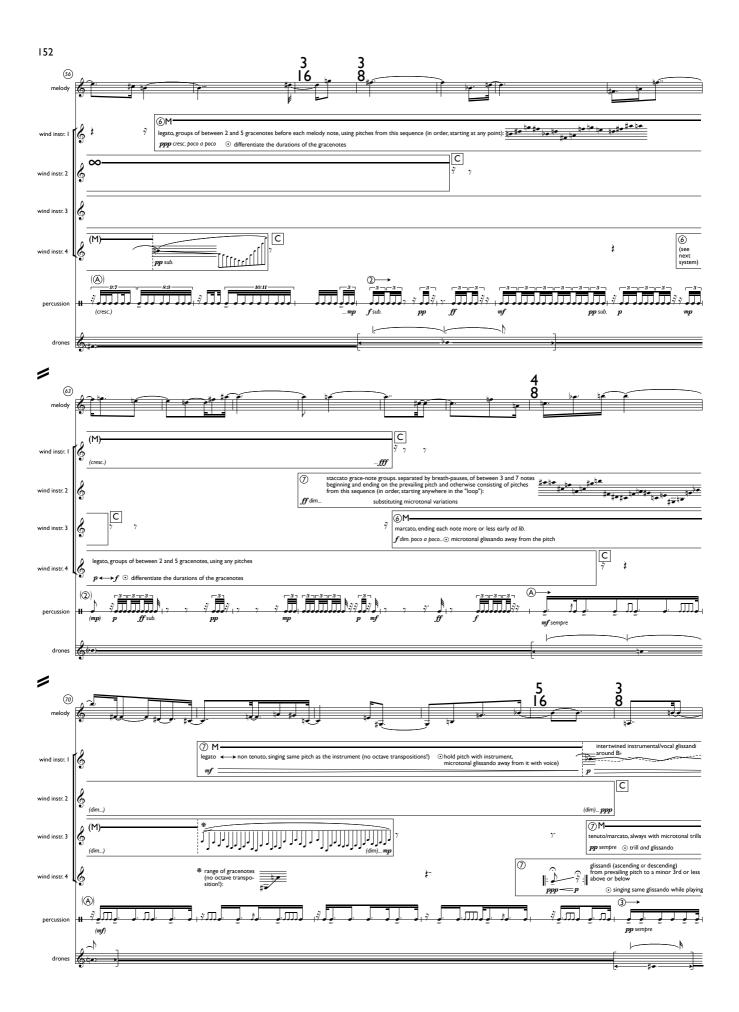
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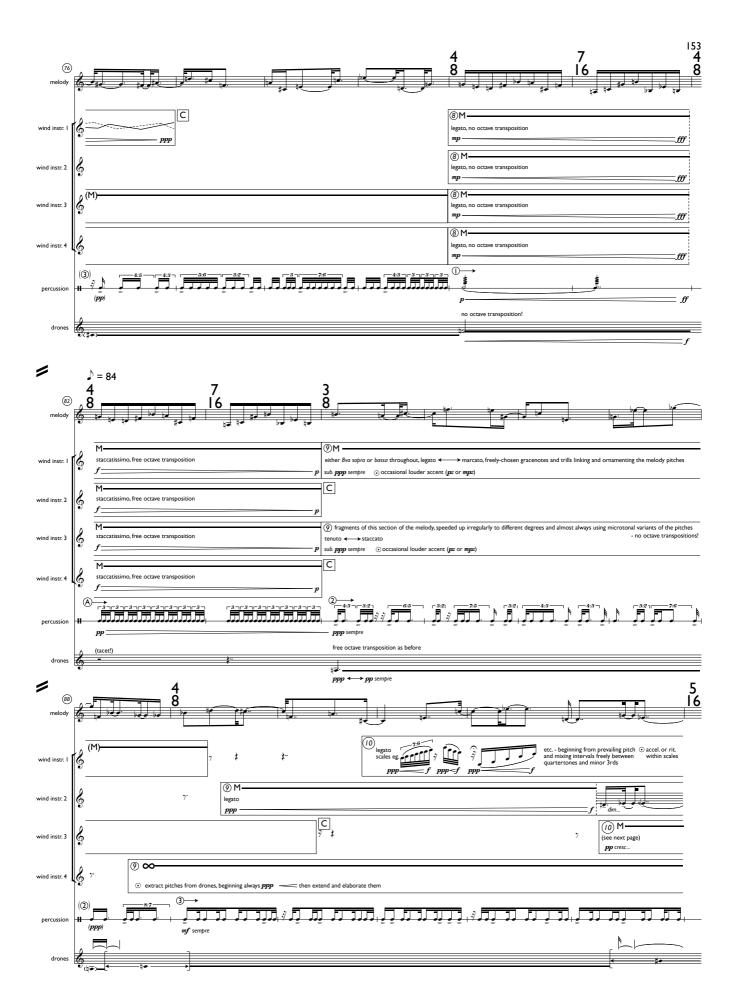
10 news from nowhere

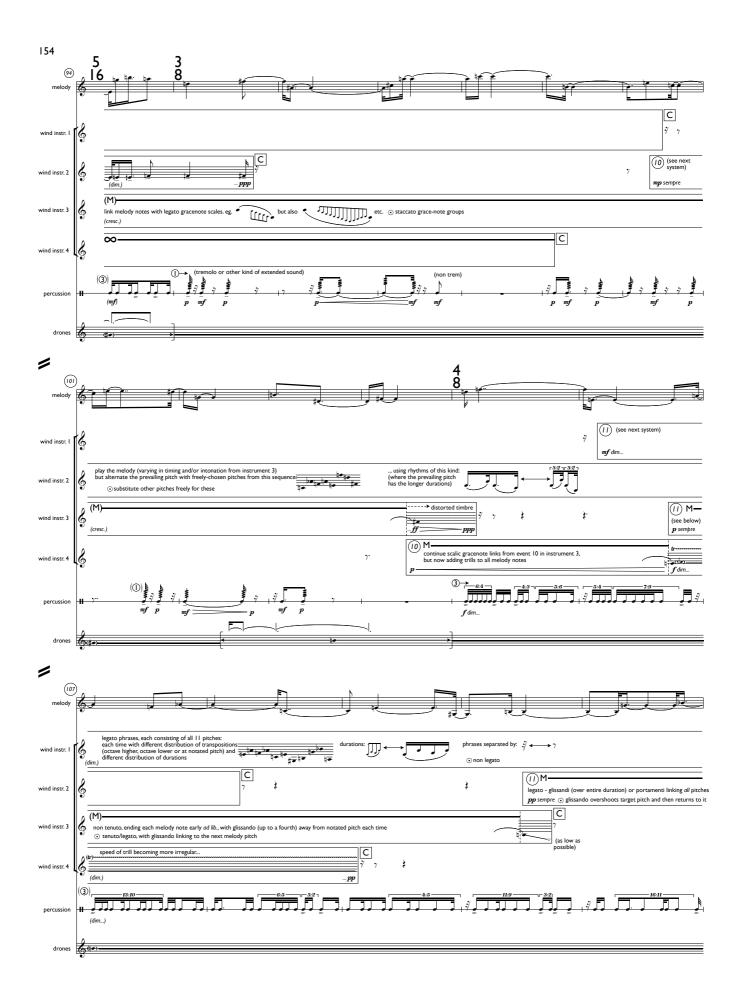


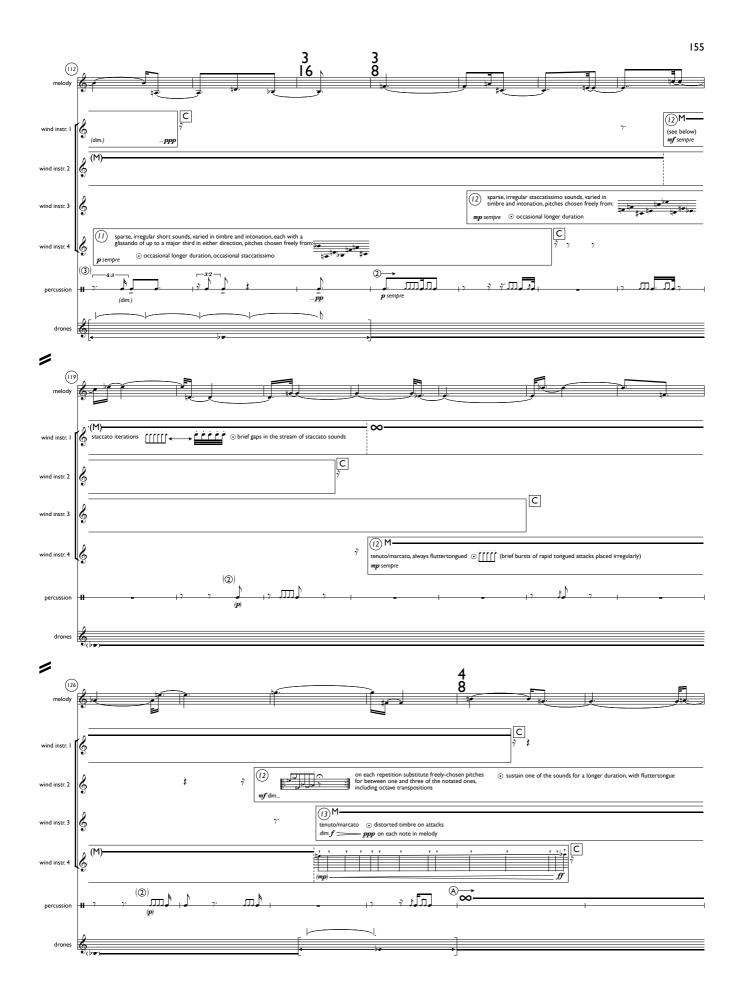


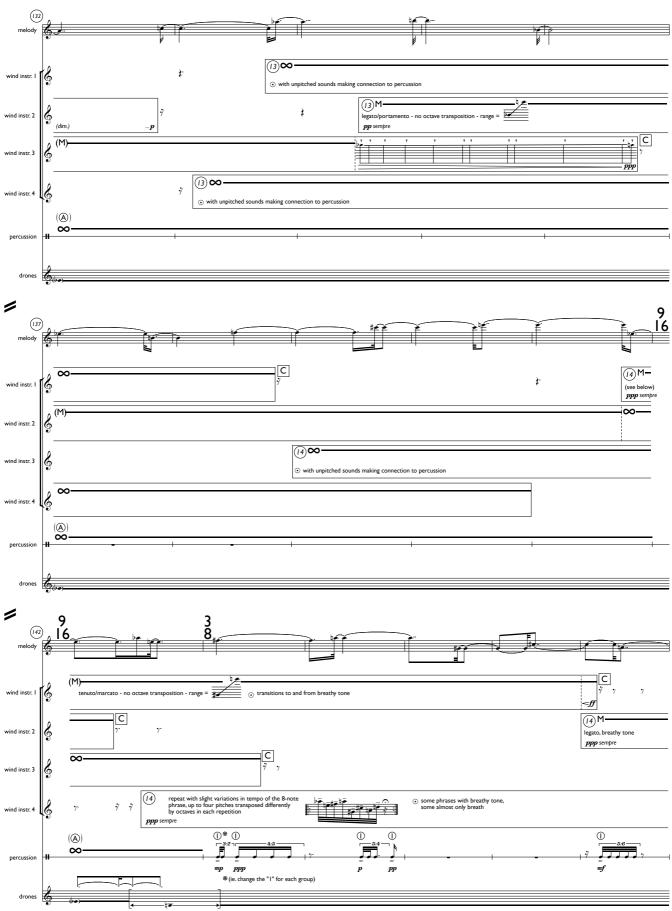


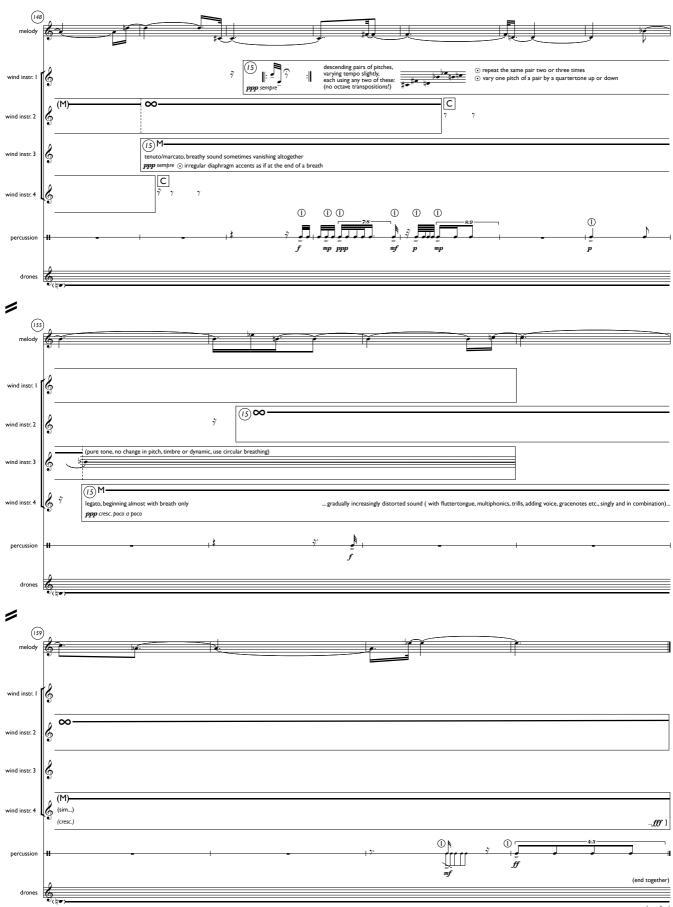








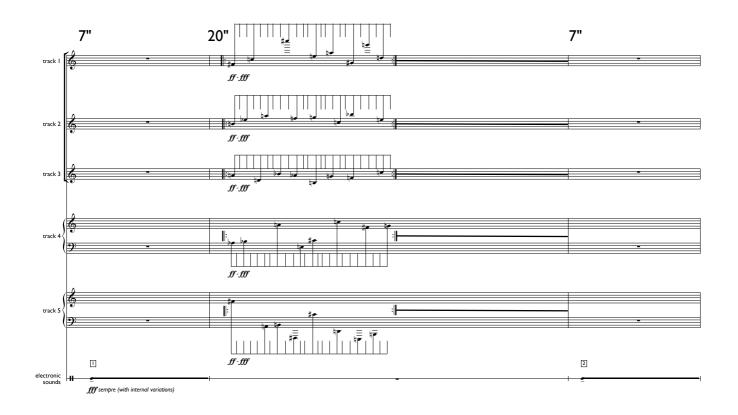




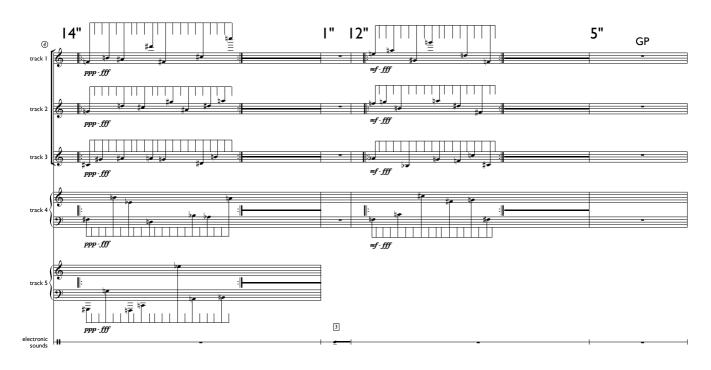
⁽non dim.)

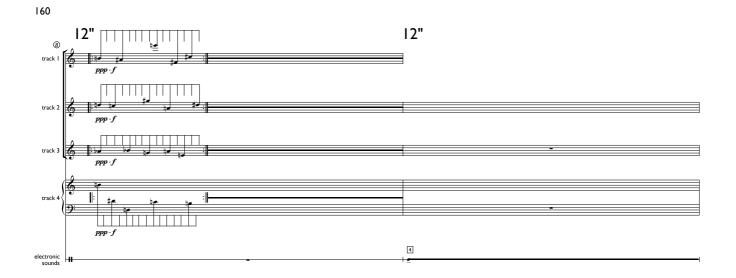
Part II storming begins without any break

II storming

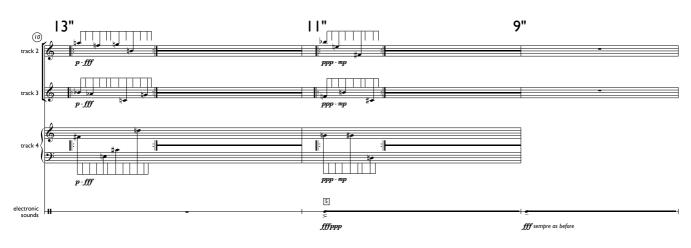


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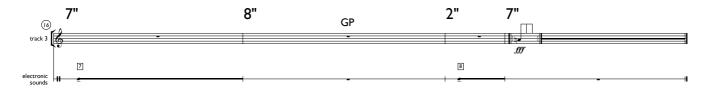
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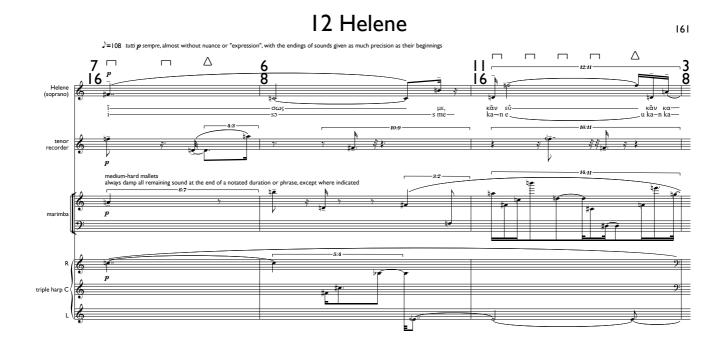
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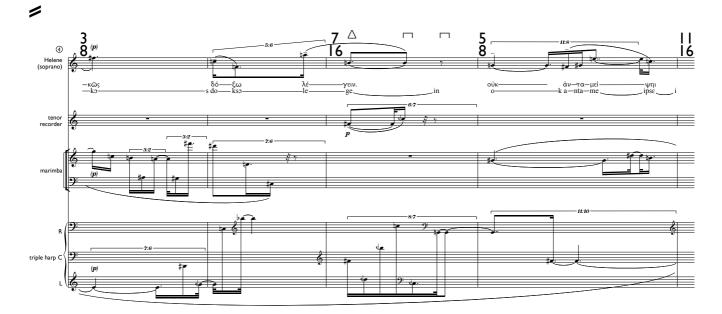


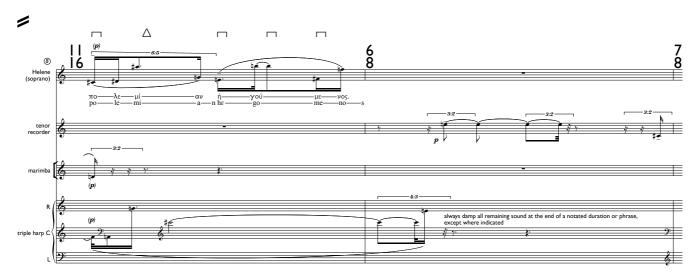
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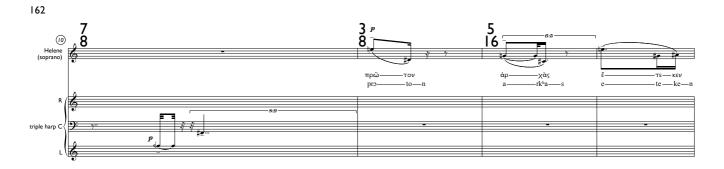


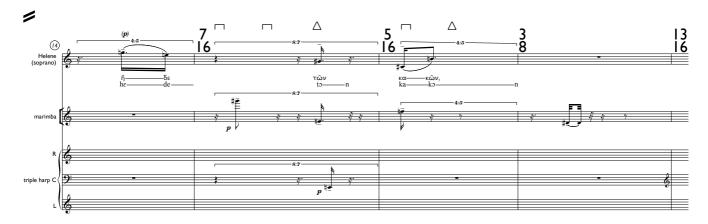
Part 12 Helene follows after a brief "breath-pause"

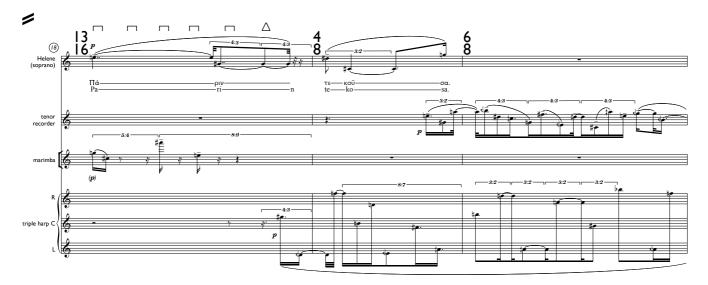


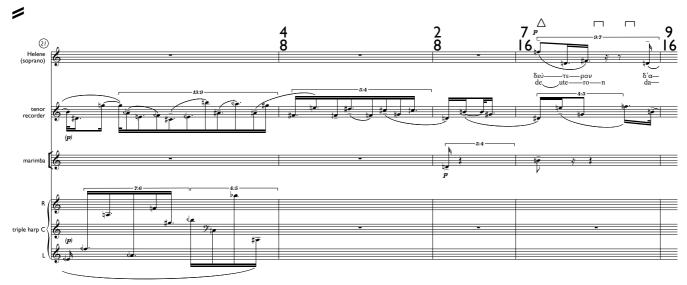


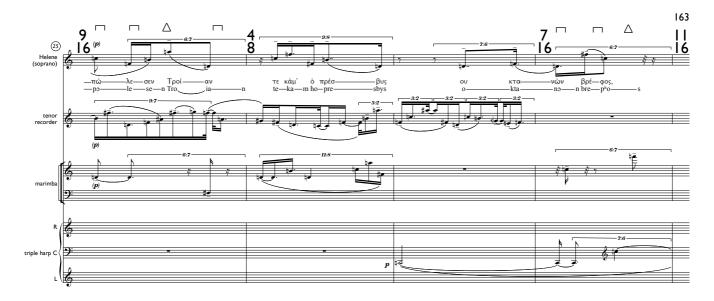


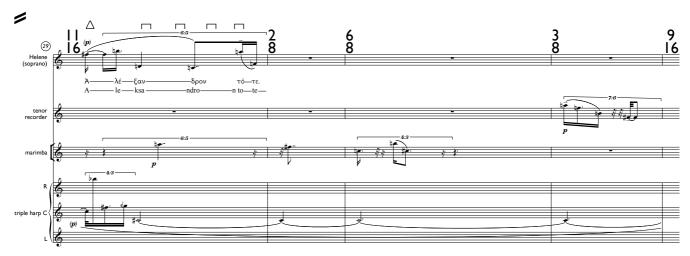


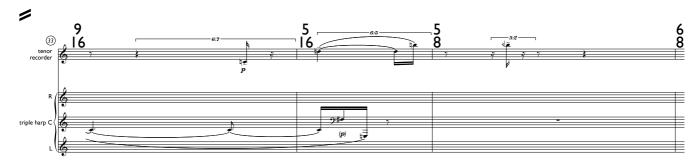


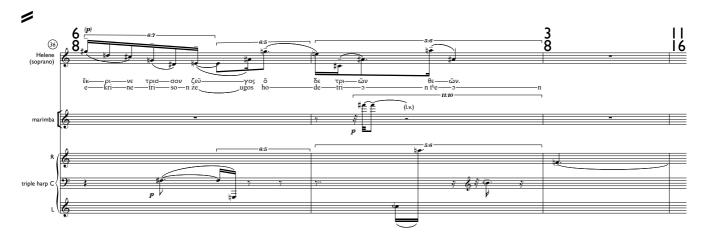


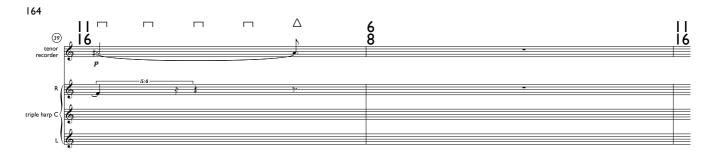


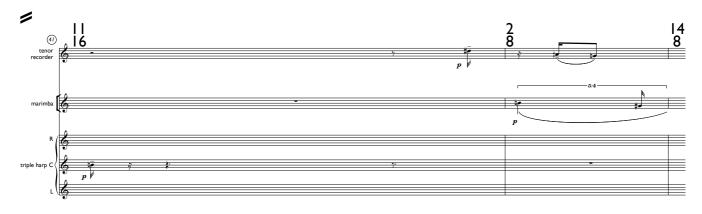




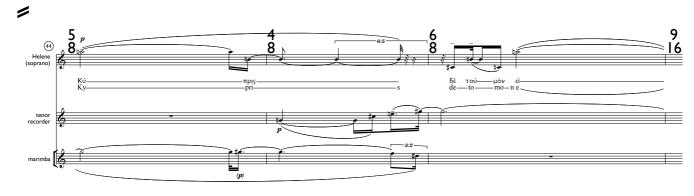


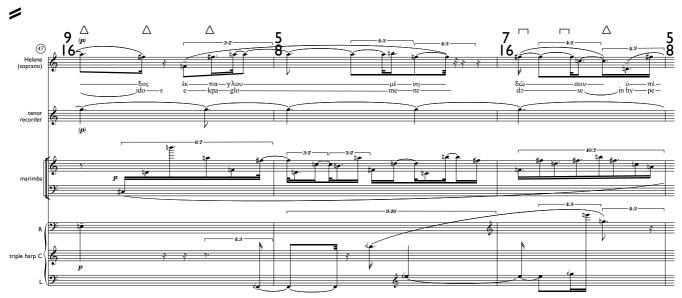


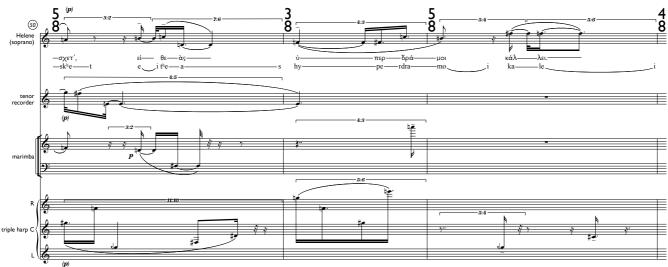


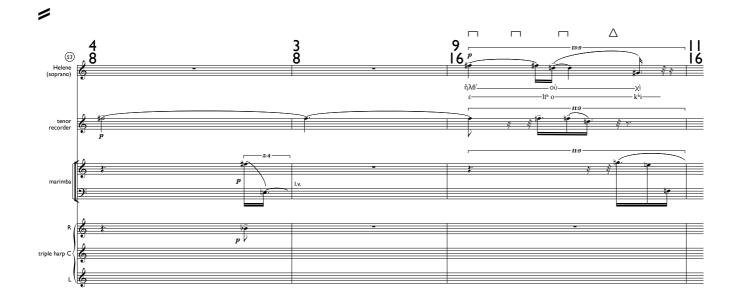




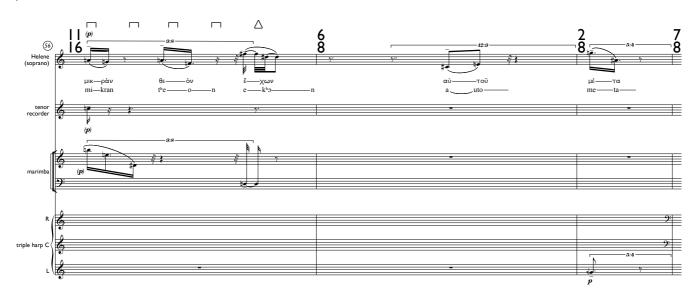


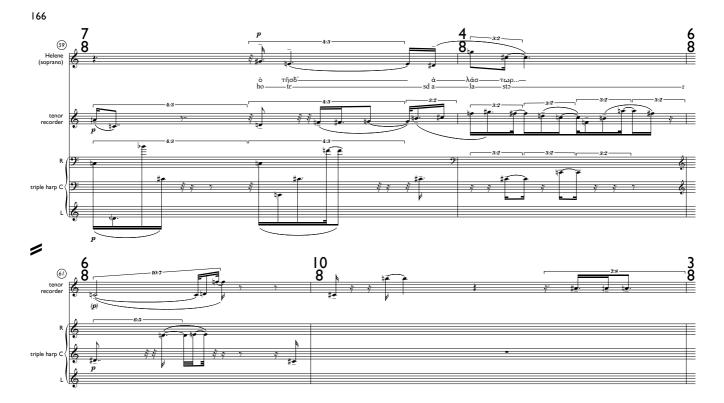




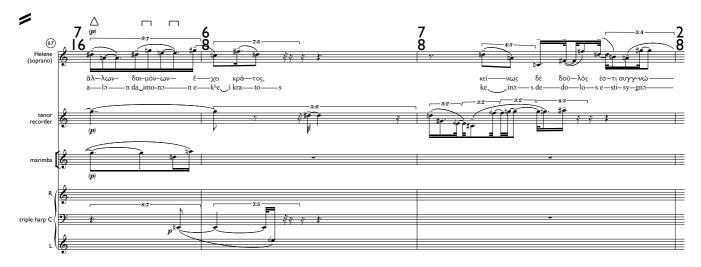


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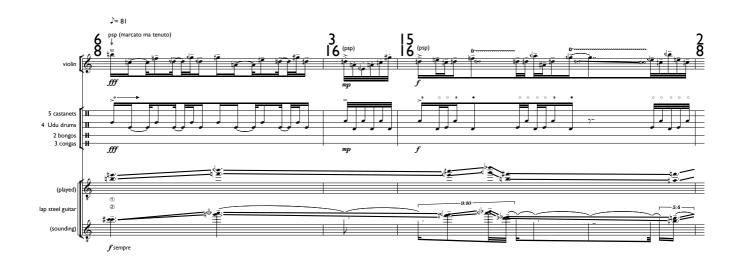


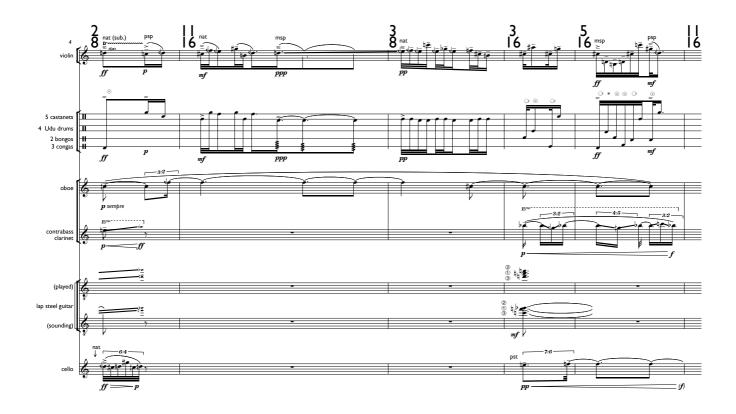


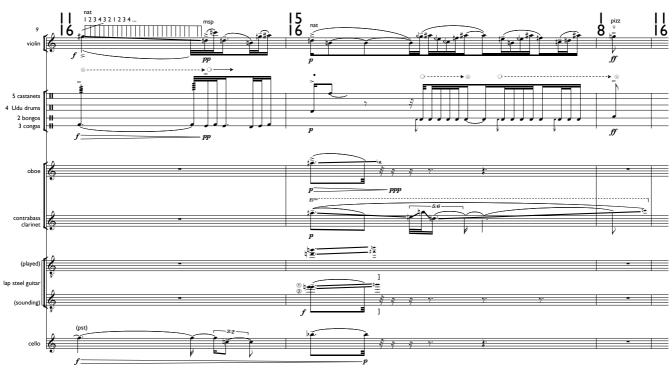


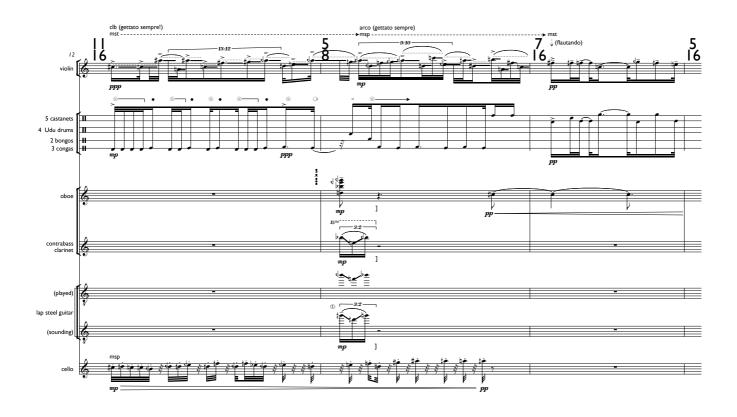
Part 13 wound III begins without any break

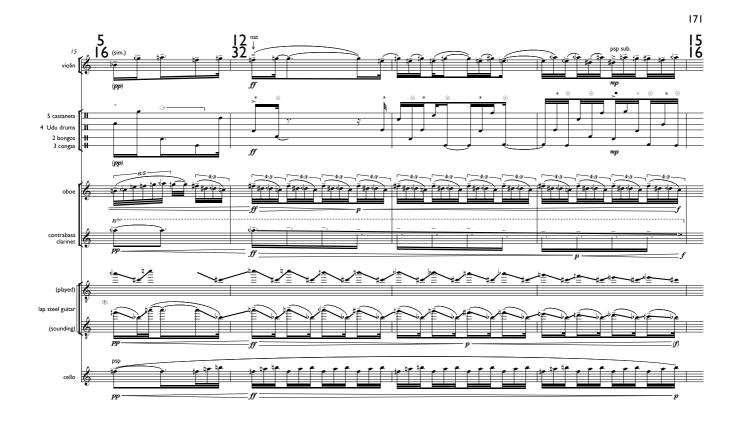
wound III

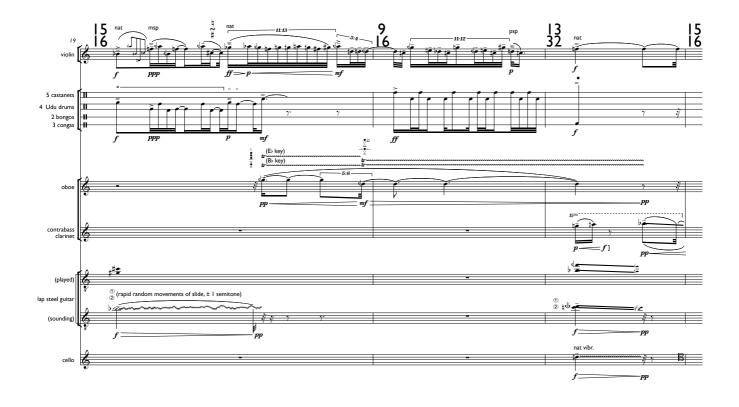


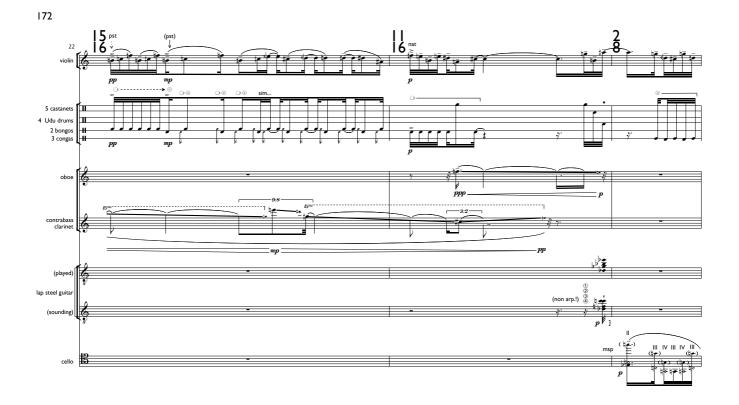


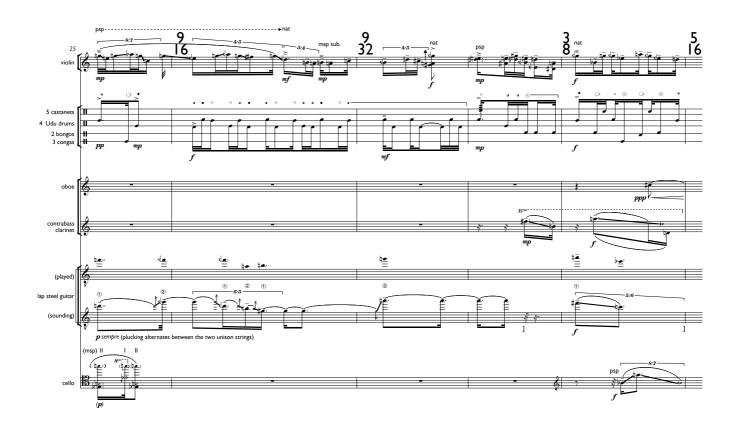


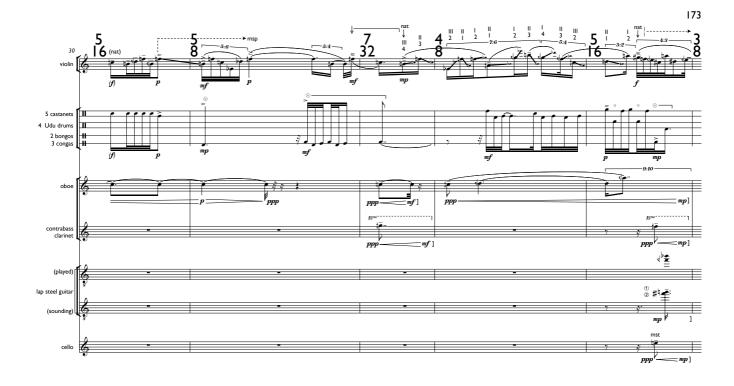


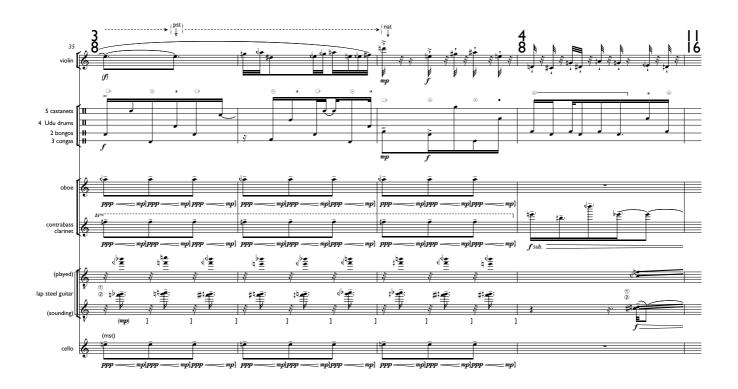




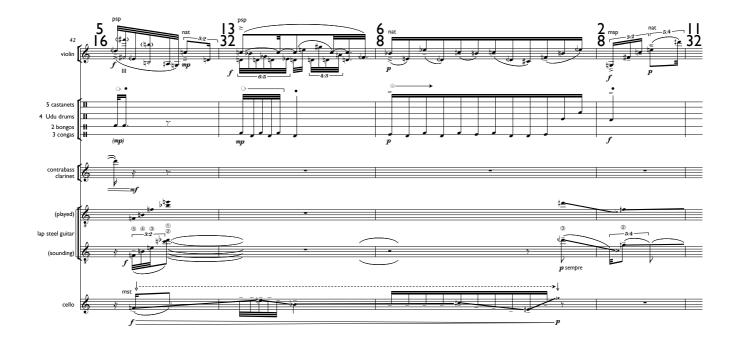




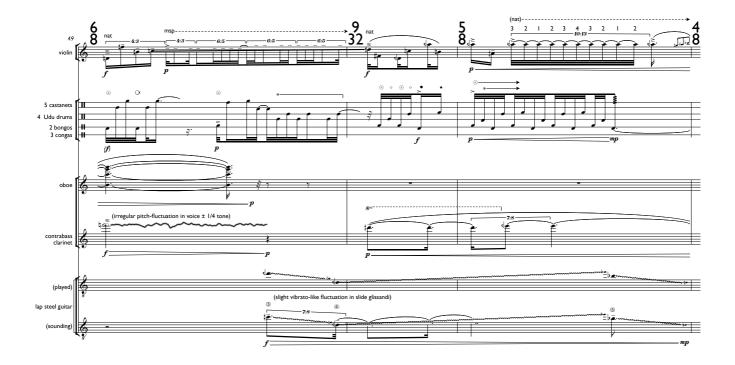


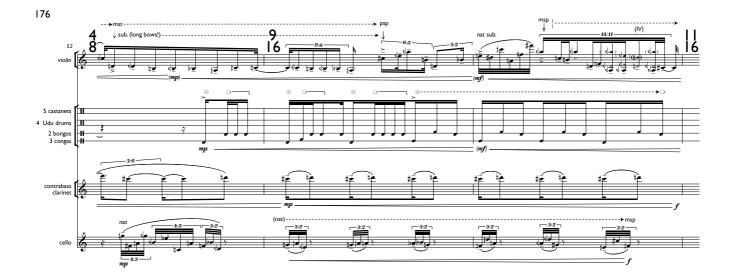




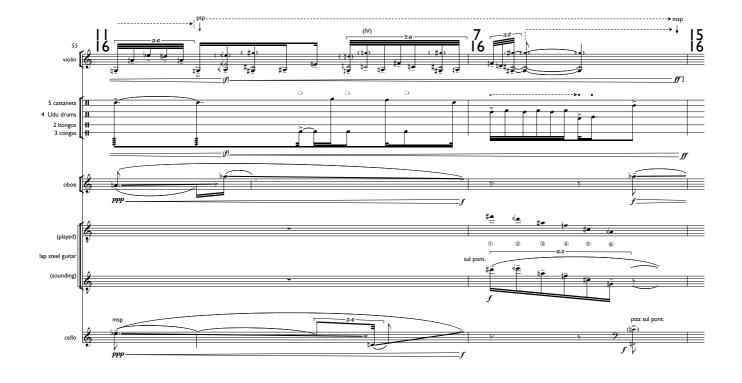


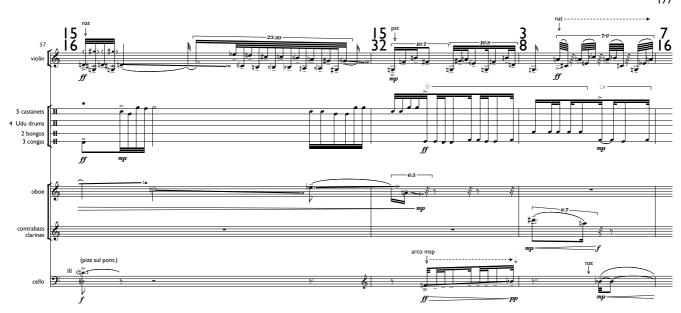


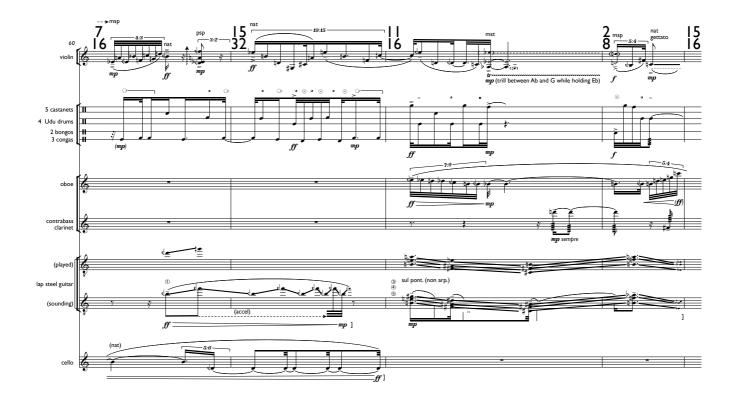


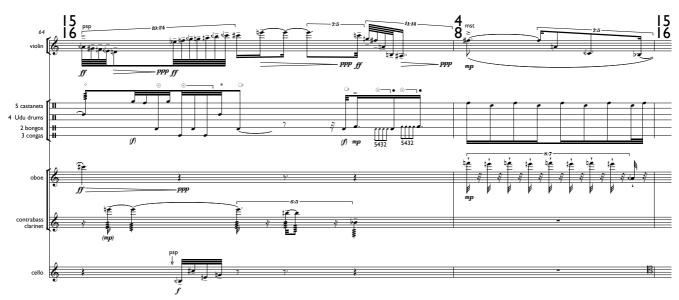


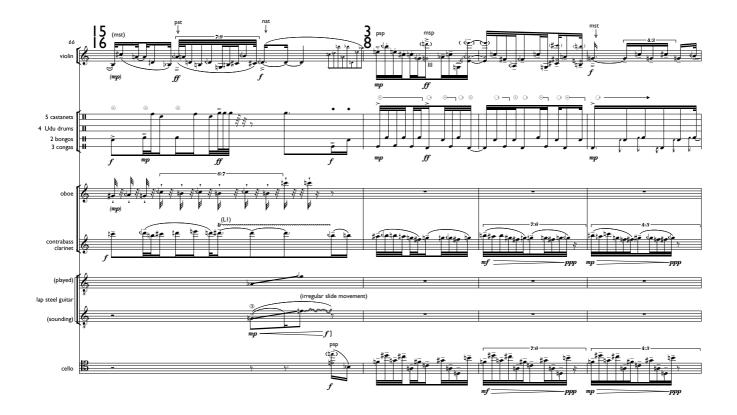


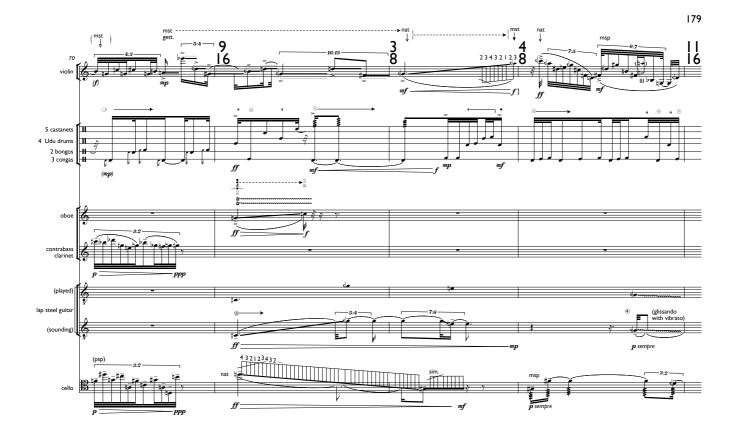


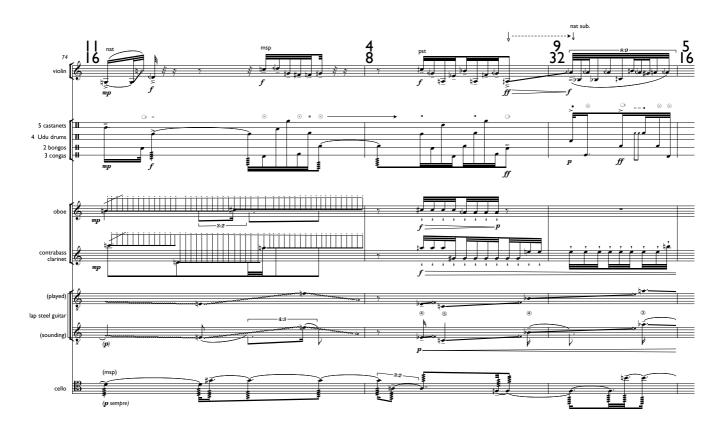


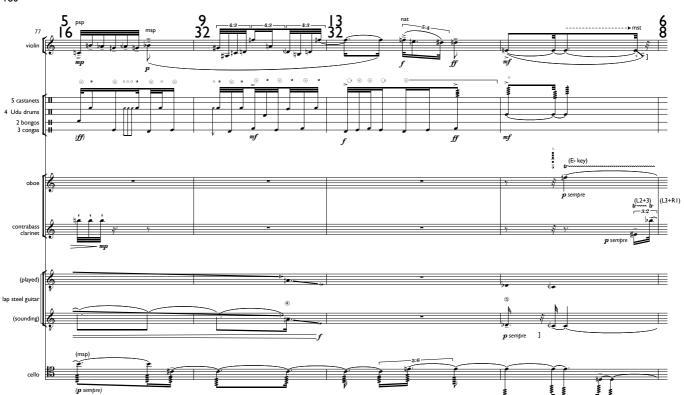


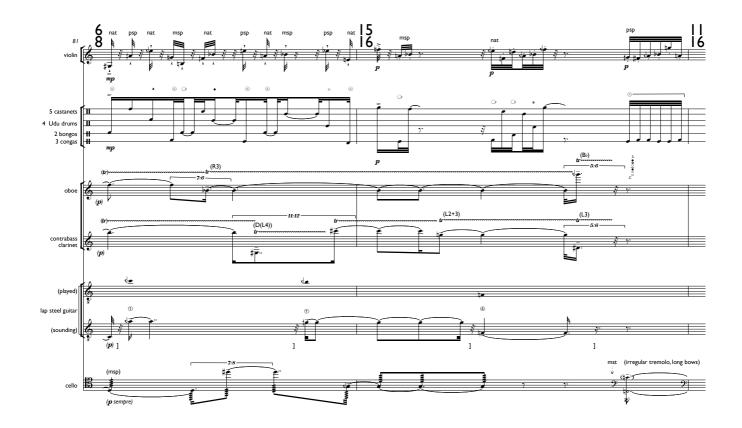


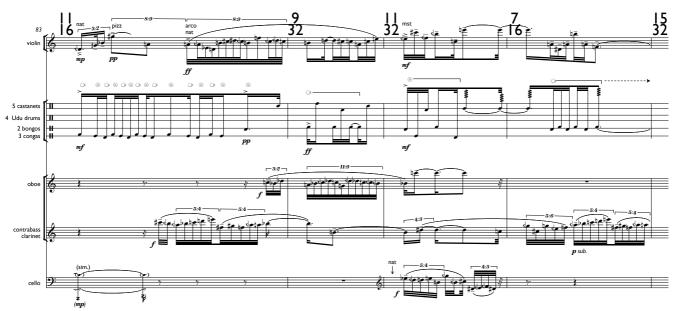


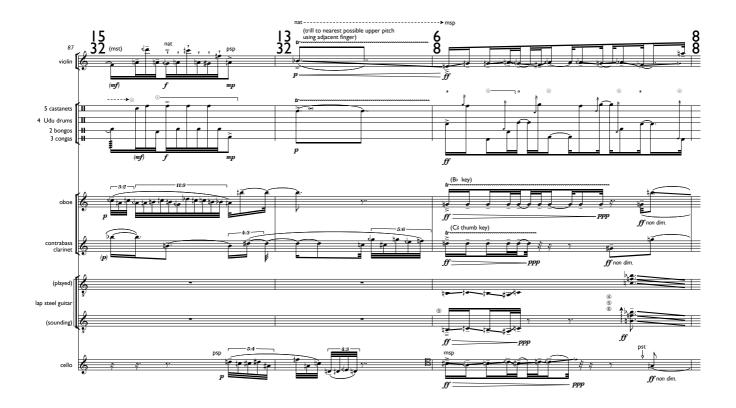


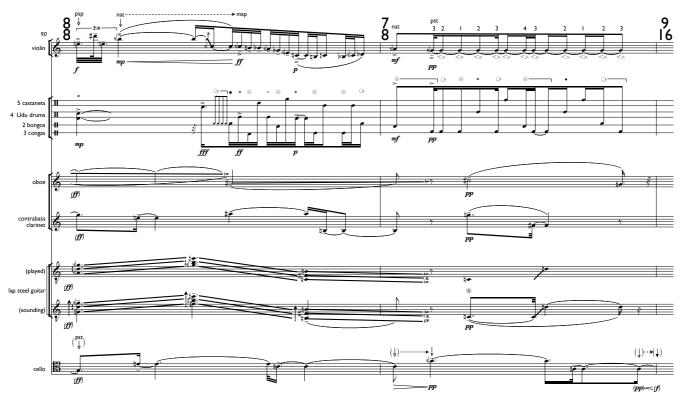


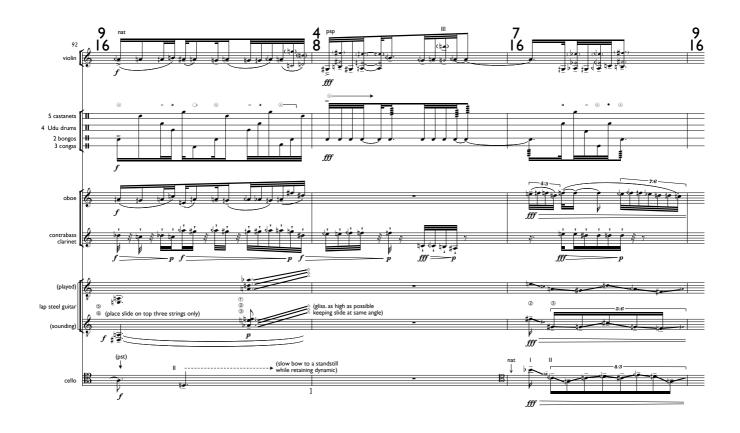






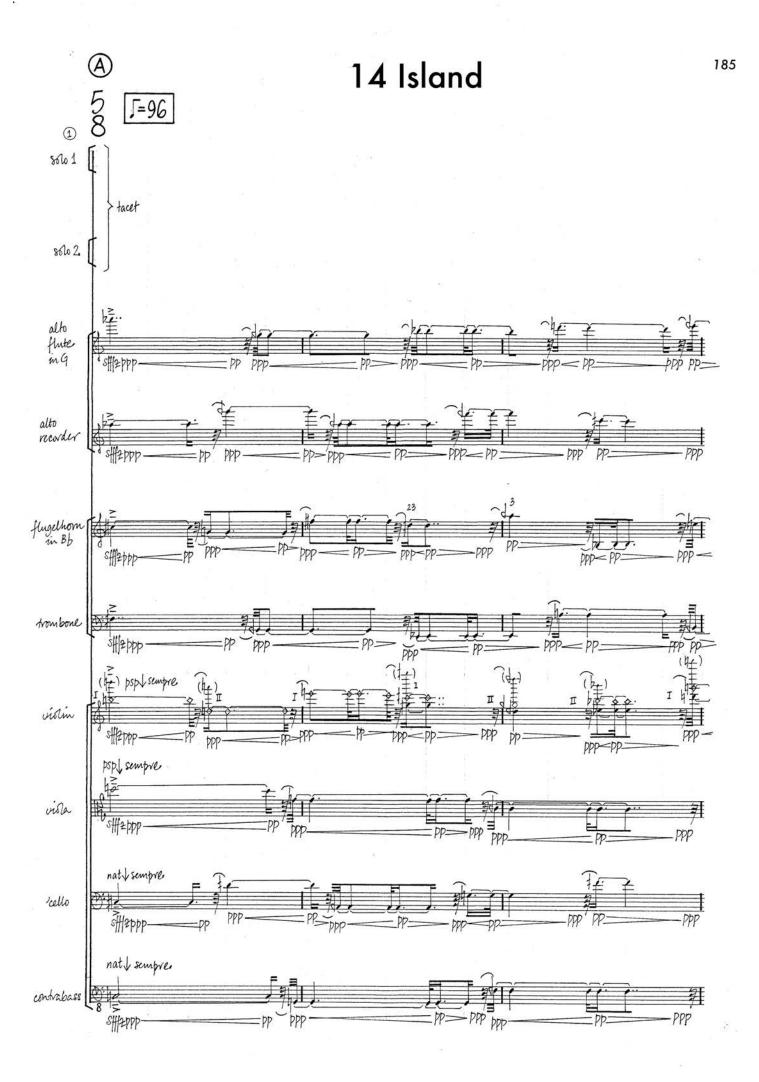


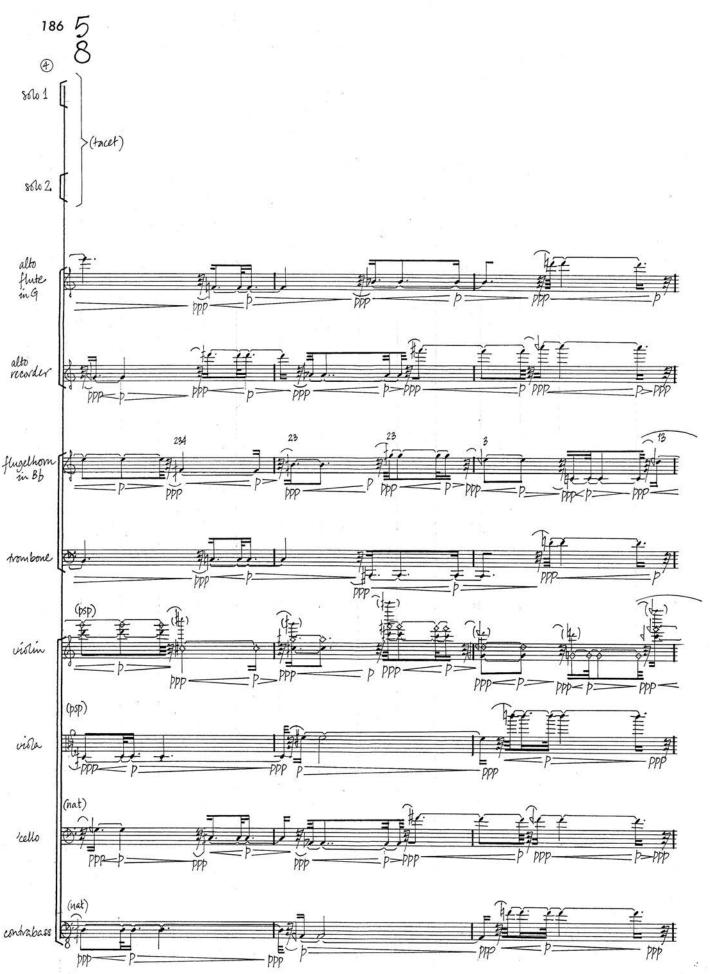




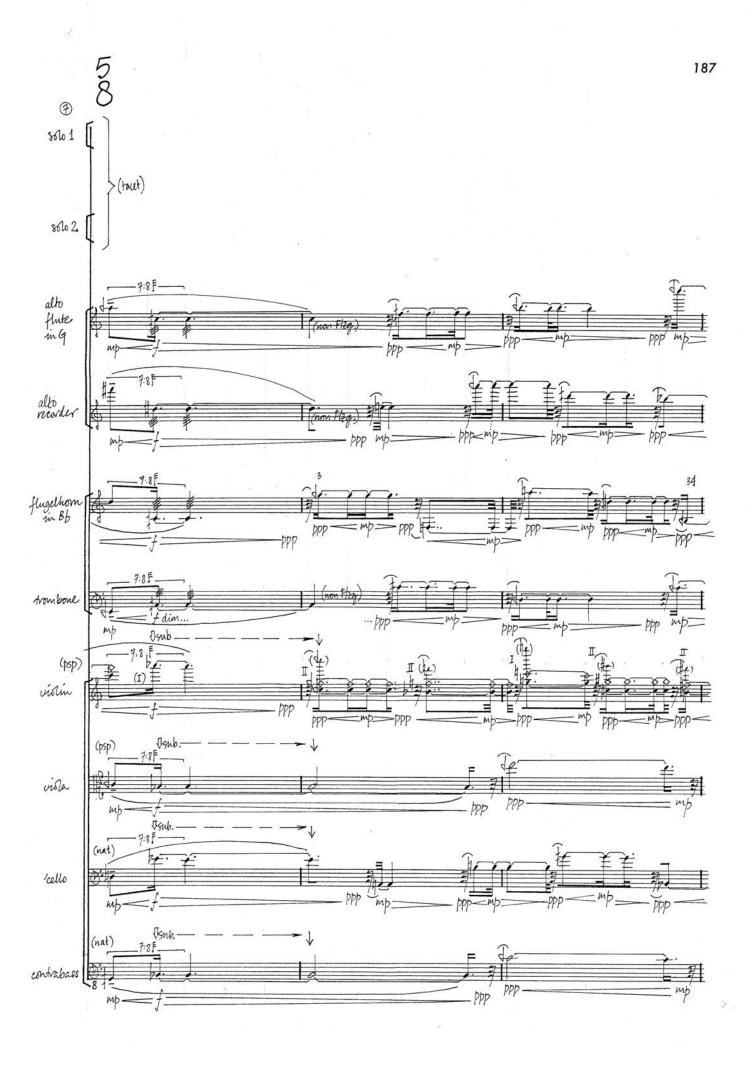


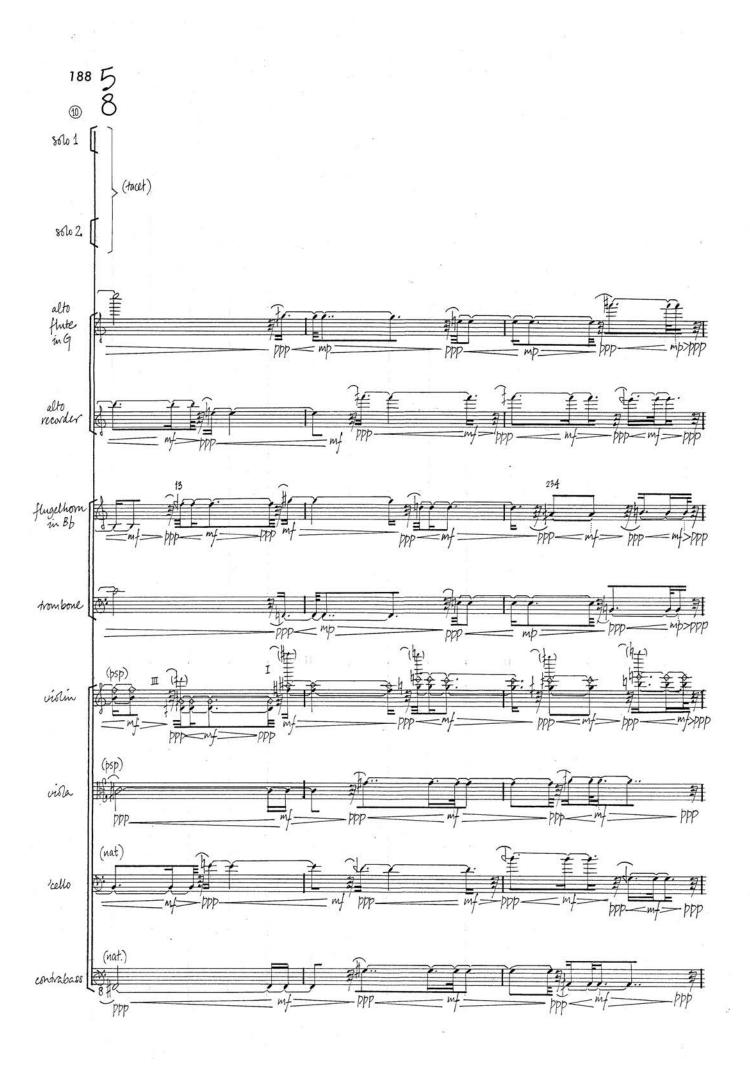




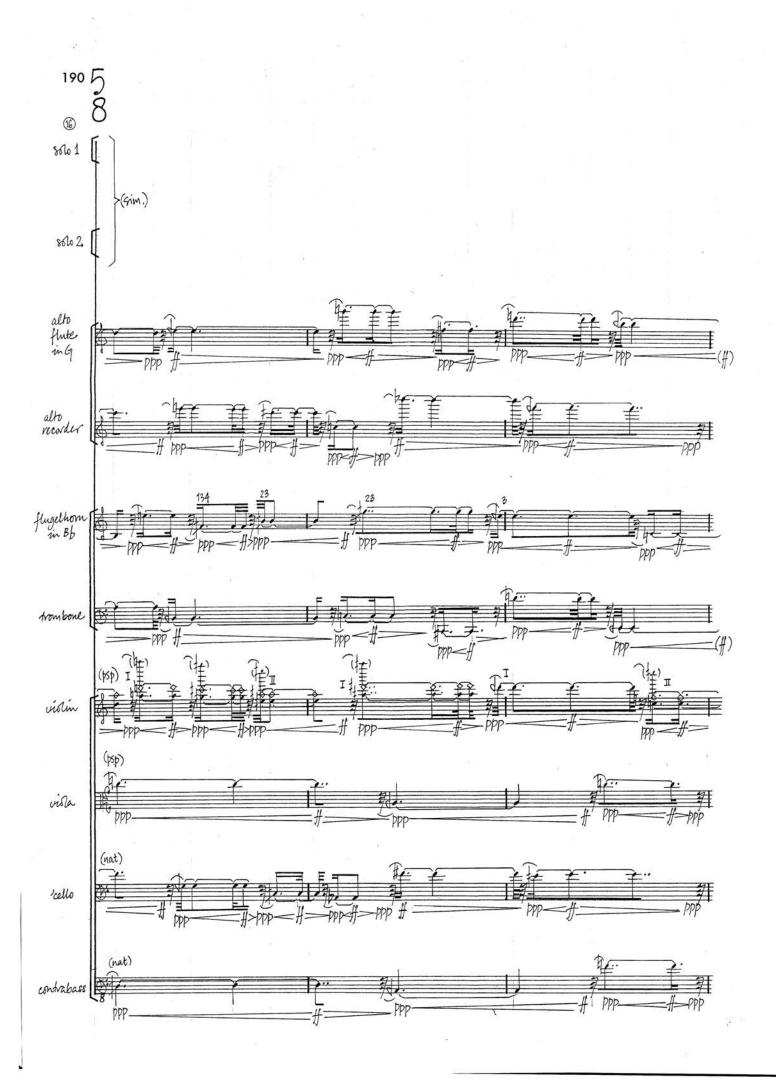


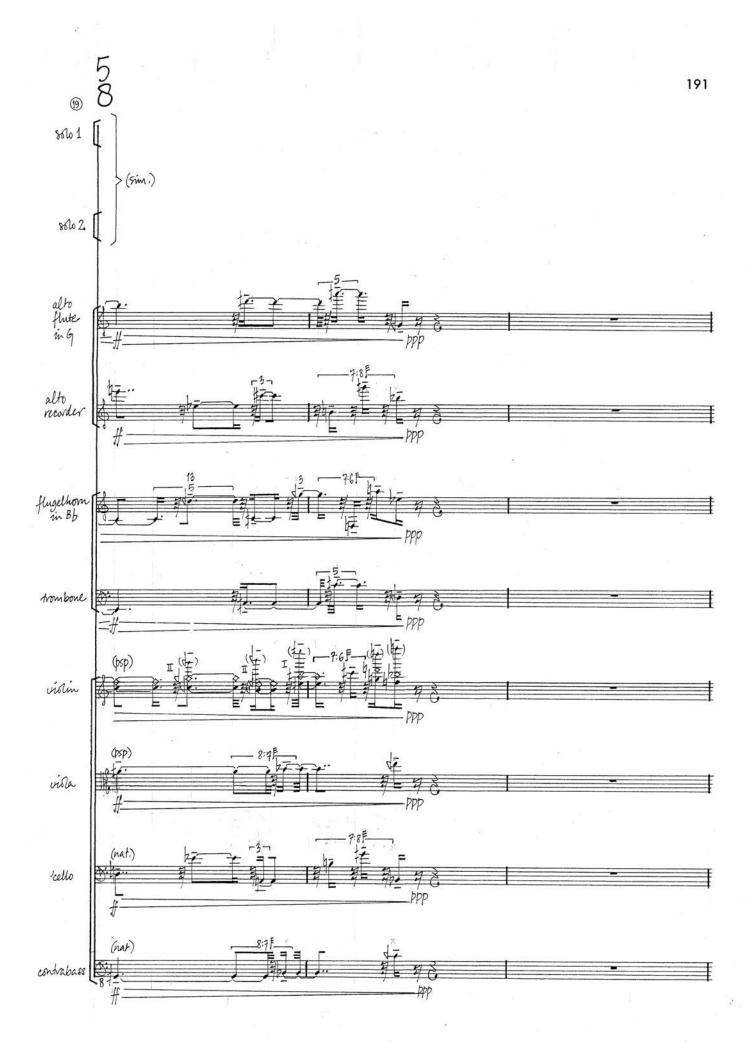
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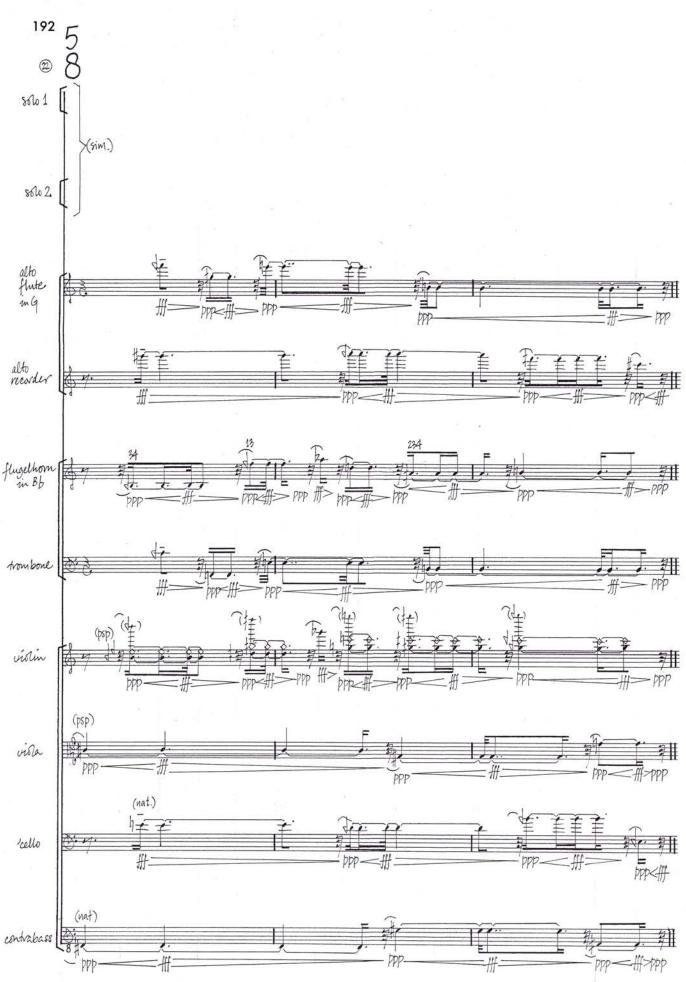














≈75"

<u>conductor</u>

cue section C at the end of this section

judge the right moment, during a sustained sound by solo 2, around 75" after end of section A

solo 1 & 2

continue from section A, with increasing variety in pitch/register, speed/density, dynamic

solo 1 & 2 (but especially 2) develop towards: sustained sounds (pitches/textures/multiphonics) separated by other kinds of activity (or silences) which link (or contrast with) the sustains

in other words introducing the kind of material played by the ensemble (and solo 2) in section C

which begins at the conductor's next cue

ensemble tacet

≈90"

<u>conductor</u>

cue any instrument to start (one which can reproduce the sustained sound being played by solo 2) thereafter cue the instrumental segments *ad lib* any instrument not currently playing may be cued at any time each instrument has 8 segments, making 64 in all (their durations between 1 and 8 seconds apart from the last in each part) implying an average duration between cues of a little less than 1.5" but the entries shouldn't be at all regular – sometimes perhaps bring two instruments in simultaneously, sometimes leave a silence or only one player alongside solo 2

sometimes respond clearly to solo 2, sometimes not

when ensemble instruments are all playing their final segment (of indefinite length) and solo 2 has faded to silence, wait a few moments and cue solo 1 to begin section D

solo 1 tacet

fade out quickly or cut off, then wait until conductor's cue for section D to begin

solo 2

continue with alternation between sustains and other activity sustains mostly clearly pitched (but with trills etc.?) and over entire range of instrument sometimes lead, sometimes be led by, the ensemble make sure there are anough audible and clear sustains for the instruments of the ensemble to pick up on

fade slowly when ensemble instruments have all reached their final state

<u>ensemble</u>

each instrument has 8 segments (numbered I-VIII), all with precise durations except the last, plus a sequence of 9 "optional" pitches at the foot of the page each instrument is cued individually by the conductor, sometimes perhaps simultaneously with another instrument

where an unspecified sustained pitch is shown, play a pitch you can hear solo 2 playing, or which solo 2 has just ended if solo 2 isn't playing a sustained pitch or hasn't played one in the last few moments, or if the sustained pitch is out of the range of your instrument, play instead the next pitch from your "optional" sequence

if necessary the 9 unspecified pitches can just be taken from this sequence but the more taken from the soloist the better

if a segment contains more than one unspecified pitch these should generally (but not necessarily) be different pitches

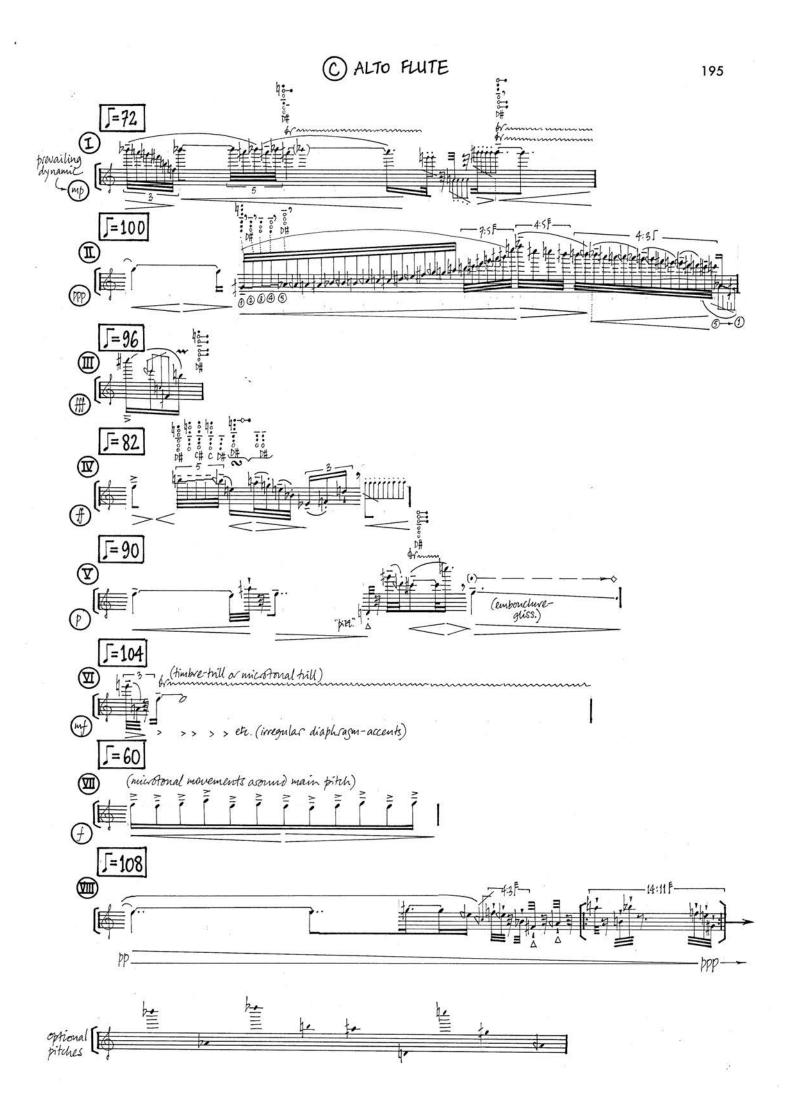
the commas before sustained sounds indicate the briefest "pause for thought" before deciding on the pitch

each segment except the last has a "prevailing" dynamic (in a circle at the beginning of the segment), in relation to which the *crescendi* and *diminuendi* may be more or less extreme according to circumstances for example how loudly solo 2 is playing

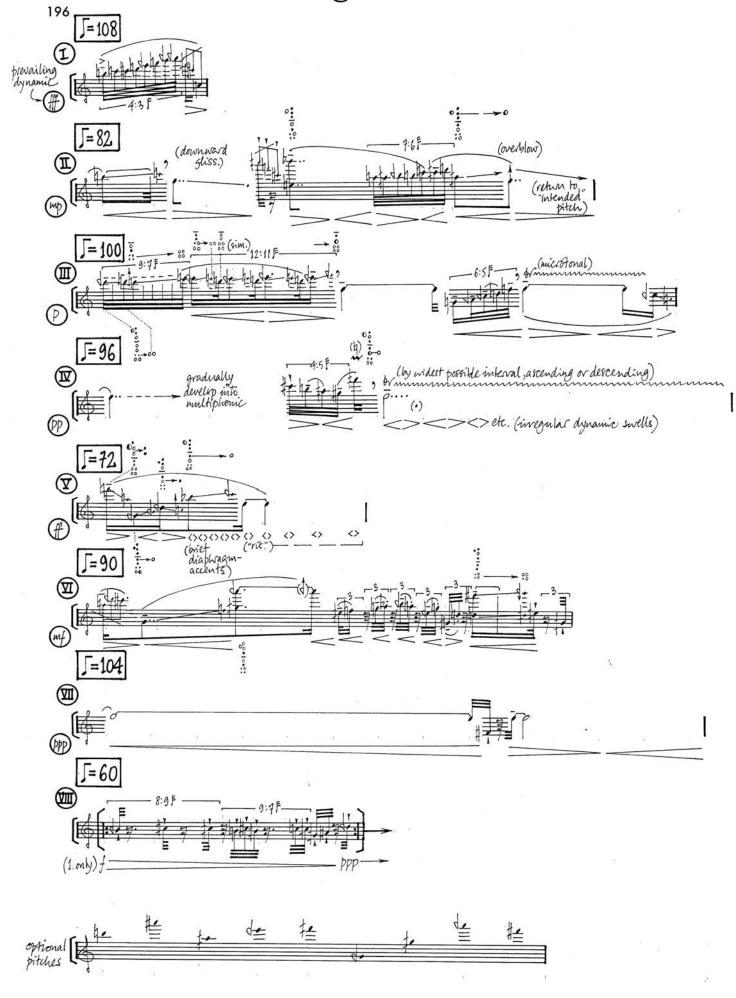
in general, the shorter a segment is the higher its prevailing dynamic level

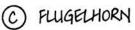
when cued, play the next segment in your sequence when each segment is finished, look up so the conductor knows you are ready to begin the next one

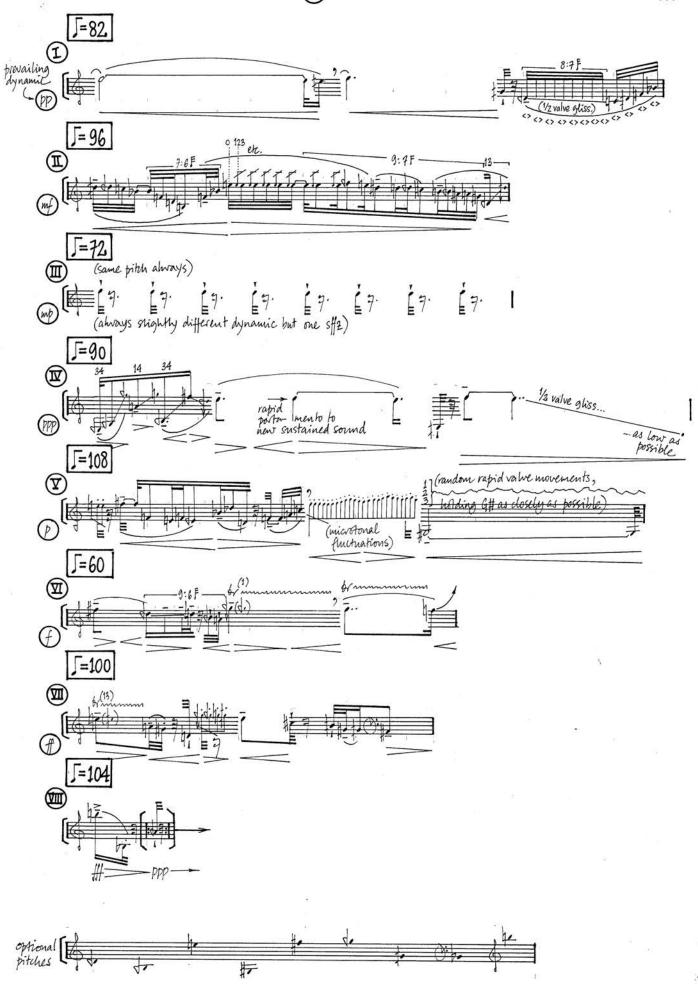
the last segment is of indefinite duration – continue repeating the indicated sound or group of sounds after a few repetitions begin to vary the pitches, durations between individual sounds, timbres, tempo to an increasing extent but remaining *ppp* with the same staccatissimo articulation until the conductor cues solo 1 to begin section D at which point cut off abruptly

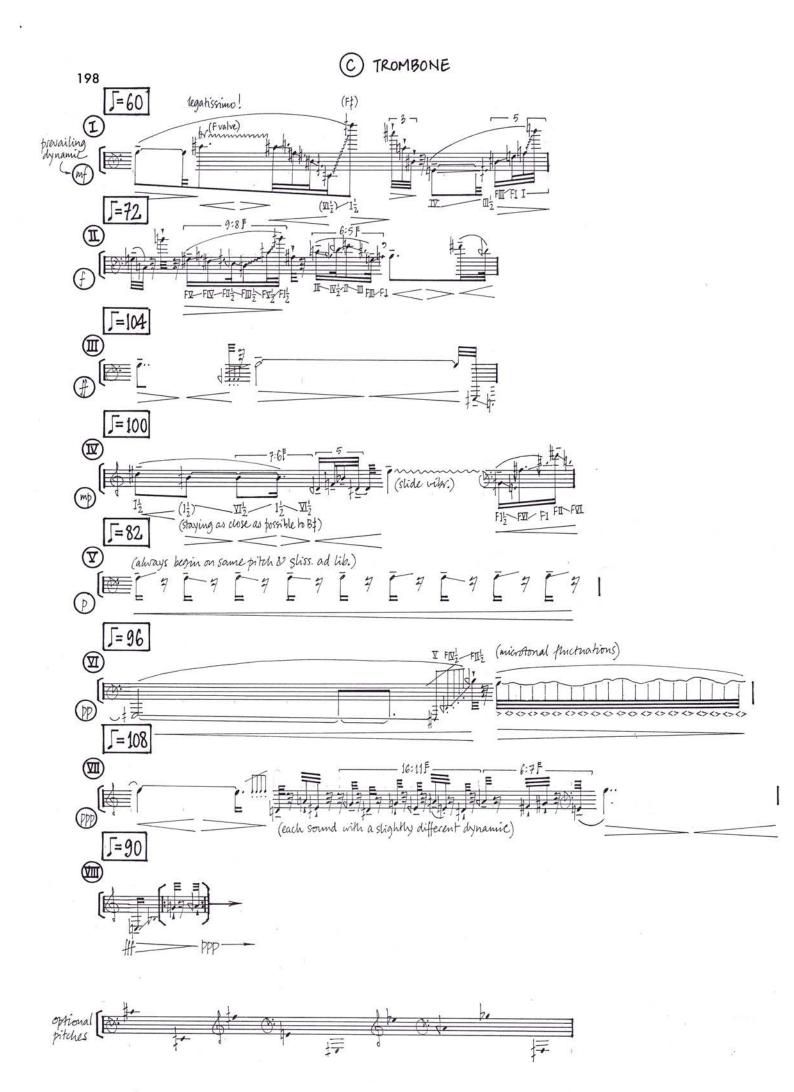


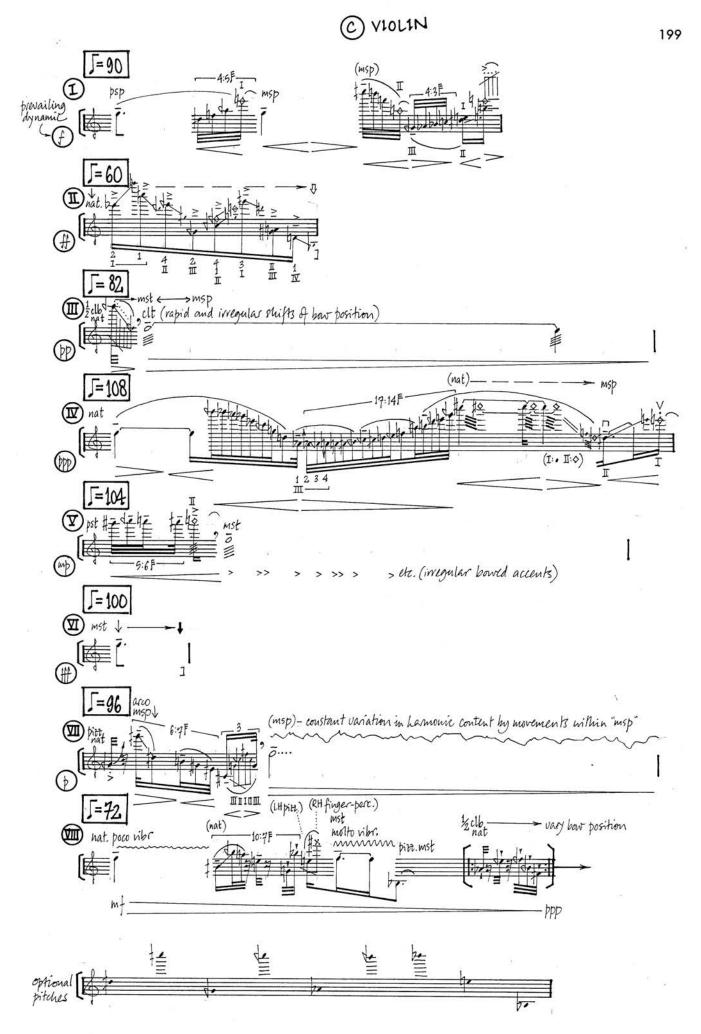
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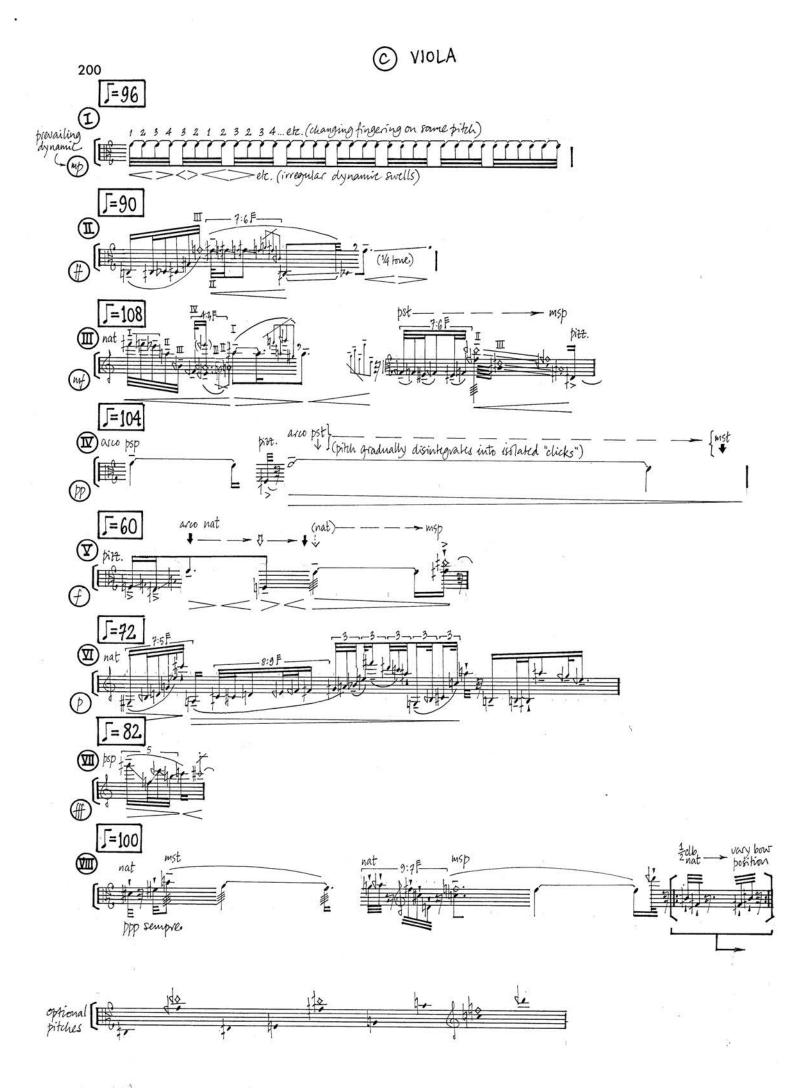


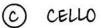


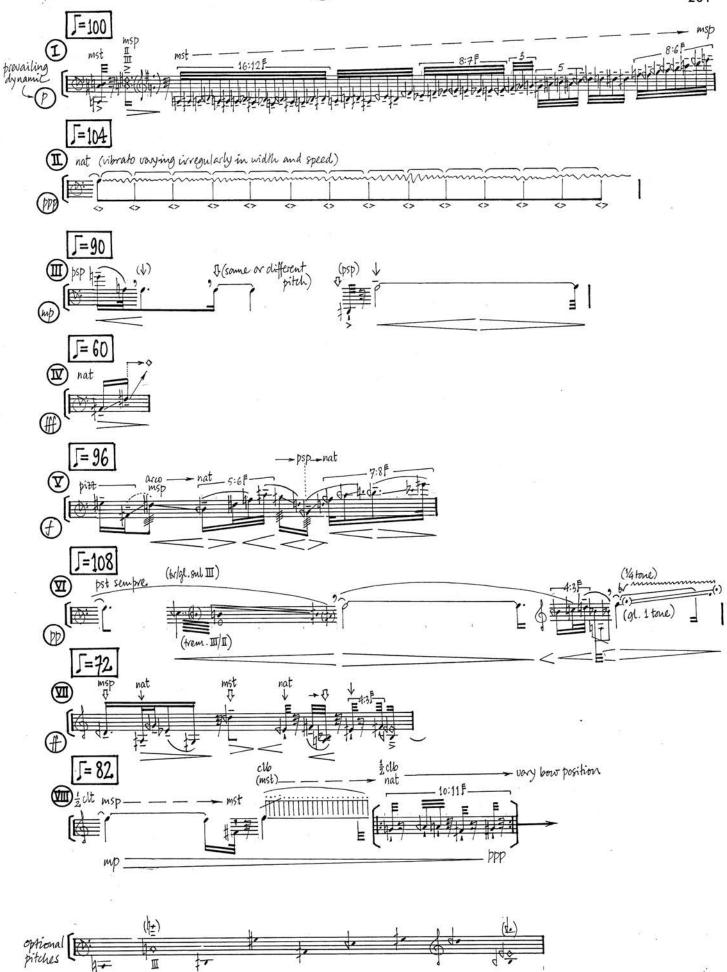


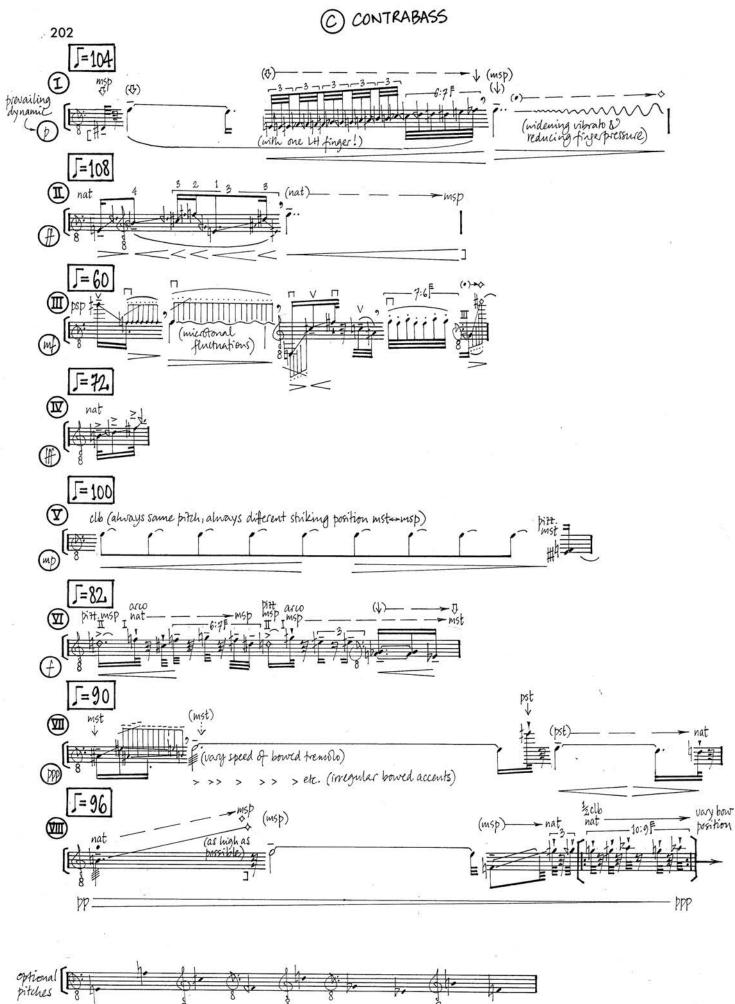












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(D) ≈120" <u>conductor</u>

(once the final state of section C has been established)

with left hand, cue solo 1 for brief improvised solo and cut off solo 2.

then each left-hand cue alternates between solo 1 (freely improvised) and strings (rotating between their various modes of activity and taking a new one at each cue)

simultaneously with the second left-hand cue (strings) cue solo 2 (freely improvised), after which each right-hand cue alternates between solo 2 and wind quartet (rotating in the same way as the strings)

thereafter continue these two independent sequences of cues simultaneously

typically cueing the two halves of the group at different times but also sometimes simultaneously, creating various combinations, contrasting more rapid changes on one side with slower ones on the other, giving durational emphasis now to the soloist, now to the respective quartet, and so on

each cue for each group should be between 2 and 16 seconds after the previous one

to conclude this section, leave solo 1 playing while giving a double downbeat to stop solo 2 and for recorder and trombone to begin section E, which is "normally" notated and conducted

<u>solo 1& 2</u>

freely improvised "solos" cued and cut off by the conductor (see above), alternating with and reacting to (or not) the respective quartet: solo 1/strings (cued by the conductor's left hand), solo 2/winds (cued by the conductor's right hand), while at the same time weaving through and complementing the overall texture

solo 2 stops for the last time when the conductor begins section E, solo 1 fades into section E, ending at or before all instruments have entered

<u>ensemble</u>

play and stop playing at the conductor's cues, alternating with solo 1 (strings, cued by the conductor's left hand) and solo 2 (winds, cued by the conductor's right hand)

on each cue, each instrument moves clockwise around its "circle of activities" (see p.20) and plays the next one, each instrument beginning from the top ("12 o'clock") of its respective circle - when a circle is completed, begin another rotation but from a different (freely-chosen) starting point from the previous one, and so on, always complete circles but each time beginning from a different point

until the conductor gives the double downbeat for section E

= silence

204

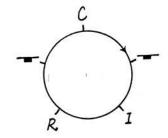
- **C** = play a variation on a segment from your part in section **C**, altering any or all of tempo, durations, pitches, timbres, dynamics etc.
- = imitate (in any or all parameters) and vary "your" alternating soloist's last entry (solo 1 for strings, solo 2 for winds)
- L = repeat and vary (in tempo, duration, pitch, timbre, dynamic, insertion of silences etc.) a short "loop" taken from "your" soloist's last entry
- **M** = sustained **multiphonic** (recorder and contrabass only: contrabass multiphonic involves high bow pressure, slow bowing, *poco sul ponticello*, slightly more than "harmonic" left-hand fingerpressure, on any string at these intervals above the open string: augmented 4th, minor 6th, slightly flat minor 7th, octave + neutral 3rd, etc.)
- **R** = recall and vary what *you* played in *your* previous entry

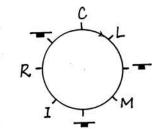
ALTO FLUTE

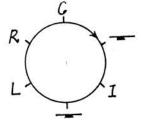
ALTO RECORDER.

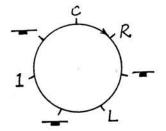
FLUGELHORN

TROMBONE







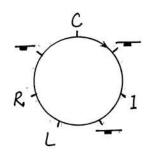


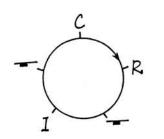
VIOLIN

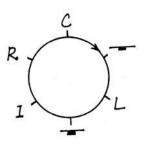
VIOLA

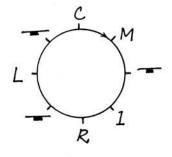
CELO

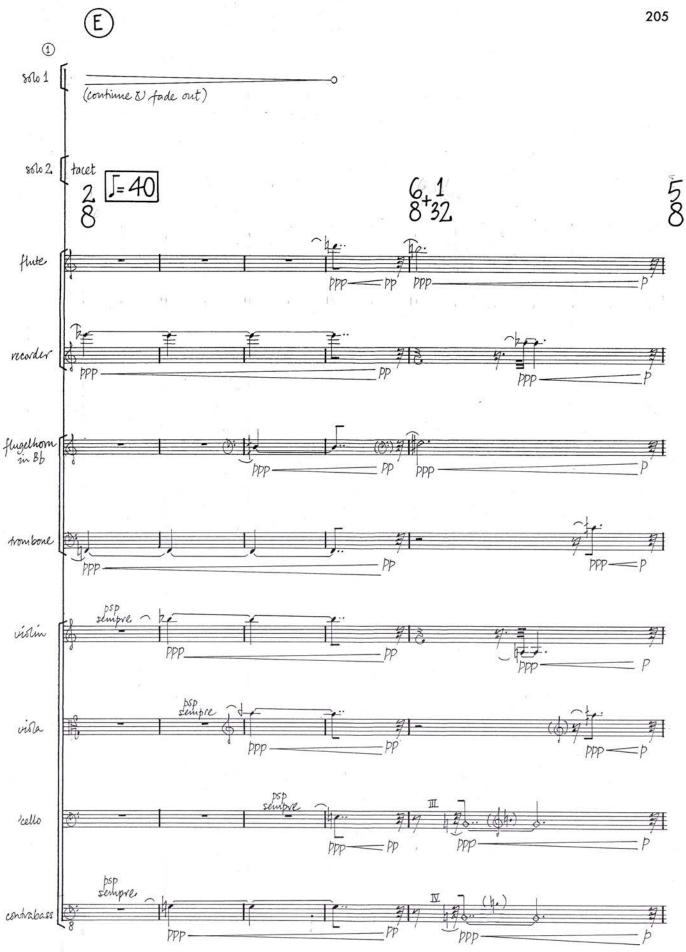
CONTRABASS



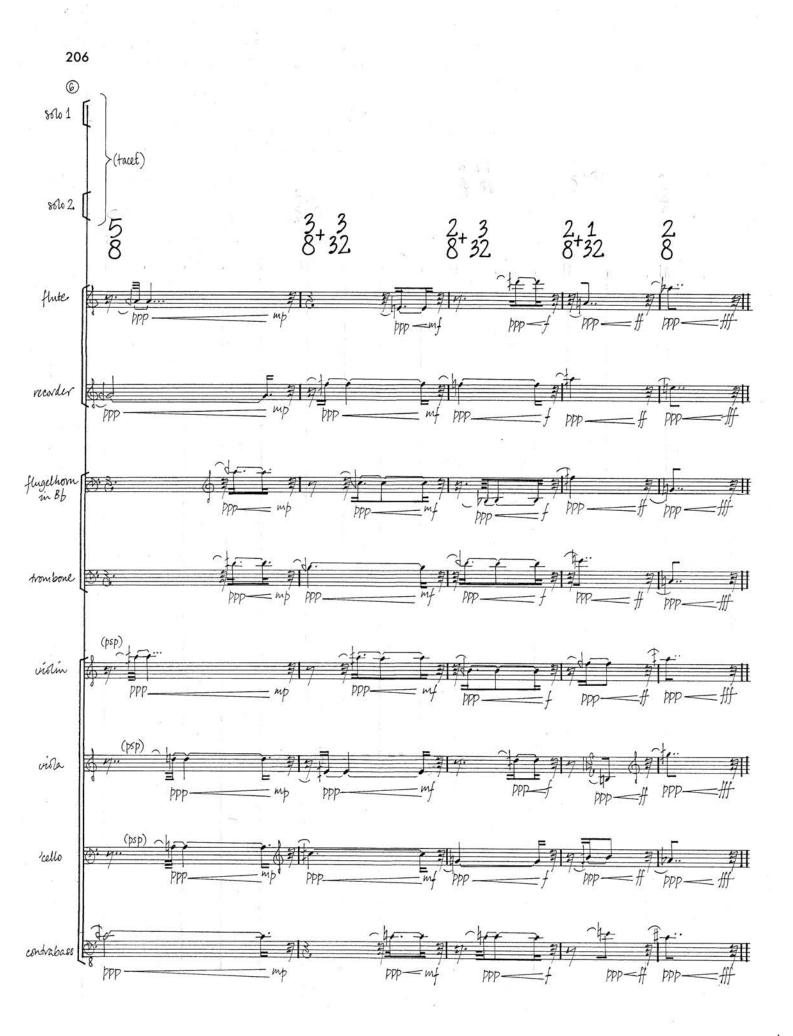


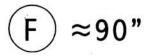






2.





<u>conductor</u>

(continue without any break from section E)

cue every 1-8 seconds (mostly), constantly varying – at each cue, solo 1 and 2 alternate (beginning with solo 2) and the ensemble players rotate through their material as in section D

and shape the ensemble music dynamically *ad lib* in response to the soloists, perhaps sometimes even cutting one or more ensemble players off before the following cue, etc.

the whole section should have an overall *diminuendo-crescendo* shape, beginning powerfully, gradually dissipating, and then building up again...

until double downbeat to begin (suddenly!) section G

<u>solo 1 & 2</u>

alternating freely improvised (brief!) "solos" cued and cut off by the conductor (see above), beginning with solo 2 exploring different ways of relating/unrelating to the ensemble "chords"

<u>ensemble</u>

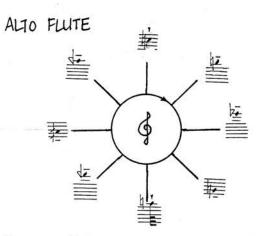
the entire octet plays on each of the conductor's cues (while the soloists alternate)

on each cue, each instrument moves clockwise around its "circle of activities" (see next page) and plays the next one, each instrument beginning from the top ("12 o'clock") of its respective circle

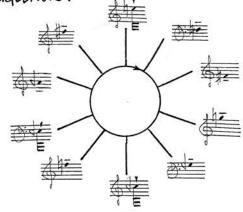
when a circle is completed, begin another rotation but from a different (freely-chosen) starting point from the previous one, and so on, always complete circles but each time beginning from a different point

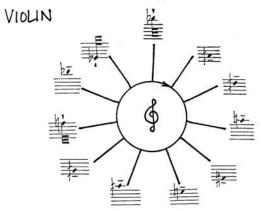
the material consists of *staccato* and sustained pitches – *staccato* pitches may occasionally be interpreted *ad lib* as a short group of gracenotes (with any articulation), beginning with the notated pitch; sustained pitches may occasionally be interpreted *ad lib* as trills/tremoli, glissandi (not too far away from the notated pitch!), multiphonics or more complex encrustations around the pitch (you can refer to section C for some more examples) up to and including moving the pitch in parallel with whichever soloist is playing, etc. while retaining the essentially accompanimental nature of the ensemble activity in this section.

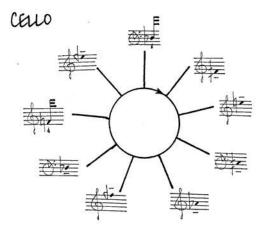
until the conductor gives the double downbeat for ensemble to begin section G



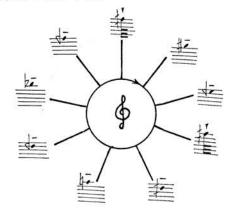
FLUGELHORN



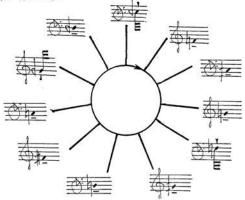


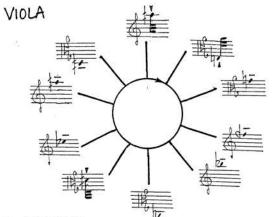


ALTO RECORDER

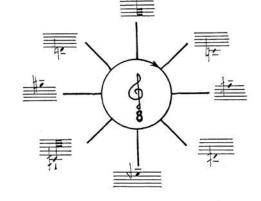


TROMBONE





CONTRABASS



G ≈45"

<u>conductor</u>

give double downbeat to begin, then interrupt the ensemble improvisation with the 8 conducted fragments each involves a different selection of 4 instruments and the durations of the eight fragments sum to about 21 seconds, that is somewhat less than half of the entire duration of G

<u>solo 1</u>

freely improvised, like ensemble consisting of "points" interrupted by less fleeting events continuing into section H

<u>solo 2</u> tacet

until first cue of section H, at which point fade gradually in

<u>ensemble</u>

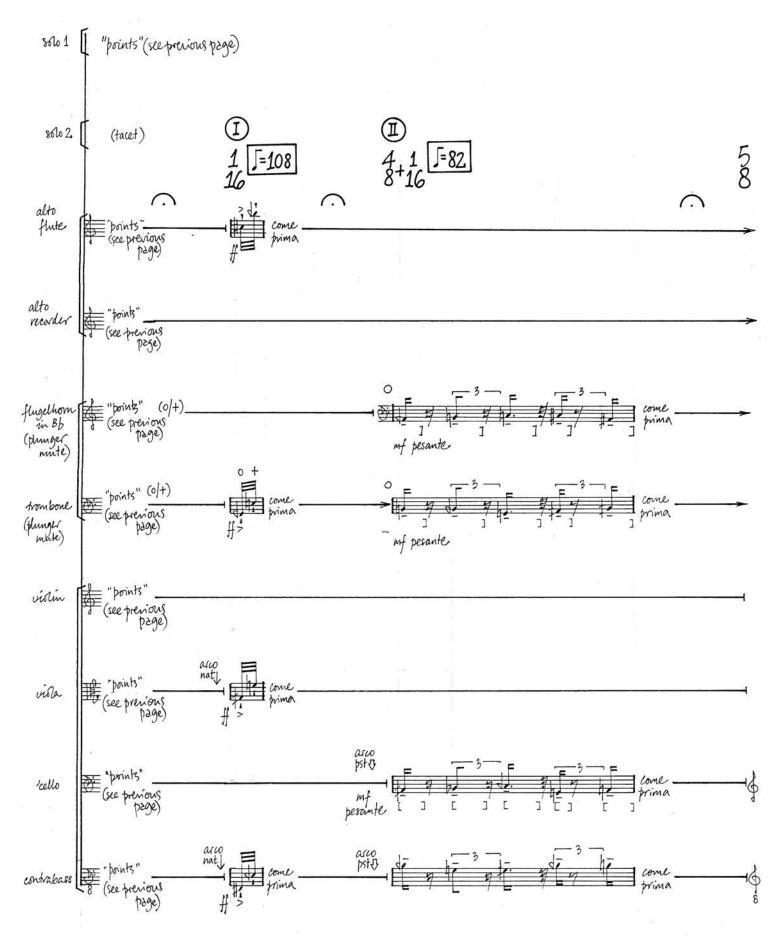
on double downbeat, begin with a dense "explosion" of staccato points each instrument playing a sound every 1-2 seconds every sound with a different dynamic, timbre, articulation etc. using pitches over the entire range of the instrument and also unpitched sounds of every kind sometimes altering density/dynamic in response to solo 1

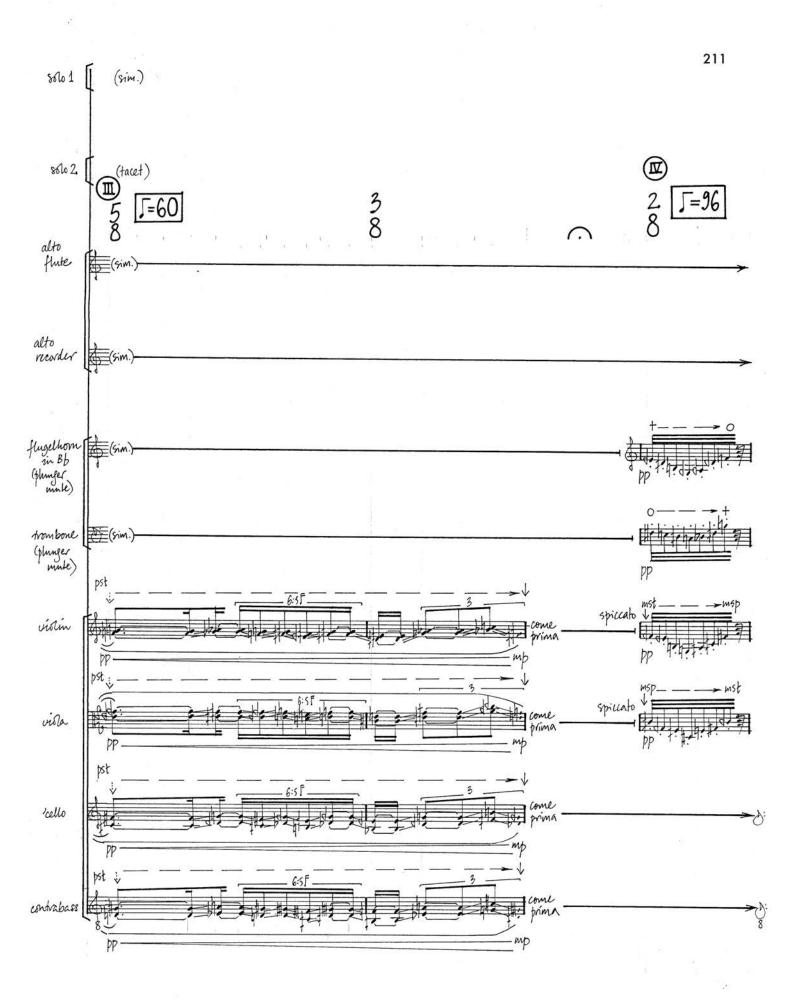
brass take plunger mute as soon as you have an opportunity, use it ad lib. In section G and as specified in section H

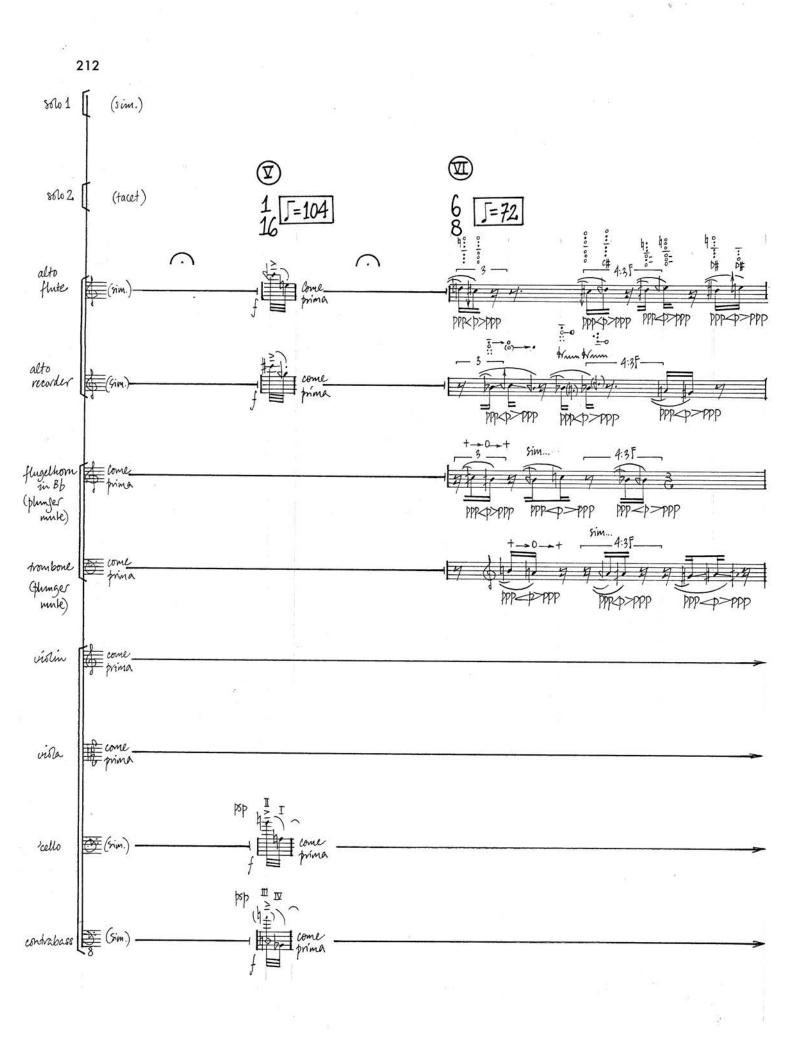
continue this through the conducted fragments which do not involve you and return to it after playing a conducted fragment

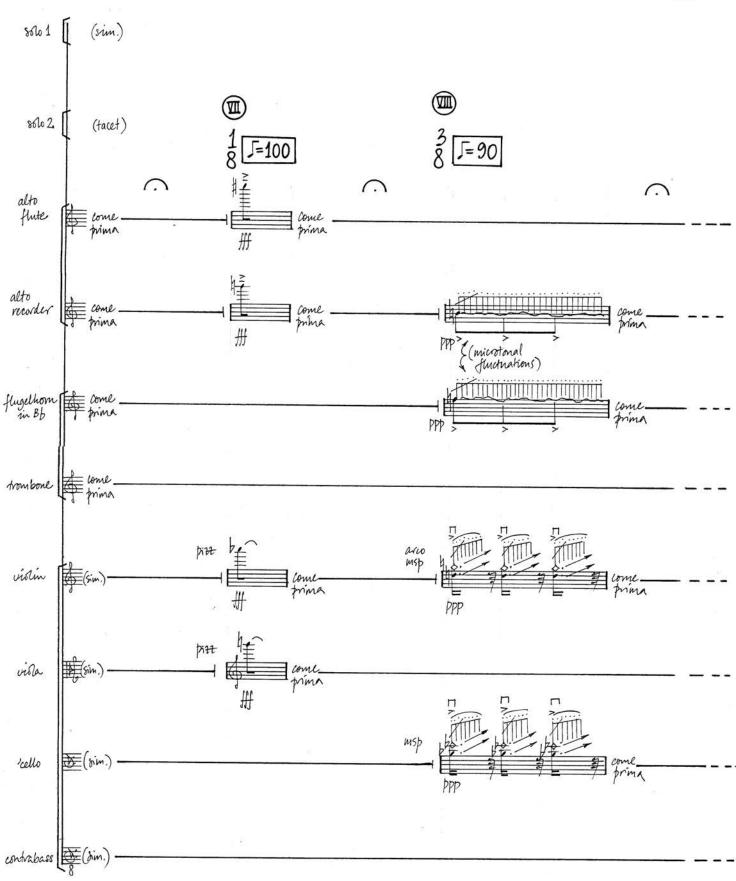
continue this material until your pair of instruments is cued to begin section H so that the transition between sections G and H is a gradual rather than abrupt change



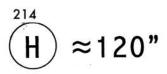








¢.



<u>conductor</u>

cue beginning of each of the four pairs separately order of entries and durations between them *ad lib.* but all pairs should have begun by 20" into the section and then stop conducting

<u>solo 1 & 2</u>

solo 1 continues and transforms from section G, solo 2 fades in

freely improvised but oriented towards finding an end - the last sound however might not be from either of the soloists

(be aware that there will be silences in the ensemble)

<u>ensemble</u>

continue playing section G material until your pair is cued by the conductor

brass retain plunger mutes

after the first cue from the conductor, each segment is cued by one or other member of the pair *ad lib* each pair plays a different number of segments increasing in duration separated by silences which increase in duration as does the range of duration each silence may take

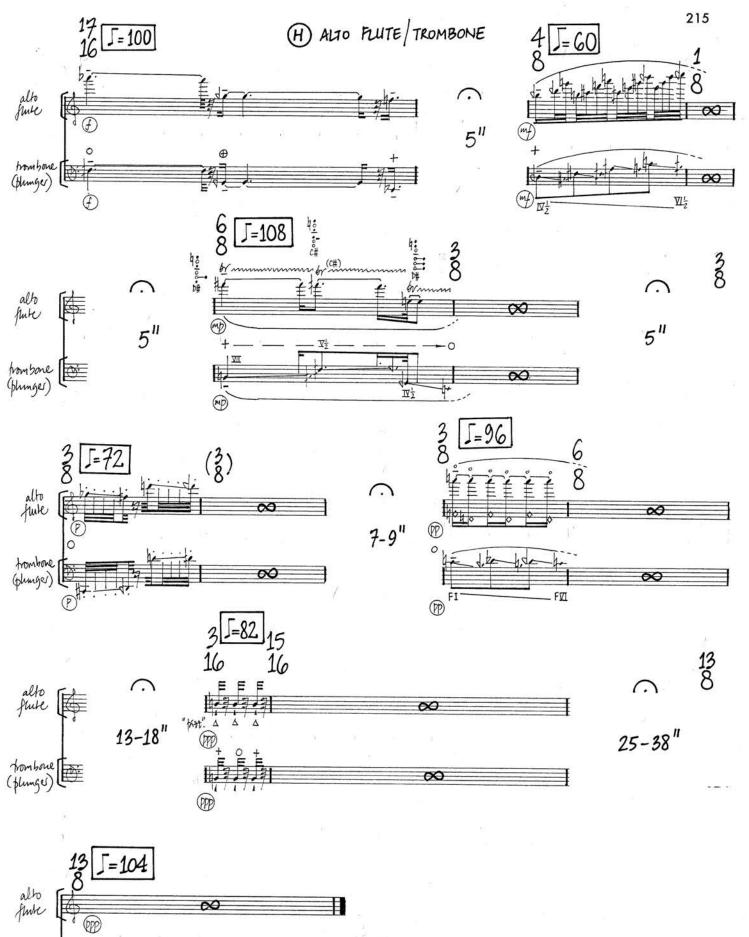
prevailing dynamic levels are given as in section C

the amount of notated material decreases through the 8 segments

so that eventually the part for each pair consists only of unspecified brief improvisations (indicated by ∞) separated by silences the improvised material may continue from or grow out of or contrast with the notated material immediately preceding it the improvisations are given durations but this doesn't mean both players in the pair must fill out each duration

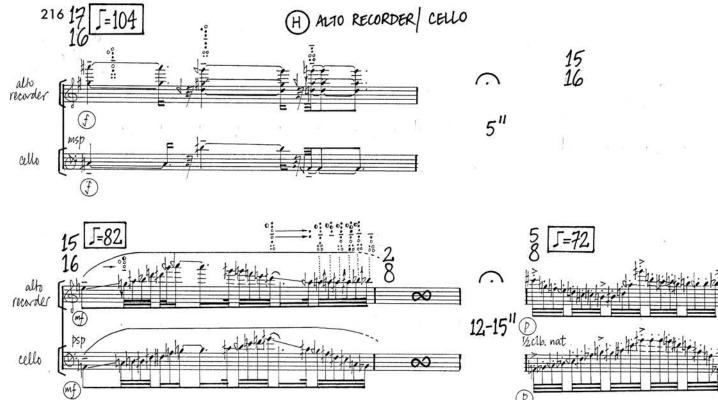
the piece may end with one of these improvisations or with one or both of the soloists

in the improvisations perhaps refer back to previous material but always as a vague memory



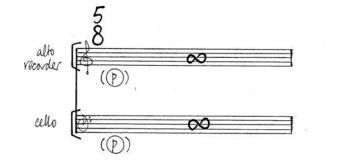
tombone (plunger)

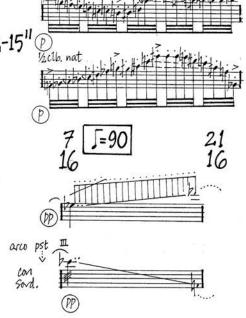
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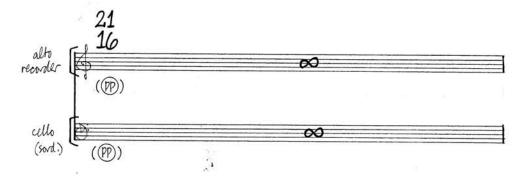


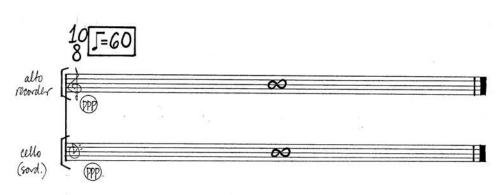
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18-25"



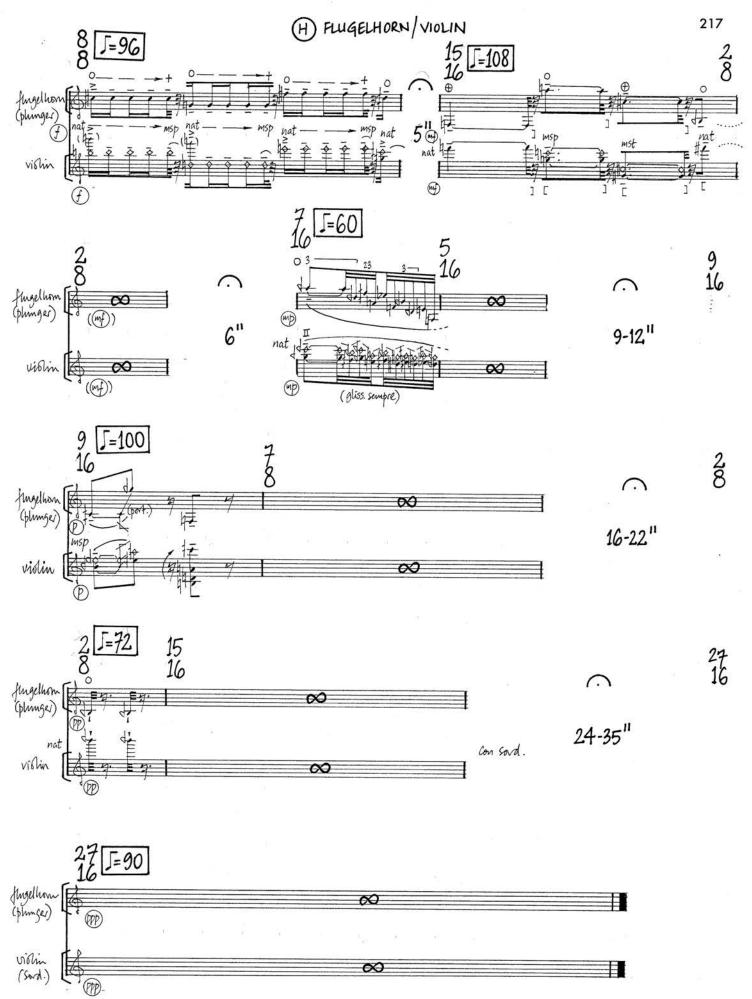


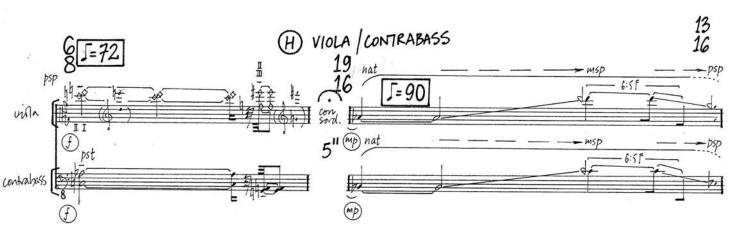


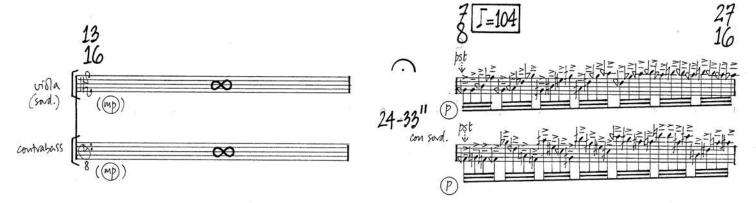


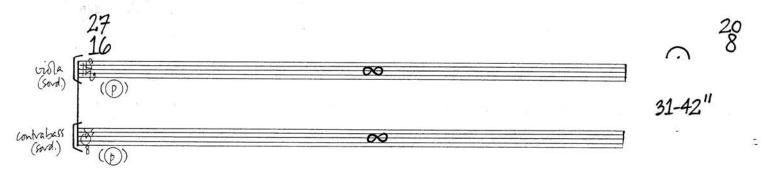
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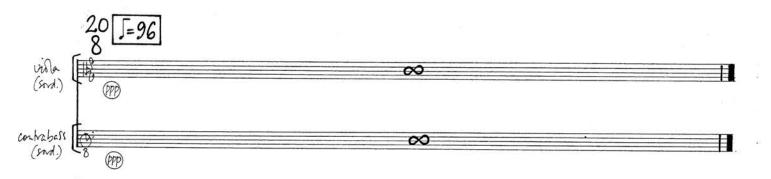
25-35"











15 Simorgh

8-channel fixed media duration: approximately 11 minutes

Simorgh should fade in from almost nothing as the improvised ending of part 14 Island is coming to its conclusion (with an awareness that there may be silences after which two or more instruments begin again to play), but must have risen to its full volume within 10 seconds or so, whatever else is happening.

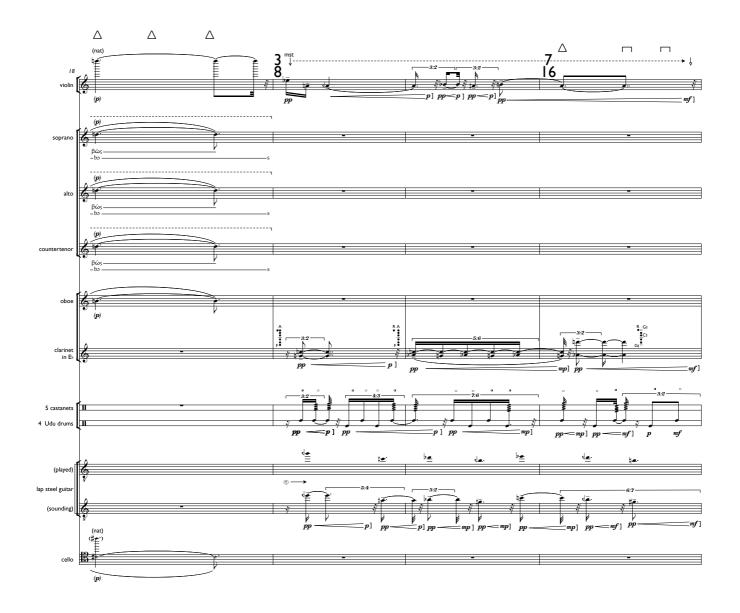
The volume level may rise gradually and imperceptibly over the last 2 minutes if desired.

The solo violin of the part 16 wound IV begins to play in the closing seconds of **Simorgh** so that when the electronic sounds stop the violin becomes audible.



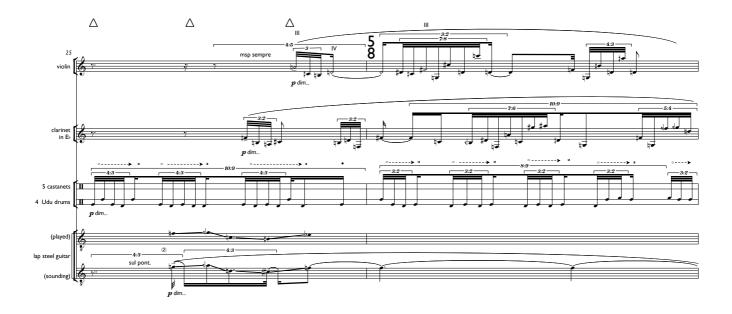




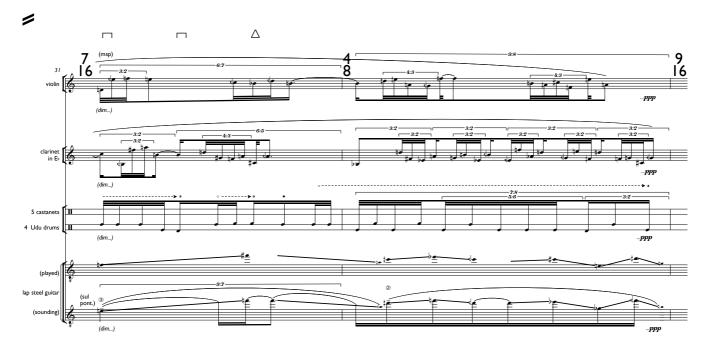


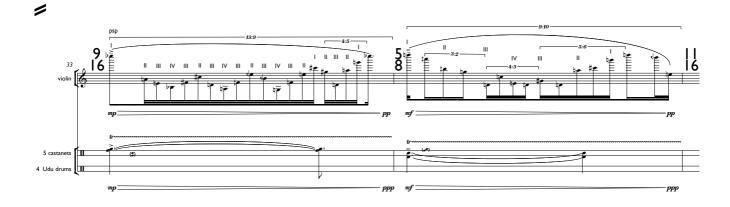


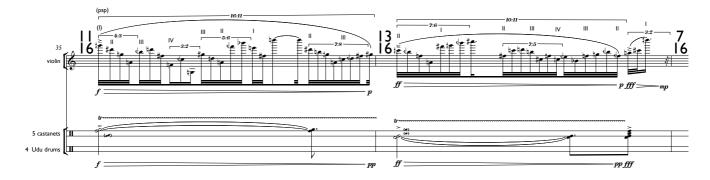




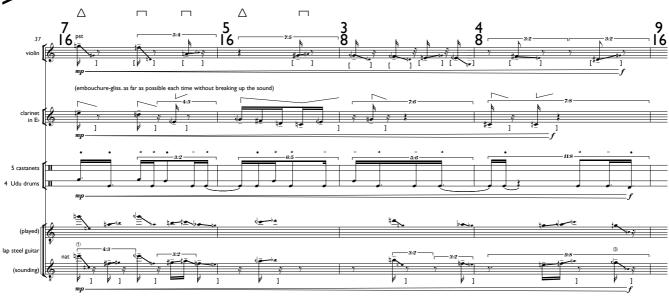


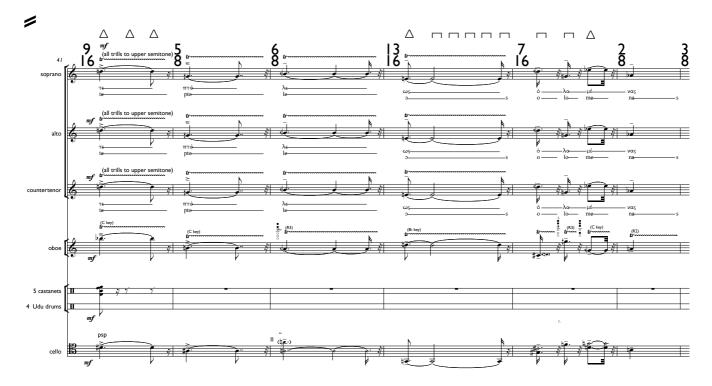


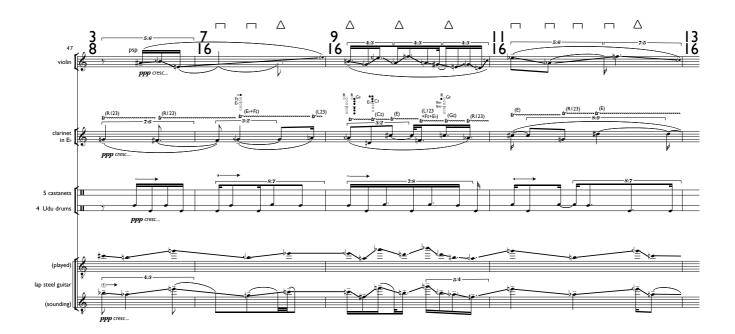


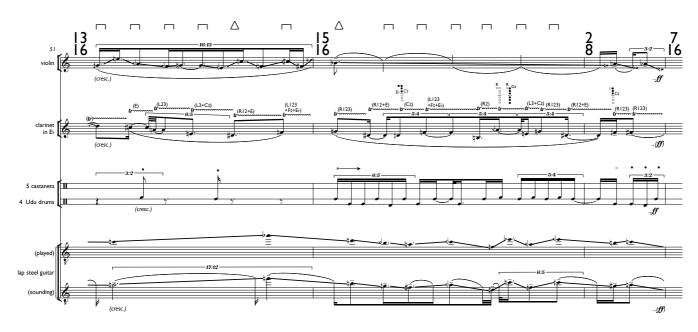


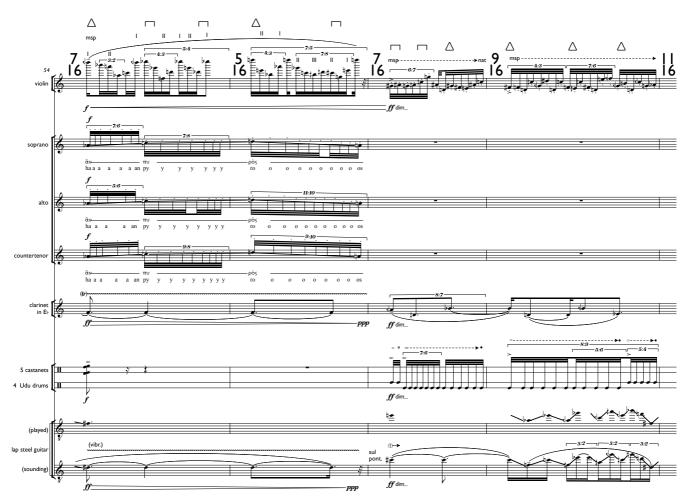


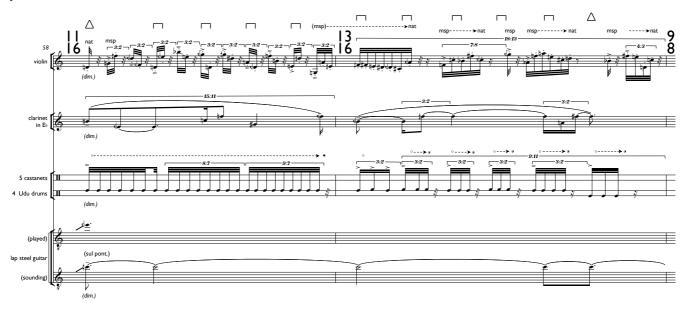




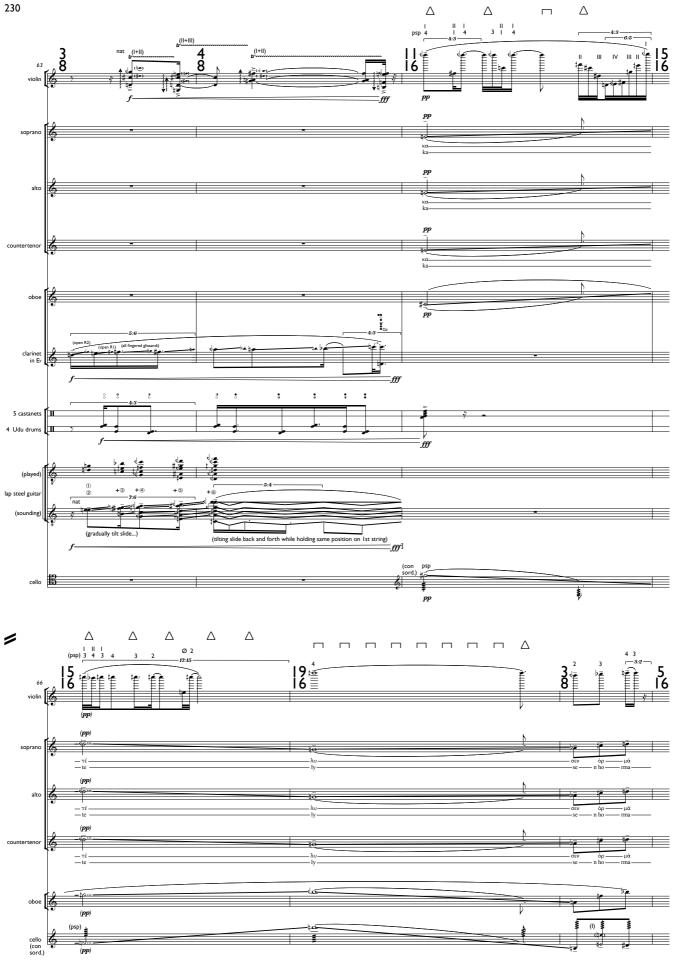


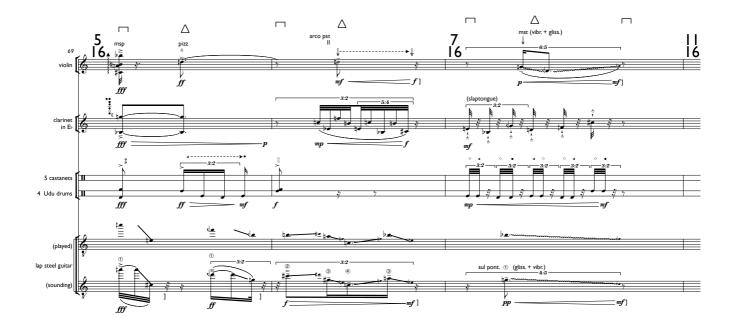


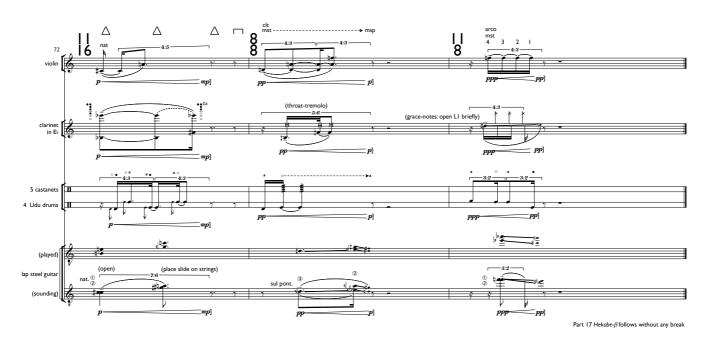






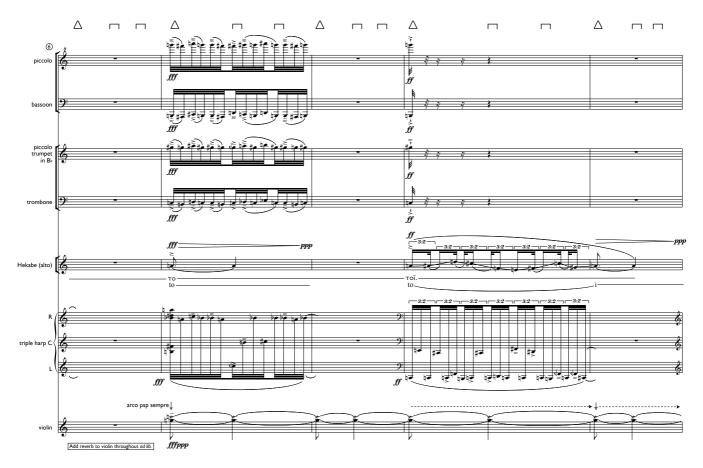




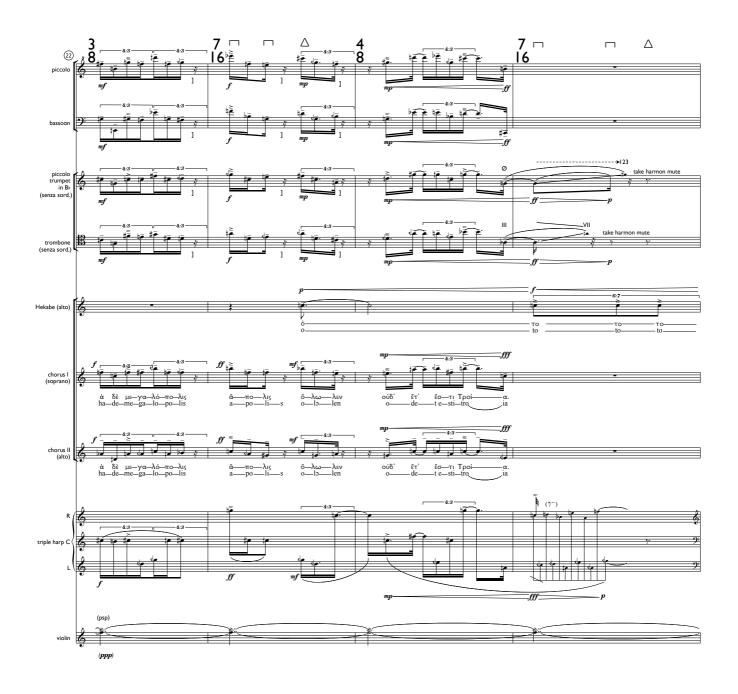


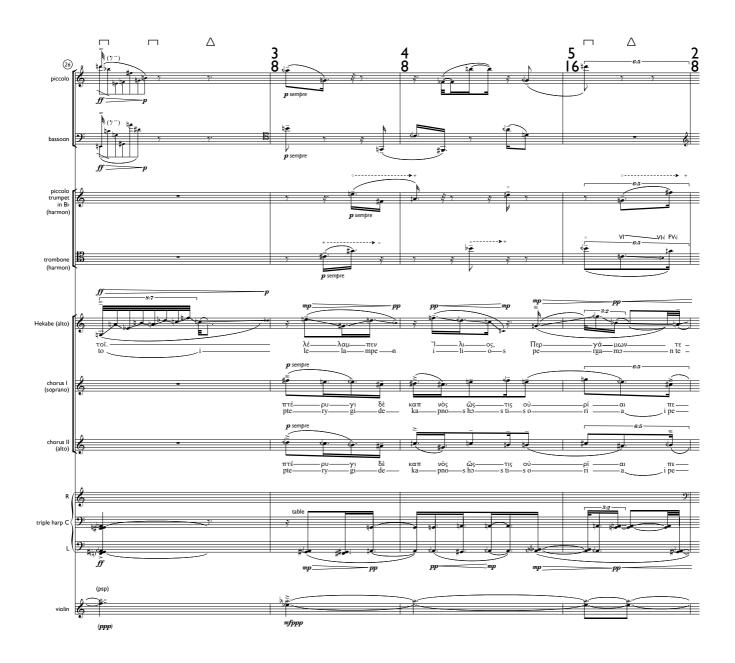




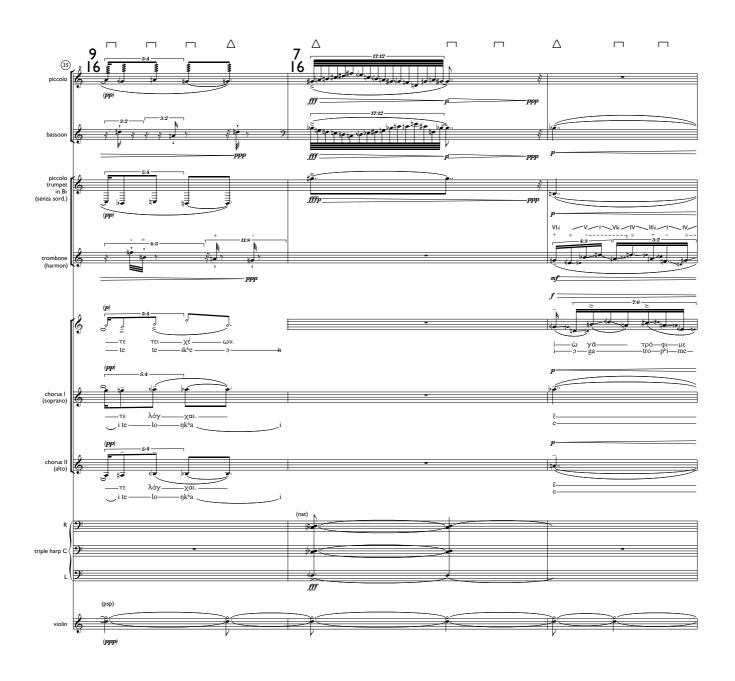












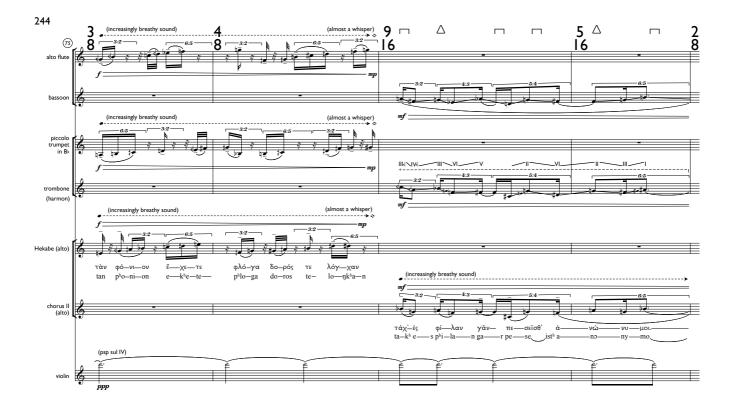




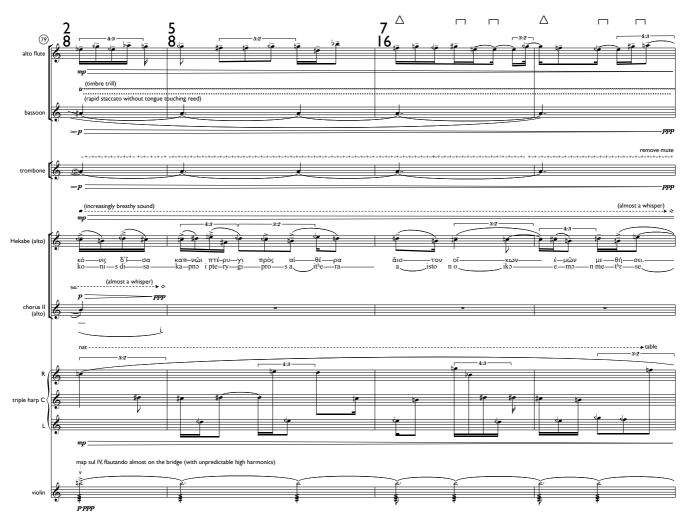




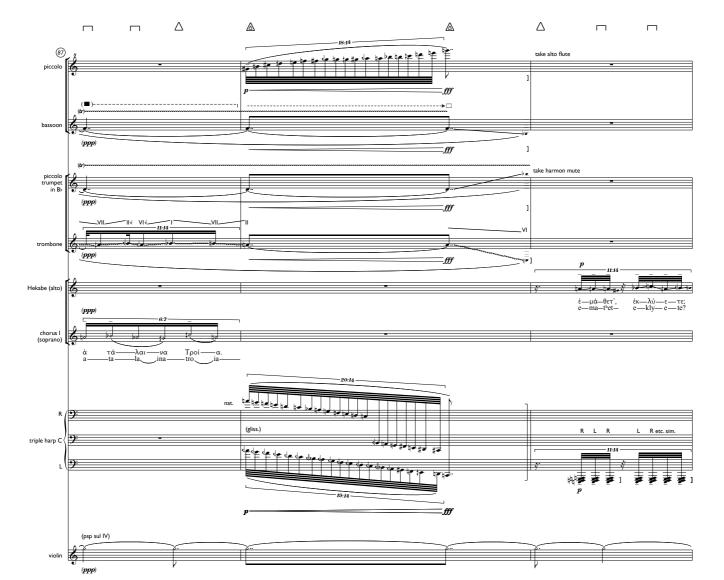




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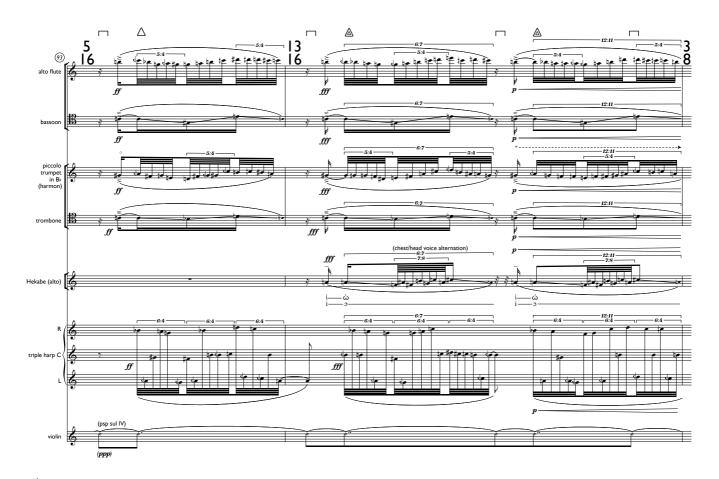


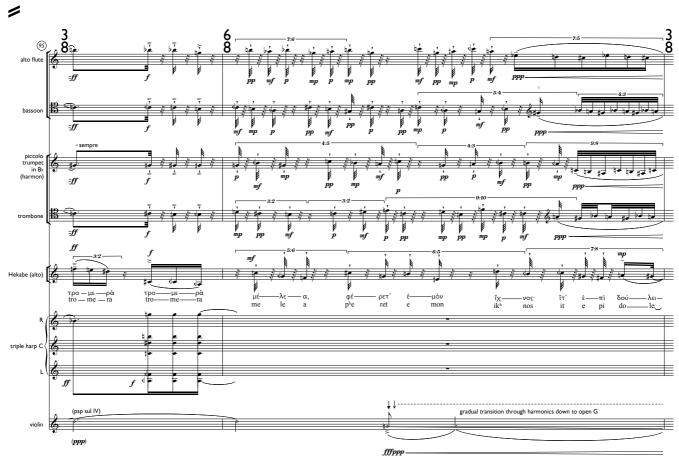


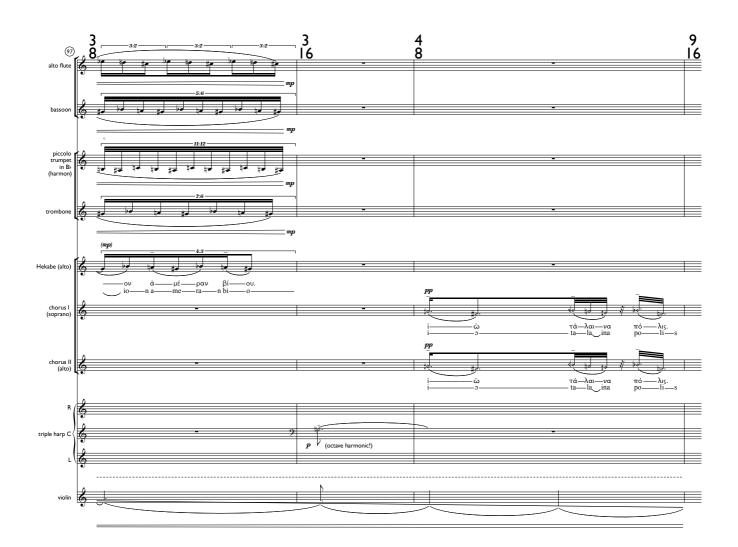




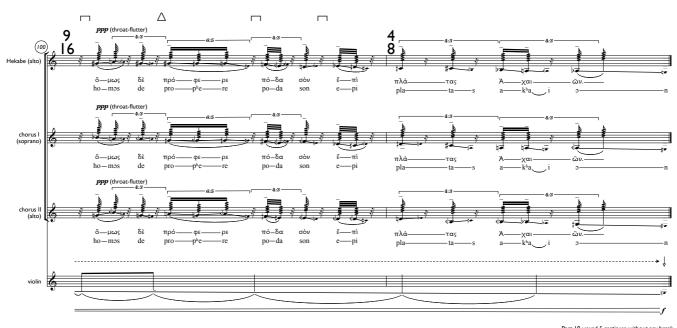
↑ Part 18 woundV begins at this point (contrabass clarinet and electronics)







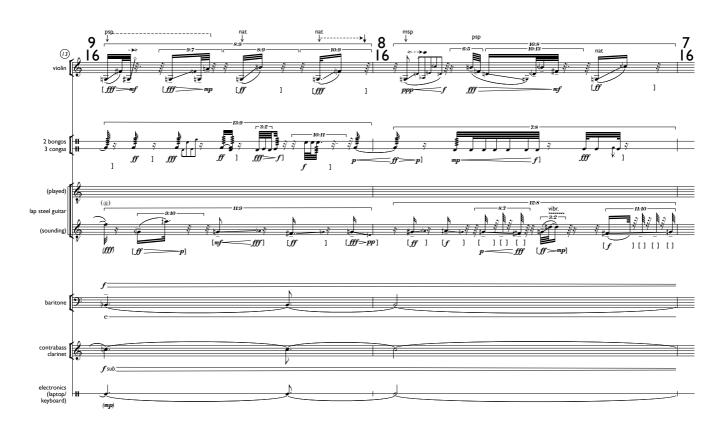
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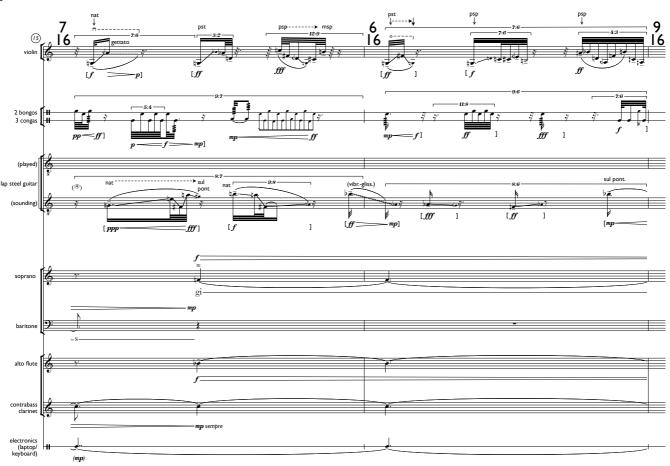
Part 18 wound 5 continues without any break (violin, electric lap steel guitar, percussion)

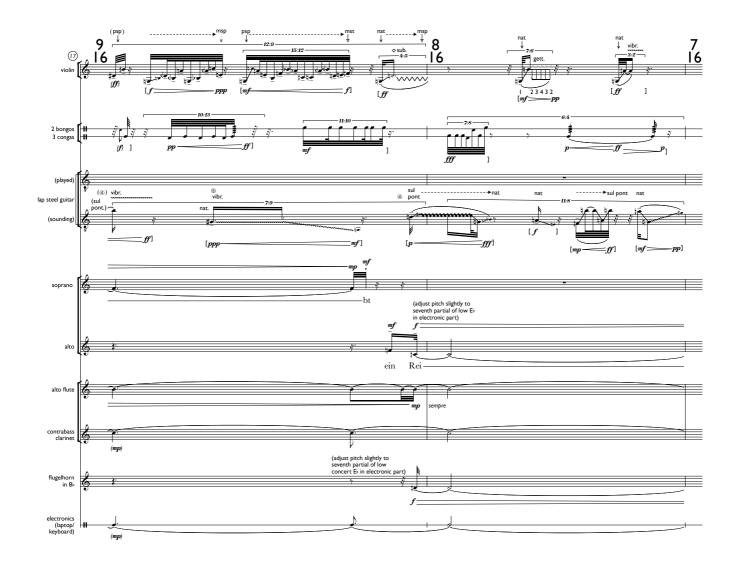
18 wound V

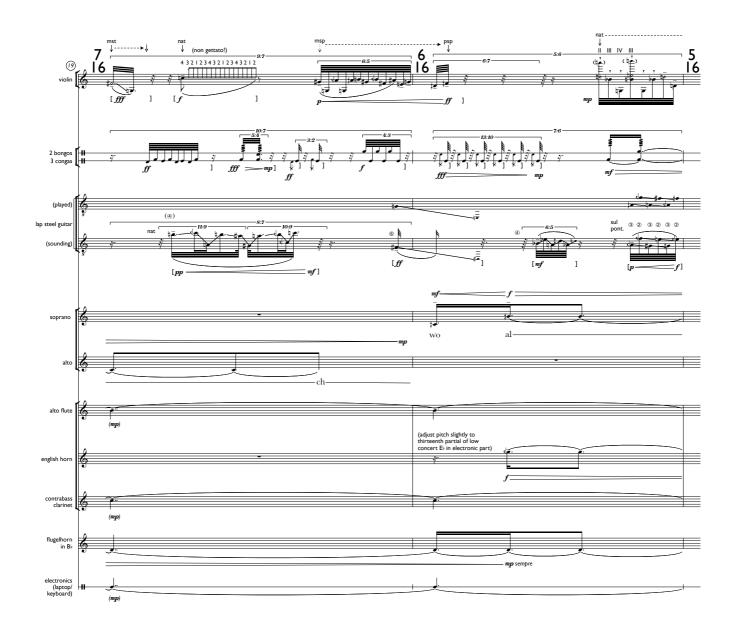




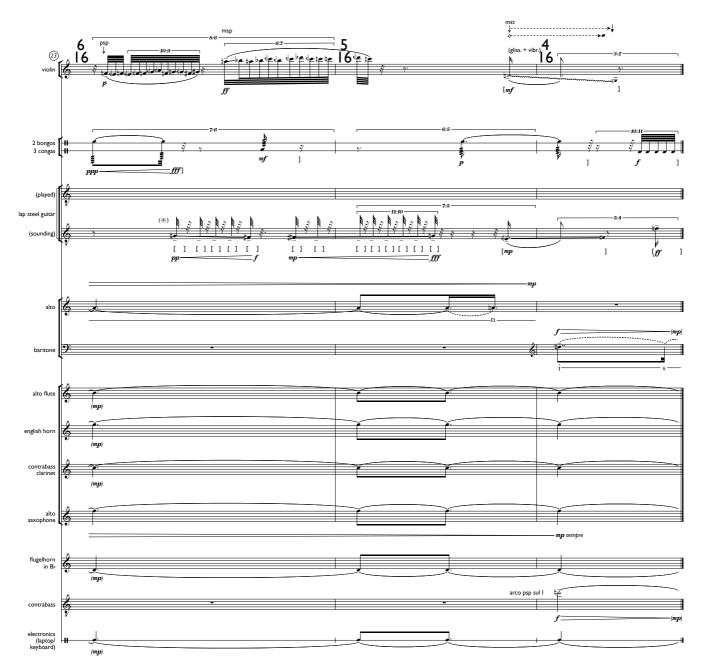




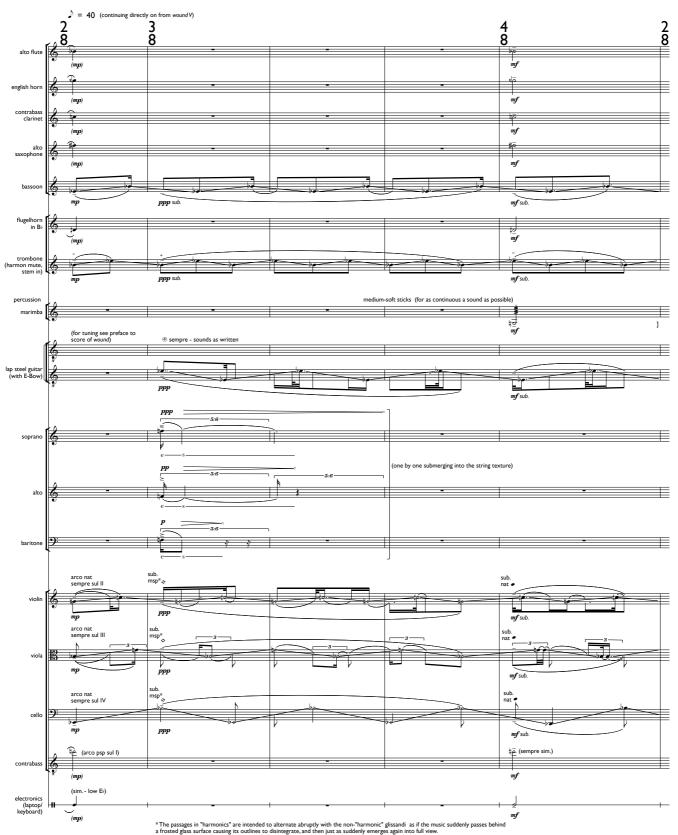








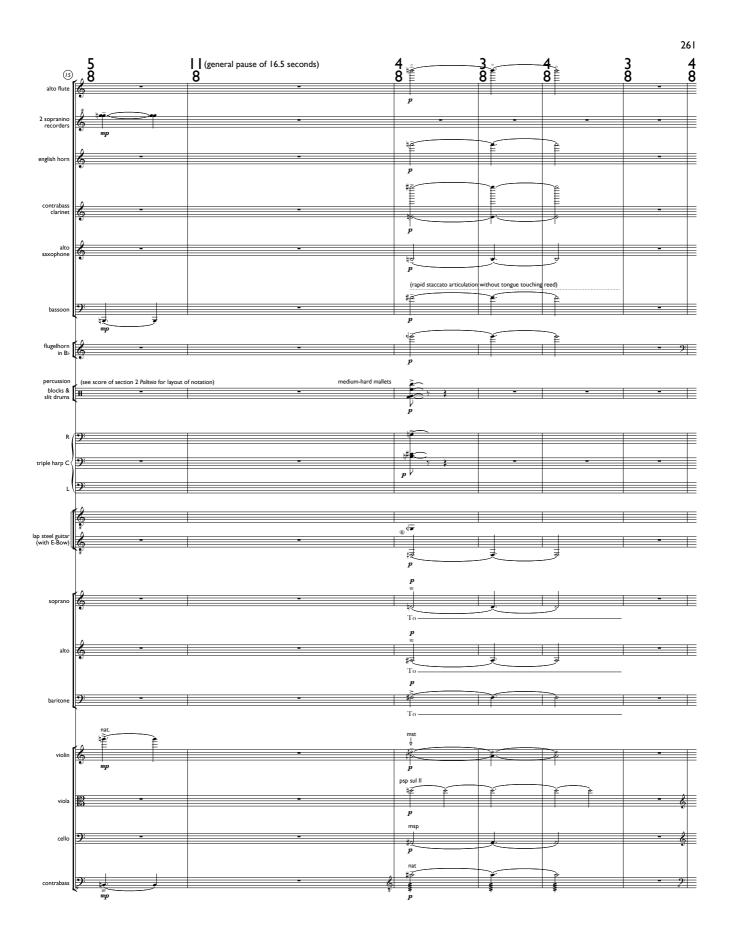
Part 19 Germania continues without any break













20 ON

duration: approximately 20 minutes

ON is an extended and unrestricted improvisation for the entire ensemble, given its unforseeable musical identity by the experience of the preceding music and facilitated by a structural framework allowing for (but not prescribing) the free incorporation of recapitulatory material from earlier sections as well as providing a guide to the passage of time which might assist performers in pacing and structuring their contributions. The responsibility for deciding on the appropriateness of any contribution lies completely with the individual players, though it might be considered important to be constantly aware of whether and to what extent one's contribution can be affected by others (potentially or actually), and whether and to what extent one's contribution can affect others, particularly in the context of a contribution with a tendency to disappear into an undifferentiated background. Each contribution is an act of "orchestration" as much as anything else.

The approximate timings of the twenty conducted cues are shown in the table below, reproducing the formal proportions of the entire CONSTRUCTION at a rate of about 10 seconds for each minute, though this is intended as a rough guide rather than a prescription, and the conductor may vary it spontaneously in response to musical events. On each cue the conductor should gradually bring his hands inwards from widely-spread to together over the course of between 5 and 30 seconds - the conductor may choose and vary the duration as he/she feels appropriate, though obviously some sections are extremely short and could be either entirely occupied by a "slower" cue or concluded by a very "quick" one. The conductor should also be able to make clear *which* cue is being given for any performers who have been following their own direction independently of the cued sections. Plerformes may also use a cue simply to coordinate beginnings or endings of or changes within their activity. The table also shows which of the preceding nineteen sections might be used by any player(s) as a starting-point for their improvisation, or a contrast to it or any other kind of relationship the player(s) might find appropriate. Obviously it will usually be found more practical to use materials in **ON** which one has learned and performed oneself in the preceding music, although this is not mandatory. It is also by no means mandatory, when using previously-played material, to use the same instrument it was originally scored for. The eventual network of sonic-structural relationships in **ON** will typically embrace responses in terms of both improvisational and precomposed music played by both oneself and by others.

The conductor may also take part in the improvisations so long as this does not conflict with the cues, and in particular, after the final cue when no more conducting will take place, it would be appropriate if practical for the conductor to join the ensemble both sonically and physically. In the first complete performance, conductor Eugene Ughetti joined Domenico Melchiorre on percussion.

Versions of **ON** with shorter durations and smaller instrumentations may also be devised. The first performances, for example, had a duration of about 6 minutes, used an ensemble of flute, two clarinets, trumpet, electric guitar, cello and electronics; the strings and winds had their respective parts from part 6 *heliocentric* as basic material. In such versions the composition is of course not conditioned by the structural-expressive weight of 100 minutes of preceding music, but nevertheless opens unforseeable possibilities for the notated material as "seeds" for spontaneous elaboration.

section	<u>start time</u>	<u>duration</u>	<u>material source</u>
1	0'00″	20″	strange lines and distances
2	0′20″	1′30″	Politeia
3	1′50″	40″	Hekabe-alpha
4	2′30″	20″	wound I
5	2′50″	40″	Kassandra
6	3′30″	2′30″	heliocentric
7	6′00″	1′00″	Omaggio a Chirico
8	7′00″	40″	Andromakhe
9	7′40″	40″	wound 2
10	8'20"	1′10″	news from nowhere
11	9′30″	30″	storming
12	10′00″	40″	Helene
13	10′40″	50″	wound 3
14	11′30″	1′50″	Island
15	13′20″	1′50″	Simorgh
16	15′10″	30″	wound 4
17	15′40″	40″	Hekabe-beta
18	16′20″	10″	wound 5
19	16′30″	30″	Germania
20	17'00″	3′00″	

end 20'00"

corrected score version 1.1 Den Haag 12 February 2012