Fredrik Rasten

Concord

for sixth-tone harmonium

and two e-bowed fretless electric guitars

(2021)

Concord was initiated by a commission from Prague Quiet Music Collective for me to compose music for a sixth-tone harmonium developed by Alois Hába and built by August Förster in 1937.

As my musical practice has harmony in just intonation as a centre, I wished to compose a piece where the harmonium is used to approximate some just intervals in interplay with my e-bowed electric guitars which I have worked with for my series of pieces called 'Murmurations' and for Chiyoko Szlavnics' piece Partial Response. **Concord** features an harmonium part that approximates Pythagorean tuning with its 12-TET subset, as well as septimal and 11-limit harmony with its various sixth-tones, while the electric guitar part, unbound by the sixth-tone temperament, has 5-limit tuning as a centre while occasionally branching out to the 7-, 11, 13, and 17-limit harmonic fields.

Guitar tuning and technique:

Guitar 1 (upper 3 lines of the guitar system) is tuned:

1 B - 30 (down from standard E) for the start of the piece stopped on G# - 12

2 B (string not played, e-bow sits on it)

3 G - 4 for the start of the piece stopped on F + 40

 $4\,\mathrm{D}$ (string not played, e-bow sits on it)

5 A (string not played, e-bow sits on it)
6 E - 2 for the start of the piece stopped on C# - 14

Guitar 2 (lower 3 lines of the guitar system) is tuned:

1 B - 30 (down from standard E) for the start of the piece stopped on C + 16

2 B (string not played, e-bow sits on it)

3 G + 18 for the start of the piece stopped on A +/- 0

4 D (string not played, e-bow sits on it)

5 A (string not played, e-bow sits on it)

6E-2 for the start of the piece stopped on F+14

The guitars are played with e-bows connected to an electricity outlet with 9V adapters, instead of batteries. Movable pegs made of wood or plastic are placed under the sounding strings to stop the string, except for the 3rd string on 'guitar 2', that is played with a round massive tonebar (usually used for pedal steel guitars) lying horizontally between the 3rd and 4th string, stopping the string while still being easily moved to change the pitch. Further details on the setup can be provided on request.

Interpretational notes:

There are no note values in the score, but for any of the voices, a note or pause lasts until it is succeeded by a new note or pause in the given voice (see 'Symbols and signs' for details on how the harmonium part is notated).

Note durations are free / flexible, and the graphic spacing between notes is generally not a guide to the pace of the music, but merely showing the succession of the note or pause entries.

The music should unfold with a focus on stability of tuning, combined with a sense of melodic movement.

When a sonority is difficult to tune, take your time to adjust - the searching and fine tuning is an intrinsic musical and human part of this music.

When the tuning is stabilized, take some seconds to dwell in the tuned sonority. As a general rule - more time should be spent *in* the tuned sonority than in the searching / tuning process, but chords should not be extended for the sake of it, when a note and the overall harmony is in tune, the music should generally proceed in a relaxed manner to the next change.

When a change occurs within one part, the movement can generally be a little bit faster, like a melodic phrase.

The transition between two notes in one line can either be direct, or comprise a short silence between the notes.

For the guitars - when a note is succeeded by another on the same string, the transition can either happen directly or as a glissandi (although, some glissandi are written out explicitly). Keep in mind that for a direct transition, the string needs to be dampened while moving the peg that stops the string.

The accidentals belong to the Extended Helmholtz-Ellis JI pitch notation by Marc Sabat and Wolfgang von Schweinitz.

More information about the accidentals: http://www.marcsabat.com/pdfs/notation.pdf

Symbols and signs:

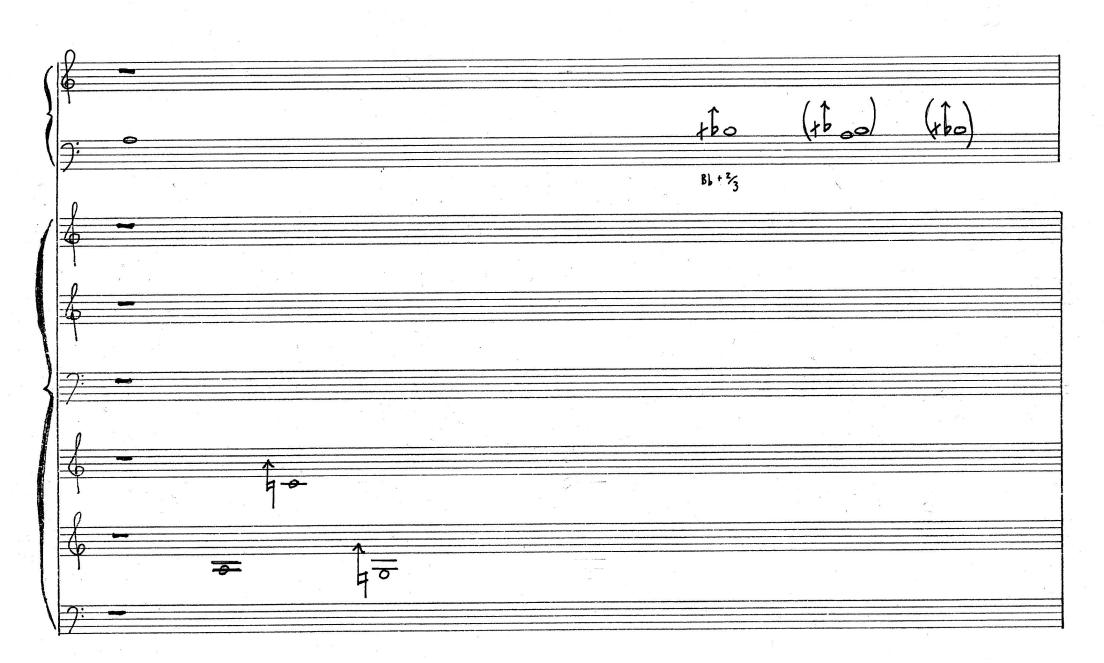
The Harmonium part is notated with **Helmholtz-Ellis accidentals** instead of the special sixth-tone accidentals, simply because this gives a more coherent view of the just harmony as a whole, in conjunction with the guitar. When a note has no special accidental this means that the note is in normal 12-TET (A 440), approximating Pythagorean fourths, fifths, major seconds and major ninths. When a note is written with a special accidental, it is also specified which degree of the three notes that splits the 12-TET half note in three that is played. For instance, 'Bb + ¾' means that the played note is 2 sixth-tones above the 12-TET Bb.

The **parentheses** in the harmonium part is a way of showing which notes are sounding at any given time - the notes that are already sounding and will continue are notated in parentheses, while new added notes are notated without parentheses. Each chord or note lasts until taken over by either a pause or a new chord / note.

Bidirectional arrows between notes signify one note taking over via an overlap with the preceding note. This process of going back and forth between the two notes via an overlap is repeated a few times (2 to 4) *ad lib*.

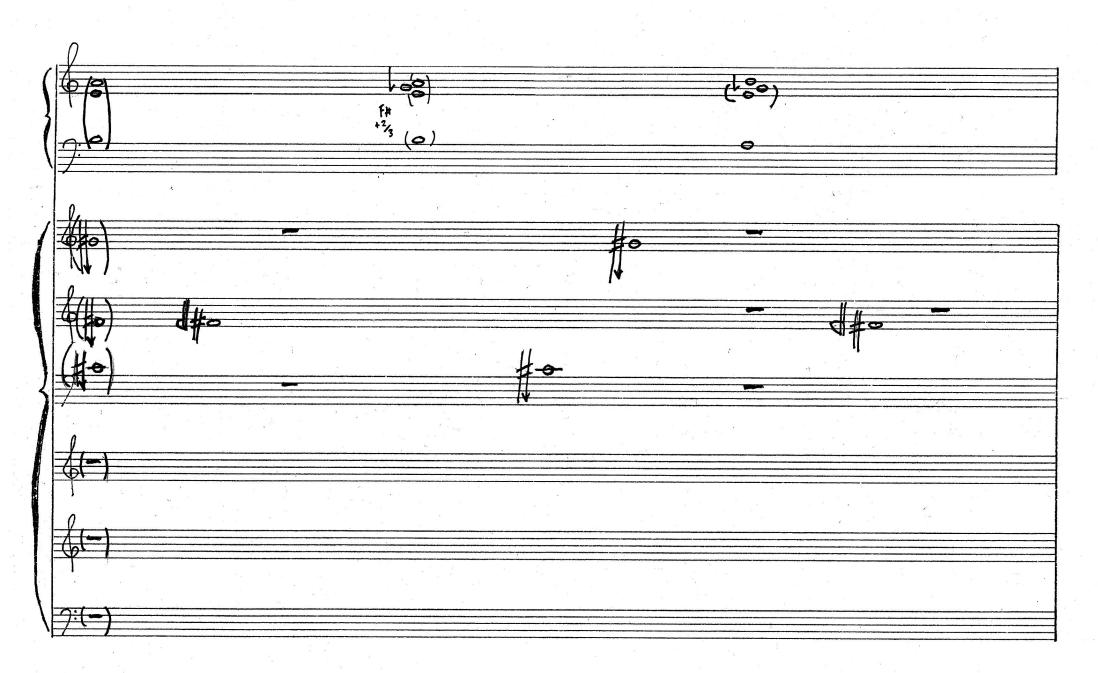
Legato bows show which of the two notes proceed into the continuation of the music.

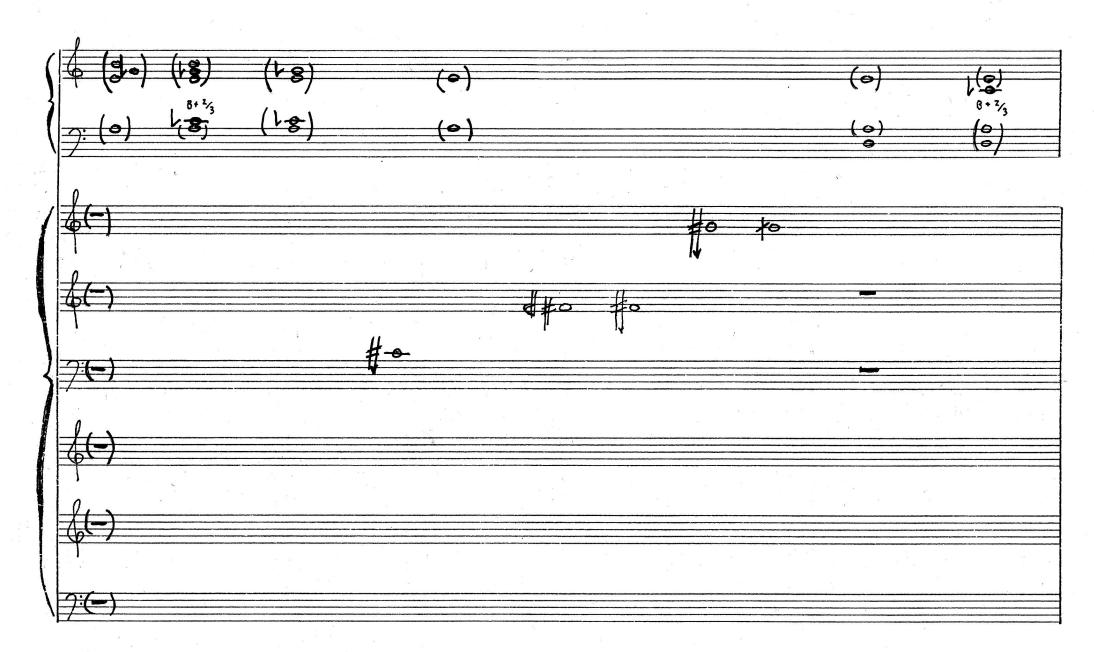
Other occasional connecting lines / arrows merely show the succession of the notes where the narrowness of the graphical spacing makes it potentially hard to read (note that the short or long vertical distances on the chronological timeline of the piece is generally not a guideline to the musical pace, which is free)



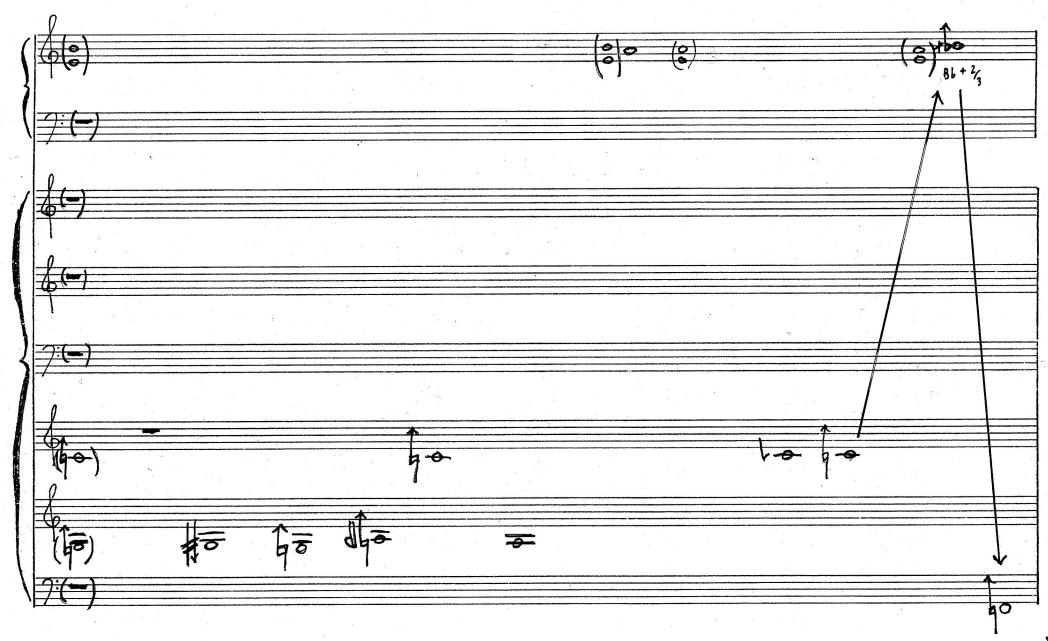


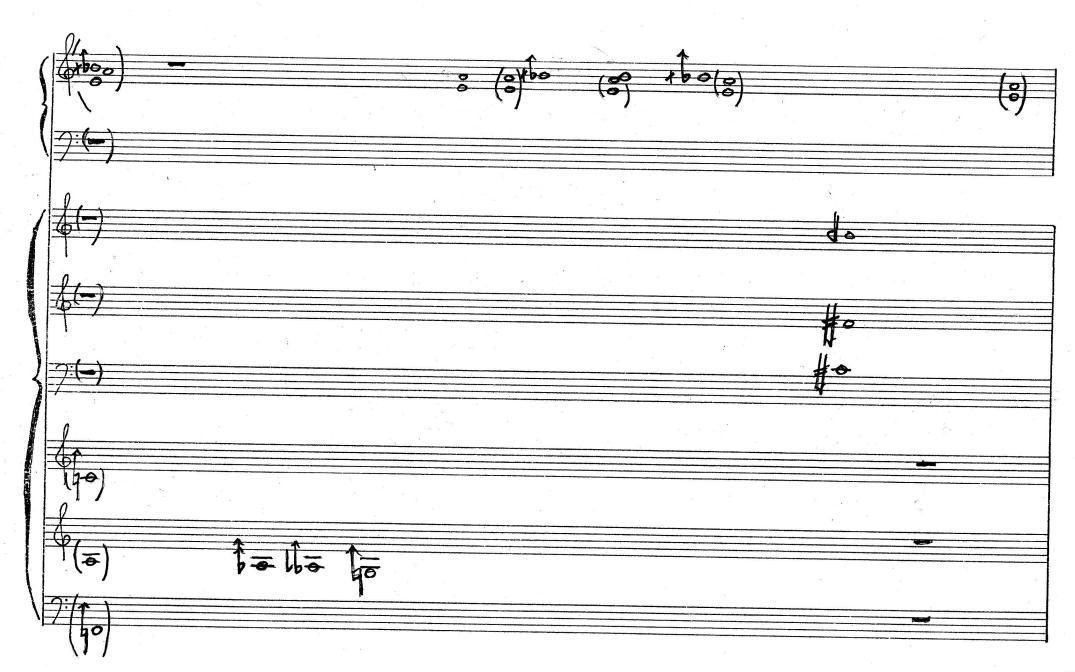


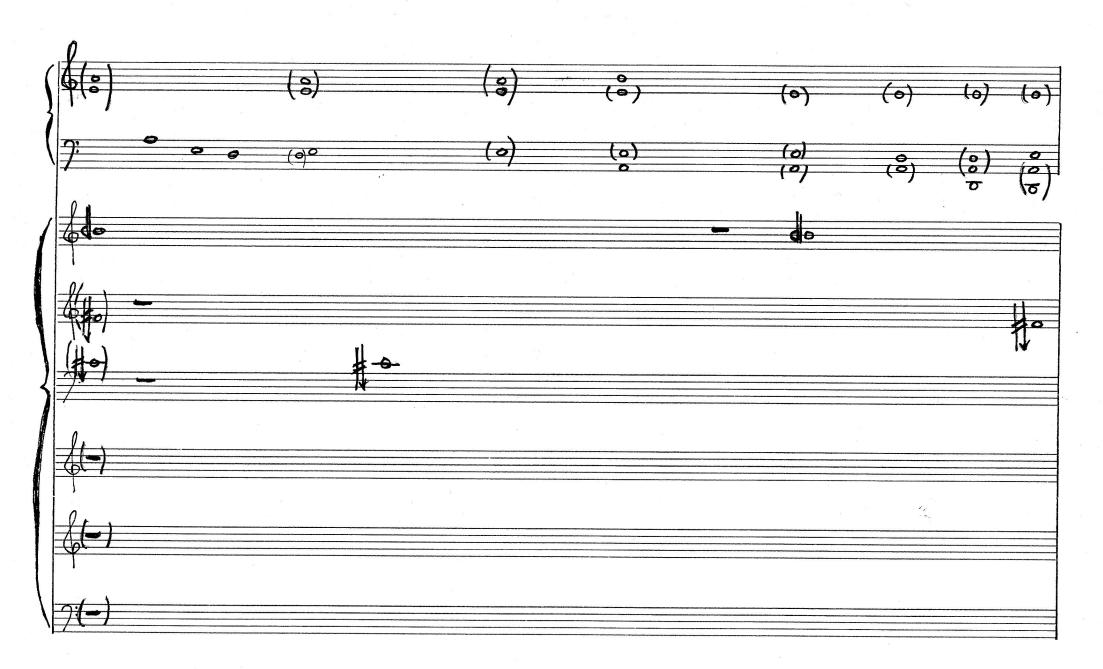


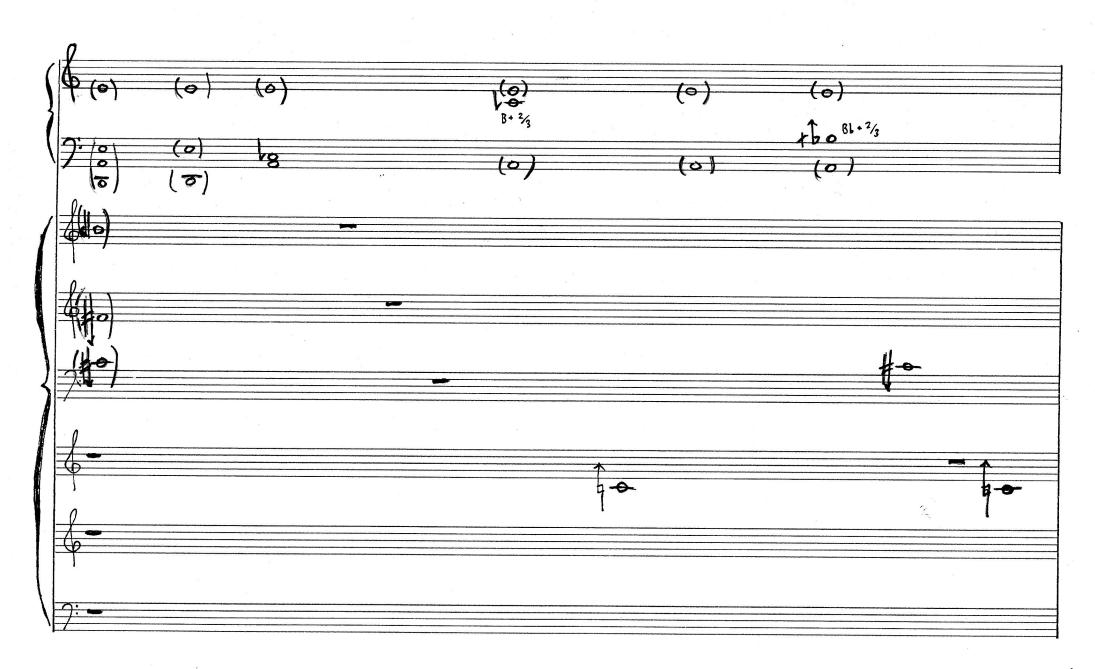


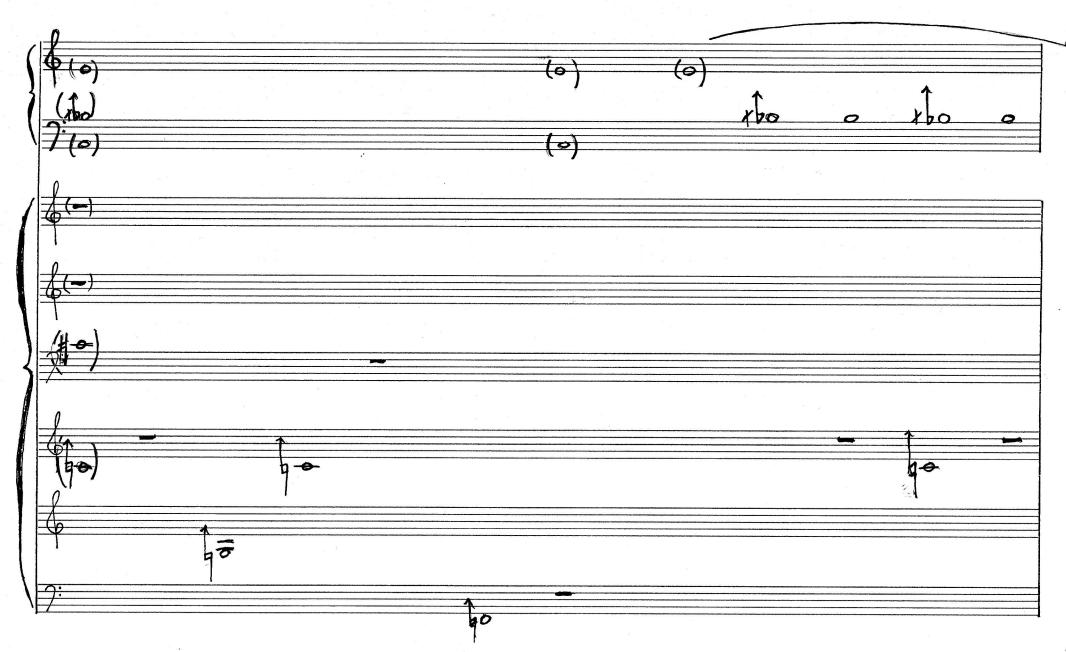


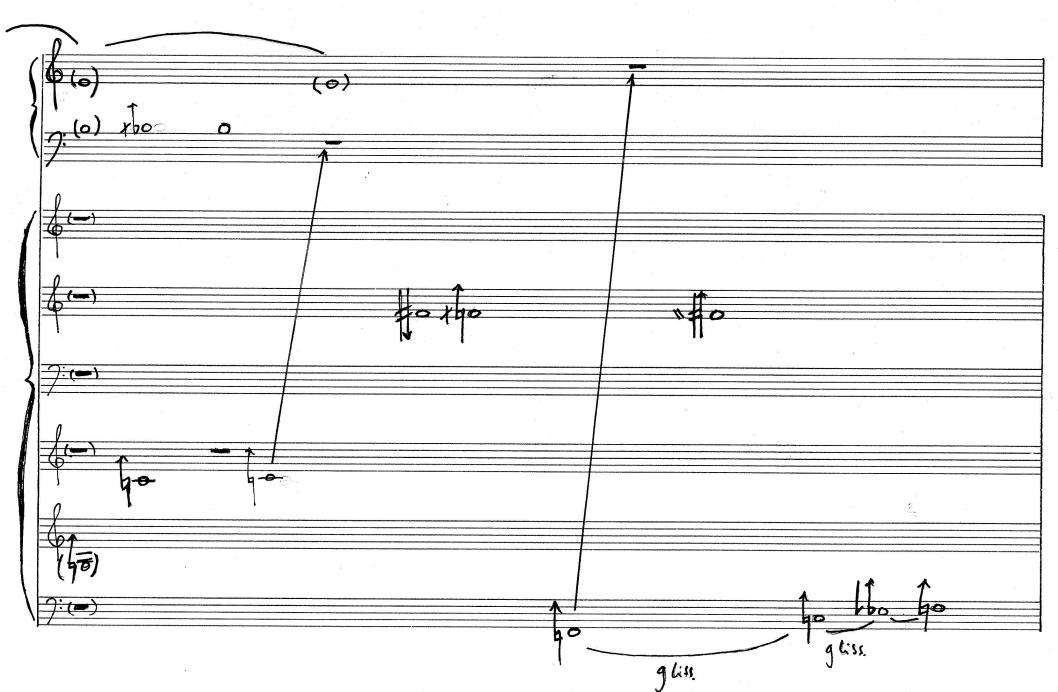


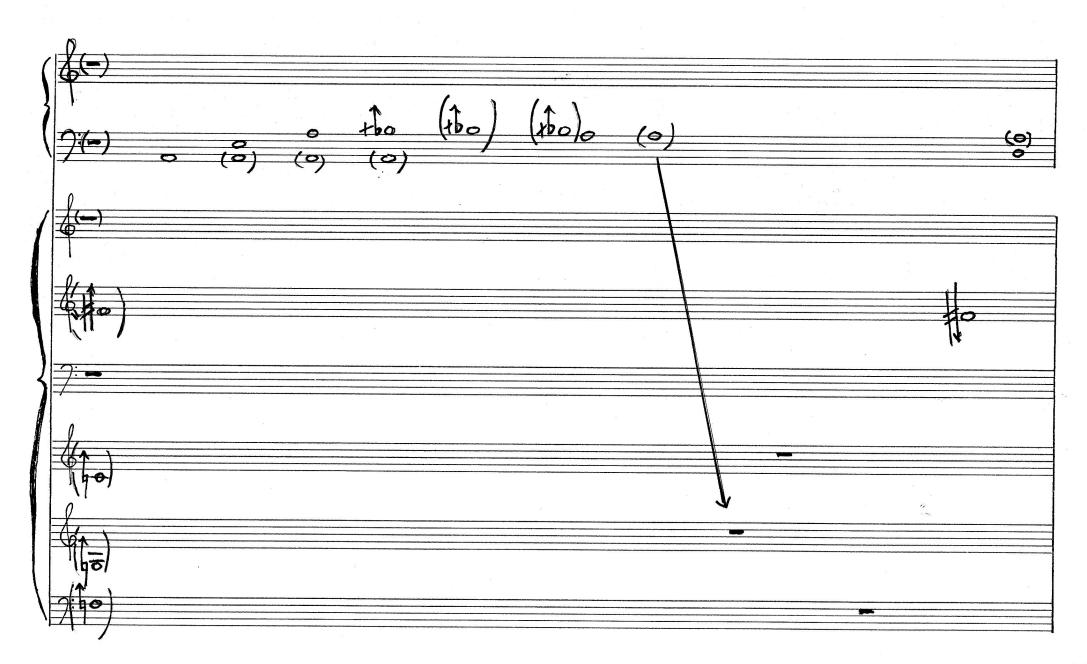


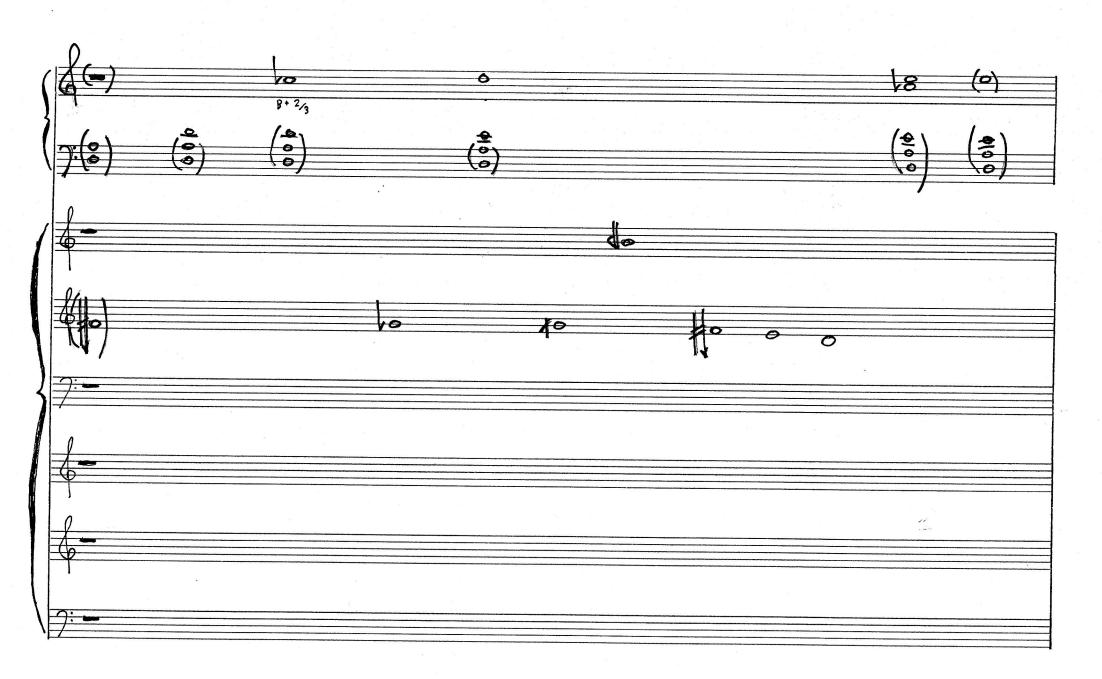


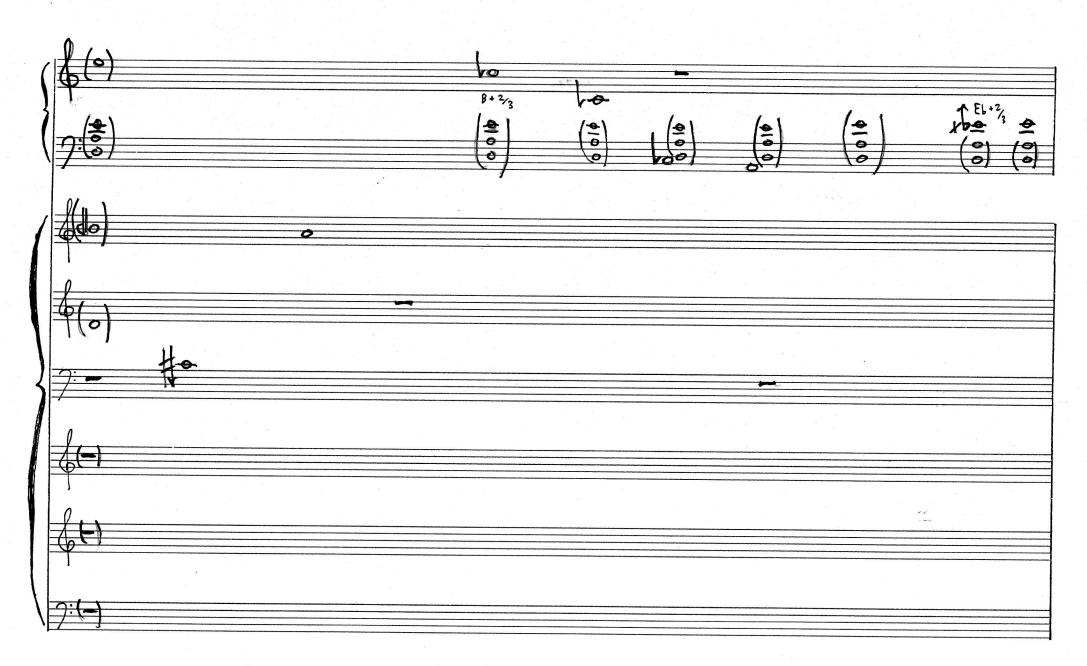


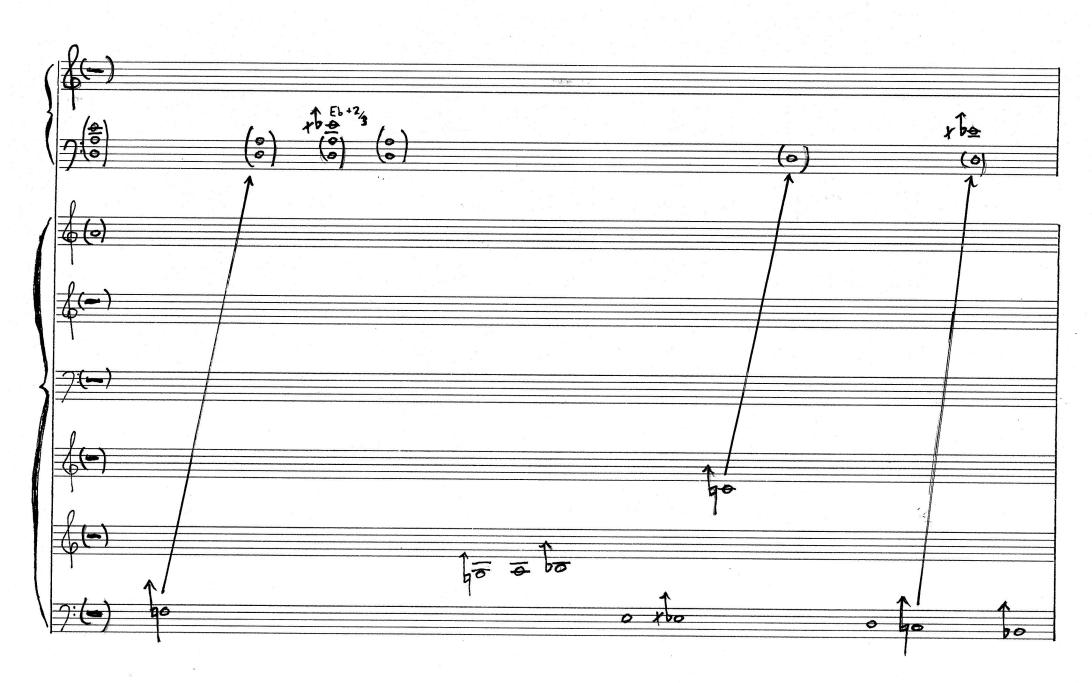


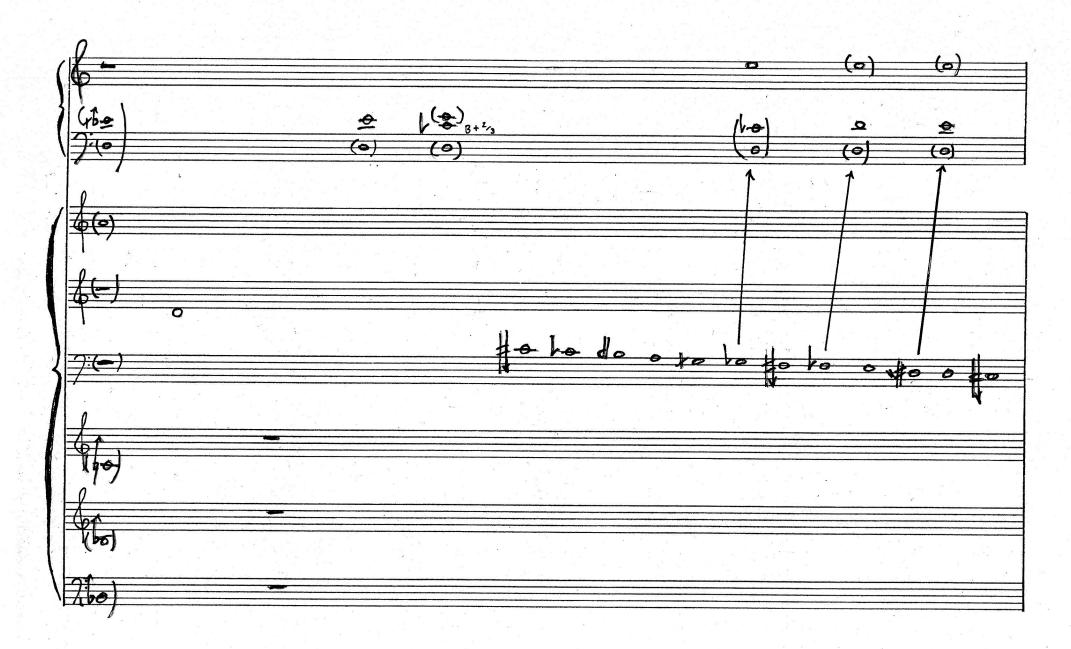


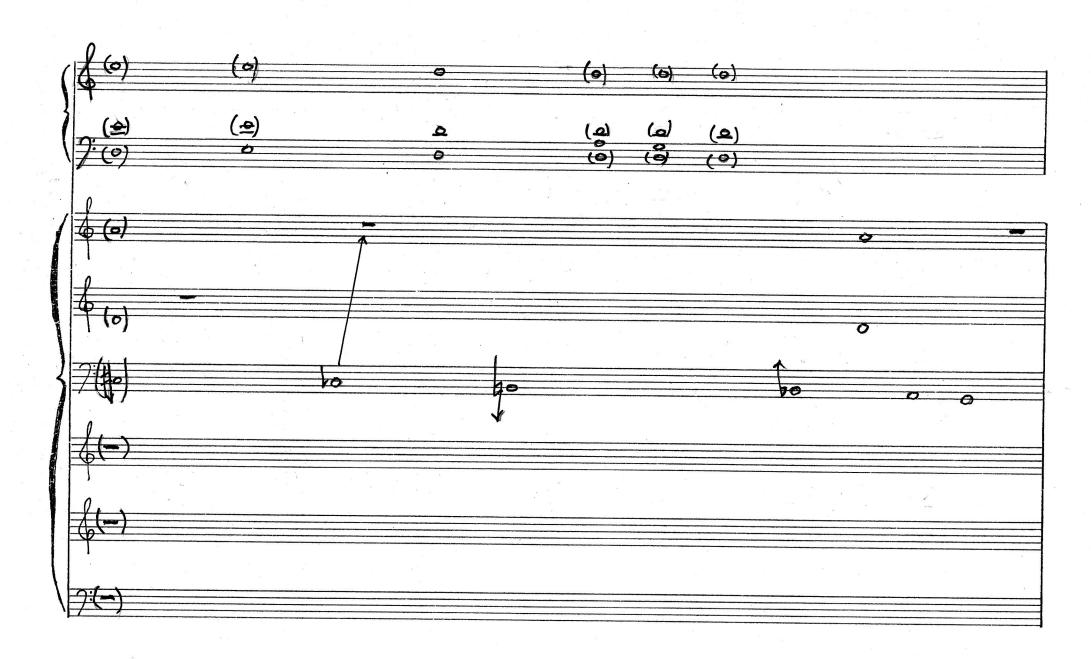


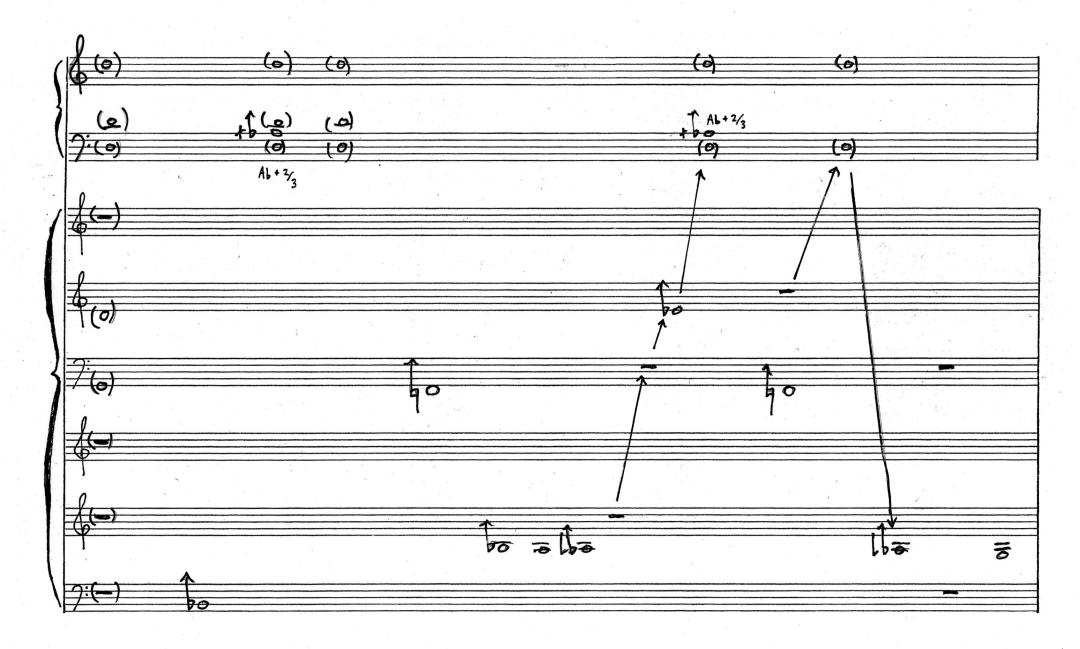


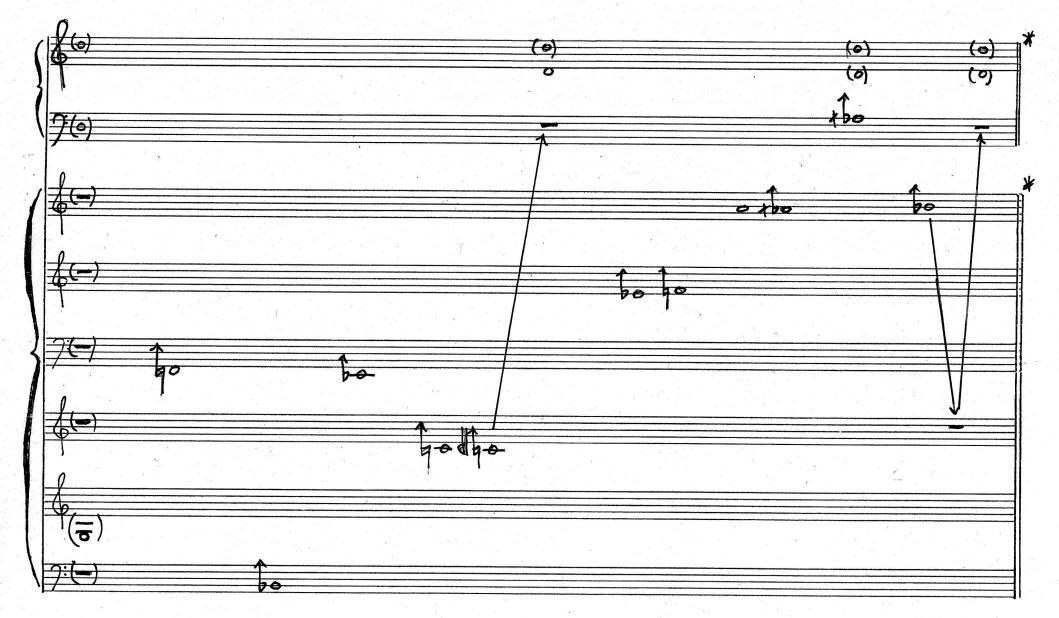












* LAST CHORD IS HELD FOR A WHILE