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(these are the generations...)

for 4 marimbas

and computer commentary

Harry Partch

1985

for William Winant

(Cantillation Study #3)



אלֵה תּוֹלְדוֹת

(*E'leh Tol'd'ot*) (*These are the generations...*)
(Cantillation Study #3)

for four marimbas and optional live computer commentary

for william winant

אלֵה תּוֹלְדוֹת is the third in a set of three works based on Masoretic Torah cantillation melodies for the shabbat morning. The first two pieces in this series are **בראשית** (*B'rey'sheet*) (*In the beginning...*) (Cantillation Study #1) for voice and live computer, and **וְלֹמֶשׁל** (*V'leem'shol*) (*And to rule...*) (Cantillation Study #2), a computer composed work for five flutes.

The piece may be played by four marimbas, or with live computer commentary. The optional computer commentary should be based on the same melody as occurs in Marimba 1 (the tropes themselves), and should be done live. A program by the composer for Macintosh, MIDI keyboard and MIDI synthesizer is available from the composer.

If the computer part is made by the performers themselves, many of the details are of necessity left to the software developer. However, there are certain criteria that should be kept in mind. The computer should either listen to the first marimba, or follow a keyboard or other MIDI input which plays the Marimba I part in unison (but should not be heard). The computer sounds should be based on that information (the tunes themselves). There should be a kind of "morphogenetic trajectory" in the commentary algorithms used which parallels that of the piece itself. This trajectory should begin with a high degree of computer generated morphological transformation of this part, and end by trying to follow it as closely as possible. The change from one extreme to the other should be gradual, changing a little bit with each "verse" of the piece. This process is analogous to the way the other marimba parts relate to the cantillation melodies over the course of the piece (and is the same, in some respects, as *Cantillation Studies #1 and #2*). The work, in other words, begins in a state of maximal development, and gradually moves towards a state of no development. The computer algorithms used need not be complex. The most important idea is that they start out varying the tropes greatly, and gradually close in on unison.

Optionally, the 17 verses from the Torah upon which the piece is based (II.4 - III.20, beginning with **אלֵה תּוֹלְדוֹת** and ending with the verse beginning **יִקְרָא הַאֲדָם**) may be sung before the piece is played, using the same tropes as are in the piece. This part should ideally be sung by a woman.

אלֵה תּוֹלְדוֹת was premiered in Zurich, Switzerland, in March, 1994, by Jacqueline Ott, Matthias Wuersch, Christoph Brunner, Lucas N. Niggli, marimbas, and the composer performing the computer part.

Larry Polansky
Oakland, CA/December, 1986
(slight edits: 5/6/94, Lebanon, NH)



I ossia (

I

II ossia (

III ossia (

IV

I ossia f

I

II

III

IV

I ossia
loud, wild

II f sub.

III (1) (1) (1) (1) (1) (1)

IV

I 5:4 ossia 5:4 cresc. 6:3 (ff)

II ossia precise cresc. 1 5 6 pp

III precise 5:4 cresc. 6:3

IV mf

I

(f) (cresc.)

ff sub. mp

II

(cresc.)

ff sub. mp

III

(cresc.)

ff sub. mp

ossia

IV

after Fermata

II.

I

sub. f

ff mp

II

mp

III

pianissimo

pp

ff

IV

I

ossia *f*

mp *5:4* *mf* *(mf)* *7:6*

II *ff* *sub. f*

III *f* *mp* *f*

IV

I *sub. mp* *f* *sub. mf* *ff* *5:4* *ossia* *ossia*

II *sub. mf* *f* *ff*

III *mp* *mf* *ff* *4:3*

IV

I

ff

f (—)

ff

II

III

IV

I

ff

5

sub. pp

f (not ff)

osia

5

6

sub. pp

f

II

III

IV

I

f (f) static

II

f (f) static

III

f (f) static

IV

f (f) static

I

(f) sub pp p 6:5 ossia (f) sub mp pp

II

(f) sub pp sub mp pp

III

(f) mf mp mf pp

IV

(f) mf mp mf pp

I

 II

 III

 IV

I

 II

 III

 IV

III.

I

mp

ossia

mp

mf

mp

mf

I

pp

mf

mf

f

pp

mf

mf

f

IV.

not very staccato, slight ring

I 

not very staccato, slight ring

II 

not very staccato, slight ring

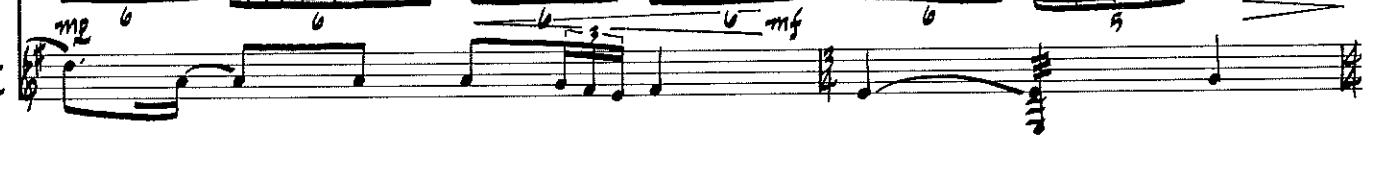
III 

IV 

I 

II 

III 

IV 

I

mf

(mf) 5

II

mf

III

mp - mf

mf

IV

I

5

mf

f

ff

II

mf

(out of sync. with III)

mp <--> mf

f

III

6

6

6

mf

IV

3

3

3

I

sub. *mf*

mf

(*mf*)

sub. mf

cut off!

cut off!

cut off!

II

III

IV

V.

I

f

poco

(very fast trill)

poco

f

poco

poco

f

+ (damped)

(Part IV, don't get softer)

II

III

IV

I

II

III

IV

I

II

III

IV

VI.

Handwritten musical score for four staves (I, II, III, IV) in 6/4 time. The key signature changes frequently, including major and minor keys with various sharps and flats. Measure 1 starts with a forte dynamic (f) and includes grace notes. Measures 2-3 show complex sixteenth-note patterns. Measure 4 begins with a piano dynamic (p). Measures 5-6 feature eighth-note patterns. Measure 7 concludes with a forte dynamic (f).

Handwritten musical score for four staves (I, II, III, IV) in 6/4 time. The key signature changes frequently, including major and minor keys with various sharps and flats. Measure 1 starts with a forte dynamic (f) and includes grace notes. Measures 2-3 show complex sixteenth-note patterns. Measure 4 begins with a piano dynamic (p). Measures 5-6 feature eighth-note patterns. Measure 7 concludes with a forte dynamic (f).

I

II

III

IV

mp - mf

5:4

I

ossia

II

III

IV

mp - mf cresc.

5:4

I

ossia

II

III

IV

sub. ff

f

I

II

III

IV

mf

ff

VII.

I

f

II

III

IV

ossia

I

II

III

IV

H

II

III

IV

I

II

III

IV

(damp)

VIII.

I

II

III

mono f

IV

I (f)

II (f)

III (f)

IV

I (f)

II (f)

III (f)

IV

IX.

I

II

III

IV

I

II

III

IV

X.

I

(cresc - decrease ad lib)

II

f (cresc - decrease ad lib)

III

f (cresc - decrease ad lib)

IV

I

f (cresc - decrease ad lib)

II

(cresc - decrease ad lib)

III

(cresc - decrease ad lib)

IV

84a

I

II

III

IV

XL.

100

I

II

(damp)

ossia

(damp)

III

IV

I

(f)

II

(#3)
ossia (damp)
(f)

III

(f)

IV

I

(f)

II

(f)

III

(f)

IV

XII.

I

sub mp, legato, but not overlapping

II

sub mp, legato, but not overlapping

III

sub mp, legato, but not overlapping

IV

I

(mp)

II

(4/5)
(mp)

III

(mp)

IV

H

(mf)

4:3 4:3

5:3 5:3

6:3 6:3

6:3 6:3

H

(mf)

(mf)

(mf)

(mf)

XIII

5:4

6:4

7:4

mf (low notes ossia)

mf

4:3

f

mf

mf

mf

mf

mf

A handwritten musical score consisting of four staves, each labeled with a capital letter and a number: H1, H2, H3, and H4. The music is written on five-line staves with various clefs (G, F, C, B), time signatures (4/4, 3/4, 5/4), and key signatures. The notation includes a variety of note heads, stems, and bar lines, indicating complex rhythmic patterns. Dynamics such as f , ff , and p are present, along with performance instructions like '(L.V.)' and '(4)'. The score is divided into measures by vertical bar lines.

XIV.

Musical score for two staves, I and II, across six systems:

- Staff I:** Treble clef, 6/8 time, key signature of 5 sharps. Dynamics: p , 5 , p , 5 , p . Articulation: *slightly articulated*. Measure 6: 5 , 6 . Measure 7: p , 5 , 6 . Measure 8: p , 5 , 6 .
- Staff II:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 1:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 2:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 3:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 4:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 5:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .
- System 6:** Treble clef, 4/4 time, key signature of 4 sharps. Dynamics: p , 5 , p , 5 , p .

Performance instructions:

- Measure 6: *slightly articulated*
- Measure 7: *(still p)*
- Measure 8: *Louder*
- Measure 9: *4:3*
- Measure 10: *slightly articulated*
- Measure 11: *add treble clef, ossia:*
- Measure 12: *(ossia)*
- Measure 13: *5:3*

XV Chorale

Handwritten musical score for four voices (I, II, III, IV) showing measures 1 through 10 of a chorale. The score includes dynamic markings like "a little louder (mp)", tempo changes (4:3, 5:4), and performance instructions like "ossia" and "ad lib.". Measures 1-3 show voices I, II, and IV. Measures 4-5 show voices II, III, and IV. Measures 6-7 show voices III and IV. Measures 8-9 show voices II and IV. Measure 10 shows voice IV alone.

I
 II
 III
 IV

(as one arpeggio)
 (5)
 (5)
 (5)

XVI. Chorale

I
 II
 III
 IV

(5)
 (5)
 (5)
 (5)

I *3 steady, quiet*
 II *3 steady, quiet*
 III *3 steady, quiet*
 IV

even (b)

I *(w)*
 II *(w) still quiet*
 III *(w) still quiet*
 IV

(w) still quiet

* Marimba III: On a five octave marimba
these two notes should be
doubled at the lower octave.

H

quiet

2, bring out

(7)

H

inner voice, hold back

(2)

(7)

H

quiet

(G) h

(G) h

2, bring out

(7)

H

(2) (→)

(roll if necessary)

(inner voice)

(7)

H

(2)

(2)

(7)

H H

H H

III IV

XVII.

a bit slower

quiet and gentle

quiet and gentle

one-hand tremolo

31-

H

H

H

H

H

legato till end

H

mp - mf, static

legato till end

damp

H

mp - mf, static

legato till end

damp

H

legato till end

H

mp - mf, static

H

I (legato)
 (static, mp-mf) slight rit. quiet

II (legato)
 (static, mp-mf) slight rit. quiet

III (legato)
 (static, mp-mf) (legato)
 (static, mp-mf) no rit. no rit. notr. slight rit. quiet
 slight rit.

fine

