

# THE AARDVARKS' PARADE

FOR MICROTONAL KEYBOARD AND SOUNDFILE (MIDI SCORE)

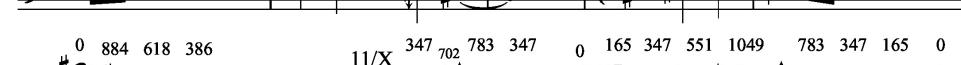
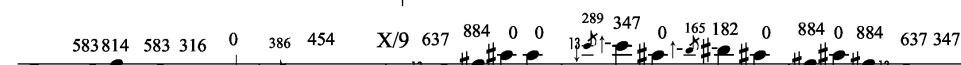
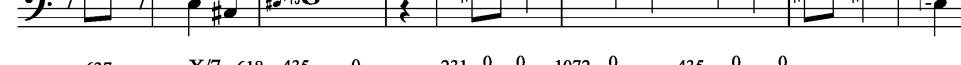
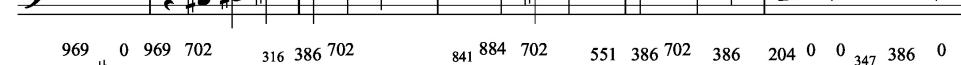


by KYLE GANN  
2009

## *The Aardvarks' Parade (2009)*

I have always been fascinated by aardvarks. As a junior high kid I wrote a comic strip about a superhero called Super-Aardvark. His sidekick was a komodo dragon.

The idea I had for this piece was to write a simple, memorable melody conventional in every way except for its tuning, which would weave back and forth between familiar intervals and quarter- and sixth-tones. As in Ravel's *Bolero*, the melody repeats (four times) without alteration, with changes of only tone color and intensity. The plodding march time seemed appropriate for a procession of aardvarks. It is one of those comic pieces I write from time to time. The realization is electronic except for the chorus at the end, which I made by overdubbing my voice singing the melody, and the bass drum and tambourine, which I played in a studio. Here is the melody, with the number of cents above C# over each note, in Ben Johnston's notation (explained below). The melody starts at 0:14, 2:45, 5:16, and 7:47 in the recording if you want to follow it:

13/X 0 289 454 637 1072 637 1072 0 1072 637 386 454 289  
 289 637 289  
  
 637 841 1072 0 1072 637 454 139 151 0 10/X 0 182 386 884 0 884 0 151 182  
  
 0 884 618 386 11/X 347 702 783 347 0 165 347 551 1049 783 347 165 0  
  
 7/X 0 267 583 969 0 231 267 0 X/5 289 267 165 1018  
  
 583 814 583 316 0 386 454 X/9 637 884 0 0 289 347 0 165 182 0 884 0 884 637 347  
  
 637 X/7 618 435 0 182 231 0 0 1072 0 435 0 0  
  
 X/2 0 204 386 702 841 702 841 702 386 702 702 969 0 0 165 204 0  
  
 969 0 969 702 316 386 702 841 884 702 551 386 702 386 204 0 0 347 386 0  
  
 969 702 969 0 347 386 0 267 316 0 0 969 1018 0  
  
 783 637 618 583 551 386 435 498 454 347  
  
 267 0 204 386 454 498 386 204 0  


Another impetus was to reuse the wonderfully elegant tuning I had arrived at in my virtual piano piece *Triskaidekaphonia*, one whose possibilities I had only begun to explore. The tuning is superlatively simple: it consists of merely all the ratios formed by the whole numbers from 1 to 13, of which there are 29:

13/12, 13/11, 13/10, 13/9, 13/8, 13/7 (13/6, 13/5, and so on, are octaves of those already mentioned)

12/11, 12/7 (12/10 is the same as 6/5, 12/9 = 4/3, and so on)

11/10, 11/9, 11/8, 11/7, 11/6

10/9, 10/7 (10/8 = 5/4, 10/6 = 5/3)

9/8, 9/7, 9/5

8/7, 8/5

7/6, 7/5, 7/4

6/5

5/4, 5/3

4/3

3/2

1/1

The resulting scale, correlated to the pitches in this MIDI score, is as follows (middle C = C3):

MIDI Keys:		Ratio to 1/1	Pitch Name:	Cents above C#:	
A1	D4	13/7	BL13-	1071.7	
G#1	C#4	11/6	B^-	1049.4	
G1	C4	9/5	B	1017.6	
F#1	B3	E6	7/4	B7	968.8
F1	Bb3	Eb6	12/7	A#L	933.1
E1	A3	D6	5/3	A#	884.4
Eb1	G#3	C#6	13/8	A13	840.5
D1	G3	C6	8/5	A	813.7
C#1	F#3	B5	11/7	G#L^-	782.5
C1	F3	Bb5	3/2	G#	702.0
B0	E3	A5	13/9	G13-	636.6
Bb0	Eb3	G#5	10/7	FxL	617.5
A0	D3	G5	7/5	G7	582.5
G#0	C#3	F#5	11/8	F#^	551.3
G0	C3	F5	4/3	F#	498.0
F#0	B2	E5	13/10	F13	454.2
F0	Bb2	Eb5	9/7	E#L	435.1
E0	A2	D5	5/4	E#	386.3
Eb0	G#2	C#5	11/9	E^-	347.4
D0	G2	C5	6/5	E	315.6
C#0	F#2	B4	13/11	E13v	289.2
C0	F2	Bb4	7/6	E7	266.9
B-1	E2	A4	8/7	D#L-	231.2
Bb-1	Eb2	G#4	9/8	D#	203.9
A-1	D2	G4	10/9	D#-	182.4
G#-1	C#2	F#4	11/10	D^-	165
G-1	C2	F4	12/11	D#v	150.6
F#-1	B1	E4	13/12	D13-	138.6
F-1	Bb1	Eb4	1/1	C#	0

# The Aardvarks' Parade

(Triskaidekaphonia 2)

Kyle Gann  
2009

Stately  
 $\text{♩} = 100$

Celesta

Piano 13/X

Ocarina

Electric Organ

Contrabassoon

Bass Drum

*f*

10/X

Cel.

Pno.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

15

Cel.

Pno. 11/X

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

22

Cel.

Pno.

E. Org.

Cbsn.

Bs. Dr.

7/X      X/5

The Aardvarks' Parade

29

Cel.

Pno. X/9 X/7

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

Musical score for "The Aardvarks' Parade" featuring five staves:

- Cel.** (Cello) staff 36: Measures 1-8. Cel. 1 plays eighth-note pairs (B, G), (A, F), (G, E), (F, D). Cel. 2 rests. Measure 9: Cel. 1 rests, Cel. 2 plays eighth-note pairs (E, C), (D, B), (C, A).
- Pno.** (Piano) staff 36: Measures 1-8. Rests. Measure 9: Starts with eighth-note pairs (D, B), (C, A), (B, G), (A, F), (G, E), (F, D). Measure 10: Eighth-note pairs (E, C), (D, B), (C, A), (B, G), (A, F), (G, E), (F, D).
- E. Org.** (Electric Organ) staff 36: Measures 1-8. Rests. Measures 9-10: Sustained notes (B, G), (A, F), (G, E), (F, D).
- Cbsn.** (Cassinet) staff 36: Measures 1-8. Rests. Measures 9-10: Sustained notes (F#), (D#), (B#), (G#).
- Bs. Dr.** (Bass Drum) staff 36: Measures 1-8. Rests. Measures 9-10: Sustained notes (D), (C), (B), (A).

X/2

*The Aardvarks' Parade*

44

Pno.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

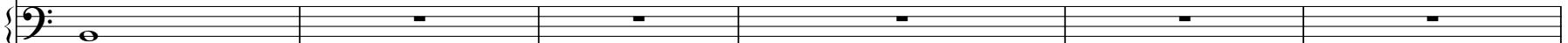
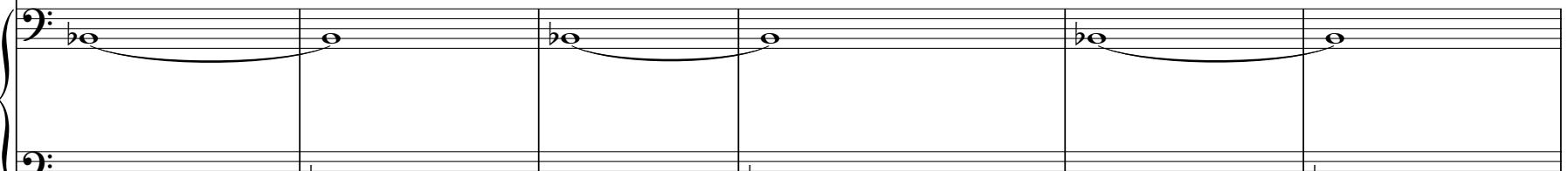
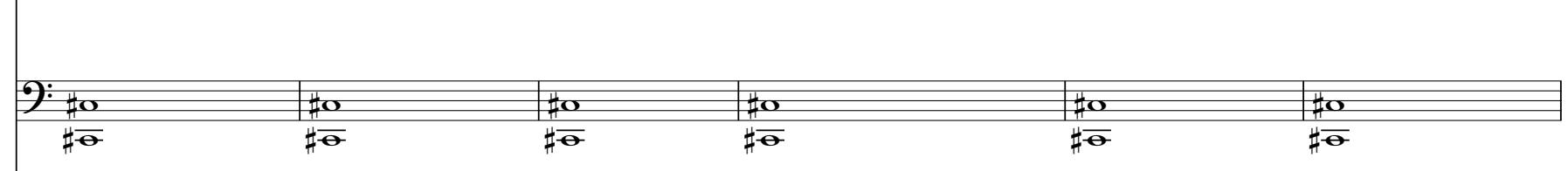
Musical score for five instruments:

- Cel. (Cello): Melodic line with grace notes and slurs.
- Pno. (Piano): Harmonic bass line.
- E. Org. (Electric Organ): Sustained notes providing harmonic support.
- Cbsn. (Cassinetoon): Rhythmic pattern.
- Bs. Dr. (Bass Drum): Rhythmic pattern.

The score consists of six staves. The first three staves are grouped by a brace under the Cel. and Pno. labels. The last two staves are grouped by a brace under the Cbsn. and Bs. Dr. labels. Measure numbers 52 through 59 are indicated at the top of each staff.

*The Aardvarks' Parade*

60

Cel. {  Pno. {  Mar. {  Oc. {  E. Org. {  Cbsn. {  Bs. Dr. { 

*The Aardvarks' Parade*

A

Cel.

Pno.

Mar.

Oc.

E. Org.

Cbsn.

Bs. Dr.

13/X

5

A

74

A musical score for orchestra and piano, page 11. The score consists of five staves. The first two staves are for the Cello (Cel.) and Piano (Pno.), both in treble clef. The third staff is for the Double Bassoon (E. Org.) in bass clef. The fourth staff is for the Bassoon (Cbsn.) in bass clef. The fifth staff is for the Bass Drum (Bs. Dr.) in bass clef. Measure 74 begins with Cel. and Pno. playing eighth-note patterns. The E. Org. and Cbsn. provide harmonic support with sustained notes. The Bs. Dr. provides rhythmic punctuation. The music continues with a dynamic section labeled "10/X".

Cel.

Pno. 10/X

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

Musical score for "The Aardvarks' Parade" showing five staves:

- Cel.**: Treble clef, key signature of B-flat major (two flats). Measures 11/X: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measures 12/5: eighth note F-sharp, eighth note E, eighth note D, eighth note C-sharp. Measure 12/7: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measure 13/X: eighth note B-flat, eighth note A-flat, eighth note G-flat.
- Pno.**: Treble clef, key signature of B-flat major (two flats). Measures 11/X: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measures 12/5: eighth note F-sharp, eighth note E, eighth note D, eighth note C-sharp. Measure 12/7: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measure 13/X: eighth note B-flat, eighth note A-flat, eighth note G-flat.
- E. Org.**: Bass clef. Measures 11/X: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measures 12/5: eighth note F-sharp, eighth note E, eighth note D, eighth note C-sharp. Measure 12/7: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measure 13/X: eighth note B-flat, eighth note A-flat, eighth note G-flat.
- Cbsn.**: Bass clef, key signature of B-flat major (two flats). Measures 11/X: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measures 12/5: eighth note F-sharp, eighth note E, eighth note D, eighth note C-sharp. Measure 12/7: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measure 13/X: eighth note B-flat, eighth note A-flat, eighth note G-flat.
- Bs. Dr.**: Bass clef. Measures 11/X: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measures 12/5: eighth note F-sharp, eighth note E, eighth note D, eighth note C-sharp. Measure 12/7: eighth note B-flat, eighth note A-flat, eighth note G-flat. Measure 13/X: eighth note B-flat, eighth note A-flat, eighth note G-flat.

*The Aardvarks' Parade*

88

Cel.

X/5

Pno.

X/5

X/9

E. Org.

Cbsn.

Bs. Dr.

The musical score consists of five staves. The first three staves (Cel., Pno., E. Org.) have treble clefs and the last two (Cbsn., Bs. Dr.) have bass clefs. Measure 88 starts with a 5/8 time signature. Measures 89-90 show the Cel. and Pno. playing eighth-note patterns. Measure 91 begins with a 7/8 time signature. Measures 92-93 start with a 9/8 time signature. The E. Org. and Cbsn. staves provide harmonic support with sustained notes and chords. The Bs. Dr. provides a steady bass line.

*The Aardvarks' Parade*

Musical score for five instruments:

- Cel.** (Cello): Staff 1. Measure 95: 5 eighth notes. Measures 96-97: Rests. Measure 98: 7 eighth notes. Measures 99-100: Rests. Measure 101: 5 eighth notes. Measures 102-103: Rests. Measure 104: 7 eighth notes. Measures 105-106: Rests. Measure 107: 5 eighth notes. Measures 108-109: Rests.
- Pno.** (Piano): Staff 2. Measure 95: Rest. Measures 96-97: Rests. Measure 98: 7 eighth notes. Measures 99-100: Rests. Measure 101: 7 eighth notes. Measures 102-103: Rests. Measure 104: 7 eighth notes. Measures 105-106: Rests. Measure 107: 7 eighth notes. Measures 108-109: Rests.
- E. Org.** (Electric Organ): Staff 3. Measure 95: Sustained note with a grace note. Measures 96-97: Sustained note with a grace note. Measure 98: Sustained note with a grace note. Measures 99-100: Sustained note with a grace note. Measure 101: Sustained note with a grace note. Measures 102-103: Sustained note with a grace note. Measure 104: Sustained note with a grace note. Measures 105-106: Sustained note with a grace note. Measure 107: Sustained note with a grace note. Measures 108-109: Sustained note with a grace note.
- Cbsn.** (Cassinet): Staff 4. Measure 95: Sustained note with a grace note. Measures 96-97: Sustained note with a grace note. Measure 98: Sustained note with a grace note. Measures 99-100: Sustained note with a grace note. Measure 101: Sustained note with a grace note. Measures 102-103: Sustained note with a grace note. Measure 104: Sustained note with a grace note. Measures 105-106: Sustained note with a grace note. Measure 107: Sustained note with a grace note. Measures 108-109: Sustained note with a grace note.
- Bs. Dr.** (Bass Drum): Staff 5. Measure 95: Quarter note. Measures 96-97: Quarter note. Measure 98: Rest. Measures 99-100: Rest. Measure 101: Rest. Measures 102-103: Rest. Measure 104: Rest. Measures 105-106: Rest. Measure 107: Rest. Measures 108-109: Rest.

Measure numbers: 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109.

Tempo markings: X/7, X/2.

*The Aardvarks' Parade*

102

A musical score for orchestra and band, page 15, measure 102. The score consists of five staves:

- Cel.** (Cello) in treble clef, playing eighth-note patterns.
- Pno.** (Piano) in treble clef, playing eighth-note patterns.
- E. Org.** (Electric Organ) in bass clef, playing sustained notes with long horizontal dashes below them.
- Cbsn.** (Cimbals) in bass clef, playing eighth-note patterns.
- Bs. Dr.** (Bass Drum) in bass clef, playing eighth-note patterns.

The music is in common time, and the key signature changes throughout the measures. The cellos and piano provide harmonic support, while the organ and brass instruments play rhythmic patterns. The bass drum provides a steady beat.

*The Aardvarks' Parade*

110

Cel.

Pno.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

Cel. { 118  
 Pno.  
 Mar.  
 Oc.  
 E. Org.  
 Cbsn.  
 Bs. Dr.

The score consists of seven staves, each representing a different instrument or section. The instruments are: Cellos (Cel.), Piano (Pno.), Marimba (Mar.), Oboe (Oc.), Electric Organ (E. Org.), Bassoon (Cbsn.), and Bass Drum (Bs. Dr.). The tempo is marked as 118. Various musical elements are present, including eighth and sixteenth note patterns, rests, and slurs. Measure numbers 5 and 17 are indicated at the top right. The electric organ and bassoon provide harmonic support with sustained notes, while the other instruments contribute rhythmic patterns.

*The Aardvarks' Parade*

125

Cel.

Mar.

Oc.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

**B**

132

The musical score consists of eight staves. From top to bottom:

- E.Hn. (English Horn) has a melodic line with grace notes and sustained notes.
- Cel. (Cello) has a rhythmic pattern marked "13/X".
- Pno. (Piano) has a rhythmic pattern marked "13/X".
- Mar. (Marimba) has a rhythmic pattern marked "13/X" and dynamic "ff".
- E. Org. (Electric Organ) has sustained notes.
- Cbsn. (Cimbals) has sustained notes marked "B".
- Bs. Dr. (Bass Drum) has sustained notes.

*The Aardvarks' Parade*

140

E.Hn.

Cel. 10/X 11/X

Pno. 10/X 11/X

Mar. 10/X 11/X

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

147

E.Hn.

Cel. 5 5 7/X X/5 X/5

Pno. 7/X X/5 X/5

Mar.

E. Org.

Cbsn. ♯ o ♯ o ♯ o ♯ o ♯ o ♯ o

Bs. Dr. o o o o o o o o

This musical score page contains six staves. The first staff features E. Hn. (E♭ Horn) with a melodic line. The second staff features Cel. (Cello) with a rhythmic pattern of eighth-note pairs, marked with a 5 overline, followed by a 7/X overline, and then a X/5 overline. The third staff features Pno. (Piano) with a similar rhythmic pattern. The fourth staff features Mar. (Marimba) with a rhythmic pattern. The fifth staff features E. Org. (Electric Organ) with sustained notes. The sixth staff features Cbsn. (Cassinet) with sustained notes marked with ♯ o. The seventh staff features Bs. Dr. (Bass Drum) with sustained notes.

*The Aardvarks' Parade*

153

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Bs. Dr.

X/9      5      X/7

X/9      X/7

X/9      X/7

*The Aardvarks' Parade*

160

E.Hn.

Cel. X/2  
X/2

Pno.

Mar.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

168

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

176

A musical score page showing parts for E. Hn., Cel., Pno., Mar., E. Org., Cbsn., and Bs. Dr. The score consists of seven staves. The first three staves (E. Hn., Cel., Pno.) are grouped by a brace. The fourth staff (Mar.) is grouped by a brace with the third staff. The fifth staff (E. Org.) is grouped by a brace with the fourth staff. The last two staves (Cbsn., Bs. Dr.) are grouped by a brace.

E.Hn. Cel. Pno. Mar. E. Org. Cbsn. Bs. Dr.

*The Aardvarks' Parade*

184

A musical score for orchestra and piano, page 26, measure 184. The score includes parts for E.Hn., Cel., Pno., Mar., Oc., E. Org., Cbsn., and Bs. Dr. The piano part features a complex melodic line with grace notes and slurs. The bassoon and double bass provide harmonic support with sustained notes.

E.Hn. {  
Cel. {  
Pno. {  
Mar. {  
Oc. {  
E. Org. {  
Cbsn.  
Bs. Dr.

*The Aardvarks' Parade*

**C**

13/X

191

E.Hn.

Cel.

Pno.

Mar.

Oc.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

*The Aardvarks' Parade*

198

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

10/X

10/X

10/X

10/X

*The Aardvarks' Parade*

206

E.Hn. { 11/X - | x x \_b | - | x \_b | - | x x x | - | x x x |

Cel. { 11/X - | x # \_b | - | x \_b | - | x x x | - | x x x |

Pno. { 11/X - | x x \_b | - | x \_b | - | x x x | - | x x x |

Mar. { 11/X - | x x \_b | - | x \_b | - | x x x | - | x x x |

E. Org. { - | o | \_b |

Cbsn. { - | #o | #o | #o | #o | #o | #o |

Tamb. { - | x | x | x | x | x | x | x | x | x | x | x |

Bs. Dr. { - | o | . | o | - | o | . | o | - | o | . | o |

*The Aardvarks' Parade*

213

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

X/5 X/9 X/5 X/9 X/5 X/9 X/5 X/9

*The Aardvarks' Parade*

220

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

X/7      X/2

X/7      X/2

X/7      X/2

*The Aardvarks' Parade*

228

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

*The Aardvarks' Parade*

236

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

*The Aardvarks' Parade*

244

E.Hn.

Cel.

Pno.

Mar.

E. Org.

Cbsn.

Tamb.

Bs. Dr.

*The Aardvarks' Parade*

Musical score for orchestra and piano, page 35, measure 251. The score includes parts for Cello (Cel.), Piano (Pno.), Electric Organ (E. Org.), Bassoon (Cbsn.), and Bass Drum (Bs. Dr.). The Cel. and Pno. parts feature eighth-note patterns with grace notes and slurs. The E. Org. part consists of sustained notes with long horizontal dashes. The Cbsn. part has sustained notes with sharp symbols. The Bs. Dr. part features eighth-note patterns.

251

Cel.

Pno.

E. Org.

Cbsn.

Bs. Dr.

*The Aardvarks' Parade*

Musical score for "The Aardvarks' Parade" featuring five staves:

- Cel.** (Cello) staff 1: Measures 254-255. Cel. plays eighth-note pairs (B, D#), (D, F#), (E, G#), (F, A#). Staff 2: Measures 256-257. Cel. plays eighth-note pairs (B, D#), (D, F#), (E, G#), (F, A#). Staff 3: Measures 258-259. Cel. plays eighth-note pairs (B, D#), (D, F#), (E, G#), (F, A#).
- Pno.** (Piano) staff 1: Measures 254-255. Pno. plays eighth-note pairs (G, B), (A, C#), (B, D#), (C, E). Staff 2: Measures 256-257. Pno. plays eighth-note pairs (G, B), (A, C#), (B, D#), (C, E). Staff 3: Measures 258-259. Pno. rests.
- E. Org.** (Electric Organ) staff 1: Measures 254-255. E. Org. plays sustained notes B, D. Staff 2: Measures 256-257. E. Org. plays sustained notes B, D. Staff 3: Measures 258-259. E. Org. plays sustained notes B, D.
- Cbsn.** (Cassinet) staff 1: Measures 254-255. Cbsn. plays sustained notes B, D. Staff 2: Measures 256-257. Cbsn. plays sustained notes B, D. Staff 3: Measures 258-259. Cbsn. plays sustained notes B, D.
- Bs. Dr.** (Bass Drum) staff 1: Measures 254-255. Bs. Dr. plays eighth-note pairs (B, D), (D, F), (E, G), (F, A). Staff 2: Measures 256-257. Bs. Dr. plays eighth-note pairs (B, D), (D, F), (E, G), (F, A). Staff 3: Measures 258-259. Bs. Dr. plays eighth-note pairs (B, D), (D, F), (E, G), (F, A).

July 2-11, 2009  
Germantown, NY

*The Aardvarks' Parade*