

Devonian Geometry

Erik Spangler

$\text{♩} = 72$

amplified, with wireless condenser microphone
mult. 91

Clarinet in B♭

Tam Tam

amplified, with contact microphone
superball mallet
drag slowly over the surface

etheral,
with shifting, indefinite pitch

Mezzo-soprano

sing into dynamic microphone, routed through modular synthesizer for live processing
mp
From the E - di - a - ca - ran

starting patch (beginning with the microphone input unprocessed, except for a small amount of spring reverb)

Modular Synthesizer

```

graph LR
    A119[A-119 Ext. Input] --> FLTR[FLTR]
    FLTR --> Multiple[Multiple]
    Multiple --> Phonogene[Phonogene]
    Phonogene --> ModDeMix[ModDeMix]
    ModDeMix --> Optomix[Optomix]
    Optomix --> A199[A199]
    A199 --> Clouds[Clouds]
    Clouds --> Outs[Outs]
    
    RS35[RS-35] -- freq. out --> Multiple
    RS35 -- position --> ModDeMix
    
    ContactMic[Contact Mic] --> Mikrophonie[Mikrophonie]
    Mikrophonie --> Oscillator[Oscillator]
    Oscillator --> InvY[InvY]
    
    Waveforms[Waveforms] --> Oscillator
    Envelope[Envelope] --> InvY
  
```

Cl.

move mallet freely across different parts of the surface,
seeking tones that blend with the clarinet multiphonics

Tam

M-S.

to the Cam - bri - an, — Or — do - vi - ci - an, — Si -

Modular

Clouds: begin to blend in wet signal (granular processing)

7

mult. 85

mult. 83

N strike

roll/strike

move around the surface freely for different tones

lu - ri - an,

to the De - vo - ni- an,

10

mult. 88

pp >

p < mp p pp < mp³ pp < mp pp <

mf

Ge-ne - tic_ mi - gra - tion

through the a - ges_ of Earth,

Modular

A-119: envelope out to Clouds: size

14

microtonal variation
2 1 2 1 2 1 2

to medium shells
played against the surface

p

mp

mf > pp pp <

M-S.

17

Cl. *mf* mult. 92 microtonal variation 1 2 5

Tam *mf* 3 *mp* *p* *mf* 3 *mf* 3 *p* *mf*

M-S. *mf* 3 A chain of be - ing,- em bed - ded

Modular NanoRand: Random output to Phonogene: Organize CV

Improvise with live patching, toggling the record button on the Phonogene

20 mult. 88

Cl. *pp* 1 2 *p* *pp*

Tam *p* 3 *mf* *pp* *mp* *p* *pp* < *mp* *pp* < *mp*

M-S. 3 in se - di ment, Life - - forms mul-

23

Cl. *p* *mp* *p*

Tam *p* *pp* < *mp* *mf* *pp* < *mf* *pp* : *mf*

M-S. 3 - ti - ply and dis - solve in stone..

25

Cl. *mp* 6 *mf* >*p*

Tam *f* 5 *pp*

M-S.

to flat-body kalimba,
pressed against the upper part of tam tam

B

27

Cl. *pp* *p* *pp*

Tam *mp* *mp* *mf* *pp*

M-S. *mp* *mf*

kalimba:
The Earth re-tains this me-mo-ry,

My cells con-tain-

31

Cl. *pp* *p* *pp*

Tam *pp* *pp*

M-S. *mf* *pp*

this me-mo-ry, The soil is washed a-way

34

Cl. *mp* *pp*

Tam *p* *pp*

M-S. *pp*

and we meet face to face a-gain.

C

Cl. 37 *mp* — *pp* *mf* > *p*

Tam

Tam

M-S.

improvise similar material, focusing
within these notes
*maintain fluid motion,
while moving in and out of air tone*

39

while moving in and out of air tone

Cl.

Tam

M-S.

small shells

5 5 3 3

Mylo - kun-min-gi-a, Myl -

41

Cl.

Tam

M-S.

3

3

3

5

3

p

mp

<mp>

pp

mp

5

p

mp

3

5

lo

kun- min

43

Cl.

Tam

(N)

improvise similar material

M-S.

gi-a, Myl

"Monteverdi trill"

46

Cl.

Tam

maintain erratic energy

M-S.

to finger taps

(y)

lo

return to previous fluid texture

49

Cl.

to air tone

pp

Tam

mf

p

5

3

M-S.

(o) -

6

3

51

improvise similar material while moving to
place kalimba against tam

Tam

M-S.

52

Tam

M-S.

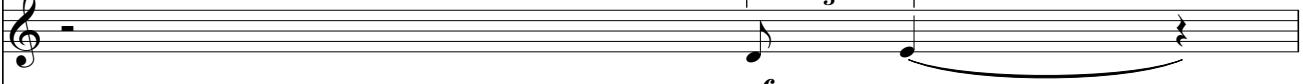
54

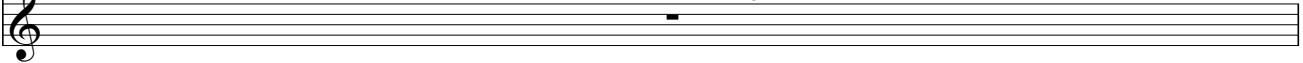
kalimba press against upper surface

-min (n) - gi - a

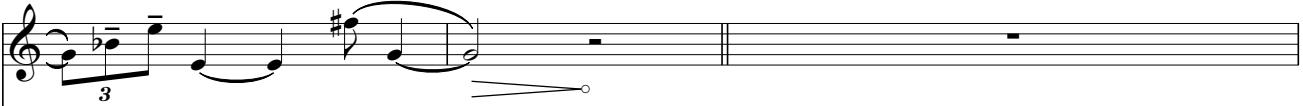
56

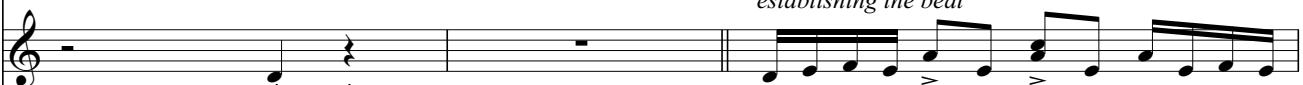
Cl. 

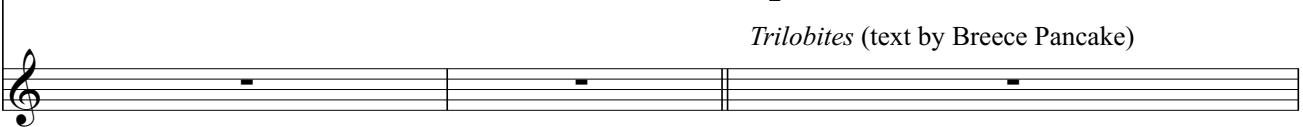
kalimba:
Tam 

M-S. 

57

Cl. 

Tam 

M-S. 

D

establishing the beat

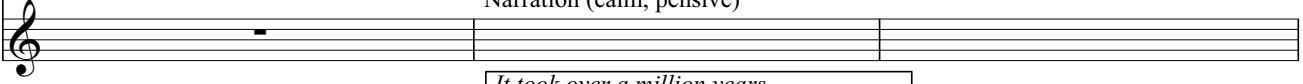
mp

Trilobites (text by Breece Pancake)

60

Cl. 

Tam 

M-S. 

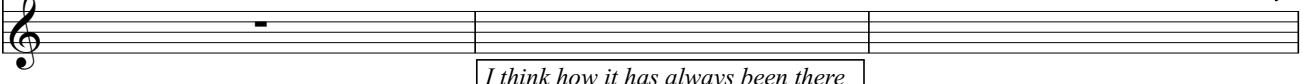
mp
Narration (calm, pensive) 

*It took over a million years
to make that smooth little hill,
and I've looked all over it for trilobites.*

63

Cl. 

Tam 

M-S. 

Narr. 

*I think how it has always been there
and always will be,
least for as long as it matters.*

66

Cl. kalimba:

Tam

M-S.

Narr. _____

*A long time before me or these tools, the Teays flowed here.
I can almost feel the cold waters and the tickling the trilobites make
when they crawl.*

69

Cl.

Tam

M-S.

*All the water from the old mountains flowed west. But the land
lifted. I have only the bottoms and stone animals I collect.
I blink and breathe.*

71

Cl.

kalimba:

Tam

M-S.

Narr. _____

*All the water from the old mountains flowed west. But the land
lifted. I have only the bottoms and stone animals I collect.
I blink and breathe.*

74

Cl.

Tam

M-S.

76

Cl.

kalimba:

Tam

M-S.

78

Cl.

Tam

Narr. →

M-S.

*I look down the valley to where bison used to graze
before the first rails were put down.*

80

Cl.

Tam

Narr. →

M-S.

*Now those rails are covered with a highway,
and cars rush back and forth in the wind.*

82

Cl.

Tam

M-S.

84

Cl. kalimba:
Tam Narr.
M-S.
 I look across the railroad to a field sown in timothy. There are wells there,
 pumps to suck the ancient gases. The gas burns blue, and I wonder if the ancient sun was blue.

87

Cl. Tam M-S.

89

Cl. Tam M-S.
 Narr.
 The tracks run on till they're a dot in the brown haze.

91

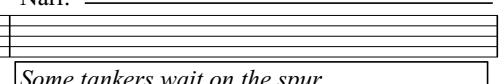
Cl. Tam M-S.
 They give off clicks from their switches.

93

Cl. 

kalimba:
Tam 

M-S. 

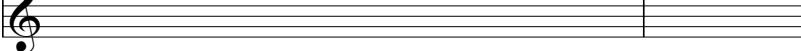
Narr. 

*Some tankers wait on the spur.
Their wheels are rusting to the tracks.*

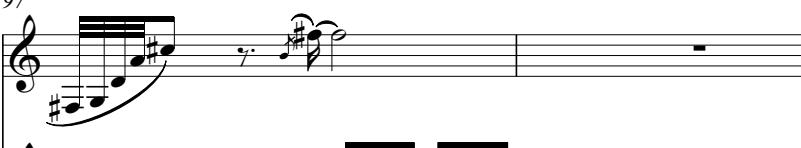
95

Cl. 

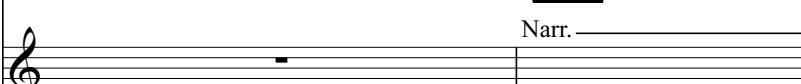
Tam 

M-S. 

97

Cl. 

Tam 

M-S. 

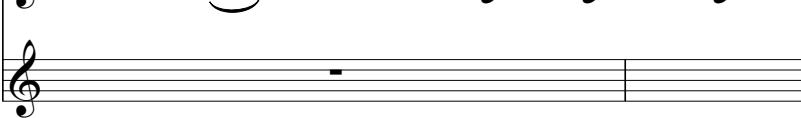
Narr. 

*I wonder what to hell I ever wanted
with trilobites.*

100

Cl. 

Tam 

M-S. 

102

Cl.

Tam

M-S.

kalimba:

104

Cl.

Tam

M-S.

Narr. →

*I feel my fear moving away in rings
through time for a million years.*

E

109

Cl.

Tam

Tam

M-S.

pp

bowed

pp

mp

mf

(Ah)

115

Cl.

Tam

M-S.

p

mf

Ah _____ Oh _____

119 **F**

Cl.

Tam

M-S.

p

soft mallet finger tips

mp

p

DUN- nn kle-o o - o -

121

Cl.

Tam

M-S.

soft mallet finger tips

mp

p

o - o - o-o - ste - us, DU - u - u - u-u - u-u - n

123

Cl.

Tam

M-S.

stone

mf

kle-o - - o - o-o - o-o-o - o - ste-u-

125

Cl. microtonal trill
small shells

Tam

M-S. "Monteverdi trill"
(u) - s - (s)_ste-u -(u) - - - s -

128

Cl.

Tam

M-S.

130

Cl.

Tam

M-S.

134

Cl.

Tam

M-S.

Musical score for orchestra and percussion. The score includes parts for Clarinet (Cl.), Tambourine (Tam.), and Marimba (M-S.). The tempo is marked as 136. The Clarinet part consists of six measures of sixteenth-note patterns, with performance instructions "stone ⚡⚡⚡⚡" and "strike >" placed above the staff. The Tambourine part has two measures: the first is marked *mp* and the second *mf*. The Marimba part has six measures, with measure 6 ending with a fermata and a "(e)" below it, followed by a sustained note labeled "u". Measure 6 is also marked with a "6" above the notes.

Musical score for orchestra and piano, page 138. The score includes parts for Clarinet (Cl.), Tambourine (Tam), and Marimba (M-S.). The piano part is shown below the vocal line. Measure 138 starts with a forte dynamic. The piano has eighth-note chords. The strings play eighth-note patterns. Measure 139 continues with eighth-note chords and patterns. Measure 140 begins with a piano eighth-note chord, followed by a melodic line for the marimba and piano. The vocal line starts with a low note and moves up. Measure 141 shows a piano eighth-note chord, followed by a melodic line for the marimba and piano. The vocal line starts with a low note and moves up.

Musical score for three instruments:

- Cl.**: Clarinet part. The first measure shows a melodic line with grace notes and slurs. The second measure consists of a series of eighth-note chords. The third measure features a rhythmic pattern of sixteenth-note pairs. The fourth measure contains a series of eighth-note chords.
- Tam**: Tam-tam part. The first measure shows a single note. The second measure shows a note with a fermata. The third measure shows a note with a dynamic marking *mp*.
- M-S.**: Marimba-String section part. The first measure shows a melodic line with a dynamic marking *(u)*. The second measure shows a melodic line with a dynamic marking *5*. The third measure shows a melodic line with a dynamic marking *us*. The fourth measure shows a melodic line with a dynamic marking *DUN nn*.

142

Cl. 

Tam 

M-S. 

144

Cl.

Tam

M-S.

stone strike

small shells

mp

mf

k - le - o s - te -

Musical score for orchestra and piano, page 10, measures 146-147.

Cl. Clarinet part: Measures 146-147. The first two measures show eighth-note patterns. Measure 147 begins with a measure rest followed by a sixteenth-note pattern. A bracket over the last two measures indicates a group of three.

Tam. Tam-tam part: Measures 146-147. The first two measures show eighth-note patterns. Measure 147 begins with a measure rest followed by a sixteenth-note pattern. A bracket over the last two measures indicates a group of three.

M-S. Mezzo-soprano part: Measures 146-147. The vocal line consists of eighth-note patterns. The lyrics "S - te - u" are written below the notes. Measure 147 includes a dynamic marking *mf* above the staff. The vocal line continues with eighth-note patterns and lyrics "s" at the end.

152

Cl.

Tam

M-S.

G

pp

scrape with shells

p

mf

mp

e-u-s _____ I- ma - gi-nin g an-

157

Cl.

Tam

M-S.

bowed

pp

mp

o - - ther time in this place, un - fa - mi - li - ar ex -

160

continue to shape melodic phrases with expression

Cl.

Tam

M-S.

to kalimba,
pressed against tam

kalimba:

p

cept to mo - le - cu-lar me - mo - ry, I step _____ for a mo-men-t out-side _____

163

Cl.

Tam

M-S.

kalimba:

— my-self — i - ma - gi - ning an I - o - wa

166

Cl.

Tam

M-S.

— at the bot - tom of an e - qua-to - ri - al sea. — Wind blown

170

Cl.

Tam

M-S.

hills of loess — re - mind me of E-cua-dor plan - ted up in

174

Cl.

Tam

M-S.

p

corn. — *p* humming

176

Cl.

Tam

M-S. (humming)

H**ca. 5'**

Improvise in response to processed audio clips sampled from earlier in the piece.
Move freely through this series of multiphonics, settled upon and extended as touchpoints in the improvisation.

179

Cl.

Improvise in response to processed audio clips sampled from earlier in the piece. Move freely through this sequence of activating materials on the tam tam:
small shells medium shells stone soft beater bow

Tam

With this melodic series as a guide, and relating vertically with the sequence of clarinet multiphonics,
sing texts composed by local elementary school students relating to Iowa's geological history and the performance site,
modeled after the selections from Breece Pancake's "Trilobites" in the earlier narration.

M-S.

(Ableton Live) Trigger audio clips sampled from earlier in the piece. Mix and process loops, improvise in dialogue with the live instruments and voice. Continue to process the live voice with the modular synthesizer.

Modular