

ORGA

NICS

YNTH

ESIS



BRYAN

JACOBS

Organic Synthesis

score information

INSTRUMENTATION

Two mechanical slide whistles, cello, and violin

TECHNICAL NOTES

Software requirements:

- *Organic Synthesis, Vol. 1* software for Max 6 or higher. Versions are available for Max Runtime or as a standalone application.

Hardware requirements:

- 2 mechanical double slide whistles (special instrument available from the composer)
- 2 Macintosh computers
- 2 small USB midi keyboards

STRING NOTATION



fast glissando up to highest position



use the bow to slap the strings to the finger board



left hand slap strings to finger board



left hand pizz



over pressure



tap the metal end of the bow to the finger board



random high harmonic

port = glissando delayed until right before the next note

x note head = light "harmonic" left hand pressure

MECHANICAL SLIDE WHISTLE NOTATION

the midi keyboard affects the slide whistles differently in each section. press the corresponding numerical keys on the computer's keyboard to initiate each cue

play the key on the midi keyboard but don't blow into the whistle (motor sound only)

apply air pressure to the whistle while stopping the air opening with one finger. the note is performed by momentarily moving the finger from the air opening

irregular tremolo

Organic Synthesis

Bryan Jacobs

cue 1

$\text{♩} = 100$

WHISTLE PLAYER 1 pitches: as written

WHISTLE PLAYER 2 *mf* pitches: random c4-g4

VIOLIN *mf* always start and stop mechanically

CELLO *p* always start and stop mechanically

(cue 1)

System 1 of the musical score, consisting of four staves. The first two staves contain melodic lines with eighth-note patterns and triplets. The third and fourth staves are marked with 'vertical trem' and 'ord.' and contain sustained notes with tremolos. The system concludes with a 7-measure rest followed by a 6-measure continuation.

System 2 of the musical score, consisting of four staves. The first two staves continue the melodic lines from the previous system. The third and fourth staves are marked with 'vertical trem' and 'ord.' and contain sustained notes with tremolos. The system concludes with a 7-measure rest followed by a 6-measure continuation.

System 3 of the musical score, consisting of four staves. The first two staves continue the melodic lines. The third and fourth staves feature a triplet of notes with a slur, marked with 'vertical trem' and 'ord.'. The system concludes with a 3-measure rest followed by a 4-measure continuation.

System 4 of the musical score, consisting of four staves. The first two staves continue the melodic lines. The third and fourth staves feature a melodic line with a slur and a crescendo hairpin, marked with 'MSP'. The system concludes with a 4-measure rest followed by a 6-measure continuation.

cue 2 ♩ = 120

System 1: Four staves of music. The first two staves contain melodic lines with slurs and accents, marked with a forte *f* dynamic. The last two staves are empty. Time signatures are 9/16, 8/16, 9/16, and 7/16.

System 2: Four staves of music. The first two staves contain melodic lines with slurs and accents. The last two staves are empty. Time signatures are 7/16, 9/16, 8/16, and 7/16.

System 3: Four staves of music. The first two staves contain melodic lines with slurs and accents. The third staff has a note with a fermata and a *f* dynamic, with the instruction "near unison double stops if possible" above it. The fourth staff is empty. Time signatures are 7/16, 5/16, 4/16, 9/16, and 8/16.

System 4: Four staves of music. The first two staves contain melodic lines with slurs and accents, marked with a forte *f* dynamic. The third staff has a note with a fermata and a *f* dynamic, with the instruction "port." above it. The fourth staff has a triplet of notes. Time signatures are 8/16, 9/16, 8/16, 7/16, 9/16, 8/16, and 7/16.

(cue 2)

port.

port.

cue 3

♩ = 80 pitches: random c4-e4 (per note)

pp mechanical start and stop (with tongue) simile

pitches: random c4-e4

pp mechanical start and stop (with tongue) simile

pivot bowing producing a crunch

pivot bowing producing a crunch

(cue 3)

System 1: Four staves of music. The first two staves have a melodic line with notes and rests, and a fermata over the final note. The last two staves have a rhythmic accompaniment with dotted notes and rests.

System 2: Four staves of music. The first two staves have a melodic line with notes and rests, and a fermata over the final note. The last two staves have a rhythmic accompaniment with dotted notes and rests.

System 3: Four staves of music. The first two staves have a melodic line with notes and rests, and a fermata over the final note. The last two staves have a rhythmic accompaniment with dotted notes and rests.

System 4: Four staves of music. The first two staves have a melodic line with notes and rests, and a fermata over the final note. The last two staves have a rhythmic accompaniment with dotted notes and rests.

slight cress until the end of section

slight cress until the end of section

next section attacca

cue 4

♩ = 160 rall. -> ♩ = 100

MSP
f MSP
f

mp
mp

♩ = 160 rall. -> ♩ = 100

MSP
f MSP
f

mp
mp

♩ = 160 rall. -> ♩ = 100

MSP
f MSP
f

mp
mp

(cue 4)

♩ = 160 rall. ->

♩ = 100

Musical score for the first system. It consists of four staves. The top two staves are for piano, with a treble clef and a 6/8 time signature. The bottom two staves are for strings, with a bass clef and a 6/8 time signature. The piano part has a melodic line with slurs and accents. The string part has a rhythmic accompaniment with accents. The tempo is marked as 160 (rallentando) and then 100.

♩ = 160 rall. ->

♩ = 100

Musical score for the second system. It consists of four staves. The top two staves are for piano, with a treble clef and a 6/8 time signature. The bottom two staves are for strings, with a bass clef and a 6/8 time signature. The piano part has a melodic line with slurs and accents. The string part has a rhythmic accompaniment with accents. The tempo is marked as 160 (rallentando) and then 100.

♩ = 160 rall. ->

♩ = 100

Musical score for the third system. It consists of four staves. The top two staves are for piano, with a treble clef and a 4/4 time signature. The bottom two staves are for strings, with a bass clef and a 4/4 time signature. The piano part has a melodic line with slurs and accents. The string part has a rhythmic accompaniment with accents. The tempo is marked as 160 (rallentando) and then 100.

faster, no rall.

Musical score for the fourth system. It consists of four staves. The top two staves are for piano, with a treble clef and a 4/4 time signature. The bottom two staves are for strings, with a bass clef and a 4/4 time signature. The piano part has a melodic line with slurs and accents. The string part has a rhythmic accompaniment with accents. The tempo is marked as faster, no rallentando.

(cue 4)

♩ = 160 rall. ->

♩ = 100

♩ = 160 rall. ->

mp

MSP

f

Detailed description: This system contains four staves. The top two staves are piano parts, with the first staff starting at a tempo of 160 and a 'rall.' marking, and the second staff starting at a tempo of 100. The bottom two staves are string parts, with 'MSP' markings and a dynamic of *f*. The system concludes with a tempo of 160 and a 'rall.' marking.

♩ = 100 no rall.

MSP

f

Detailed description: This system contains four staves. The top two staves are piano parts, starting at a tempo of 100 and marked 'no rall.'. The bottom two staves are string parts, with 'MSP' markings and a dynamic of *f*. The system concludes with a 4/8 time signature.

Detailed description: This system contains four staves. The top two staves are piano parts, and the bottom two staves are string parts. The system concludes with a 4/8 time signature.

f

Detailed description: This system contains four staves. The top two staves are piano parts, and the bottom two staves are string parts, with a dynamic of *f*. The system concludes with a 4/4 time signature.

cue 5

♩ = 120

First system of musical notation. It consists of four staves. The top two staves are treble clefs, and the bottom two are bass clefs. The music is in 4/4 time. The first two staves have a melodic line with a slur over the first four measures, followed by a fermata. Dynamics include *pp* < *p* and *pp*. The bottom two staves are mostly rests.

Second system of musical notation, identical in structure to the first system, with four staves and similar dynamics.

Third system of musical notation, identical in structure to the first system. The bottom staff includes performance instructions: "trem across strings irregularly", "molto s.p.", "mf", and "bow at tip". Above the staff, fingerings I, II, III, and IV are indicated with arrows.

Fourth system of musical notation, identical in structure to the first system. The bottom staff includes performance instructions: "trem across strings irregularly", "mf", and "bow at tip". Above the staff, fingerings I, II, III, and IV are indicated with arrows.

(cue 5)

pp < *p* > *pp*

pp < *p* > *pp*

trem across strings irregularly trem across strings irregularly

I II

mf bow at tip

pp < *p* > *pp*

pp < *p* > *pp*

trem across strings irregularly

I II III IV

mf bow at tip

This part in a slightly slower tempo. Back in time at A.

pp < *p* > *pp*

pp < *p* > *pp*

trem across strings irregularly

I II III IV

mf bow at tip

players 1 and 2 start next section here

cue 6

♩ = 70

4X

pp -> ff over 4 repeats.

pp -> ff over 4 repeats. 4th time get crazy.

1st time through: rest
2nd-4th time through go from **pp MSP** to **ff ORD**.

1st time through: rest
2nd-4th time through go from **pp MSP** to **ff ORD**.

continue to go crazy as player 1 prepares the next section

cue 7

System 1: Four staves of music. The top staff has a melodic line with dynamics *pp* and *p*. The second staff has a bass line with dynamics *pp* and *p*. The third and fourth staves are mostly rests.

System 2: Four staves of music. The top staff has a melodic line with dynamics *pp* and *p*. The second staff has a bass line with dynamics *pp* and *p*. The third and fourth staves are mostly rests.

System 3: Four staves of music. The top staff has a melodic line with dynamics *pp* and *p*. The second staff has a bass line with dynamics *pp* and *p*. The third and fourth staves are mostly rests.

System 4: Four staves of music. The top staff has a melodic line with dynamics *pp* and *p*. The second staff has a bass line with dynamics *pp* and *p*. The third and fourth staves are percussive patterns with dynamics *mp*, marked with *staccato* and *ric.* (ritardando).

(cue 7)

pp p pp

pp p

ric. ric. ric.

ric. ric. ric.

pp p pp

pp p

ric. ric. ric.

ric. ric. ric.

pp p pp

pp p pp

ric. (no ric.)

ric. (no ric.)

use oscillations as the new 16th note pulse

maintain tempo. will be slightly faster than the slide whistles.

maintain tempo. will be slightly faster than the slide whistles.

include pickup in repeat

ff first time
pp second time

ff first time
pp second time

second time: rest

second time: rest