

Oracle Machines

Sam Pluta

Oracle Machines

The score for *Oracle Machines* contains a collection of score fragments written for an ensemble of musicians who are adept at both reading and improvising. The score is designed to provide a structure around which improvisational sections can be interspersed. It includes sections of other works (such as a full version of the laptop ensemble piece *They Have Our Faces Now*), can exist in any order, and sections of the work can be used in future performances of different compositions.

Oracle Machines epitomizes my composition/improvisation/electronics interaction and structure. I came to this structure after working with the Evan Parker Electro-Acoustic Ensemble, where the best performances emerged when Evan created a form which simply told who to play when. He would assign improvised duos/trios, up to larger groups, and let the music unfold out of the prescribed form. The work also embraces the concept of "software as score," where the software used to perform against an ensemble creates a kind of "score of interaction," informing the musicians of what to play as much as any written document.

This piece often overlaps multiple modes of expression simultaneously. Scored elements overlap with solo and group improvisations. The entire room feeds back on top of improvised swells and gyrations. Everyone is given a chance for duo performance. Electronics appear as playback, live processing, and as neural network-controlled noise walls.

The "Oracle Machines" in this work (a reference to Alan Turing's concept of an oracle) are not my neural network models or any software involved in the creation of the music, but rather the instrumental performers themselves, who throughout the work are presented with musical problems and are more than capable of solving these problems magically in real-time.

Oracle Machines – Reduced Score and General Form

I. – Saxosizer and Infinite Loop

Tutti

II. – Quartet and Duo

Quartet – Piano, percussion, trumpet, electronics – Improvised

Duo – Trumpet and Electronics – Improvised

III. – Duo/Trio/Duo

Duo – Two saxophones – Improvised

add vocals – Improvised

Trio – vocals, violin, cello – Improvised

Duo – violin, cello – Improvised

IV. – Triadic Memories – flute, violin, cello, vibraphone (piano)

all join for third repeat

V. – Feedback Systems – 5 consecutive blocks

1 – flute, trumpet, violin, cello, percussion

2 – contrabass clarinet, sax, sax, bass clarinet, voice

3 – trumpet, trumpet, flute, violin, sax

4 – voice, piano, percussion, violin, cello

5 – flute, trumpet, voice, bass clarinet, sax (piano percussion)

VI. – Duo/Fela

Piano Percussion Duo – Improvised

Fela – Tutti

VII. – Swells/Voice Electronics/Room Feedback/

I think yer swell

Voice and electronics Duo – Improvised

Full Room Feedback (Electronics) with Swells – Trumpet, Trumpet, Sax, Sax, Voice – Improvised

Trumpet/Trumpet duo – Improvised

VIII. – They have our faces now

Laptop Quintet

IX. – Quiet After Noise/Duo/Duo

Flute, Contra clarinet, Clarinet, Perc Violin, Cello, Electronics

add Trumpet Solo

Contrabass clarinet, Bass Clarinet duo

Flute and electronics duo

X. – Oracle Machines

Tutti

XI. – Ablinger

Part 1

Ian
Cues



2 minutes

1 minute

2 minute

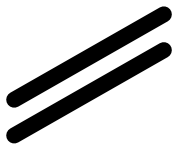
Saxosizer - Ingrid, John, Alex, Sam

Endless Loop - Erin, Madison, Peter, Eric

ppp

f

Triggered Chords - Ian, Bonnie, Ben, Josh, Mariel
Start sparse and head towards all attacks in Endless Loop



4 minutes

4 minutes

4 minutes

4 minutes

Bonnie

Sam, Eric, Peter, and Ian - Quartet
with very free Endless Loop

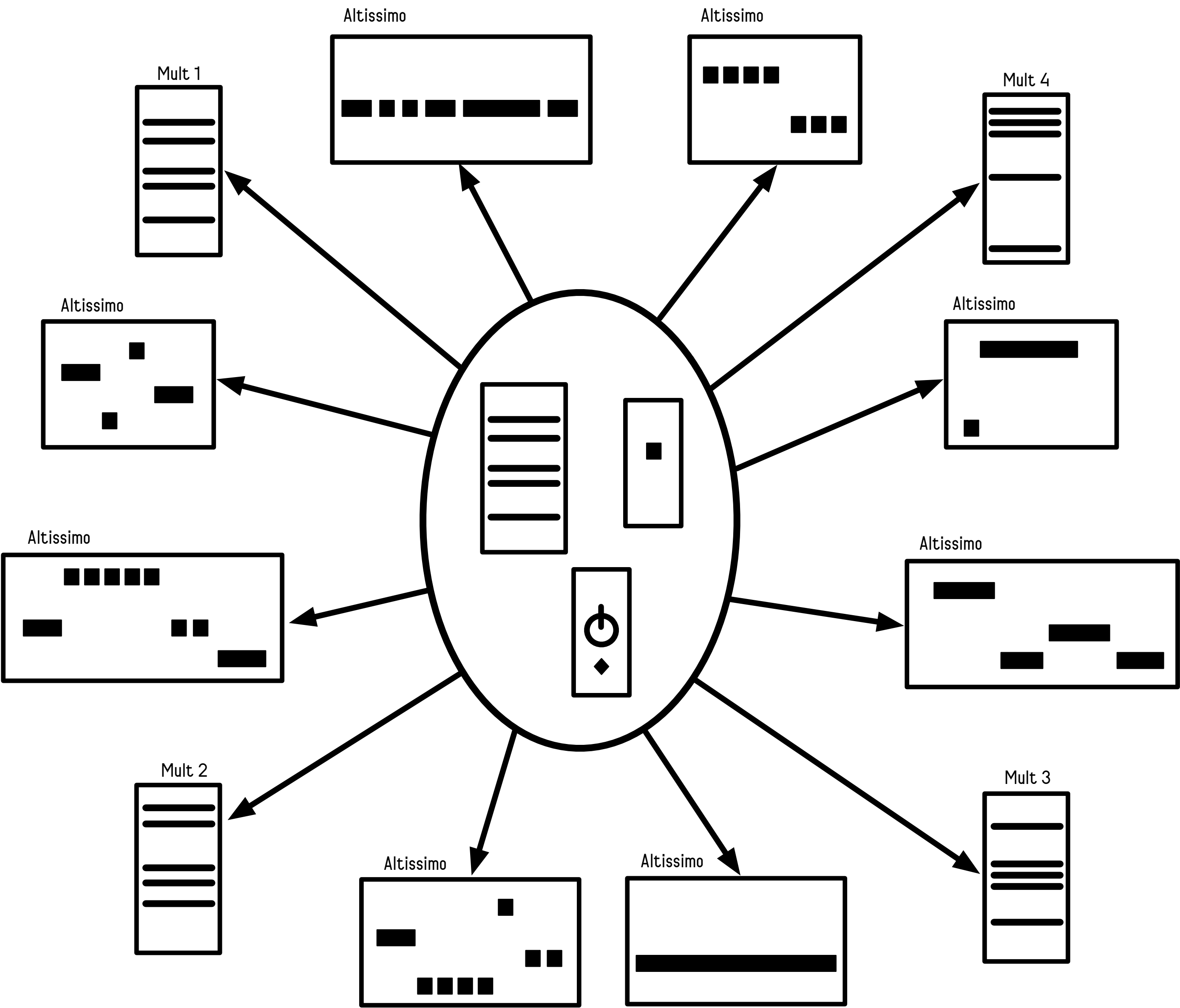
Sam/Peter

Alex/Ingrid

Josh/Mariel

Saxosizer - for 3 tenor saxophones and electronics

None of these shapes are to be taken too literally. We are trying to create a composite sound similar to the synthesizer performer. The music should include spurts of sound of varying length, followed by short to medium pockets of silence. Each spurt of sound should be triggered by a multi phonic, slap tongue, or altissimo attack.



Endless Loop

accidentals apply only to the note they precede

all players in unison throughout - transpose by octave where necessary

start quiet and build throughout

♩ = 115

The musical score for "Endless Loop" is presented in three systems, each consisting of two staves. The first staff is in Treble clef, and the second staff is in Bass clef, indicated by a B♭ symbol to the left of the staff. The key signature is one flat (B♭). The tempo is marked as ♩ = 115. The score includes various musical notations such as notes, rests, and accidentals. The first system shows a melodic line in the Treble staff and a supporting line in the Bass staff. The second system continues the melodic development with more complex rhythmic patterns. The third system concludes with a double bar line and repeat signs, indicating the end of the piece. The notation is clear and professional, suitable for a musical score.

Triadic Memories

flute, violin, cello, vibes, (and piano on repeat)

accidentals only apply to the note they precede, play in any octave

players do not play together - rhythms are completely independent - though generally within the same phrase

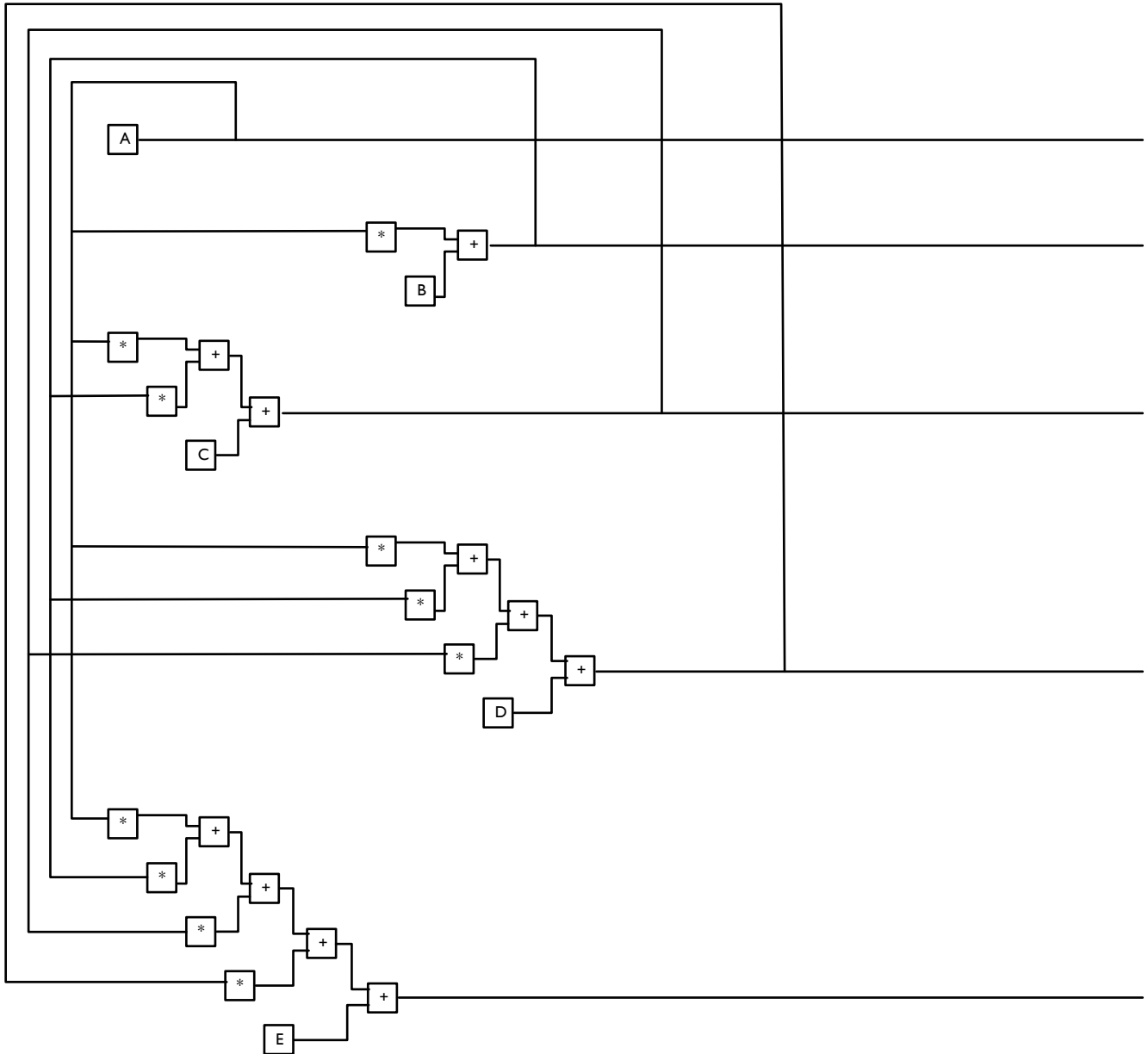
the notes provide an outline; however, each player should shape the phrase their own way

use the maximum amount of attack types to vary the phrase (pizz, arco, bariolage, flautando, air tone, etc)

on third repeat, rest of the ensemble joins, sustaining pitches played by the lead quintet

The musical score consists of seven staves, each beginning with a treble clef and a repeat sign. The first staff is marked with a piano (*pppp*) dynamic. The notation is complex, featuring many accidentals (sharps, flats, naturals) and various note values (eighths, sixteens, and dotted notes). The staves are numbered 1 through 7 on the left. The first staff has a repeat sign at the beginning. The second staff has a '2' above it. The third staff has a '3' above it. The fourth staff has a '4' above it. The fifth staff has a '5' above it. The sixth staff has a '6' above it. The seventh staff has a '7' above it. The score ends with a double bar line and repeat dots on the seventh staff.

Feedback Systems



Instructions

The goal of this system is to create each movement in a cybernetic manner, as if patching together an analog synthesizer. Each player adds to the texture one by one, using feedback from existing sounds to create their own. 4-8 cards should be performed as the inner movements of *Tectonics*.

In rehearsal, for each card:

- 1) Assign the players to parts A-E. Each card should have a different instrumentation.
- 2) Follow the algorithm on the card to create the texture.
- 3) Perform the texture for 2-3 minutes.
- 4) Decide whether to keep the composite or start over. Some cards deserve multiple interpretations. Try a card with as many different versions as desired.

The culling process:

The above algorithm should create some great and some not so great material. Only keep the creations that sound best and maximally complement the other movements of *Tectonics* as a whole.

In performance:

- 1) Choose a number of systems that have passed the culling process to include in the final performance.
- 2) Create an order in which these will be performed. Number the cards in the Section Number box and place the cards in order.
- 3) Each card can last for 10 seconds to many minutes.
- 4) A single player from the ensemble cues the start and end of each card. Place a grand pause between each card as if each is its own movement.
- 5) In addition to ordering the sections, each player can use the score cards to notate their part for each section.
- 6) The music should be between ppp and p at all times.

Assign parts (different each time)

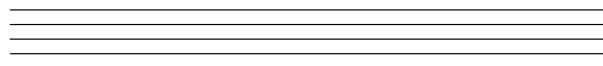
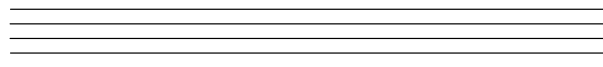
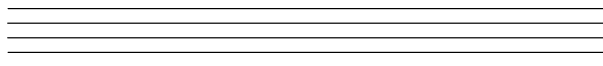
A B C D E

A and B - find a dyad that beats Erin-Peter

C and D - find a dyad that beats Josh-Mariel

A/B and C/D fade in and out of each other

E - find a sound in a register that does not disrupt the beating pattern of either dyad Ian



Section
Number



Double Beats

VIII

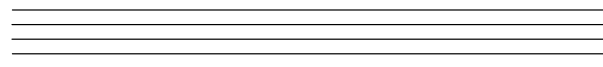
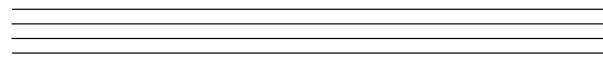
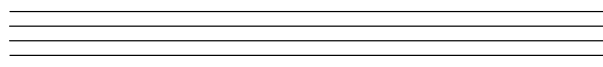
Assign parts (different each time)

A B C D E

A - play a chord or multiphonic Madison

B - E - one by one, find a sound within the sound of player A to interact with. in performance, each player fades in and out of the texture while interacting with player A.

Ingrid, John, Alex, Bonnie



Section
Number

Inside Voice

IV

Assign parts (different each time)

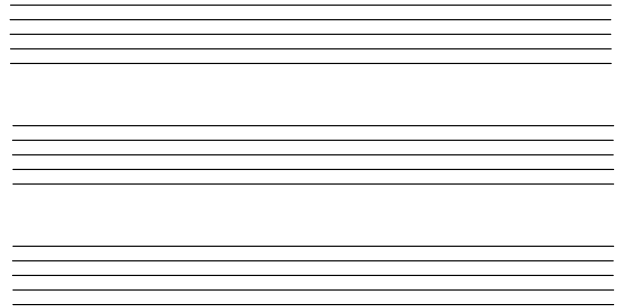
A B C D E

A and B - create an unpitched static noise texture Ben-Peter

C - play a fragile sound that continuously breaks Erin

D - interact with player C Josh

E - play a note that barely speaks Ingrid



Section
Number

Whisper

III



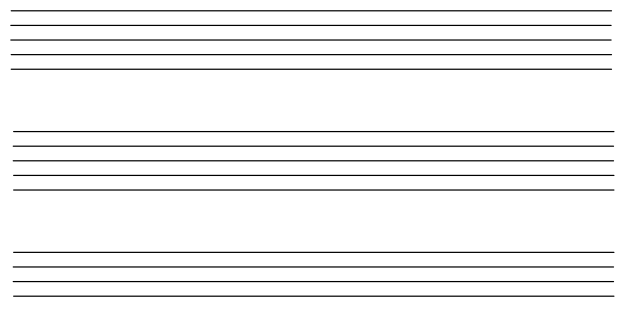
Assign parts (different each time)

A B C D E

A - play the most fragile sound you can Bonnie

B/C/D/E - play sparse staccato attacks together, cueing each other

Eric, Ian, Josh, Mariel



Section
Number

Pandemic Nightmare

VI

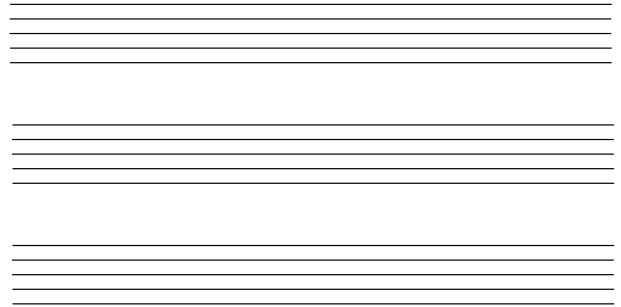
Assign parts (different each time)

A B C D E

Erin, Peter, Bonnie, John, Ingrid

All - choose a starting note (the same for everyone)

A/B/C/D/E - player A should start, but a random player should then enter every 1-2 seconds. Each player starts at the starting note on each of their entrances. Start niente. Crescendo slightly then decrescendo while glissing upwards between a m2 to an m3 from the starting note. Tacet, then enter again on the starting note. The sound should be continuous, with 1 to 3 players playing at all times.



Eric, Ian, Josh, Mariel continue the Nightmare



Section
Number

Up, Up, and Away
VII



4 minutes



Ian and Eric Duo

Ian heads towards this figure
winds join



5 **B**

Fl/Vln/Sop

CB. Cl.

Ten. Sax.

Tpt.

B

Vc.

7

Fl/Vln/Sop

CB. Cl.

Ten. Sax.

Tpt.

Vc.

C everyone in
should get pretty wild

$\text{♩} = 150$

C

I think yer swell

♩. = 150

Fl/Vln

pp *f*

Tpt./Cor in B $\flat$

pp *f*

5

Fl/Vln

pp *mf*

Tpt./Cor

pp *mf*

10

Fl/Vln

pp *mf*

Tpt./Cor

pp *mf*

The musical score is written for two parts: Fl/Vln and Tpt./Cor. The tempo is marked as ♩. = 150. The key signature is one sharp (F#). The time signature is 12/16. The score is divided into three systems, each starting with a measure number (1, 5, and 10). The Fl/Vln part features a melodic line with many beamed sixteenth notes, while the Tpt./Cor part plays a steady accompaniment of eighth notes. Dynamic markings include *pp* (pianissimo), *f* (forte), and *mf* (mezzo-forte). The score ends with a double bar line and a repeat sign.

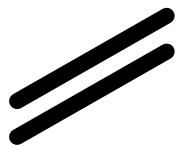
14

Fl/Vln

pp *f*

Tpt./Cor

pp *f*



each player can play their note in any octave
 play pulsing 16th note swelling phrases
 in pairs of cascading, overlapping seconds
 each swell can be a different duration - approx 8-12 sec

B. Cl.

etc

Ten. Sax.

etc

4 minutes

Sam and Bonnie

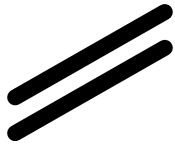
4 minutes

Sam - Feedback

Peter/Ben/Ingrid/Alex/Bonnie

4 minutes

Peter and Ben



10 minutes

Laptop Quintet

Eric, Bonnie, Sam, Ingrid, John

They Have Our Faces Now

This is a Laptop Quintet of any duration. Each player is given a different synthesis system and is provided starting and ending times. Within that time, each player should choose one setting or sonic identity and explore that identity. On their next entrance, each player should choose a new setting/identity and explore that. Sections should simply start or stop. No fades in or out. The score can be algorithmically generated for each performance.

Player 1: [01:52 - 03:00] , [04:00 - 04:35] , [05:00 - 05:31]

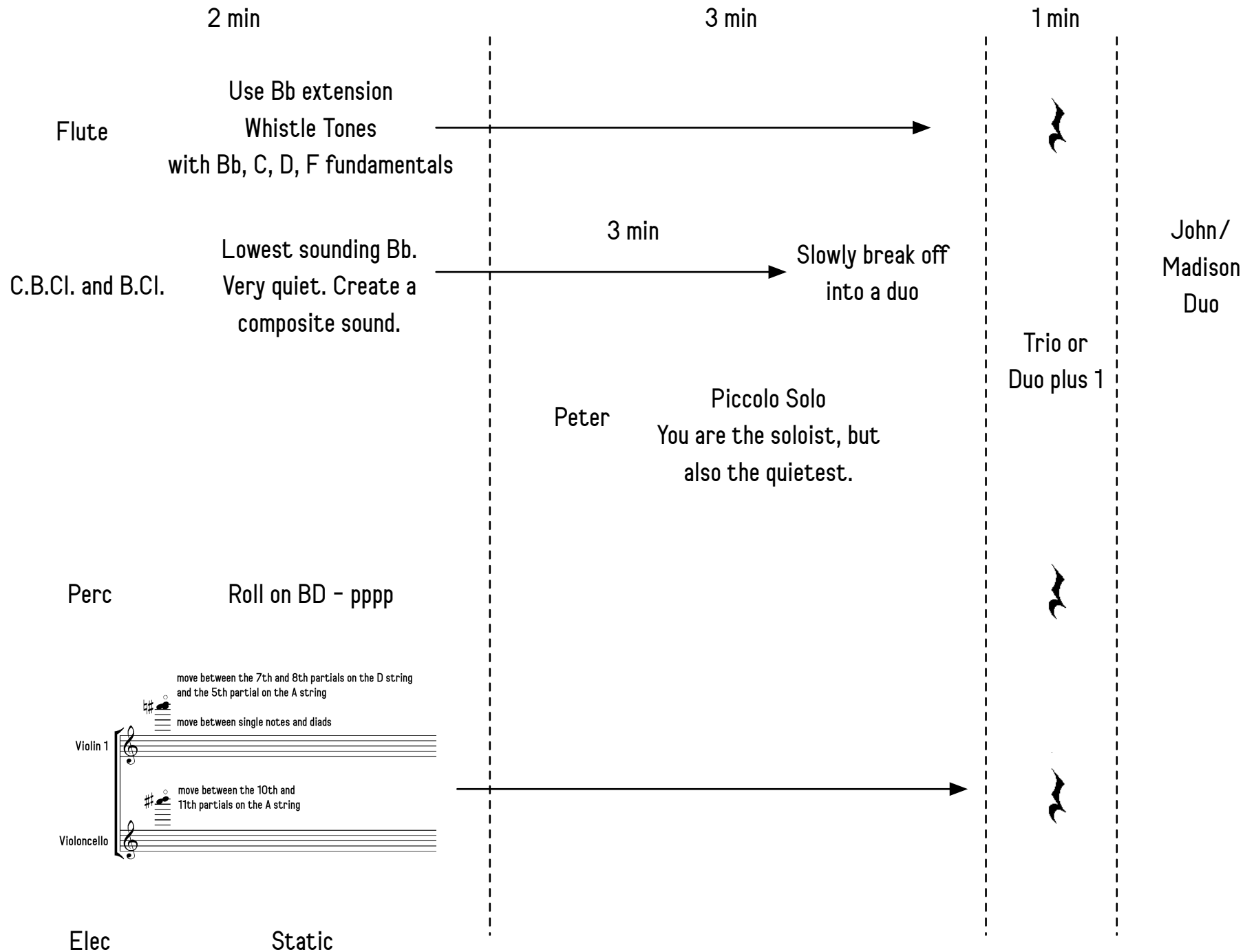
Player 2: [00:00 - 00:22] , [00:47 - 01:22] , [03:01 - 03:40] , [04:44 - 05:12] , [05:21 - 05:52]

Player 3: [00:47 - 01:11] , [01:45 - 02:30] , [04:32 - 05:12] , [05:43 - 06:11]

Player 4: [00:03 - 00:42] , [00:56 - 01:23] , [02:14 - 02:34] , [02:56 - 03:40] , [04:28 - 05:00]

Player 5: [00:10 - 00:50] , [01:20 - 01:50] , [02:47 - 03:24] , [03:36 - 04:05] , [6:00 - 6:11]

Quiet After Noise



4 minutes

Sam and Erin Duo

Towards the end of the duo, Erin will start to focus on percussive attacks. At some point the percussive attacks will begin to trigger tutti ensemble percussive attacks. This should go on for a bit. Then we go attacca into the last rhythmic section.

Oracle Machines

4x

first time - Josh and Marial duo over the top, everyone else on the rhythm

second time - add Sam - half way through, Alex, Ingrid, Madison to Ten Ten BCI line

third time - add Peter and John

fourth time - everyone improvising, but Ian blows over the top in the style of the score

♩. = 94

Percussion



4
Perc.



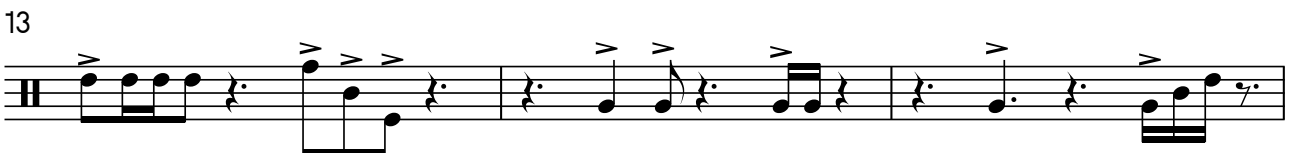
7
Perc.



10
Perc.



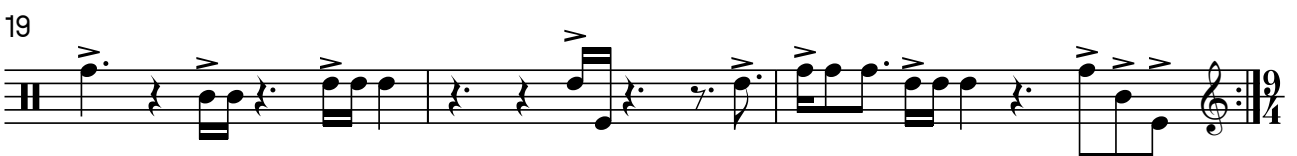
13
Perc.



16
Perc.



19
Perc.



Ten Ten Bcl



Ablinger

♩ = 60

vln/vc

vln/vc

vln/vc

t. sax/
t.sax

voice/
elec

b Cl/
cb Cl

9 sec

8 sec

3 sec

5 sec

tutti percussive attacks before/after each sustain
only the top line sustains

tpt/
cor/
picc

tpt/
cor/
picc

voice/
elec

voice/
elec

voice/
elec

4 sec

3

5 sec

vln/vc

t. sax/
t.sax

7 sec

5

tpt/
cor/
picc

vln/vc

t. sax/
t.sax

t. sax/
t.sax

b Cl/
cb Cl

b Cl/
cb Cl

7 sec

3 sec

8 sec

13 sec