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Title

(Th)e (E)mpathy (M)achine

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Publication Date

2020

(Th)e (E)mpathy (M)achine

(ThEM)

for Hypercube quartet

(tenor saxophone, percussion, electric guitar, and accordion)

(2020)

ca. 6'15"

by Austin White

(Th)e (E)mpathy (M)achine (2020)

Ca. 6'15"

Austin White

Instrumentation and Equipment:

Tenor Saxophone

Electric Guitar:

- Various effect pedals including distortion, overdrive, tremolo, and master volume pedal
- Laminated card
- Slide (any material)
- Plectrum (pick)

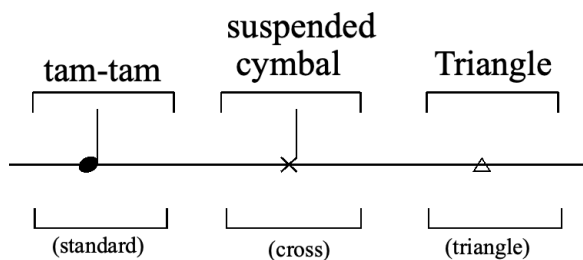
Vibraphone & Percussion:

- Vibraphone (preferably with motor)
- Tam-tam 20"
- Suspended Cymbal 20"
- Triangle 8"
- Bow
- Brushes

Accordion

- Amplified

Notation key (percussion):



Performance Notes:

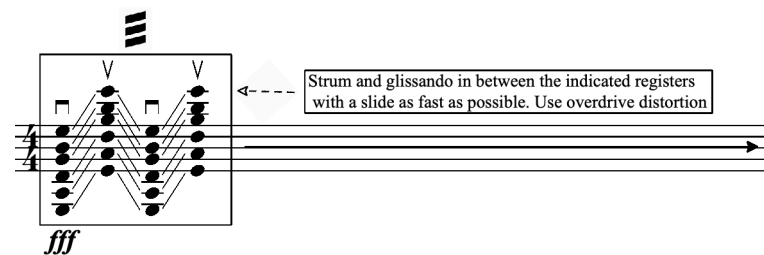
(The)Empathy (M)achine primarily consists of three main sections of music, each of which utilizes and explores different aspects of the instruments in various ways. To act as a musical guideline for the performers, I have specified each instrument's intended role in the aforementioned sections. I have included explanations for the various non-standard notational tools used in the score below as well (note that some notations will be listed numerous times to clarify how they apply to each individual instrument).

General notational guidelines:

Box-Arrow Notation and text:

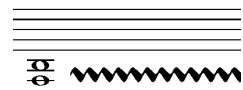
Box-Arrow notation is used frequently throughout the work (see example a). Boxed text instructions will be included with each instance of box-arrow notation. White arrows with dotted lines are used to clarify which set of boxed text instructions belong with each instance of boxed-arrow notation, while black arrows with solid lines indicate how long a given Box-Arrow notation will last.

Example a:



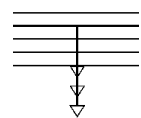
Wide vibrato lines represent quick and small glissandi around a given set of pitches (see example b).

Example b:



Arrowhead notation (see example c) signifies extremes of range without defined pitch (arrow pointing up means extremely high and arrow pointing down means extremely low).

Example c



Microtones are used throughout this work, quarter tone nomenclature is seen as follows in example d, and all other microtones that do not classify as quarter tones are notated as seen in example e (the arrows point in the direction of microtonal shift, actual cents are not important for these).

Example d:



Example e:



All dynamics with asterisks by them indicate the intention of variability rather than strict adherence.

Saxophone:

Section 1 (Beginning to rehearsal mark C):

For the beginning, you act as the “melodic” aural attraction. You are to make air sounds by Inhalation and exhalation in a metric manner. Each motion of inhalation and exhalation has its own unique notation listed in example f.

Example f: inhalation|exhalation



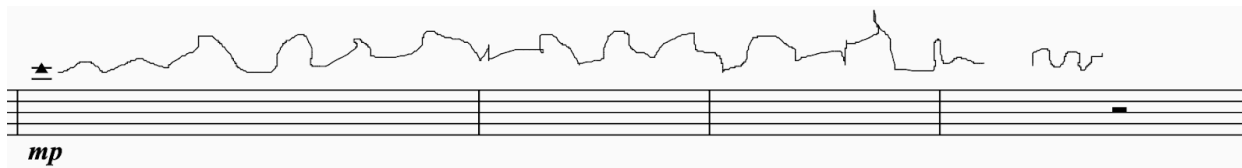
At rehearsal mark A, you begin to play a series of multiphonics. These multiphonics function as the main harmonic content throughout the section. There will be optional breath marks notated between each connected multiphonic (see example g). These breath marks are to be used in case transitioning between each multiphonic in a legato manner is not possible.

Example g:



At rehearsal mark B, you are to proceed into a teeth on reed squeaking. This extreme squeaking altissimo should mimic mosquito sounds. There will be a drawn line representing the contour I wish for you to interpret (see example h). The guitarist during this section will be instructed to respond to your mosquito noises. Keep in mind this section will still be metered in strict time.

Example h:



The rest of the section will finish with a series of multiphonics in a similar aforementioned manner.

Section 2 (rehearsal mark C-D):

The beginning of the second section is notated in a bracket-second fashion. Interpret the graphics in measures 27-29 following the arrow indications to temporally approximate each entrance of your part and its developments (take note that the guitarist leads for measure 27, then accordion for 28-29). Interpret the line drawing in a similar manner as the beginning of rehearsal mark B.

At measure 30 stay within the ranges listed and improvise freely as mentioned in score. The beaming and contour of the stemless notes are not to be taken to literally. Rather, just play very fast.

Section 3 (rehearsal mark D-end):

You play a main melodic component for this section and use microtones extensively. The fingerings used for these pitches are left up to the performer (but fingering can be provided upon request). Each instance of microtonality is not extremely strict in its need for accurate intonation, other than measures 61 and 63.

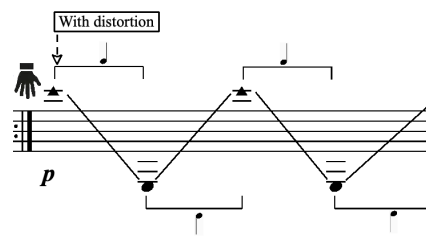
Electric Guitar:

Note that all dynamics are to indicate volume perceived, not necessarily exact levels on the master volume.

Section 1 (Beginning to rehearsal mark C):

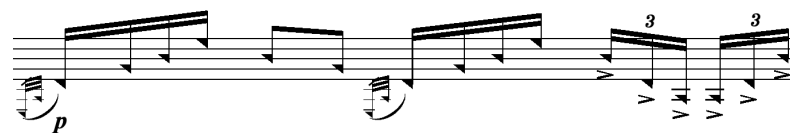
In the introduction, you play a timbrally unifying (and slightly percussive) roll between the accordion and saxophone. You do this by executing the non conventional extended technique indicated by the notational system found in example i. To execute this, have distortion on and take your right hand and rest your fingers and palm across all six strings at the beginning of the bridge. Then, slide the right hand all the way down to the end of the fretboard, and all the way back up to the end of the bridge. The motion to and from each end of the guitar with your hand on the strings should make a rhythmic swiping sound. Blend this with the accordions non-pitched glissing. The rhythmic duration of each sliding motion will be notated with a bracket that has a duration value listed above or below it (i.e. quarter note, eighth note, etc...). Video demonstration of this technique is available upon request.

Example i:



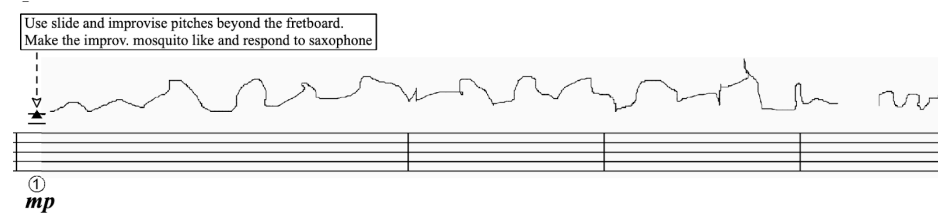
At rehearsal mark A, you will be asked to play a picking pattern while placing the thin long sided corner of a laminated card (the thickness of which should be similar to a debit card) perpendicularly across all six strings (see example j). The placement should occur at the first a flat on the high e string beyond the fretboard (a flat 6). Then rotate the end of the card resting on the low E string 35 degrees towards the fretboard. Hold and play the indicated picking patterns. If necessary, use a sticker or indicator of some sort to show where placement should occur so transitions from this technique to another can occur swiftly. Video demonstration of this technique is available upon request.

Example j:



At rehearsal mark B, you will use a slide to play beyond the fretboard on the high e string improvising a line mimicking the sound of a mosquito. You are to listen and respond to the saxophone who will be doing the same. There will be a line drawing shared between your parts to indicate the general pitch contour to follow. This section will still be metered in strict time.

Example k:



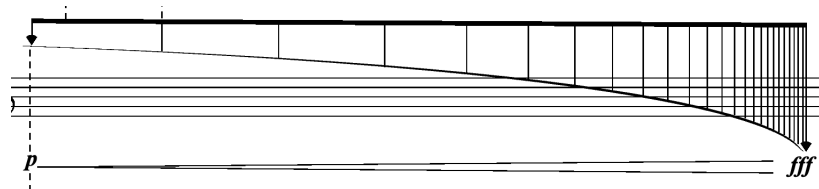
Section 2 (rehearsal mark C-D):

The beginning of the second section is notated in a second-bracket fashion. Interpret the graphics in measures 27-29 following the arrow indications to temporally approximate each entrance of your part and its developments. Your part

in measure 27 (see example l) is responsible for keeping the appropriate duration approximations for the rest of the ensemble until measure 28. At measure 27 you are to pick-slide by placing the pick perpendicularly in between the 6th and 5th strings at the top of the bridge and slide all the way down to the nut of the guitar. Exponentially speed up the pick-slide throughout the measure. At the end of measure 29 interrupt the accordion and suddenly begin measure 30.

Example l:

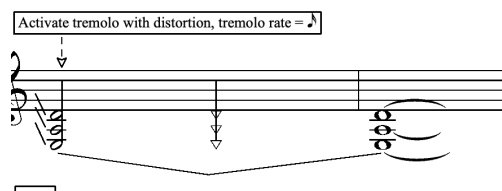
(each line is abstractly representing the pick sliding down one notch on the string at a time).



Section 3 (rehearsal mark D-end):

At rehearsal mark D, immediately turn on previous distortion settings and activate a tremolo with the rate/depth synchronizing the 16th note pulse of the meter. The bending lines (see example m) represent the use of the whammy bar.

Example m:



At measure 51 you will begin to play every harmonic on the sixth string. The best area I have found to play these harmonics on the low E string is beyond the fretboard close to the bridge. Video demonstrations of these harmonics are available upon request. It is necessary to play the harmonics on the low E string for the rest of the piece to preserve the just intonation of the pitches.

Vibraphone & Percussion:

Section 1 (Introduction-rehearsal mark C):

In the introduction you fulfill a timbrally binding role between the accordion and saxophone. Use brushes in a circular motion on the suspended cymbal, dynamically undulating with the strong beats of the pulse. This should blend with the guitar and accordion part until rehearsal mark A.

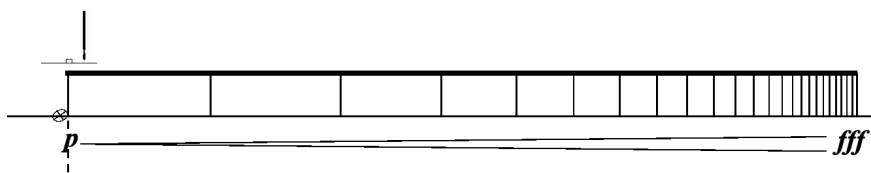
Switch to mallets for tam-tam and vibraphone at rehearsal mark A, you will predominantly fulfill the role of melodic content until rehearsal mark B.

At rehearsal mark B, help keep the meter established by lightly inflecting beats with the triangle tremolo. Afterwards, continue in the aforementioned manner until mark C. Note you will no longer be playing the tam-tam, only the vibraphone.

Section 2 (rehearsal mark C-D):

The beginning of this second section is notated in a second-bracket fashion. Interpret the graphics in measures 27-29 following the arrow indications to temporally approximate each entrance of your part and its developments. You will be scraping a suspended cymbal with the tip of a wooden drumstick synchronously with the guitar's pick-slide (you will enter later than the guitar as indicated by the vertical dotted line starting from the x note head, see example n). at the end of measure 29, suddenly interject the accordion and move to measure 30.

Example n:



From measure 30-34 you will be glissing on the vibraphone with two mallets in one hand in the registers notated while keeping the steady 16th note pulse of the new tempo.

Section 3 (rehearsal mark D-end):

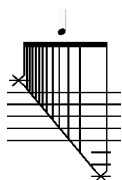
Immediately turn on the motor of the vibraphone (if applicable) to a rate which synchronizes with the 16th note pulse. Carry on following pedal instructions for the rest of the piece until the end.

Accordion:

Section 1 (Introduction-rehearsal mark C):

In the introduction, you establish and keep the pulse. You do this by glissing across the right hand keyboard and left hand stradella system buttons without activating the bellows (see example o). To execute this technique correctly, take the thumb of your right hand and place its fingernail tip at the bottom of the accordion keyboard. Without activating the bellows drag your thumb upwards towards the other end of the keyboard, slowing down the speed of the drag and applying less pressure the closer you get towards the top of the keyboard. For the left hand, cup your fingers and place the tips of them at the end of the stradella button board. Then proceed in the same fashion as the right hand. The rhythmic duration of each glissando will be given by a duration value listed above it (i.e. quarter note, eighth note, etc...). Video demonstration of this technique is available upon request.

Example o:



At rehearsal mark B, begin playing the 32nd note triplet figure, improvising it in response to the Saxophone. After this continue in the aforementioned manner until rehearsal mark C.

Section 2 (rehearsal mark C-D):

The beginning of this second section is notated in a second-bracket fashion. Interpret the graphics in measures 27-29 following the arrow indications for temporally approximating the entrance of your part and its developments. At measure 27 you will start the same glissando pattern as you have done before, but will gradually speed up the glissandi making them more even in the process. After a brief fermata in measure 28, you will perform the non pitched glissando technique as if starting the beginning of the piece again. You and the ensemble will suddenly interject the continuity of this rhythm by suddenly moving on to measure 30.

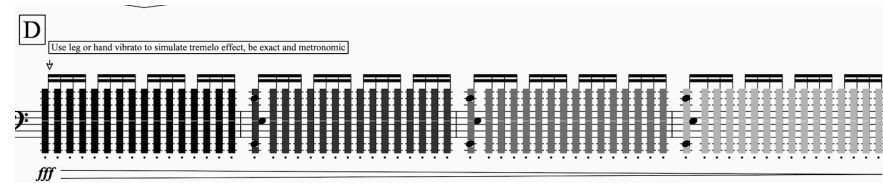
From measure 30 to 34, follow all pitched glissandi instructions as listed. Due to bellows direction I understand there will potentially be a lack of dynamic consistency, therefore the loudest moments in the glissandi should occur on strong beats. At measure 34 deliver that last cluster's dynamic contour as truthful to score as possible.

Section 3 (rehearsal mark D-end):

At rehearsal mark D you play a pivotal role in transition. You will have a cluster chord vibrato/tremolo solo (see example p) that slowly tapers into a pedal of e octaves. When grabbing the pitches for the cluster chord, keep one finger placed on e with the octave doubling option engaged. Release your hand gradually as indicated while leaving your finger on e.

I recommend executing the vibrato of this taper two different ways, with the use of your leg or the use of your upper-body/hand. For the leg method, hold the LH cluster and shake your leg that the accordion rests upon up and down. Synchronize your shaking with the 16th note pulse. For the upper-body/hand method, hold the LH cluster and shake the accordion with your hand/upper-body grip backwards and forwards. Synchronize your shaking with the 16th note pulse. I would also consider using the leg method for the beginning of the clusters and tapering to hand method by the time you get to the tremolo e notes. Video demonstration of this technique is available upon request.

Example p:



The pedal e notes continue until the very end, the only change is by measure 79 you cease the use of vibrato and continue into whole notes. From this point, slowly taper into bellow sounds (notation seen in example q) until end.

Example q:



Program Notes:

(Th)e (E)mpathy (M)achine or (ThEM) Is a work that explores the different timbral possibilities of each unique instrumental combination provided by Hypercube. It seeks to utilize the different timbral combinations of each instrument to construct several “sound worlds” in the work. The relationships between each one of these sound worlds are explored and, eventually, lead to the discovery of a centrally binding agent. This binding agent can be considered a “sound star”, acting as the central gravitational mass that allows these sound worlds to exist and thrive synchronously with one another.

The conceptual/thematic aspect of this work is also juxtaposed with a clinical observation towards the act of creation as a service. This clinical observation acts as an underlying counternarrative, personifying each sound world and the developments of their relationships with one another. These personified worlds question their existence and meaning with one another, often seeking clarification from their creating sound star. The sound star’s explanation to each world is one that seeks to protect, cradle, and comfort. This explanation, being counterfeit, is prompted by the sound stars acknowledgement of the pain and suffering that comes from the fear of the unknown. As they themselves have unanswered questions about their own existence.

This narrative leads the composer himself to reflect upon the reasons and meaning behind his act of creation, battling with societally imposed utilitarian frameworks that define all of his creations as acts of “need based services”. These frameworks often define the composer and artist's job as engineers of empathy machines, a title that the composer is unsettled by and often feels forced to reconcile with.

(Th)e (E)mpathy (M)achine

Austin White

Transposed Score

♩ = 48

slow and drudgingly,
mechanical like

X2

The score is written for four instruments: Tenor Saxophone, Percussion, Electric Guitar, and Accordion. It is in 4/4 time and consists of two systems of music.

System 1:

- Tenor Saxophone:** Starts with a whole note rest, followed by a repeat sign. The melody consists of quarter notes with dynamic markings: *p*, *mp* > *n.*, *mp* > *p*, *mp*, and *n.*
- Percussion:** Features a brush pattern of eighth notes with dynamic markings: *p* > *pp* < *p* > *pp* < *p* > *pp* < *p* > *pp* < *p* > etc...
- Electric Guitar:** Plays a distorted, rhythmic pattern of eighth notes with a dynamic marking of *p*. A box labeled "With distortion" points to the first measure.
- Accordion:** Plays a rhythmic accompaniment of eighth notes with a dynamic marking of *p*.

System 2:

- Tenor Saxophone:** Starts with a measure marked "5" and a box labeled "Stagger breathing" pointing to a group of eighth notes. The melody continues with dynamic markings: *mp*, *p* < *mp* > *p* < *mp* > *p* < *mp* > *p* < *mp* > *n.*, *mp*, and *pp*.
- Percussion:** Continues the brush pattern, ending with a box labeled "switch to mallets" and an arrow pointing right.
- Electric Guitar:** Continues the distorted eighth-note pattern.
- Accordion:** Continues the eighth-note accompaniment.

A

The musical score is divided into two systems, starting at measure 9 and measure 11. The instruments are Tenor Saxophone (Ten. Sax.), Vibraphone (Vib.), Percussion (Perc.), Electric Guitar (E. Gtr.), and Accordion (Accord.).

System 1 (Measures 9-10):

- Ten. Sax.:** Measures 9-10. Notes are circled. Dynamics: *p* (measures 9-10), *mp* (measure 10), *n.* (measure 10).
- Vib.:** Measure 9. Notes: *mp*. Includes a *ped.* (pedal) marking.
- Perc.:** Measure 9. Note: *p*.
- E. Gtr.:** Measures 9-10. Notes: *p* (measure 9), *mp* (measure 10). Includes a *6* (sixteenth notes) marking.
- Accord.:** Measures 9-10. Notes: *mp*.

System 2 (Measures 11-12):

- Ten. Sax.:** Measures 11-12. Notes are circled. Dynamics: *p* (measures 11-12), *mp+* (measure 12), *n.* (measure 12).
- Vib.:** Measures 11-12. Notes: *mp* (measure 11), *s.p.* (measure 12), *mp+* (measure 12). Includes a *3* (triplets) marking.
- Perc.:** Measure 11. Note: *p*.
- E. Gtr.:** Measures 11-12. Notes: *mp* (measure 11), *mp* (measure 12). Includes a *6* (sixteenth notes) marking.
- Accord.:** Measures 11-12. Notes: *mp*.

Chord Diagrams:

- Measure 9: C3, E (circled).
- Measure 11: C3, Bb, D/B (circled).

13

Ten. Sax. *mp* *mf* *n.*

Vib. *Red.* 3

Perc. *mp*

E. Gtr. *mp* 6 6

Accord.

15

Ten. Sax. *mf* *f* *n.*

Vib. *Red.* 5 5 5 5 5 5

Perc.

E. Gtr.

Accord.

Take a short breath if unable to connect multiphonics legato

B

17

Ten. Sax. *mp*

Perc. *mp* *p*

E. Gtr. *mp*

Accord. *mp*

Teeth on reed squeaking, like a mosquito

Use slide and improvise pitches beyond the fretboard. Make the improv. mosquito like and respond to saxophone

Improvise general figure respond to saxophone

15ma

3

22

Ten. Sax. *mf* *f* *n.*

Vib. *f*

E. Gtr. *mf*

Accord. *mf*

C3 Bb D/B

C3 C

6

This musical score is divided into two systems, starting at measure 24 and ending at measure 26. The instruments are Tenor Saxophone (Ten. Sax.), Vibraphone (Vib.), Electric Guitar (E. Gtr.), and Accordion (Accord.).

System 1 (Measures 24-25):

- Ten. Sax.:** Starts at measure 24 with a *f* dynamic. A finger chart for the right hand shows notes C3, C, and C. At measure 25, the dynamic changes to *ff*, and a finger chart shows notes C3 and Da. A breath mark (a circle with a dot) is placed above the staff at the start of measure 25. The dynamic returns to *n.* (piano) for the remainder of the system.
- Vib.:** Features a melodic line with a *f* dynamic in measure 24 and *ff* in measure 25. A *Red.* (Reduction) line is present below the staff.
- E. Gtr.:** Plays a rhythmic pattern with sixteenth notes and slurs. The number '6' is written above the staff in measures 24 and 25.
- Accord.:** Plays a series of chords with a tremolo effect, indicated by a series of vertical lines. A *f* dynamic is written below the staff.

System 2 (Measures 26-27):

- Ten. Sax.:** Starts at measure 26 with a *f* dynamic. A finger chart for the right hand shows notes C14. At measure 27, the dynamic changes to *ff*, and a finger chart shows notes C3 and C124. A breath mark is placed above the staff at the start of measure 27.
- Vib.:** Continues the melodic line with a *f* dynamic. A *Red.* line is present below the staff.
- E. Gtr.:** Continues the rhythmic pattern with a *f* dynamic.
- Accord.:** Continues the chordal pattern with a *f* dynamic.

20"

1-2"

3-4"

C

Teeth on reed squeaking

Start double tonguing/adding flutter tongue

extreme flutter tonguing!

Suddenly interject as if the measure is interrupted

Ten. Sax. *p* *fff**

Scrape cymbal with drumstick head, respond to guitarist's pick slide

Perc. *p* *fff*

Suddenly interject as if the measure is interrupted

E. Gtr. *p* *fff*

Suddenly interject as if the measure is interrupted

Accord. *p* *fff**

Gradually glissando more evenly while accelerating with pick slide

Like the beginning

Suddenly interject as if the measure is interrupted

pp

$\text{♩} = 68$

Improvise freely with rapid succession of notes. stay between the indicated range

Ten. Sax. *fff*

double mallet glissando between the indicated range as loud and fast as possible

Vib. *fff**

Perc. *fff*

Some of the indicated pitches in this section are beyond the fretboard and are not meant to be played exact. Approximate all pitches and rhythms to the best of your abilities focusing on the contour of the line until rehearsal mark D

Strum and glissando in between the indicated registers with a slide as fast as possible. Use overdrive distortion

E. Gtr. *fff*

$\text{♩} = 68$

RH glissando across the keyboard as fast and as loud as possible. try to adjust the dynamic contour of the bellows motion to the indicated ending points of each cluster. All of this should be done with the high switch engaged

Accord. *fff**

①
②
③

sva

sva

sva

32

Ten. Sax.

Vib.

Perc.

E. Gtr.

Accord.

(8)

8va

8va

8va

Any loud multiphonic

34

Ten. Sax.

Vib.

Perc.

E. Gtr.

Accord.

f

fff

8va

8va

f

fff

f

D

35

Perc.

E. Gtr.

Accord.

39

Ten. Sax.

Vib.

E. Gtr.

Accord.

42

Ten. Sax.

Vib.

E. Gtr.

Accord.

45 *bisbig.* *tr* *mp* *n.* *bisbig.* *tr*

Ten. Sax.

Vib. *red.*

E. Gtr. XII XII V

Accord.

48 *(tr)* *mp* *n.* *ppp* *mp* *n.*

Ten. Sax.

Vib. *switch to mallets* *pp* *red.* *mp*

E. Gtr. *8va* *IV* *V* ③ ② ①

Accord.

51 *mp* *mf+*

Ten. Sax.

Vib. *Keep pedal down until rehearsal mark E* *mf*

E. Gtr. *Beyond fretboard, see performance instructions* ⑥ *mp* *mf*

Accord. *mf*

54

Ten. Sax.

Vib.

E. Gtr.

Accord.

57

Ten. Sax.

Vib.

E. Gtr.

Accord.

60

Ten. Sax.

Vib.

E. Gtr.

Accord.

62

Ten. Sax. *tr*

Vib.

E. Gtr.

Accord.

65

Ten. Sax. *ff*

Vib. *f*

E. Gtr. *f*

Accord. *f*

Reset pedal

Micro-tonally glissando towards the ending pitch

Improvise the contour microtonally between the given starting and ending pitches

68

Ten. Sax.

Vib.

E. Gtr.

Accord.

Pedal every harmony change until end

Ten. Sax. 71 *fff*

Vib.

E. Gtr.

Accord.

Play this motif faster and faster transforming it into free improv.

Improvise intense and swift lines. Utilize the extremities of the instrument and use space sparingly

Ten. Sax. 74

Vib.

E. Gtr.

Accord.

Ten. Sax. 76 *ff* *fff*

Vib. *ff* *fff*

E. Gtr. *ff* *fff*

Accord. *ff*

Accord. 79

fff *f* *mf* *mp* *p* *pp* *PPP* *n.*