# UCLA

**Contemporary Music Score Collection** 

#### Title

A Song Below Water

#### Permalink

https://escholarship.org/uc/item/6m32000t

#### Author

Balighi, Ali

#### **Publication Date**

2024-09-03

# A Song Below Water

for alto saxophone, bassoon, timpani, piano, and fixed media



Ali Balighi www.alibalighi.com

Duration: 12':41"



# This piece was supported by Kone Foundation's Saari Residence for artists and researchers

Texas Tech University 2022

# **Program Note:**

#### A Song Below Water:

This piece is titled "A Song Below Water". Nature is one of the most important sources of inspiration for artists. There are numerous composers who have composed music based on the sounds of birds and jungles, including Olivier Messiaen and Panayiotis Kokoras. My inspiration for writing this piece was fish sounds, which led me to select this title.

#### **Instrumentation:**

Alto saxophone, bassoon, timpani, and piano are among the instruments used in this piece. The fish sounds can be created and imitated very well with these instruments by using diffe rent registers and colors. The alto saxophone and bassoon, both woodwind instruments, can imitate fish sounds very well, but with different techniques. By using an extra-musical device inside the piano, long tones can also be produced. Using extended techniques, the timpani creates both long and short tones too. Sound was recorded underwater with an AMBIENT ASF-1 MK II hydrophone for fixed media and underwater ambient is the most important role of fixed media.

#### The process of composition:

In order to compose, I always start with some simple questions and try to find a good answer to them. By organizing my musical ideas, I am able to write music more quickly. Furthermore, it may take a lot of time to write a piece, but when I see the basic rules both from an artistic point of view and from a technical standpoint, I will be able to complete it over time coherently.

#### **Questions:**

What is music? 1-

Music is a very difficult phenomenon to describe. The topic would need to be discussed from a variety of perspectives, including linguistic, biological, psychological, philosophical, historical, anthropological, theological, and even legal and medical perspectives, as well as the universal/world term music, used in its broadest sense.

The concept and the boundaries of music differ by culture, historical period, and social context. The quantity and diversity of discussions on the nature of the world of music indicates the variety of attitudes, but it also indicates that ideas on the nature, definition, character, shape, and conceptualization of music have been consistently expanding. For example, in, contemporary Western culture one may argue whether the sounds of an orchestra tuning up are music; or John Cage's work, 4 33, in which no sound is heard (other than the ambient sound experienced during the duration of the work); or the sounds produced by computer programs, any more than the 'singing' of birds.

Although several lexicons and encyclopedias discuss and explore the meaning of music in various cultures, as a contemporary composer, I must have my own perspective. Therefore, for me, music has a float concept, which means that it has a different meaning in different cultures, as well as in different pieces written by the same composer.

#### 2-Why do I compose?

Like Schopenhauer, I believe "that we have not to be pleased but rather sorry about the existence of the world; that its non-existence would be preferable to its existence; [and] that it is something which at bottom ought not to be". It gives expression to "the conviction that nothing whatever is worth our exertions, our efforts, and our struggles, that all good things are empty and fleeting, that the world on all sides is bankrupt, and that life is a business that does not cover the costs". It is a claim about the value of our world as a whole and everything in it, but it also incorporates a claim about the value of the life of each human being. I take the view about human life to be that such a life is bad for the one who lives it, has "entirely the character of a contracted debt" and is such that "complete non-existence would be decidedly preferable to it"; in short, life is simply not worth living.

On the other hand, it is an eternal phenomenon: the insatiable will always find a way to detain its creatures in life and compel them to live on, by means of an illusion [Illusion] spread over things. One is chained by the Socratic love of knowledge and the delusion [Wahn] of being able thereby to heal the eternal wound of existence; another is ensnared by art's seductive veil of beauty fluttering before his eyes; still another by the metaphysical comfort that beneath the whirl of phenomena [Erscheinungen] eternal life flows on indestructibly—to say nothing of the more vulgar and almost more powerful illusions which the will always has at hand. These three stages of illusion are actually designed only for the more nobly formed natures, who actually feel profoundly the weight and burden of existence and must be deluded by exquisite stimulants into forgetfulness of their displeasure. That it is to say, however I believe that life is simply not worth living, music composition helps me to create a meaningful definition from my existence.

3- Why am I composing this piece?

As a Composition MM student at TTU, I will write this piece for my thesis, but more importantly, I would also like to create and experience new musical atmospheres and extend the musical techniques in both acoustic and electronic music. In addition to expanding my musical landscape, I am able to define, use, and understand many details such as form, harmony, counterpoint, rhythm, etc. in a new way.

Moreover, I have the opportunity to create and use two innovative sources for sound development. The first is a new instrument for turning underwater noises into sound resources, and the second is an invention in the field of informatics that places an electronic instrument inside a grand piano creating new timbres as sound resources for the composition.

Ultimately, this piece would be based on understanding underwater sounds and fish sounds and incorporating the inside-the-piano electronic ambiences.

4- Is using fish sounds and underwater noise a new idea?

Although fish sounds and ocean noises, were used in many music pieces such as The Dreamy Fish by Erik Satie, Poissons d'or by Debussy, and Fish in the unruffled lakes by Benjamin Britten, I believe George Crumb used this idea very well in Vox Balaenae . Due to the similarities in technique and aesthetics between my musical language and Vox Balaenae, I chose this piece for comparison.

5- What is the concept of this piece?

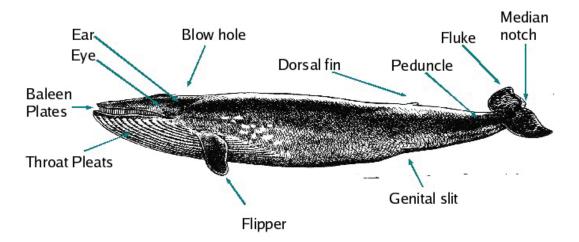
By using fish sounds and underwater noise, composers are able to create a new musical atmosphere to listen to and understand the marine environment and expand on it. Also, this music draws attention to underwater creatures as a part of life on earth that is often overlooked from the point of view of the sounds they make.

#### Form:

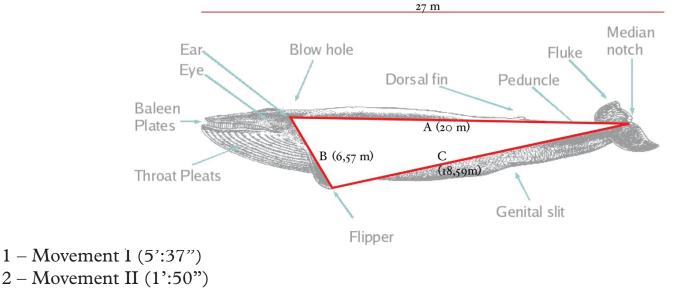
Form is the constructive or organizing element in music. Form might be defined simply as what forms have in common, reflecting the fact that an organizing impulse is at the heart of any compositional enterprise, from the most modest to the most ambitious. Yet the act, and art, of composition is not synonymous with the selection and activation of formal templates, and composers oblige writers on music to confront the infinite flexibility of the relation between 'form' as a generic category (such as ternary, canon, sonata) and the musical work as the unique result of the deployment of particular materials and processes.

Alternatively, contemporary music is based on time rather than on the relationship between tones. In an interview, Cage told Roger Reynolds, "What is the most important element of music? The element of time." Also, in his 1949 essay Forerunners of Modern Music, he stated, "Of the four characteristics of sound, only duration involves both sound and silence. Therefore, a structure based on durations (rhythmic: phrase, time lengths) is correct (corresponds with the nature of the material), whereas harmonic structure is incorrect (derived from pitch, which has no being in silence)."

As form and content are interrelated, we can create a form based on contents and extract contents from that form, or we can create form and contents simultaneously. In order to organize the whole piece, I chose the shape body of a whale and converted its proportions into separate time durations.



Please note that all sizes are approximate and not exact. For the design of the form, I merely used this shape as inspiration.



3 – Movement III (5':14")

The duration of whole piece is (12':41").

The rhythm noise of underwater creatures:

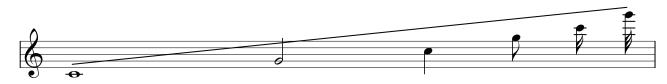
All underwater creatures have two kinds of sound, that they use for different proposes. For example, whales emit two distinct kinds of acoustic signals, which are called whistles and clicks. Clicks are quick broadband burst pulses, used for sonar, although some lower-frequency broadband vocalizations may serve a non-echolocative purpose such as communication, for example, the pulsed calls of belugas. Pulses in a click train are emitted at intervals of  $\approx$ 35–50 milliseconds, and in general these inter-click intervals are slightly greater than the round-trip time of sound to the target. Whistles are narrow-band frequency modulated (FM) signals, used for communicative purposes, such as contact calls. There are two different types of Whistles, short and rhythmic or long with unstable tuning, and opposite of birds they are almost monotone in their singing.

As a result, we have three different sounds:

- 1- Clicks
- 2- Monotone rhythmic singing
- 3- Monotone long singing and unstable in tuning

#### Rhythm in this piece:

Due to bigger fish swimming deeper in the water and having lower tones and longer duration, while smaller fish have high tones and shorter durations, we can design this law such that bass notes can be longer and high notes can be shorter:



For every instrument, the highest and lowest notes would be different. The above line is an exam-

ple.

Using this rhythmic pattern does not restrict performer/composer from improvising or composing with other shorter or longer patterns.

#### **Extra-musical devices:**

#### Hydrophone

A hydrophone is a microphone designed to be used underwater for recording or listening to underwater sound. Most hydrophones are based on a piezoelectric transducer that generates an electric potential when subjected to a pressure change, such as a sound wave. Some piezoelectric transducers can also serve as a sound projector, but not all have this capability, and some may be destroyed if used in such a manner.

An AMBIENT ASF-1 MK II hydrophone was used to record underwater sounds, and Max 8 and Logic Pro were used to analyze, create, and edit the audio for use on the fixed media.

Arduino

Arduino board designs use a variety of microprocessors and controllers. The boards are equipped with sets of digital and analog input/output (I/O) pins that may be interfaced to various expansion boards ('shields') or breadboards (for prototyping) and other circuits. The boards feature serial communications interfaces, including Universal Serial Bus (USB) on some models, which are also used for loading programs. The microcontrollers can be programmed using the C and C++ programming languages, using a standard API which is also known as the Arduino language, inspired by the Processing language and used with a modified version of the Processing IDE.

My final project for Professor Hidaki Isoda's informatic music class was this device. The whole structure of this device includes 10 motors, one electronic borad, Arduino Uno, MIDI controller, and a loptop

#### **Techniques:**

#### Time:

Time is the basis for the structure of this music. Each system displayed the elapsed time and timeline.

Elapsed time	Duration
00':36"	~12"

#### Alto saxophone and bassoon:

Tune: half air_	
tune	
tr	
$\phi \sim$	
mp	

Tune means the tuning is not stable, and it moves a quarter tone above and below the shown tone. This untuning is not predictable and the lines in front of note is for helping and it does not mean that saxophonist/bassoonist should change tones based on this line.

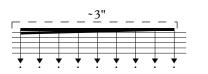
Multiphonic:



In this piece, two different multiphonics are used. The saxophonist/bassoonist has the option of selecting a multiphonic depending on one or more notes shown. As for the second, it is based on the improvise concept, in which the musician is free in terms of rhythm and tone when playing multiphonics.

The lowest possible tone:

In light of the fact that the lowest possible tone varies depending on the type of saxophone, the lowest possible tone is shown with this shape. All same symbol (whole note, half note, quarter note etc.) has a same meaning.



The highest possible tone:

In light of the fact that the highest possible tone varies depending on the type of saxophone, the

highest possible tone is shown with this shape. All same symbol (whole note, half note, quarter note etc.) has a same meaning.

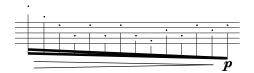
 $\frac{\uparrow}{f}$ 

Key clicks:



Improvisation based on rhythm:

Improvise based on the rhythm shown. It is not possible to see the tones on the beams, so the saxophonist can pick material based on previous notes or simply improvise.

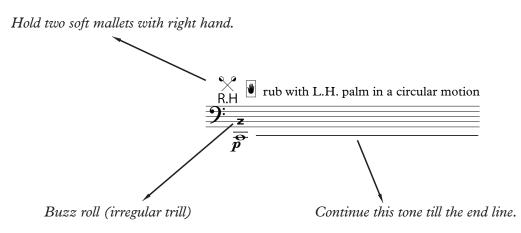


Improvisation based on requested technique:

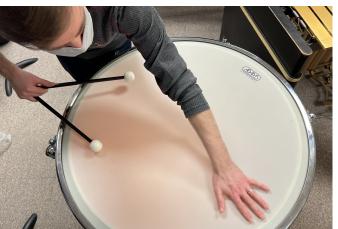


#### Timpani:

One timpani (32' or 30') is used in this piece, and the tuning should be changed from D2 to C2. Timpani should have a textural skin.



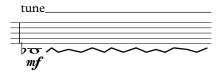
The timpanist can change the role of right and left hand with each other for convenience.





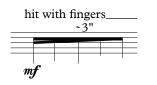
Tune:

Tune in timpani means the tuning would change slowly between the quarter tones above and below the main note.



Improvisation based on rhythm:

Improvise based on the rhythm shown. It is not possible to see the tones on the beams, so the timpanist can pick material based on previous notes or simply improvise.



Arco:

Place the cymbal on the timpani and draw the bow on the edge of it . The bow movements are right and left.



**⊓** right

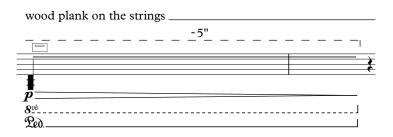
V *left* 



#### Piano:

Wood plank:

From top to bottom, draw wood plank on the strings of the grand piano.

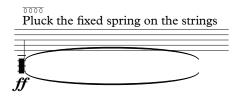




Size: 3" in 1.5"

Spring:

Fix a spring to the strings inside the piano and pluck them.

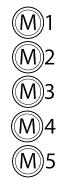


On the inside of the piano, draw the wood plank on the hitch pins.

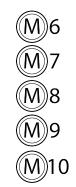
Wood plank on the hitch pins \_ \_\_\_\_\_6" \_\_\_\_\_



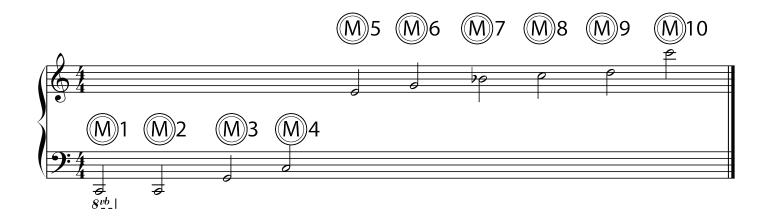
A musical device was designed for the inside of a piano. Ten vibration motors are mounted on 10 different strings in this extra-musical device. The device produces long tones until the MIDI keyboard keys are pressed.



Motor number 1 Motor number 2 Motor number 3 Motor number 4 Motor number 5



Motor number 6 Motor number 7 Motor number 8 Motor number 9 Motor number 10

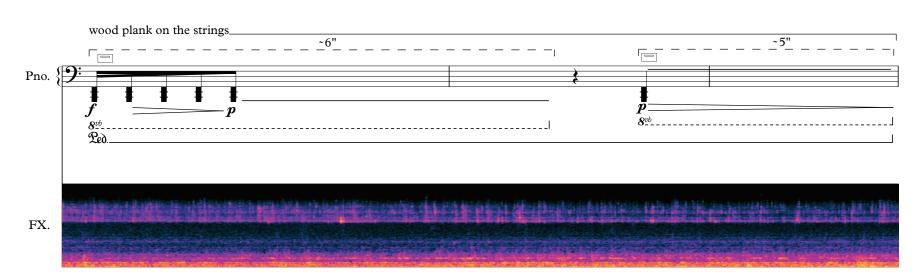


### Movement I (05:37") **-** = 60 00':00" ~12" Alto Saxophone <u>9:4</u> Bassoon 9 Timpani (b)wood plank on the strings. Piano \_\_5"\_\_ ~7" F 9: р p 8<u>vb</u> Led. 8<u>vb</u> 1 \_ Led. Fixed Media 00':12" ~12" wood plank on the strings. ~5"\_ Pno. r p p8<sup>vb</sup> Led. \_\_\_\_\_J 8<sup>vb</sup>-----FX.

# A Song Below Water

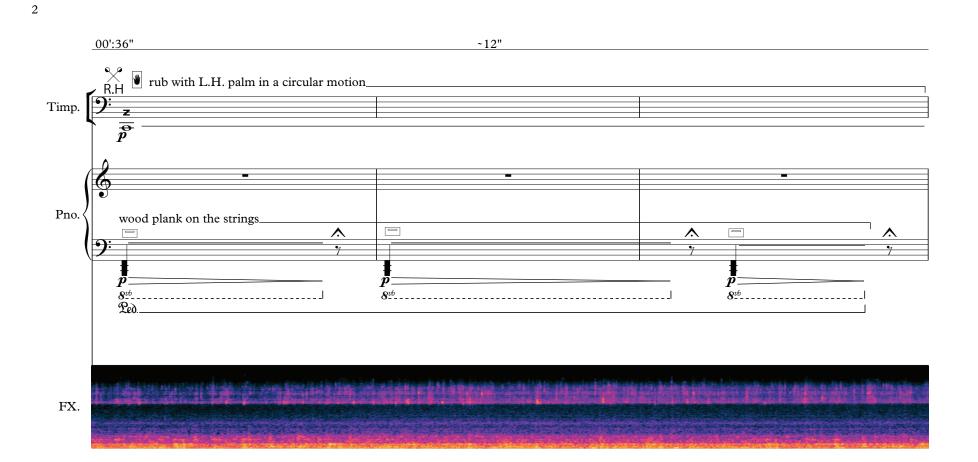
for alto saxophone, bassoon, timpani, piano, and fixed media

Ali Balighi (b. 1986)

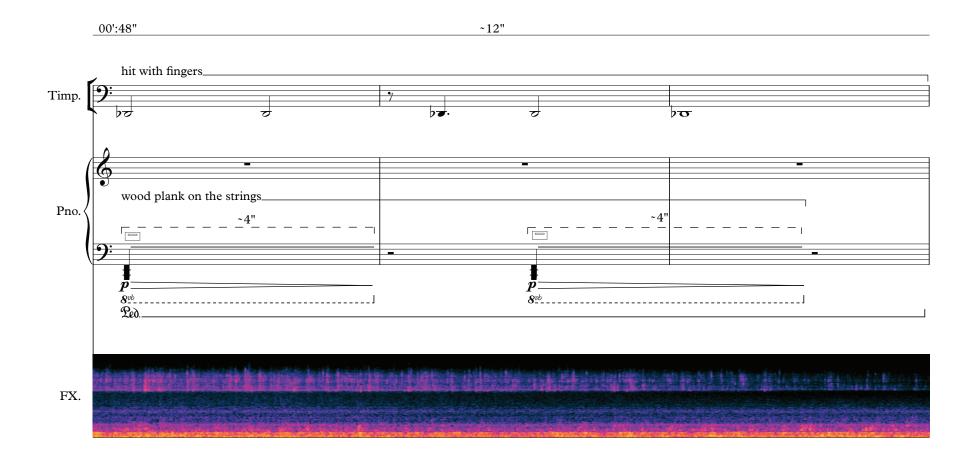


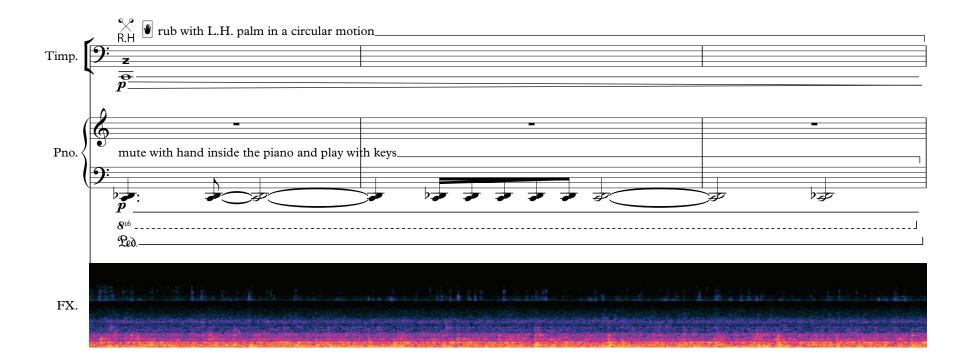
00':24"

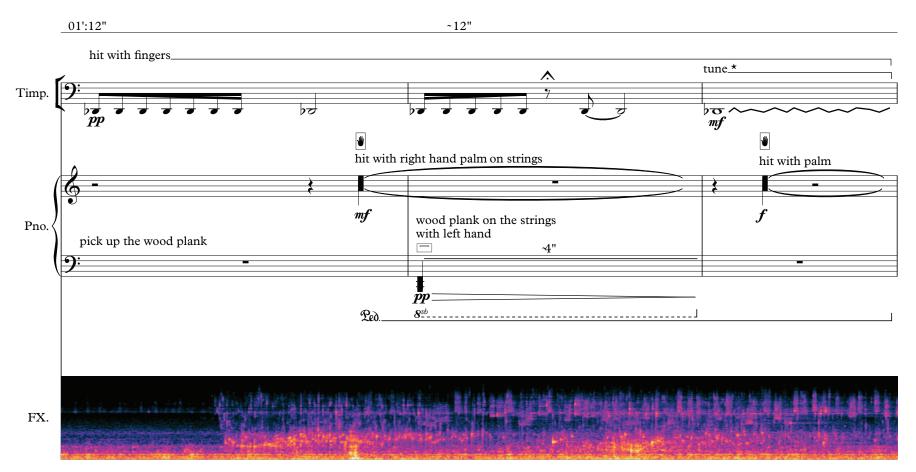
/



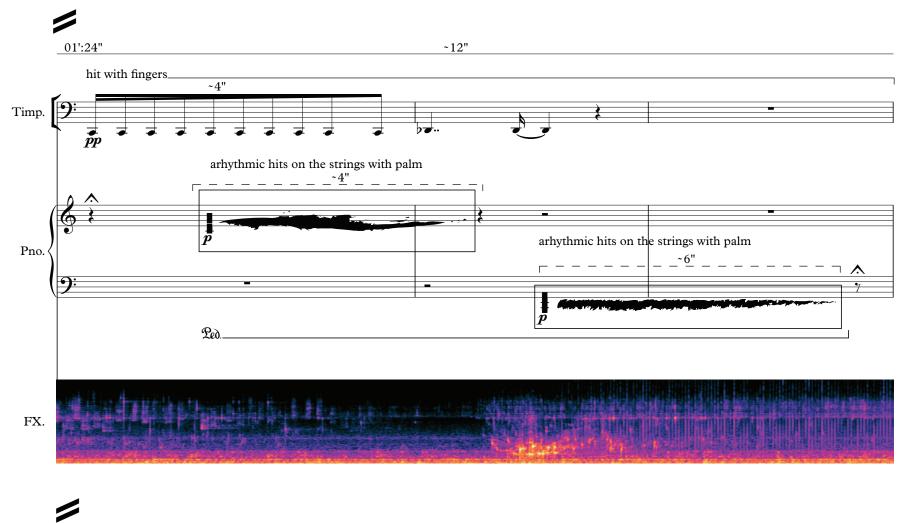




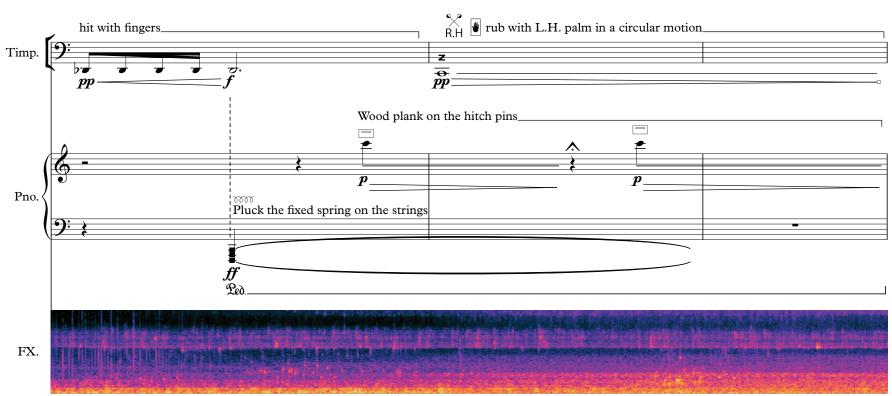




\* Tune in timpani means the tuning would change slowly between the quarter tones above and below the main note.

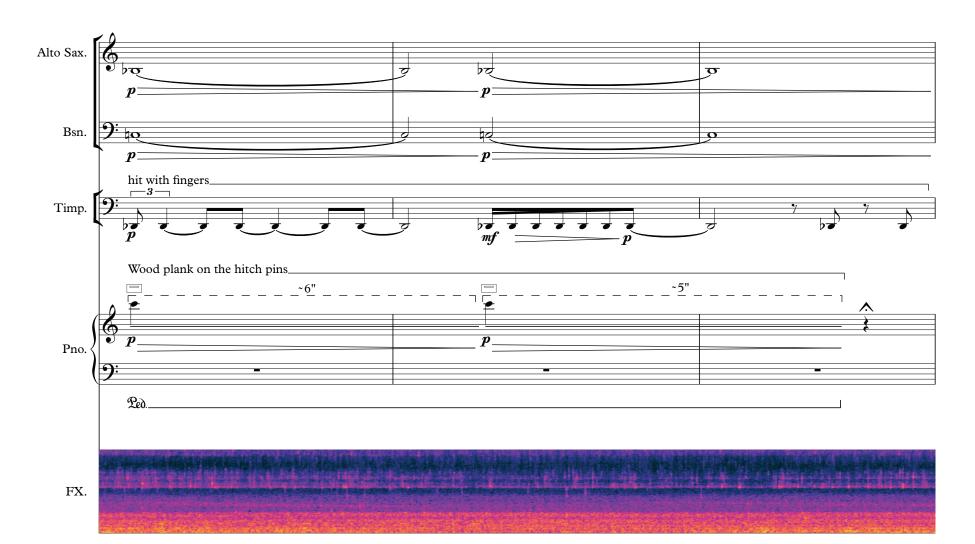


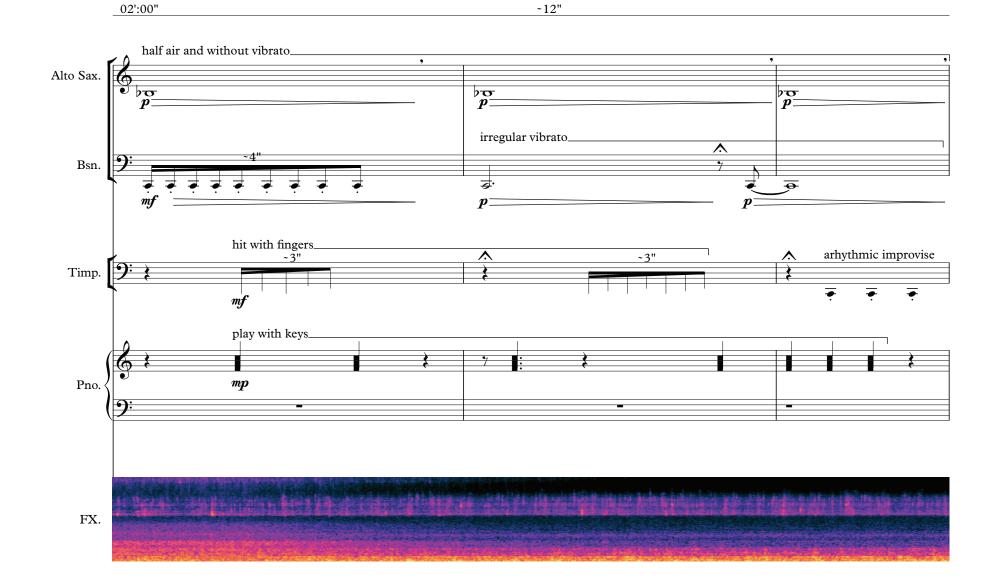
01':36"

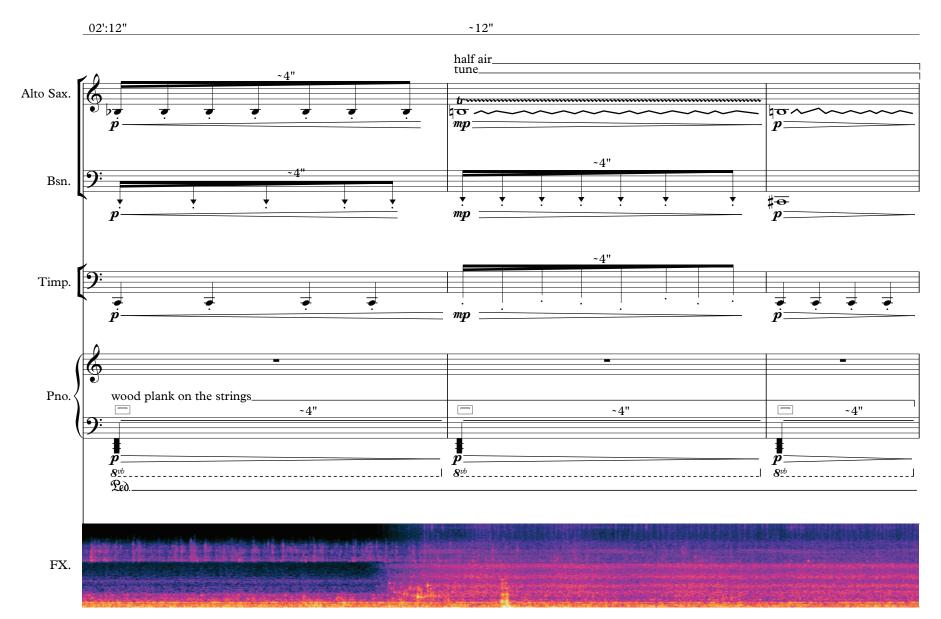


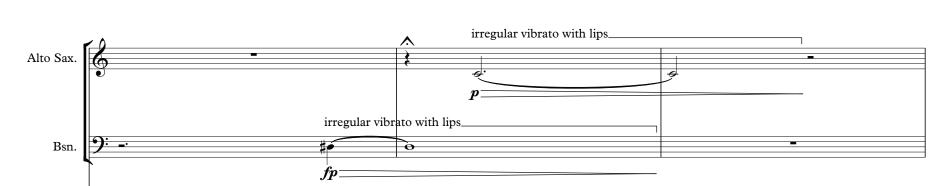






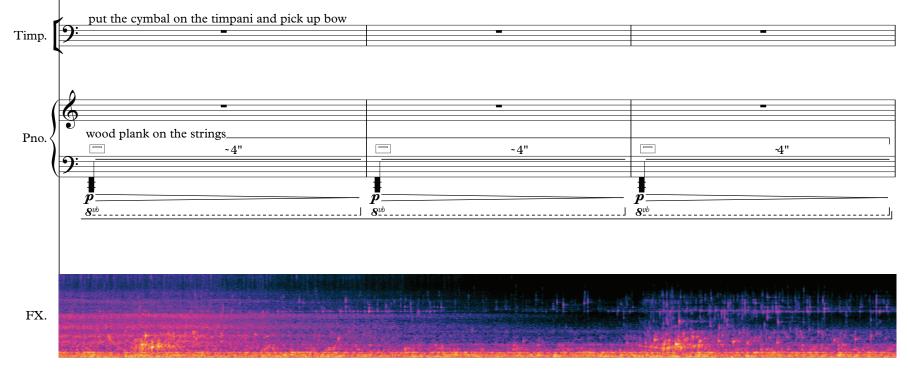




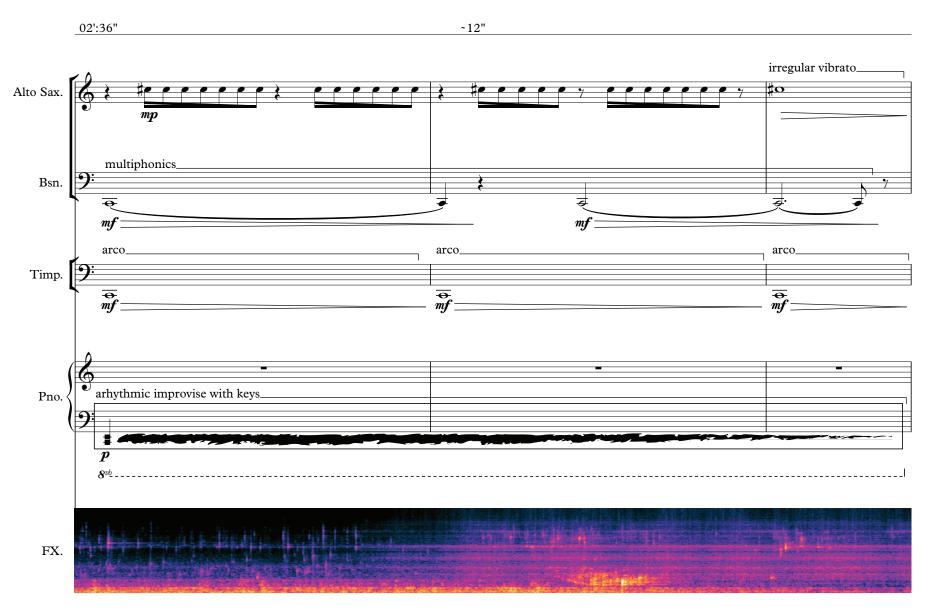


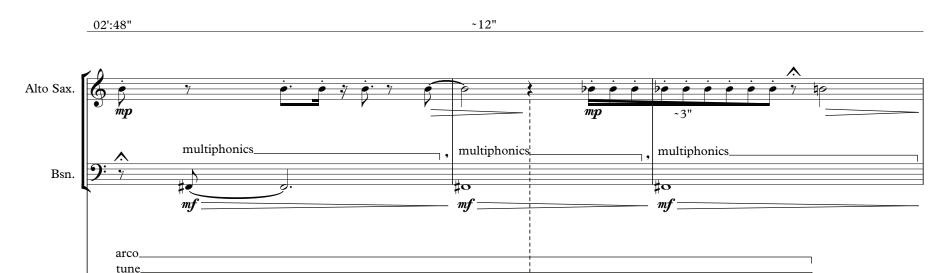
~12"

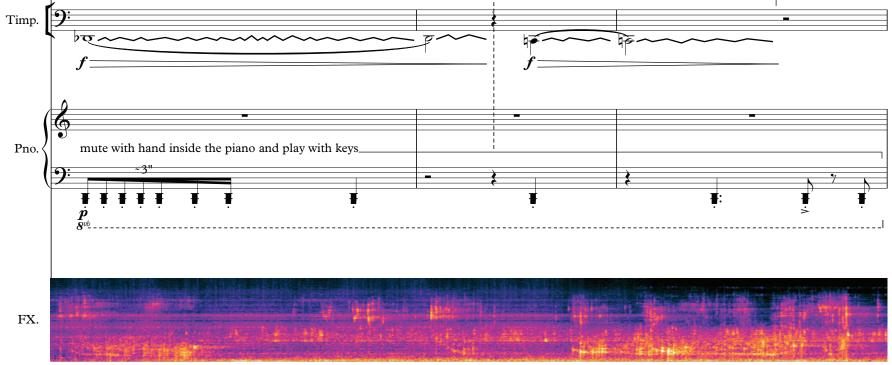
02':24"



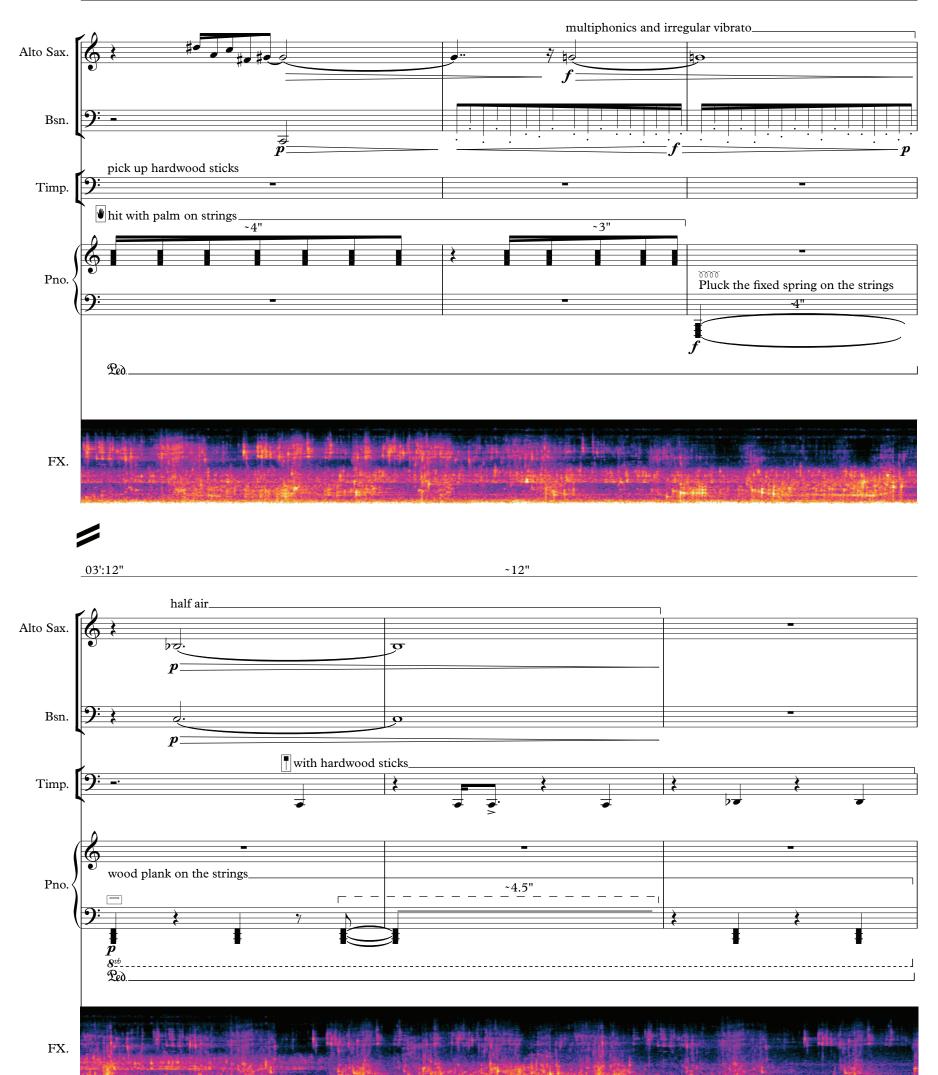


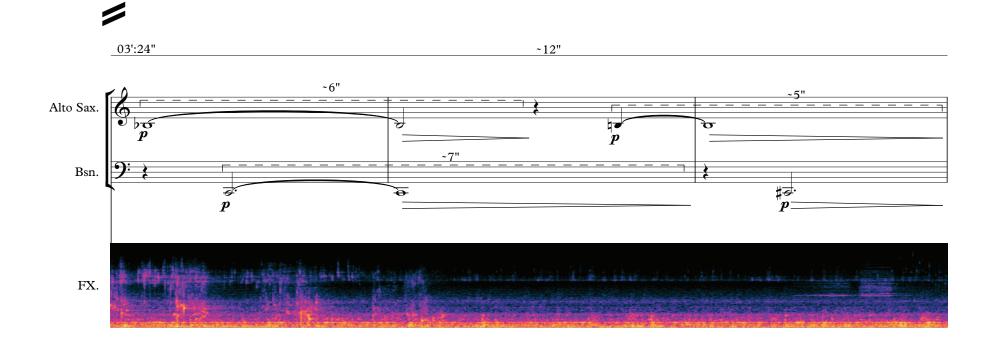


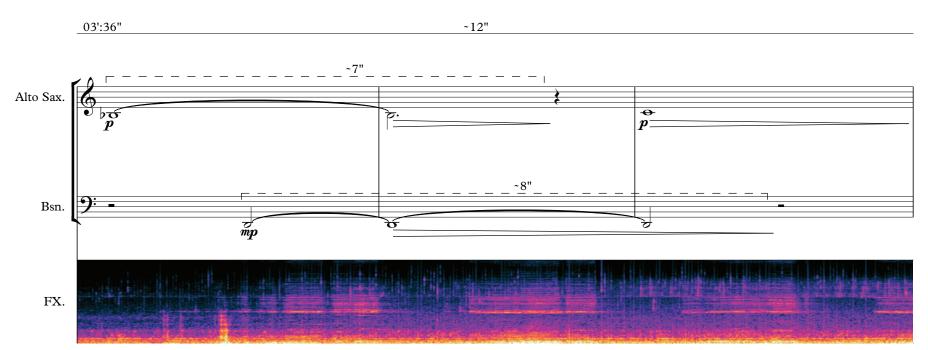


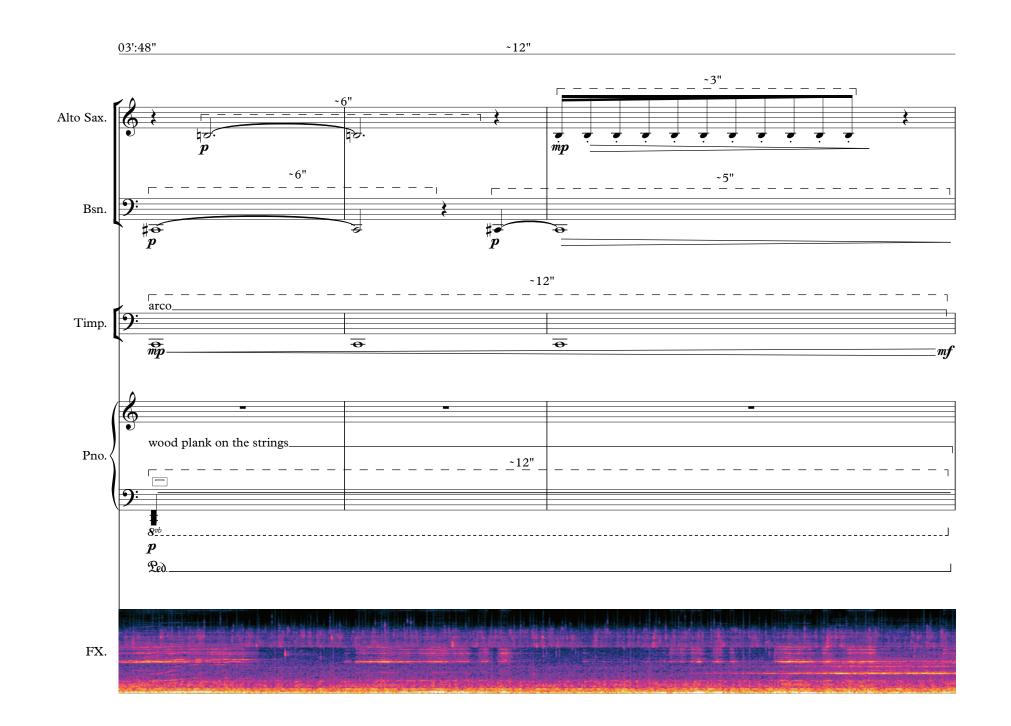


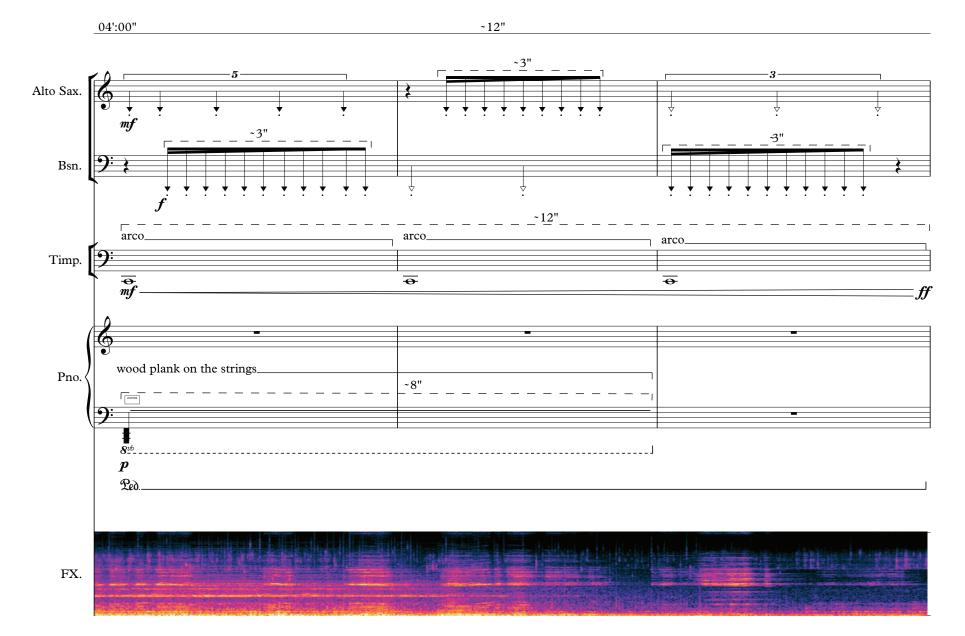


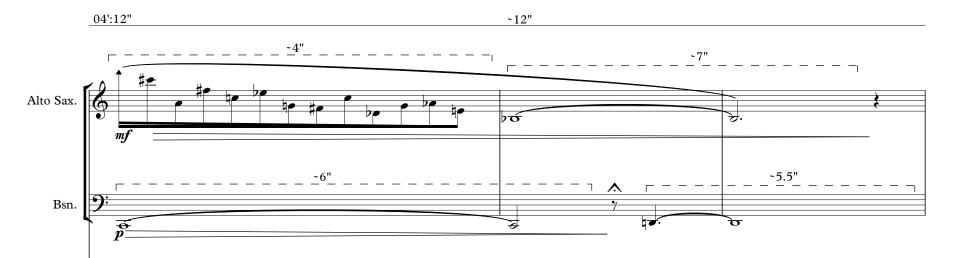




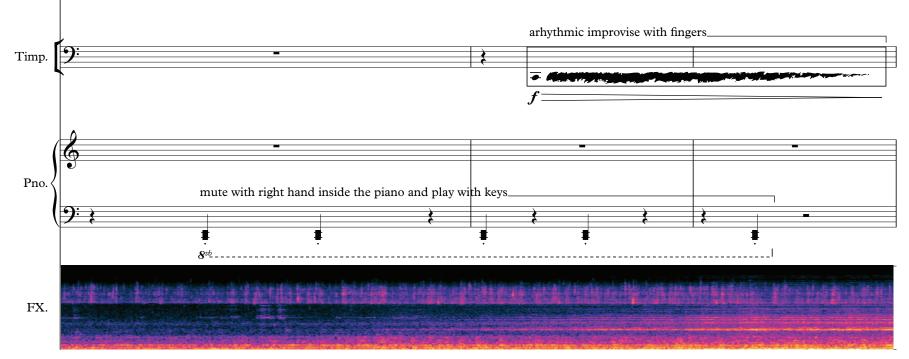


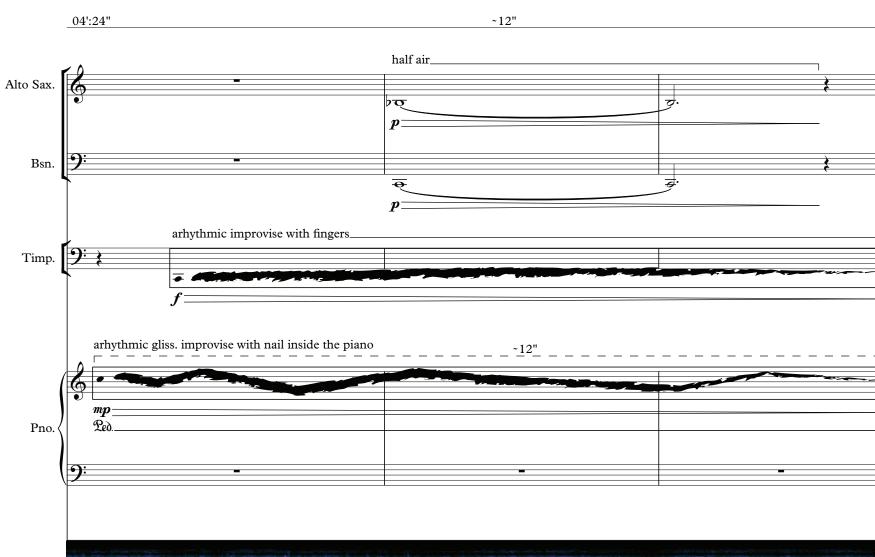






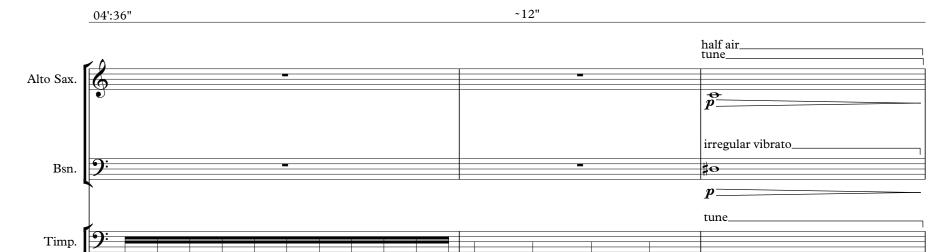
/

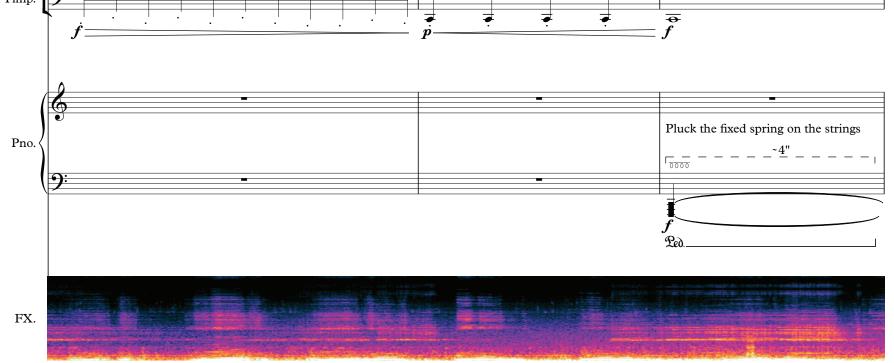


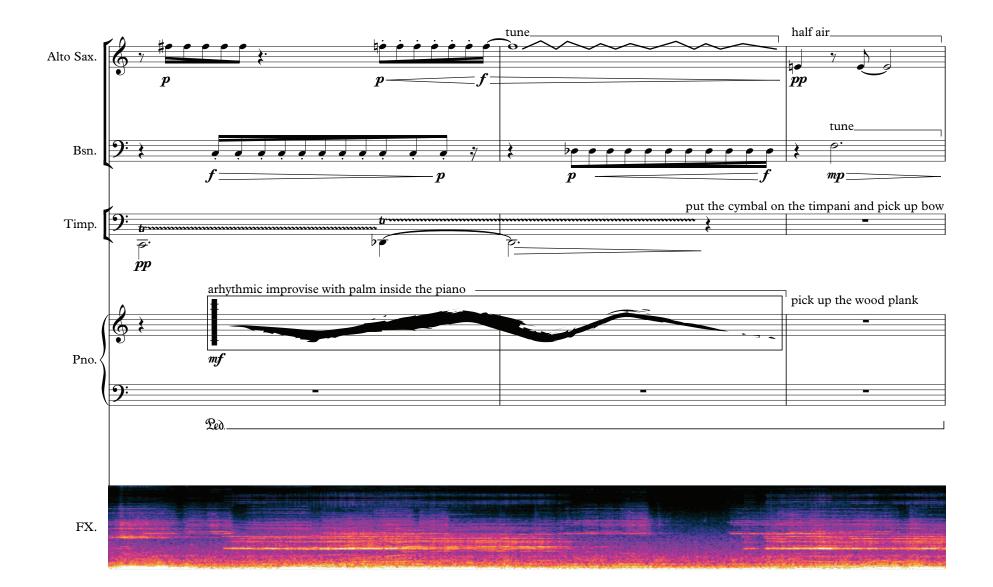


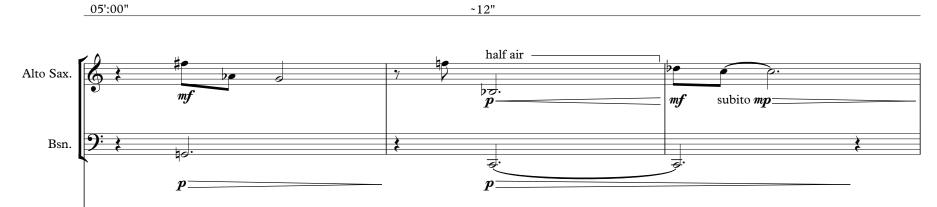
FX.

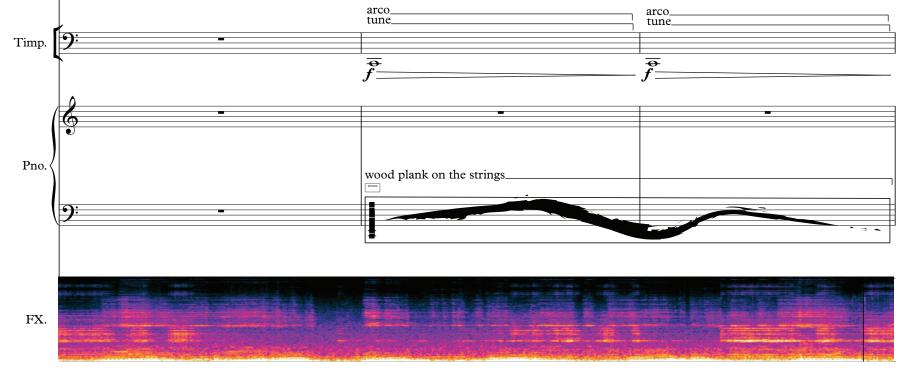
ter in the second of the second se



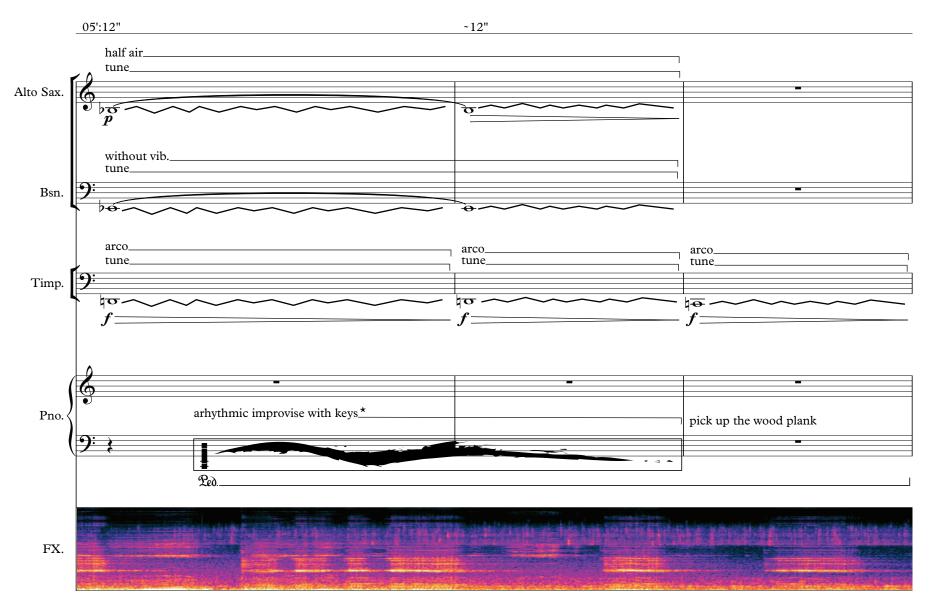






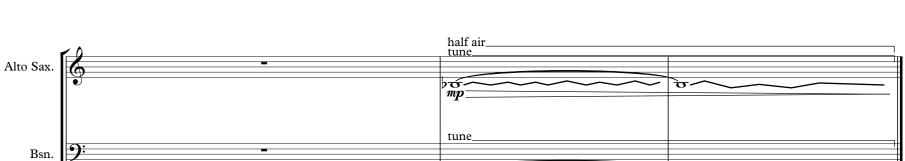






\* play some parts of the cluster chord arhythmically

05':24"

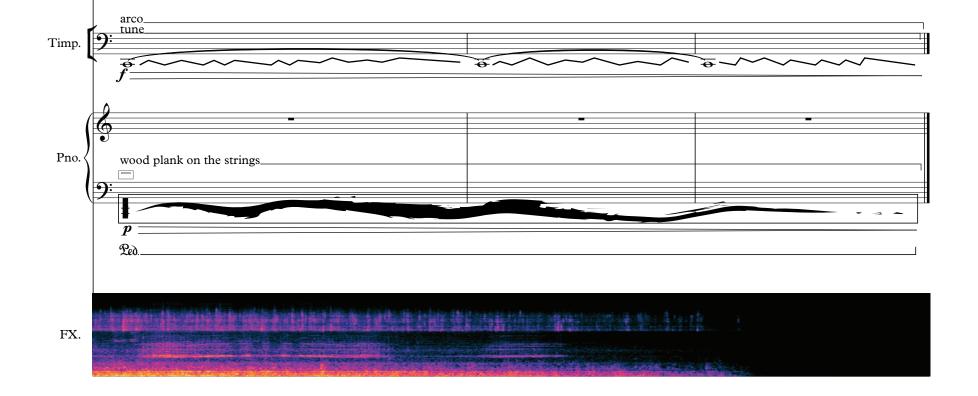


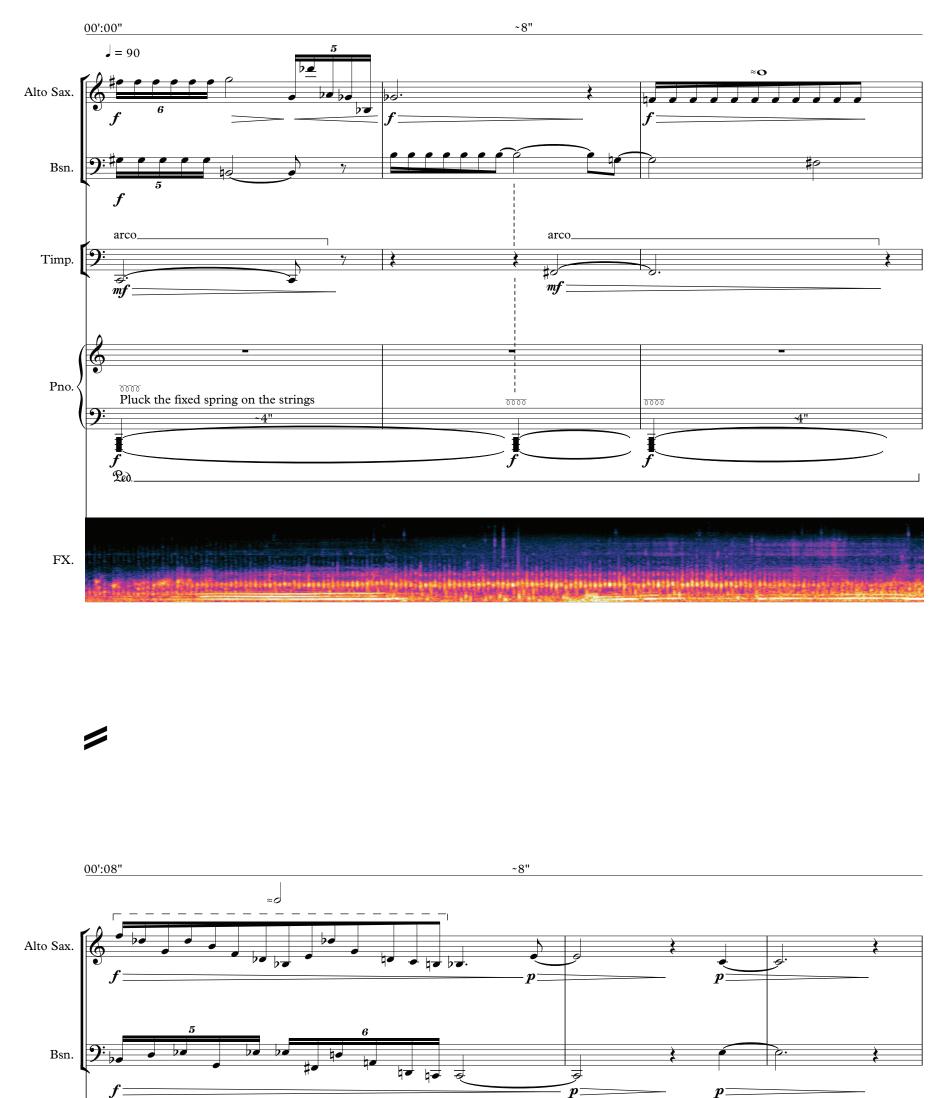
<del>o</del>mp

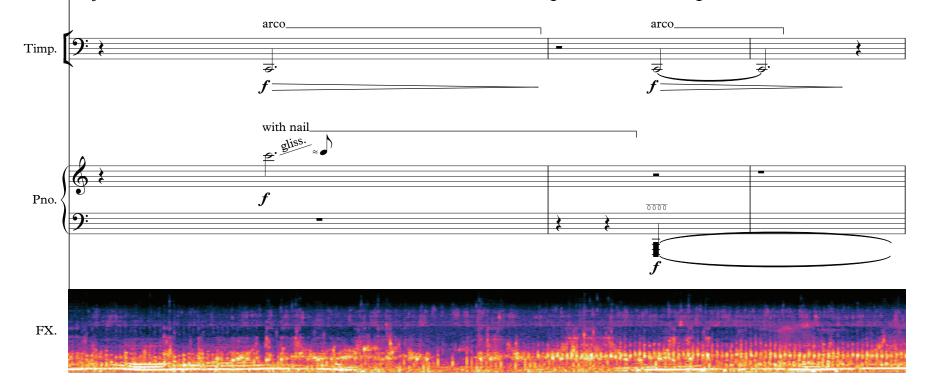
~13"

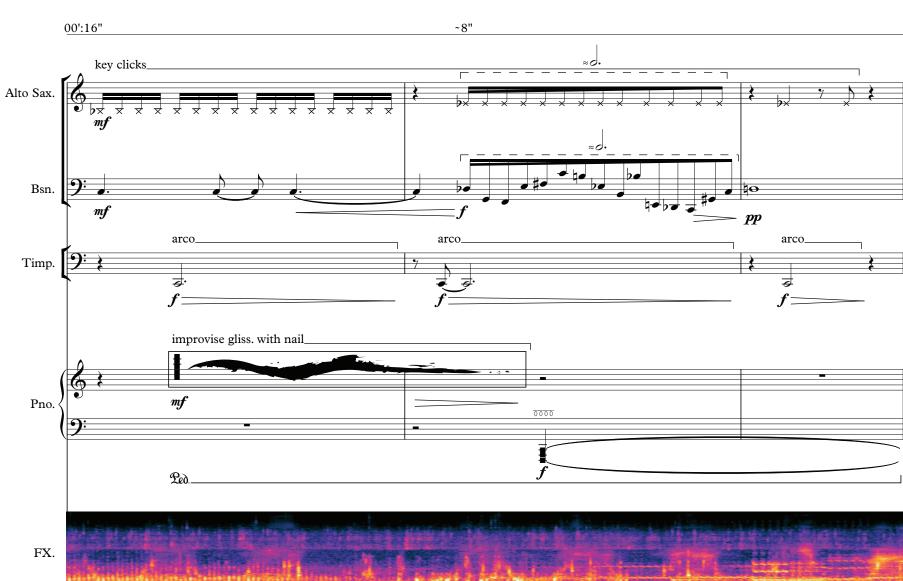
Ò

05':37"



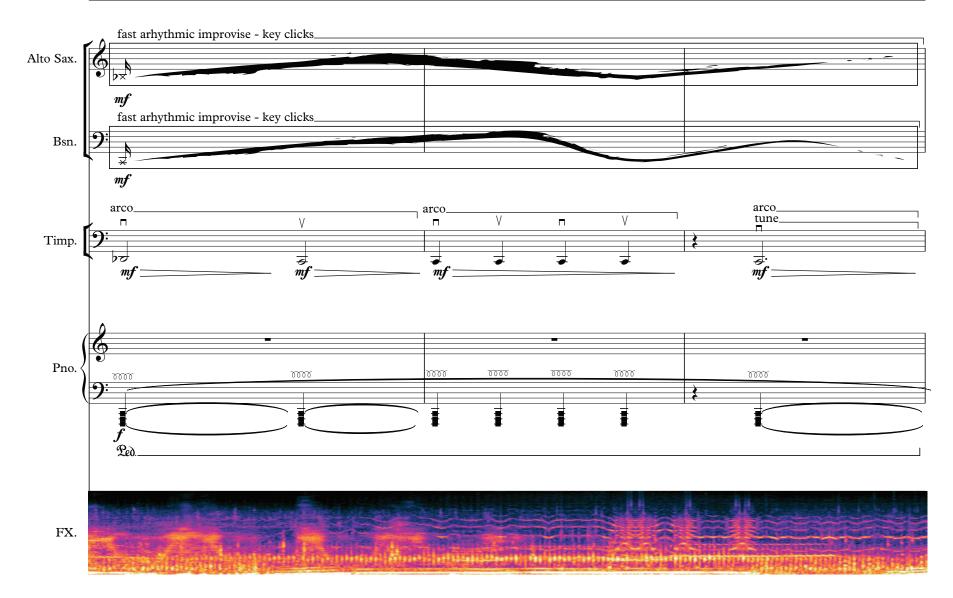


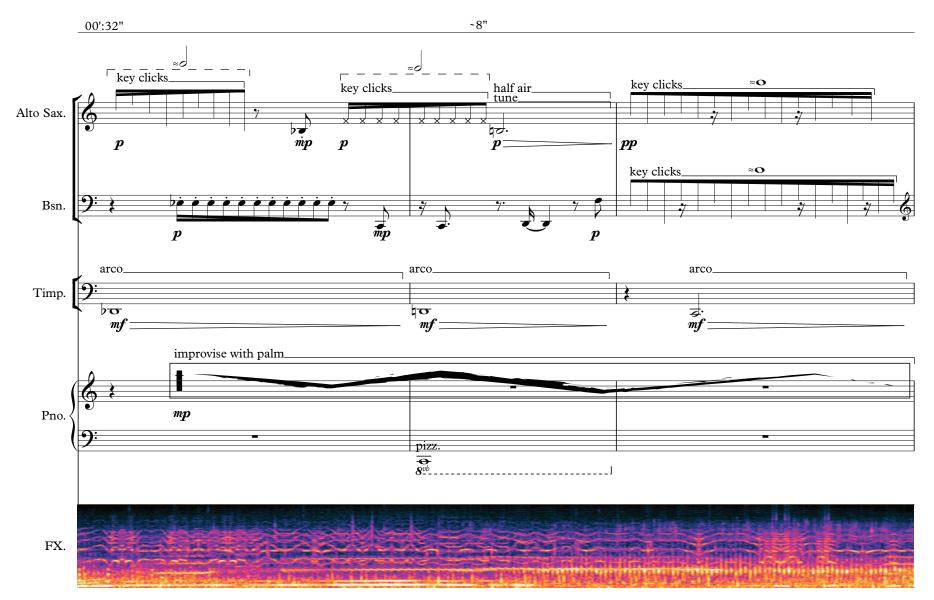


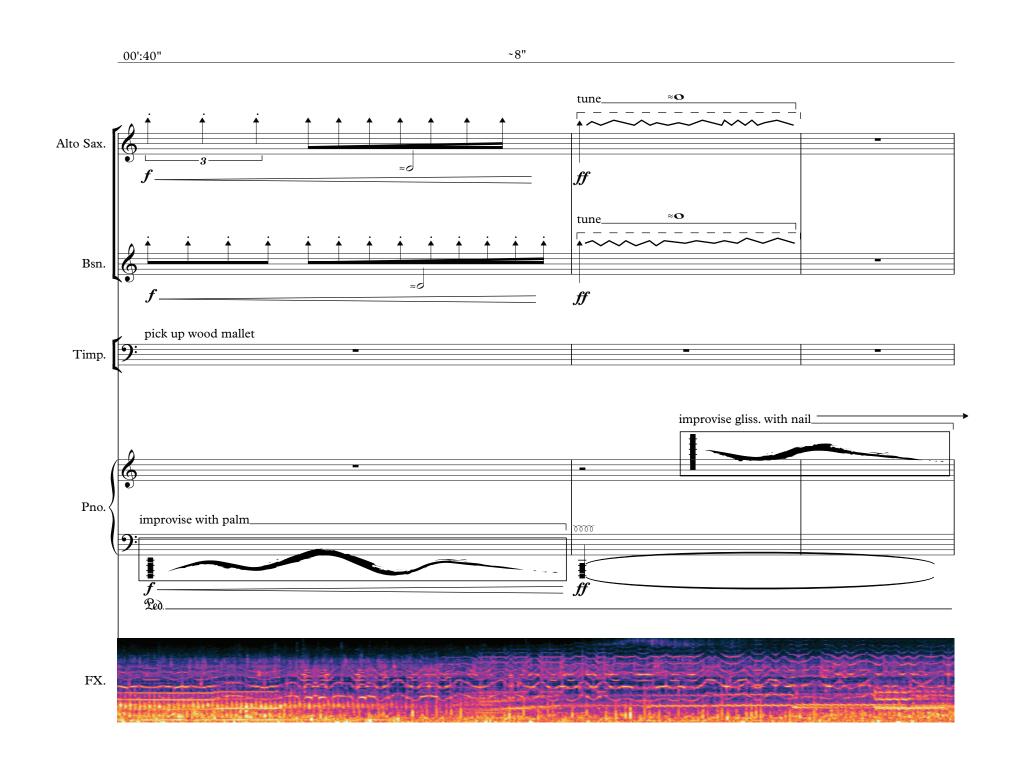


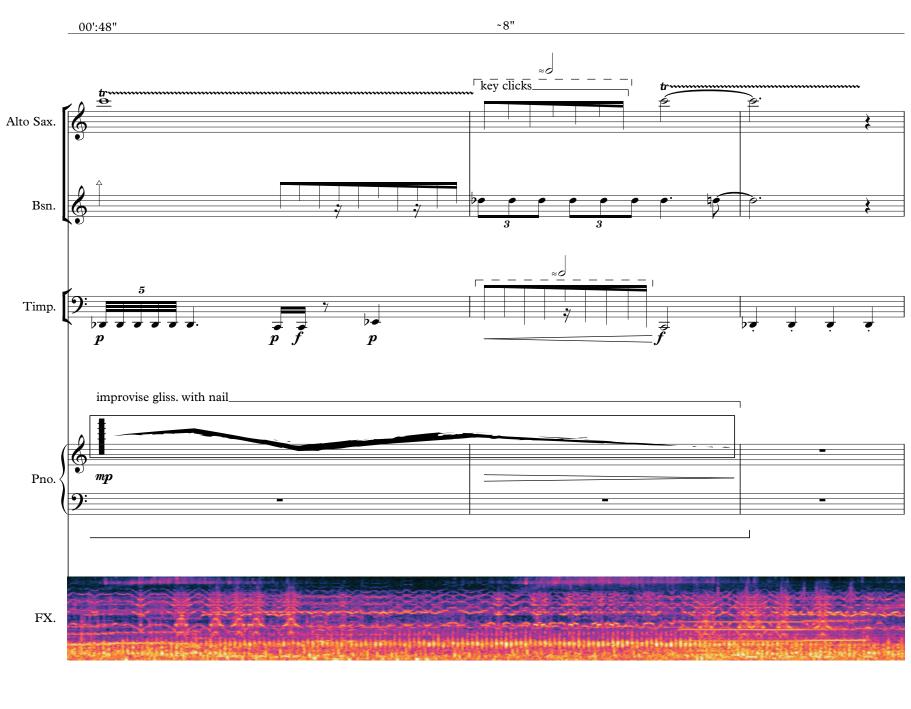


~8"

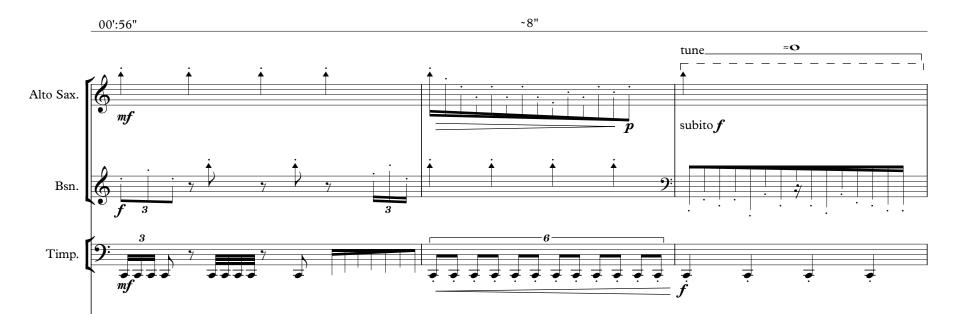


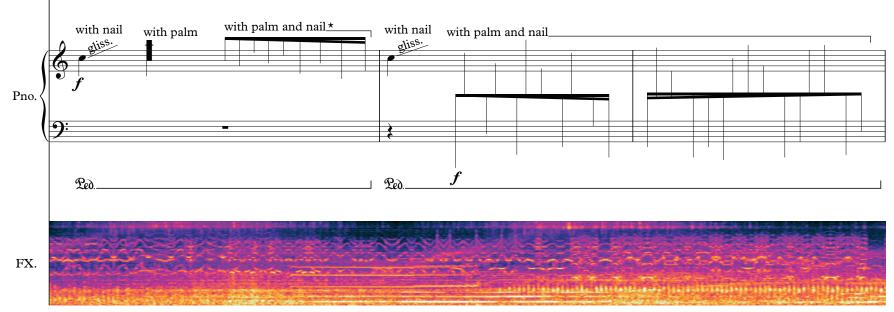




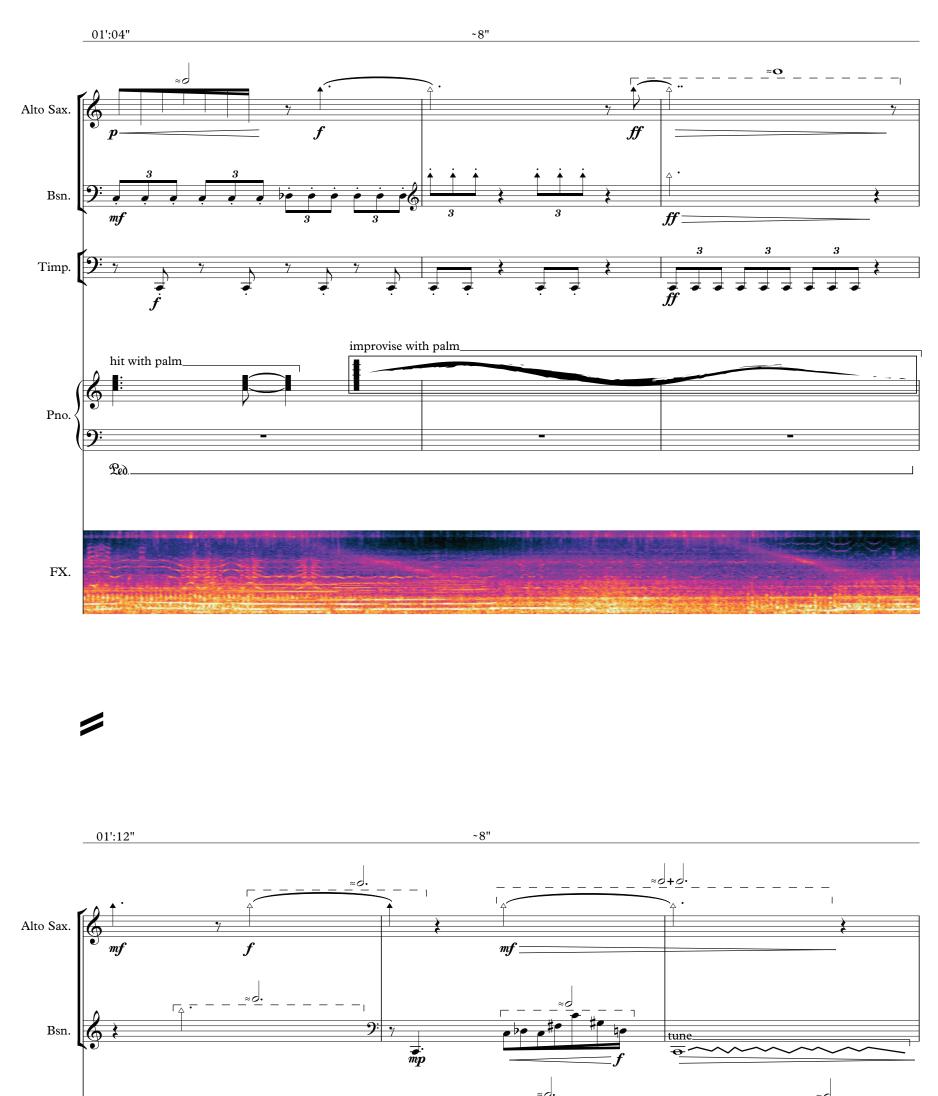


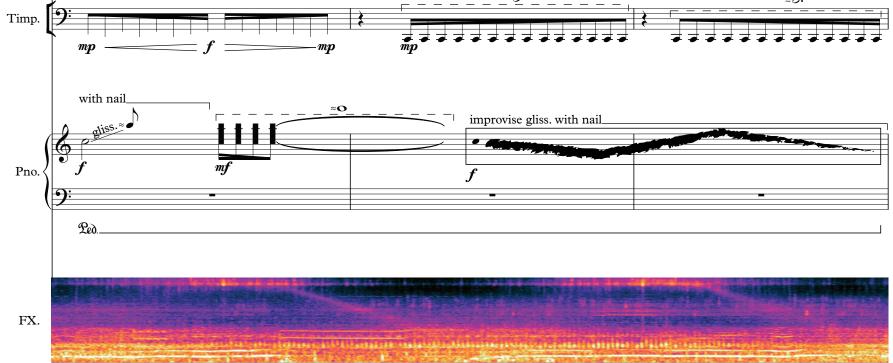


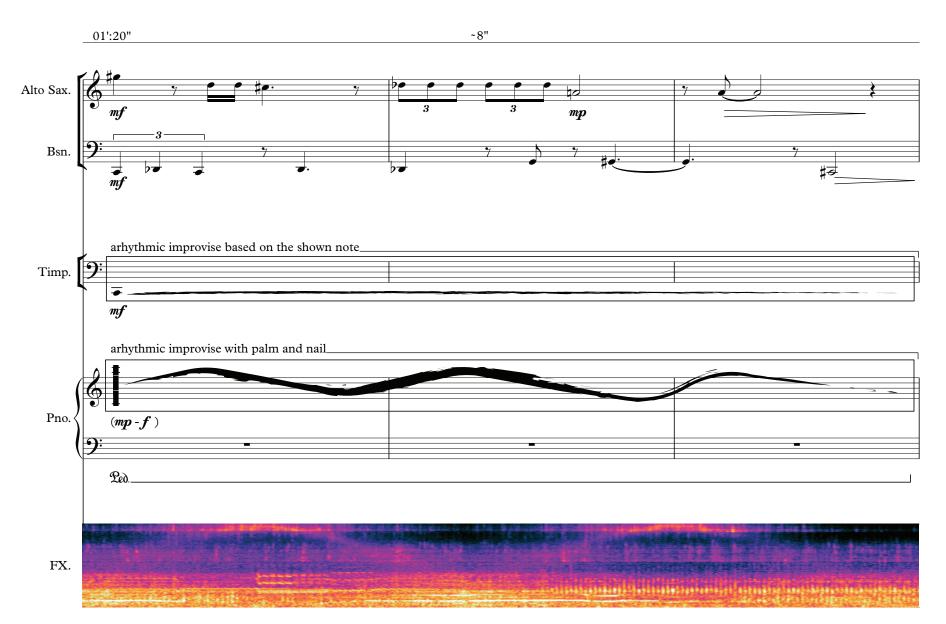


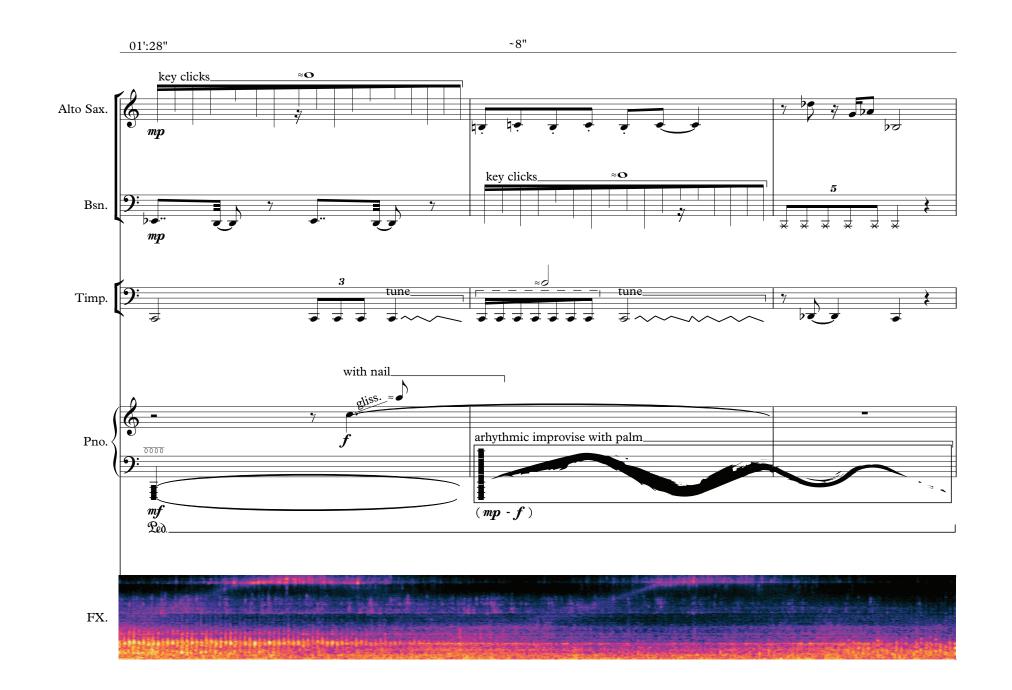


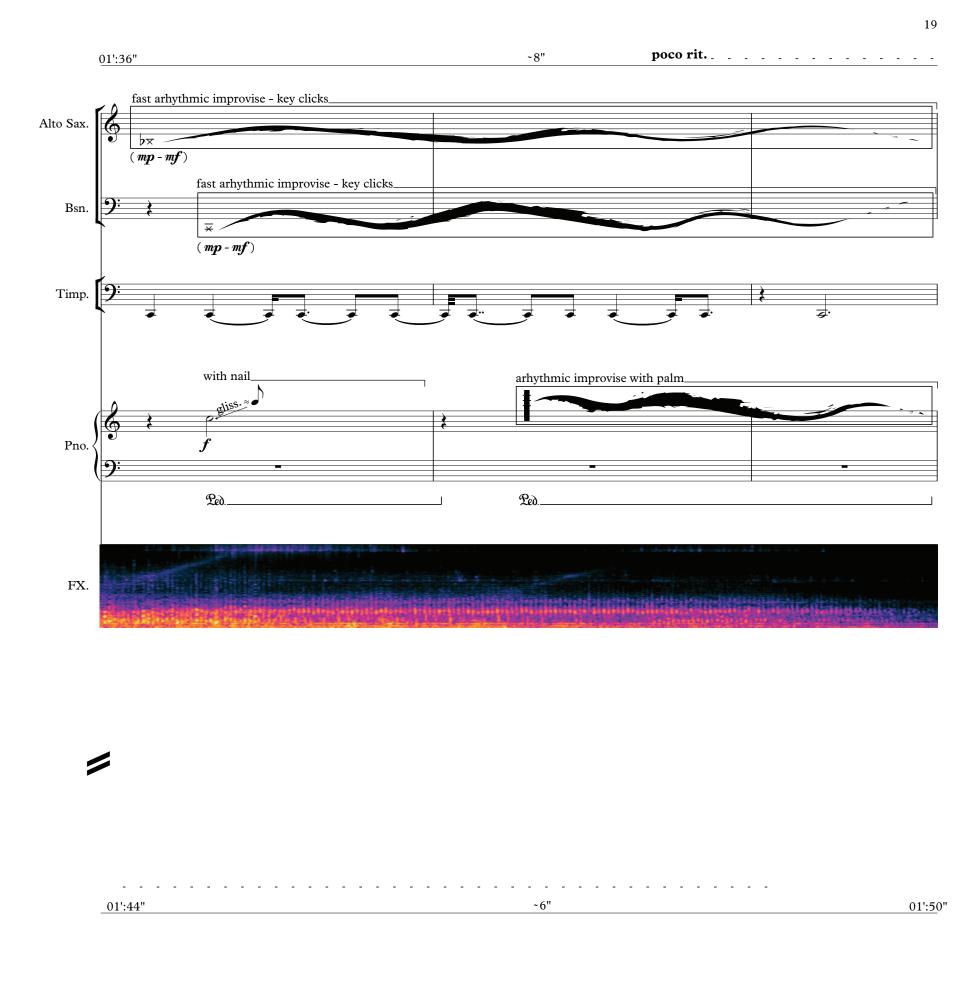
\* alternative hands freely—right hand uses short nail glissandi and the left hand strikes the strings with palm. The speed should be fairly rapid within feathered beaming. The sound should approximate a quasi guitar effect.

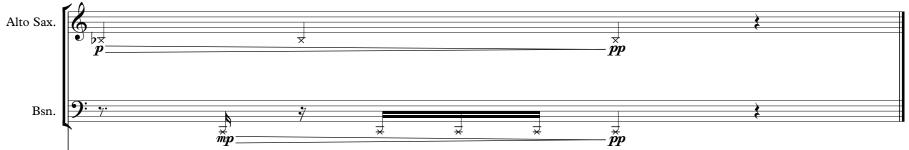


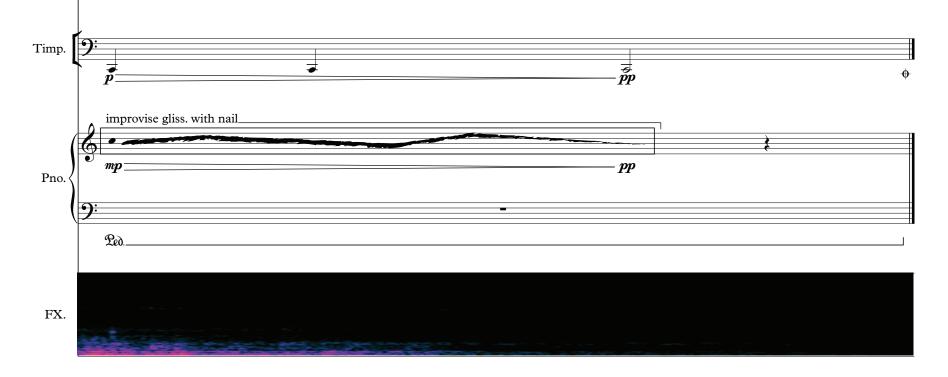




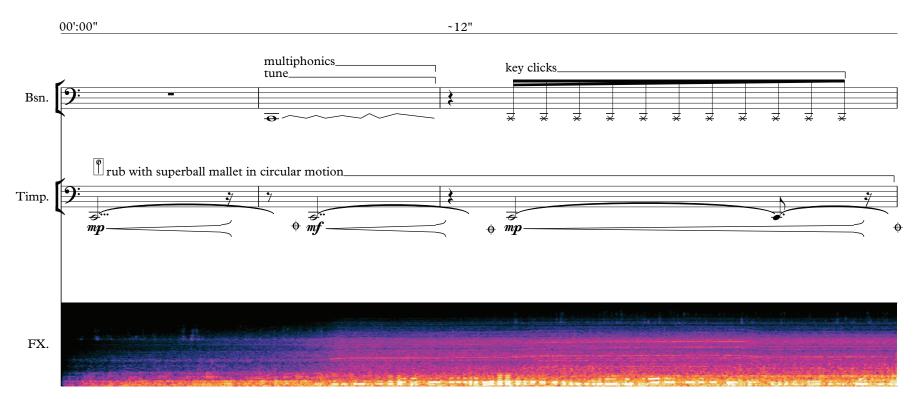


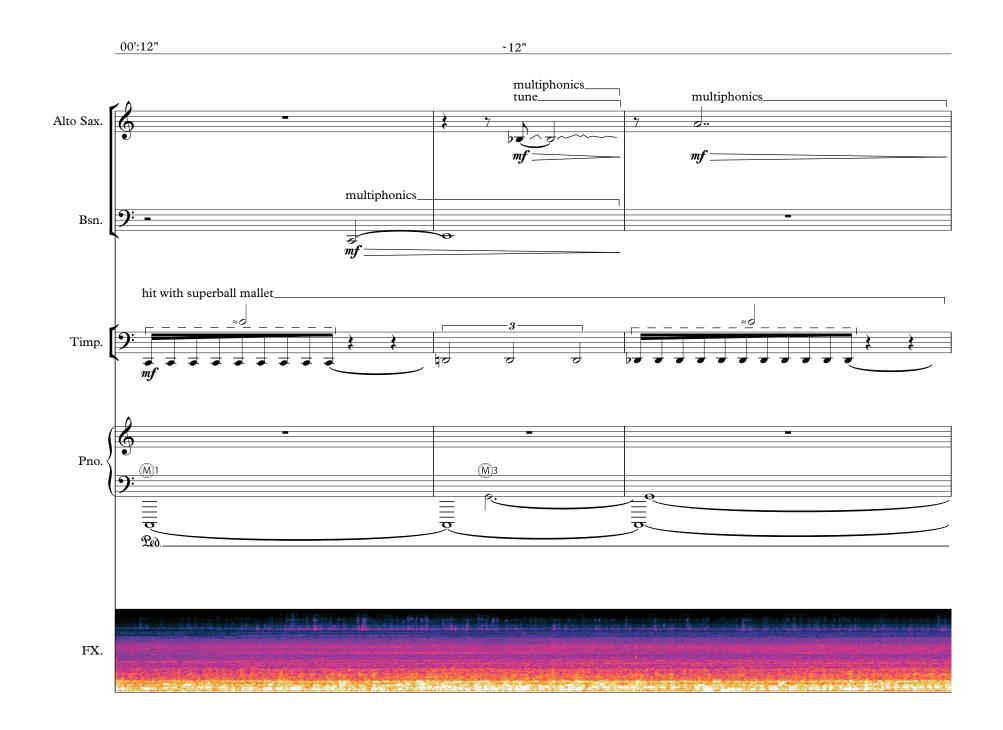


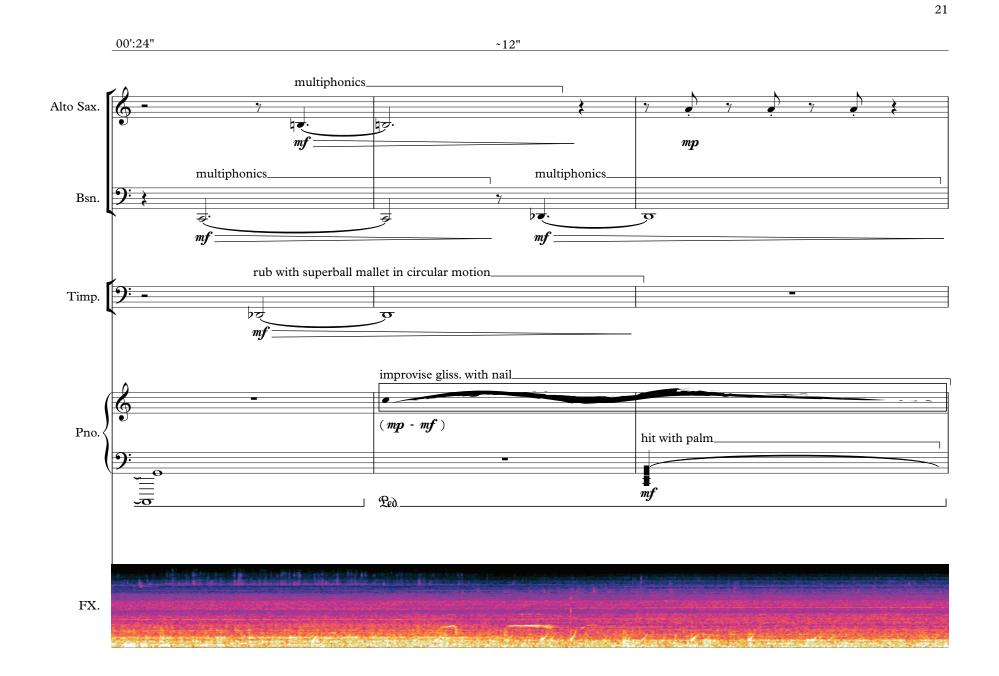




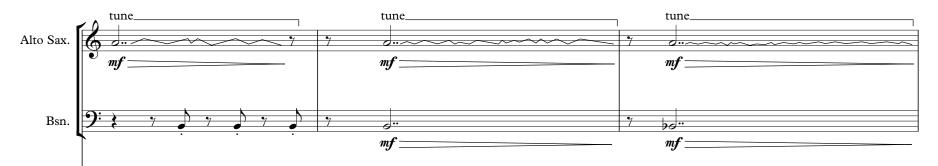
#### Movement III (05':14")

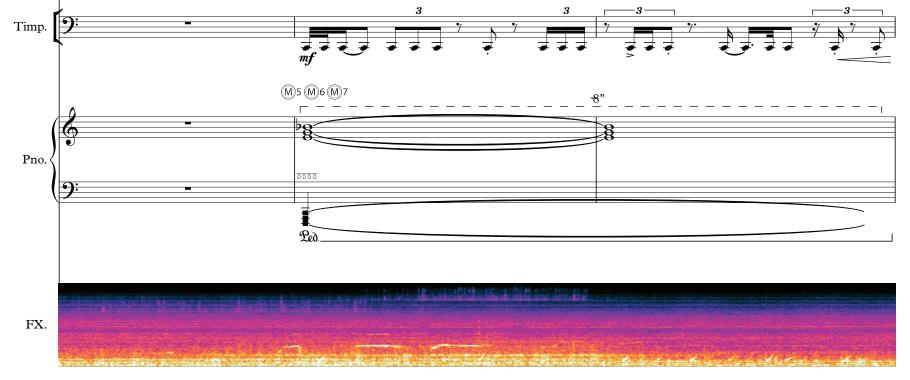




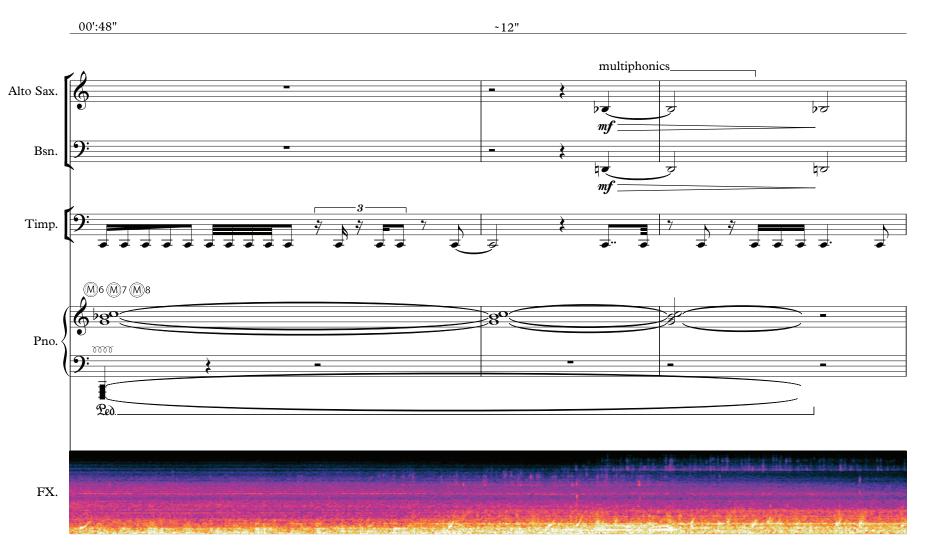




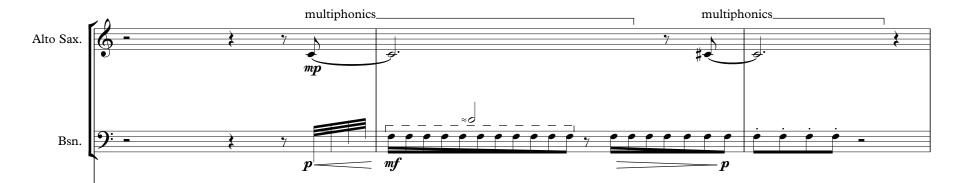


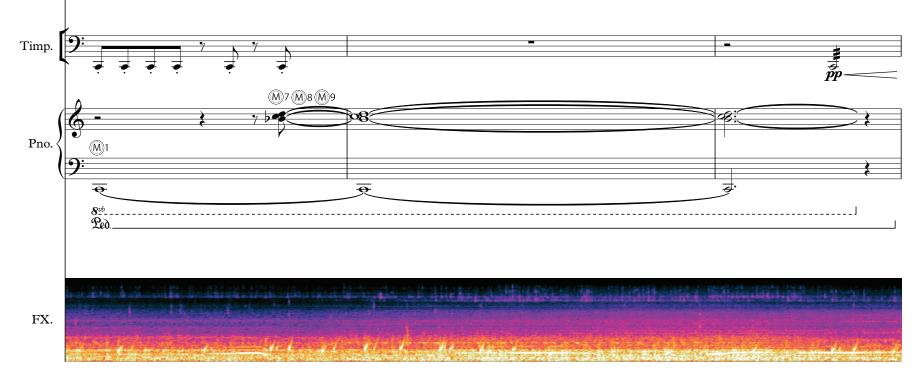




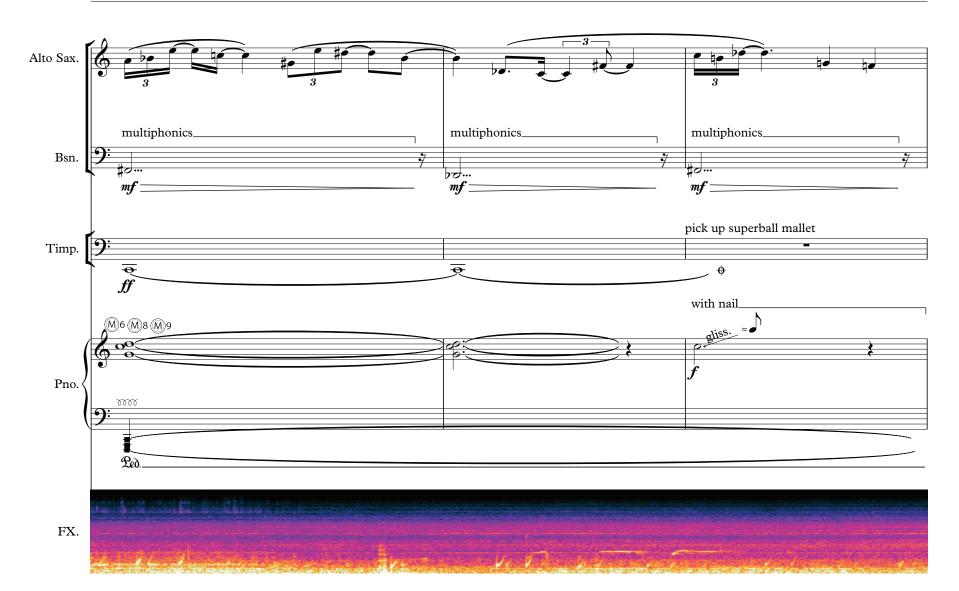


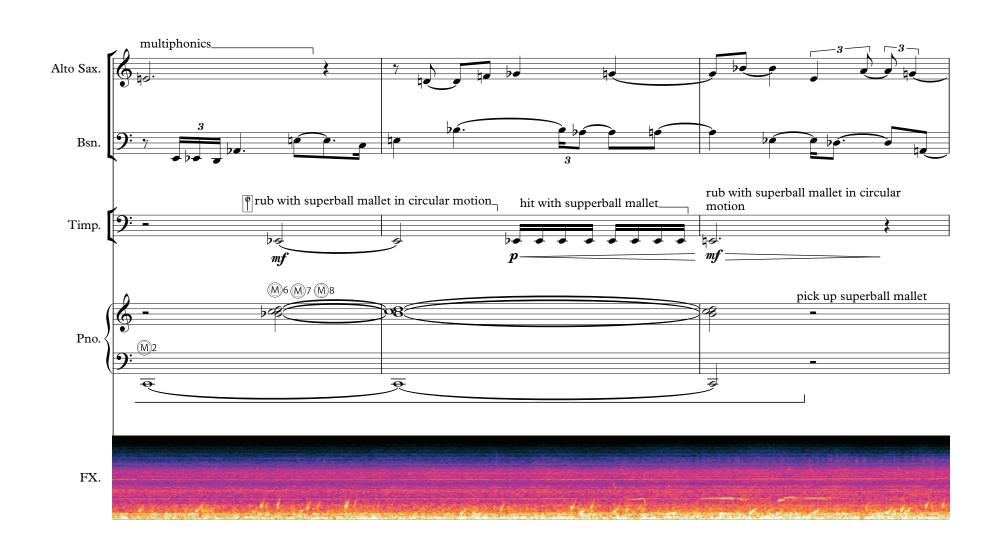
01':00"



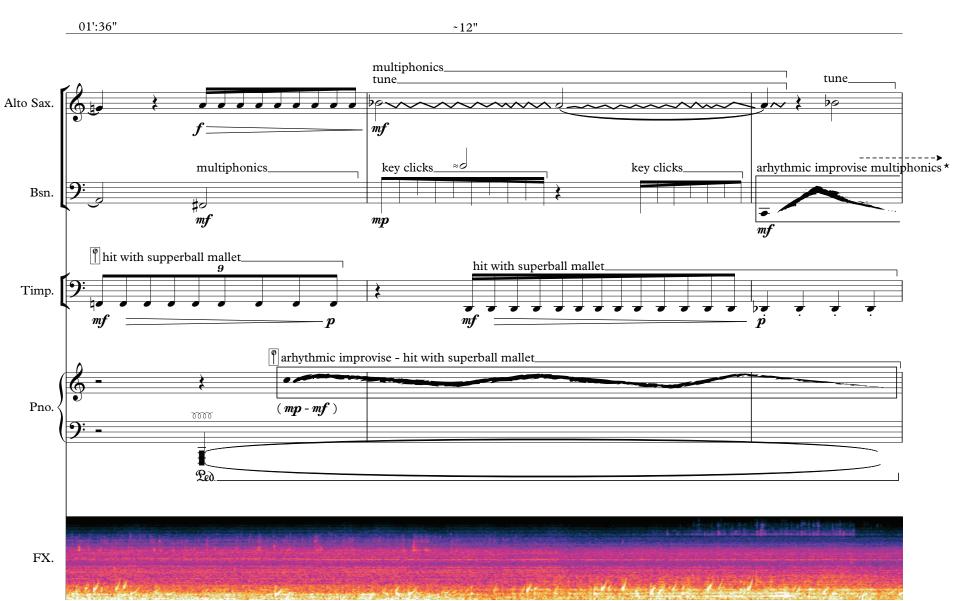


01':24"



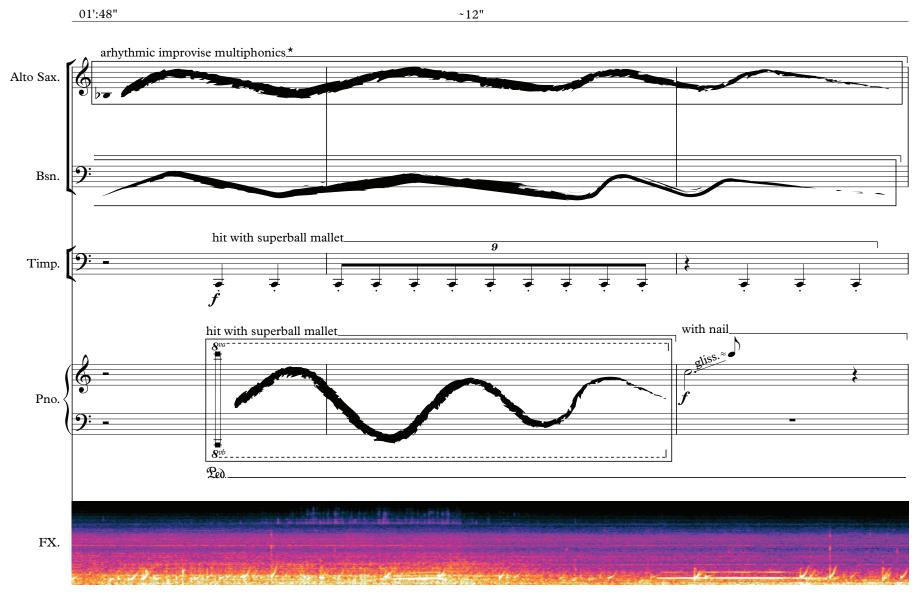






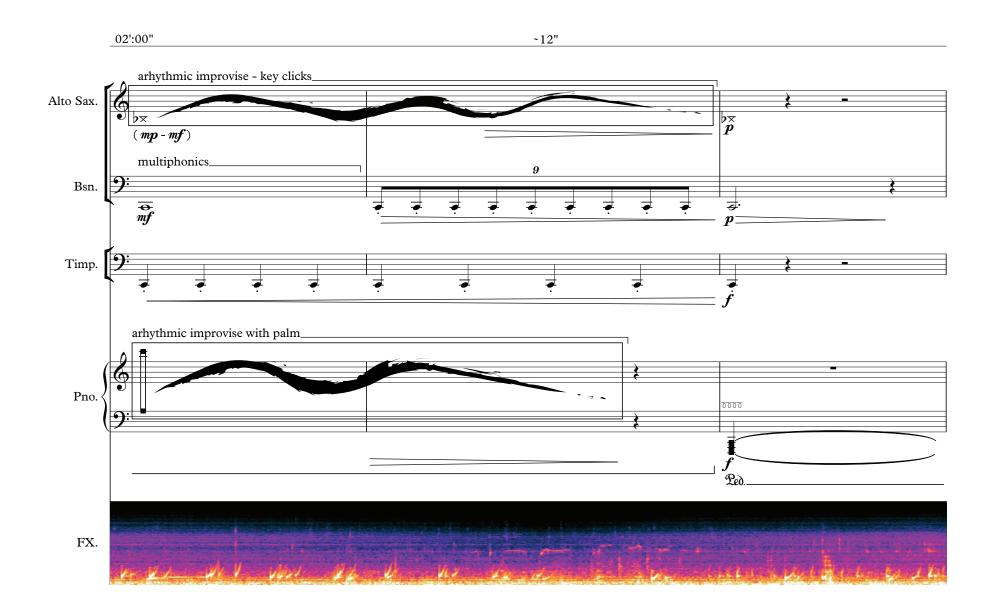
\* Change the root of the multiphonics as rapidly as possible. Allowing the sonority to sound, but quickly move to a different root. The foundator pitch may be any note on the instrument that will producce a multiphonics.

The succession of multiphonics should note coincide with the improvisations of the other instruments, but instead be an independent musical idea from each player.

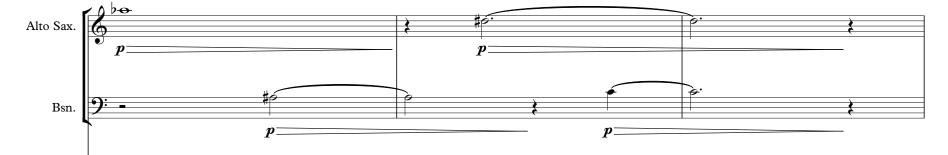


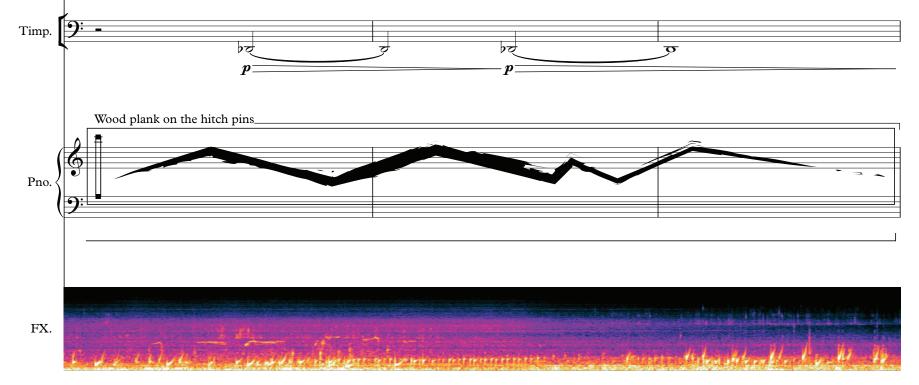
\* Change the root of the multiphonics as rapidly as possible. Allowing the sonority to sound, but quickly move to a different root. The foundator pitch may be instead be an independent musical idea from each any note on the instrument that will producce a multiphonics.

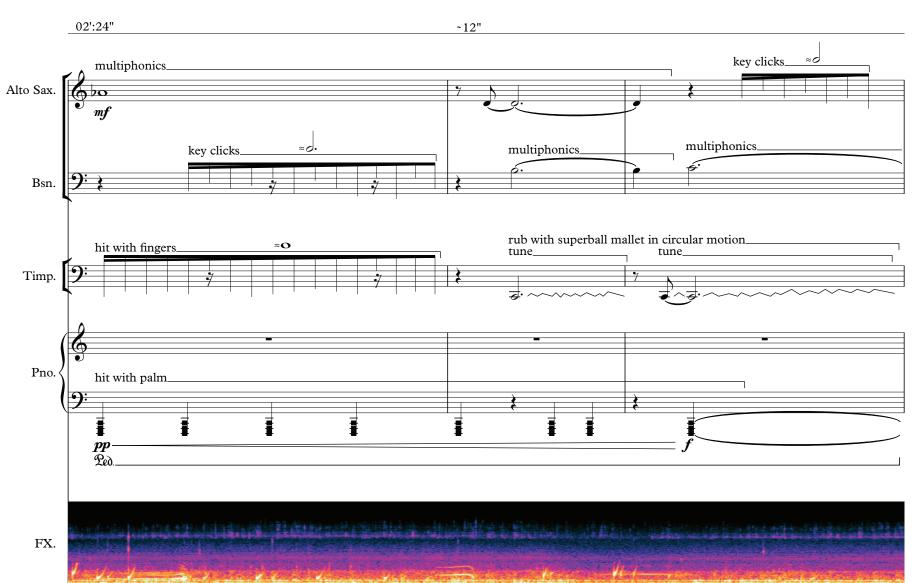
The succession of multiphonics should note coincide with the improvisations of the other instruments, but player.

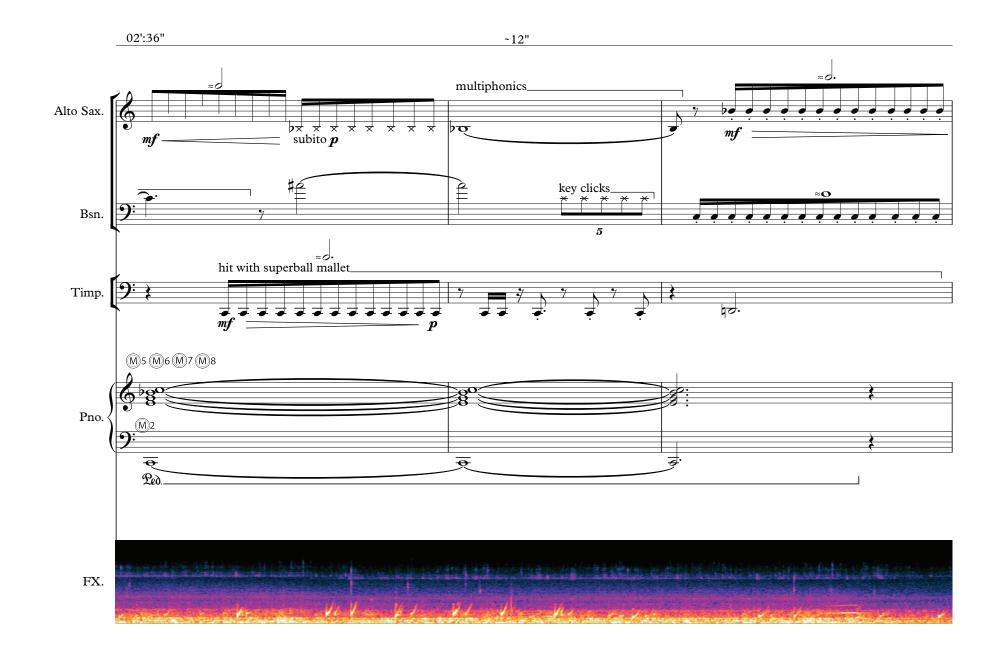


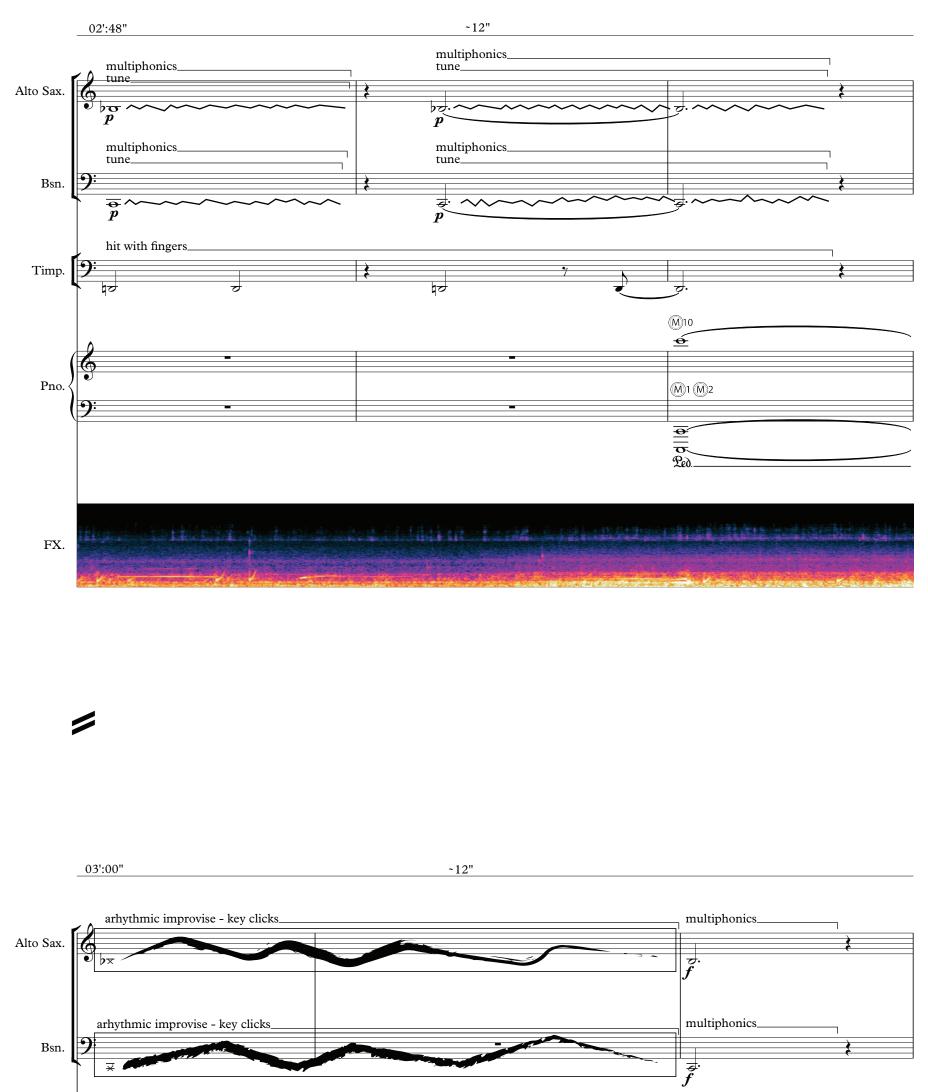
02':12"

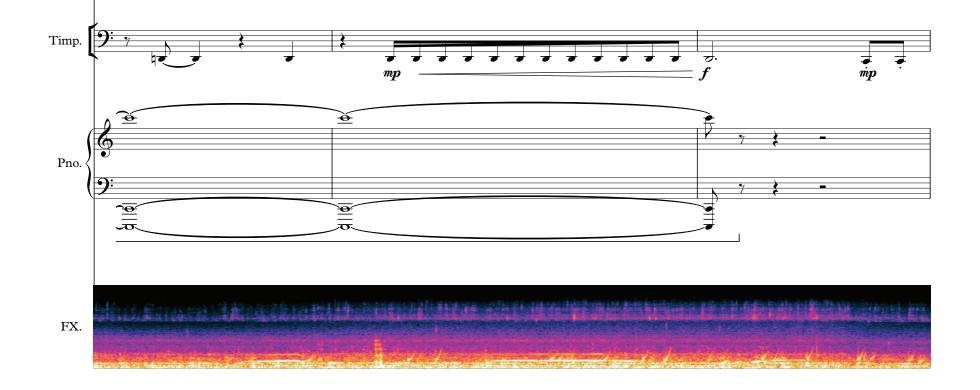




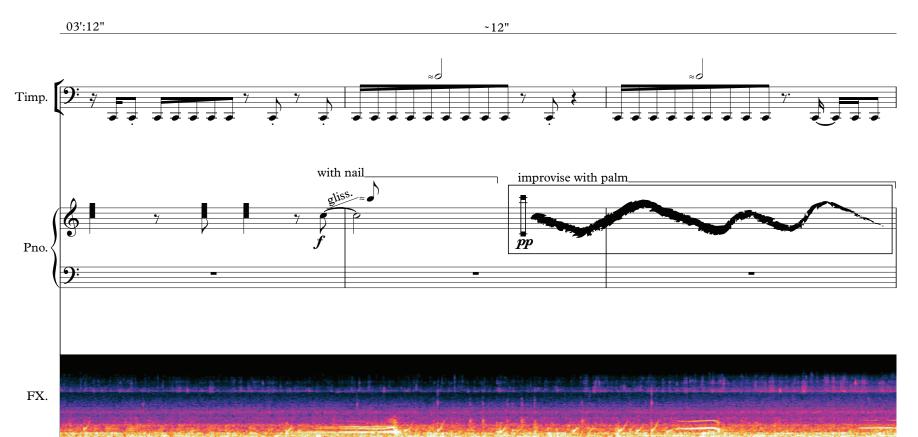


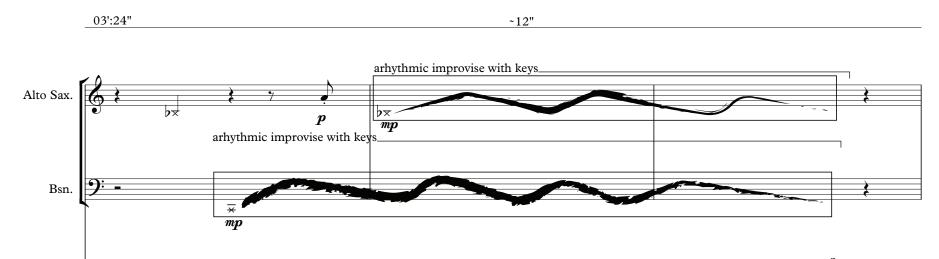


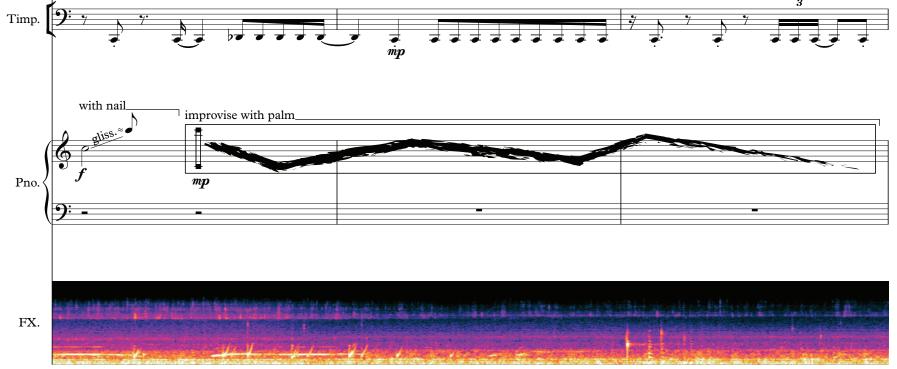




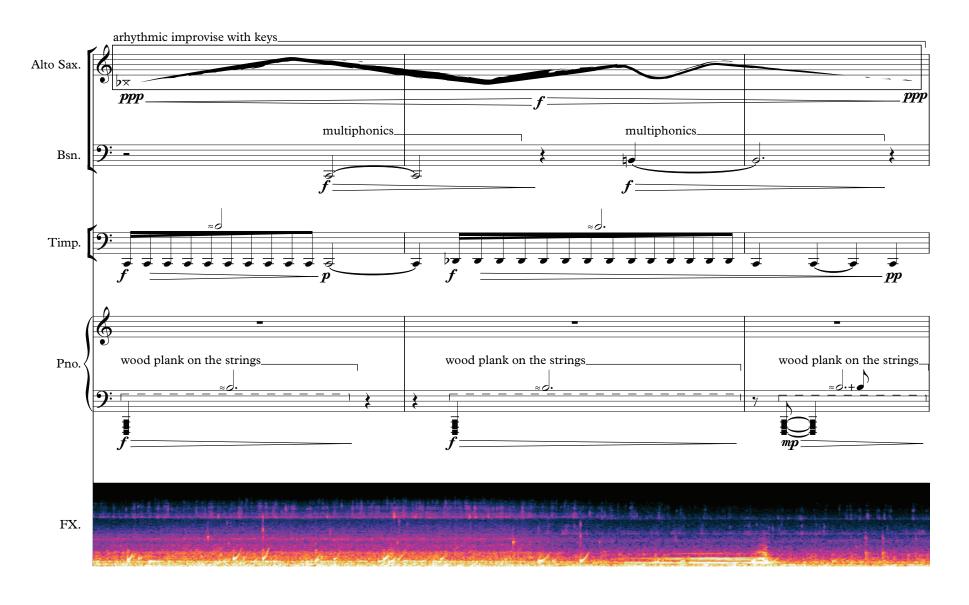


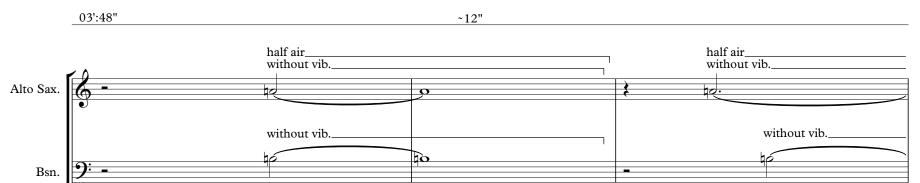


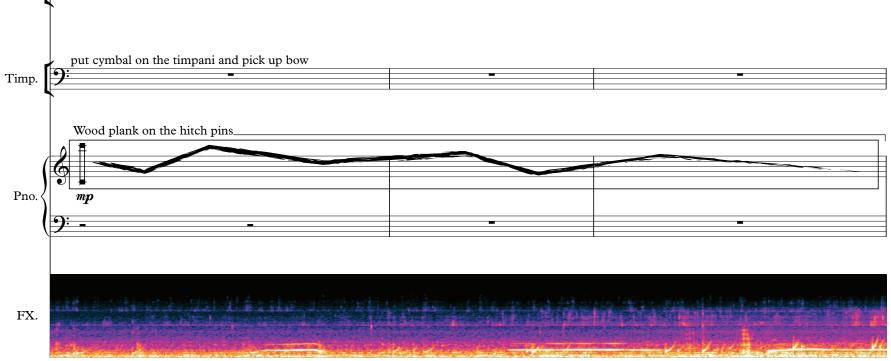




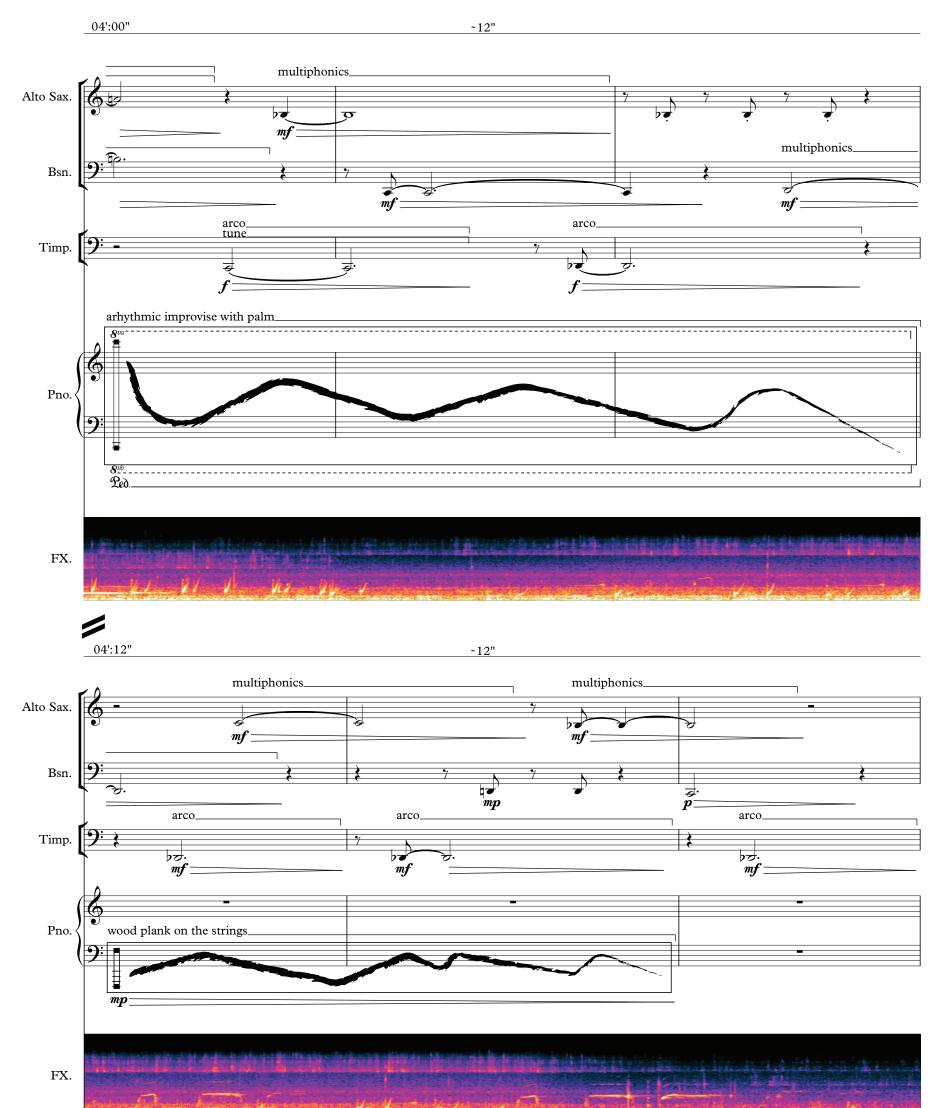


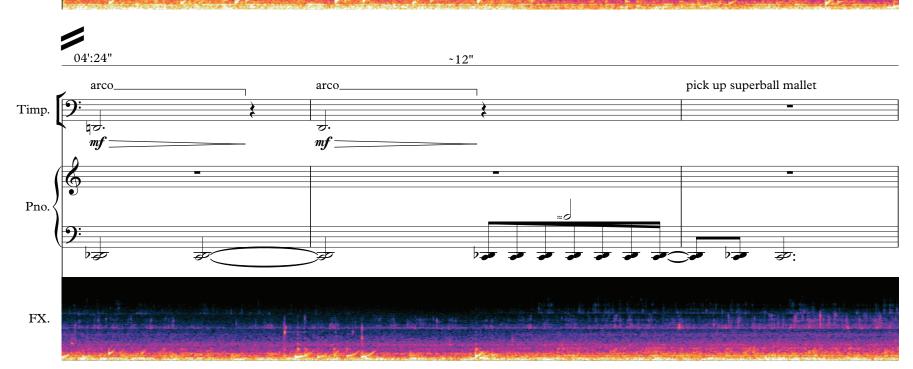


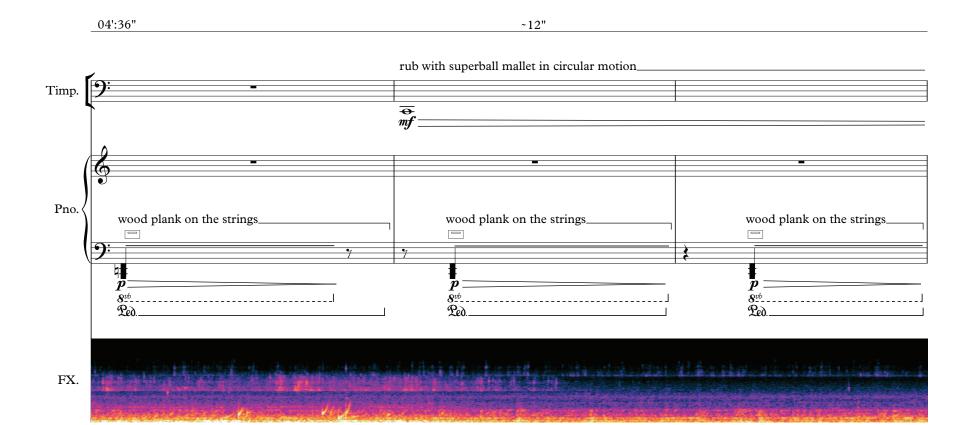












/

