This assignment is all about Contextualizing, and analyzing the works by a Greek contemporary composer called Panayiotis Kokoras,

Contextualizing.

1. **Introduction of the composer,**

Panayiotis Kokoras (Greek _language): o; born 1974 in Ptolemaida)) is a Greek composer and computer music pioneer. Timbre is the primary form element of Kokoras' sound compositions. His idea of "holophony" defines his objective of having each separate sound (), contribute equally to the whole synthesis (). His music demands for "virtuosity of sound" in both instrumental and electroacoustic composition, emphasizing the exact fabrication of various sound possibilities and the accurate difference between one timbre and another to transmit the melodic concepts and structure of the piece.

His composing output is also influenced by musical research in Music Information Retrieval compositional strategies, Extended approaches, Tactile sound, Augmented reality, Robots, Spatial Sound, and Synesthesia. He is a founding member of the Hellenic Electroacoustic Music Composers Association (HELMCA) and served as its president from 2004 to 2012. Panayiotis Kokoras studied composition under Yannis Ioannides, Henri Kergomard, and classical guitar with Evangelos Asimakopoulos in Athens, Greece.

. He traveled to England in 1999 to pursue postgraduate studies at the University of York, where he earned his MA and Ph.D. in composition with Tony Myatt. His pieces have been played in over 400 performances worldwide and have been commissioned by institutions and festivals such as the Fromm Music Foundation (Harvard), IRCAM (France), MATA (New York), Gaudeamus (Netherlands), ZKM (Germany), IMEB (France), and Siemens Musikstiftung (Germany). His works have won 51 distinctions and medals in international competitions, and he has been chosen by juries in over 130 worldwide calls for scores.

. He was a founding member of the Hellenic Electroacoustic Music Composers Association (HELMCA) and served as president from 2004 to 2012. Kokoras' sound compositions are based on what he refers to as Holophonic Musical Texture, which he uses to create functional categorization and matching sound systems. As an educator, Kokoras has taught at the Technological and Educational Institute of Crete, and, the Aristotle University of Thessaloniki (Greece). He has been named Assistant Professor at the University of North Texas since the autumn of 2012.

There is a Link for more information about the composer below,

https://www.panayiotiskokoras.com

Cortometraje Documental - Panayiotis Kokoras - Interciclos Festival 2019

2. My opinion about the works I'm mentioning in this assignment by the composer

I attempted to follow the world's finest current composers around two years ago. In (SCORE FOLLOWER), I saw this video on YouTube and it demonstrates how he comes up with ideas and creates his own instrument using mathematic and creates different things on Max MSP and then combines the graphical composition and then creates a new sort of aesthetic in modern composition element. At first, I felt it was ridiculous to hear it again, but after reading about the composer and his attitude and interpretation as an artist, I discovered him to be a truly intriguing sort of composition in this century. I particularly like his viewpoint on using noises or tools as compositional material. The first time I heard his music, I felt like I was in a carpentry workshop with several workers doing carpentry at the same time, and this feeling was very new to me, which is why I felt that the composer looks at music far

beyond the world of instruments and sounds, and the composer's inventions are very appealing to me. I got the idea that this composer was thinking about generating noises that sounded like machines and machine tools in some of his pieces, and making sounds that sounded like tools and machine tools was really exciting to me because it represented where the world of music and sounds is headed. Yet today's music is vastly different from Beethoven's symphonies and melodic works from the nineteenth century, or even after Schoenberg or Schoenberg's follower John Cage or Xenakis. All of these composers have influenced the creation of new sounds. And I can hear how crucial the role of composers of the twenty-first century, including myself, will be in the thinking of composers of future generations.

Composers' Platform: Panayiotis Kokoras / Ensemble Synaesthesis

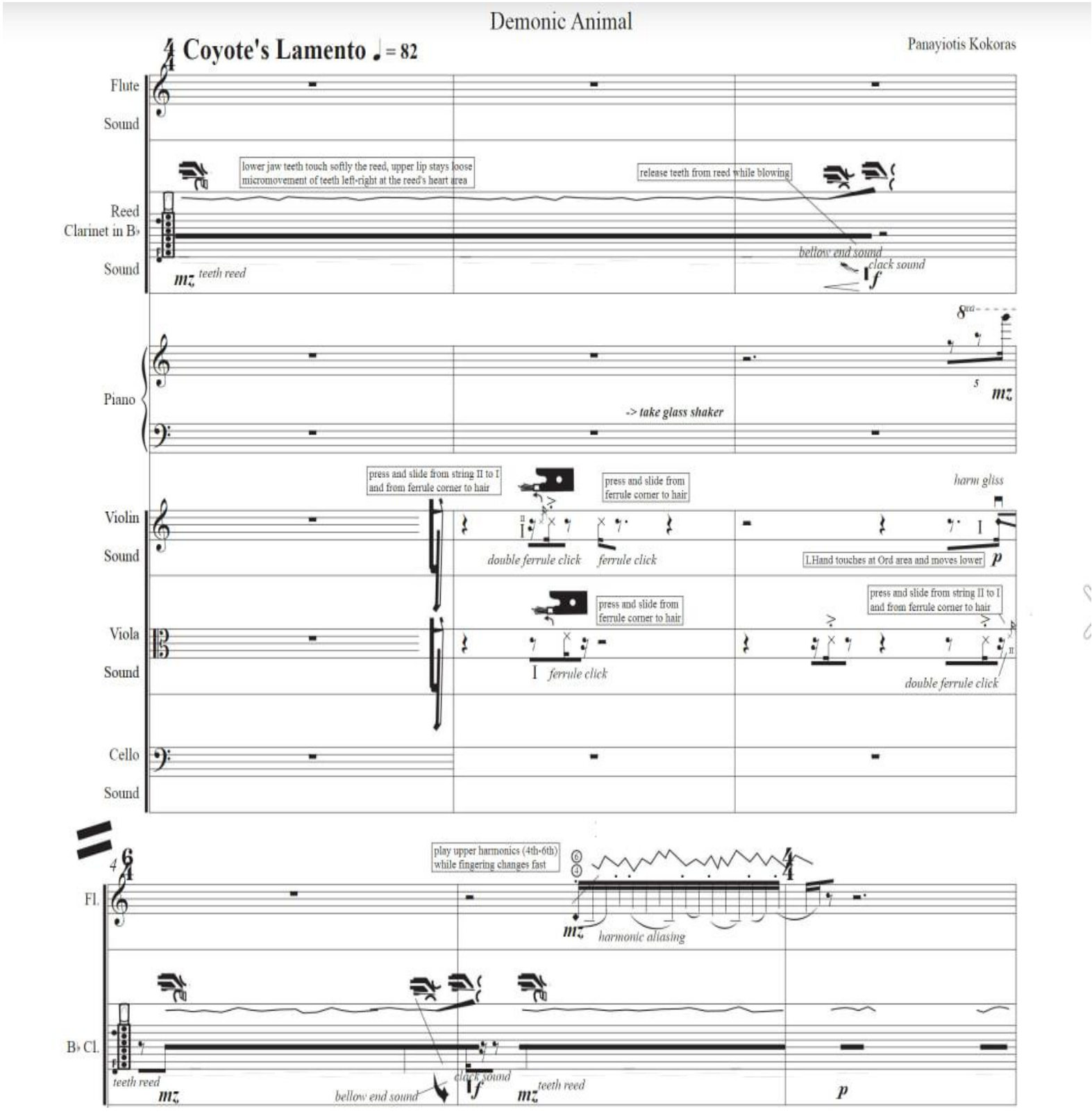
3. **INTRODUCTION TO TACTILE SOUND, AND CREATED TECHNIQUES BY COMPOSER.**

In the next paper, he discusses tactile sound and the methods for making it. When a classical guitarist plays the guitar, the entire body of the instrument vibrates in addition to the strings. These vibrations are also experienced by the performer's body as vibrotactile sensations. As the performer puts his or her head on the top of the guitar side, he or she feels the vibrations via the chest, foot, fingers, and sometimes through the jaw or zygomatic bone. The last position is not part of the normal classical guitar method, although it is something that players have done when practicing. Most instrumentalists will have a comparable experience, depending on the acoustic and physical properties of the instruments they play and the sound from the speakers in front of them. The shot was quickly a smash; it was a

dramatic message that music has strength and force you can feel. Yet, what a performer feels during a performance is not the same as what the audience perceives because the sole route of communication between the sound of the guitar and the audience is through their ears.

THE WHOLE COMPOSITION PROCESS BY THE COMPOSER.

4. Exploring ‘’The Performance notes of Demonic Animal’



NOTE: The audio file of this piece before was available but now is not.

But The Like of the scoresheet is on this website below,

https://issuu.com/pkokoras/docs/demonicanimal_pkokoras

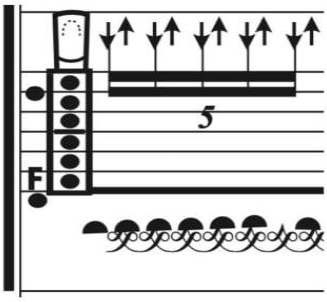
5. Description of the Analyse of the Piece.

• His piece's virtuosity may be referred to as "la virtuosi-te du son". The musician's job is to create sounds rather than perform them.

• The score functions more as a handbook, instructing the performer on how to generate and control the sounds necessary for the performance.

• The notation may not always imply the sound generated. The written note does not necessarily correlate with the heard note. Regardless of the sound outcome, the performer should stick to the written note.

• To move from one sound type to another, a transition period should allow the sound to be molded (unless otherwise specified). This transition period is a crucial and creative instrument for the piece's interpretation.



• To express the musical concepts and structure of the work, emphasis should be placed on the accurate creation of the various sound possibilities and the correct differentiation of one from another.

• The compositional technique is built on sound-to-sound structures, transformation methods from one to another, and functional categorization sound models.

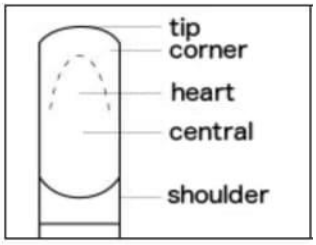
• The diatonic interval, harmony, and melody lose their meaning. The music is made of sound.

The reed space is in the upper part. It shows the lower lip posture (from tip to shoulder) and pressure against the reed. The higher the sound, the closer you are to the tip, and the lower the sound, the closer you are to the shoulder.

. The thicker the line the looser the lip. The thinner the line the more pressure is applied to the reed. The more pressure the higher the pitch and more roughness to the sound.

1. The seven-lines Middle section indicates the clarinet's fingering.
2. The lower section of the staff provides a visualization of the sound to be produced.

3. The vertical axis indicates frequency, whereas the horizontal axis represents time. In general, the coloration symbolises loudness in terms of frequency, with black representing loud frequencies and white representing quiet. The patterns in this part depict an arbitrary visualisation of the sound to be created, such as high/low, bright/dull. Ordered/chaotic, coherent/erratic, smooth/coarse. Tonal/noisy, soft/raspy. Moreover, a number of onomatopoetic and/or echo-mimetic words/letters attempting to express or reproduce a sound or its environment, such as an aggressive, tranquil, sorrowful scream of pain, mental and physical agony, sadness, or joy.



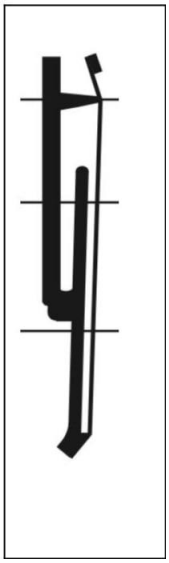
Reed anatomy The vamp of the reed is notated in five distinct areas, tip, corner, heart, central, and shoulder**.**each area is capable of producing a wide range of sounds described in the following image below.

	*SHOULDER: GRUNT SOUND* Square note-head. The lower lip should touch the ligature. Blow from the diaphragm and let the reed to swing inside the mouth cavity. A low pulsated rough sound should be produced. It also be combined with slap-tongue at the onset of the sound.
	*HEART: CLACK SOUND* Square note-head. The distance between the lower lip and the heart of the reed should be wide enough to create the clack like sound as you blow. Blow a narrow air stream, the stronger you blow the louder the clack sound. Also, the lower the fingering/note you play the slower the clack sound. Therefore, by changing fingerings you can control the speed/ pitch of the sound.
	*CENTRAL: GROAN SOUND* Square note-head. The sound is grainy with reminisces of a guttural sound made by an animal. It could also be combined with singing (right).

Teeth reed harmonics	Teeth shake wobble clap	Bellow sound	Heart, harmonics	Corner Lip	Tip Clack sound	Non-touch Clack sound
						

Non-touch whistle	Tip Slap	Slap	Flop sound	Central, harmonics	Shoulder, Grunt / Groan Sound	Lip sputtering
						

	*TIP: CLACK SOUND* The space between the lower lip and the tip of the reed should be wide enough to create the clack/slap like sound. Form the lips to create a narrow air stream, the stronger you blow the louder the clack sound, the space between lower lip and reed also affects the quality of the clack sound. Also, the lower the fingering/note the slower the clack sound. Therefore, by changing fingerings you can control the speed/ pitch of the sound.
	*CORNER: CLAP SOUND* Moon note-head. Touch lightly the lower lip at the tip/corners of the read. By lightly touching the reed, as it is vibrating you smooth out the percussive quality and the pulse sound warmer and less bright/ clunky with no transients. Although the air stream might be continuous the resulting sound might have interruptions. The distance between the lower lip and the reed as well as the air pressure affect the sound. The closer the lower lip to the reed the buzzier the sound. The further the distance between lower lip and the reed the more clap like the sound.



- -The neck pegbox is located in the lowest portion below the three staff lines. Also. It may include text explanations and/or graphic representations of the sound that will be generated. The vertical axis indicates frequency, whereas the horizontal axis represents time. In general, the coloration symbolizes loudness in terms of frequency, with black representing loud frequencies and white representing quiet. The patterns shown in this section give an arbitrary depiction of the sound that will be created, such as high/low, and bright/dull. Ordered/chaotic, coherent/erratic, smooth/coarse. Soft/raspy, tonal/noisy, etc. in addition, several onomatopoetic and/or echo-mimetics words /letters aiming to represent or imitate a sound or its contexts such as the aggressive, peaceful, mournful cry of pain, mental and physical suffering, sorrow or pleasure.

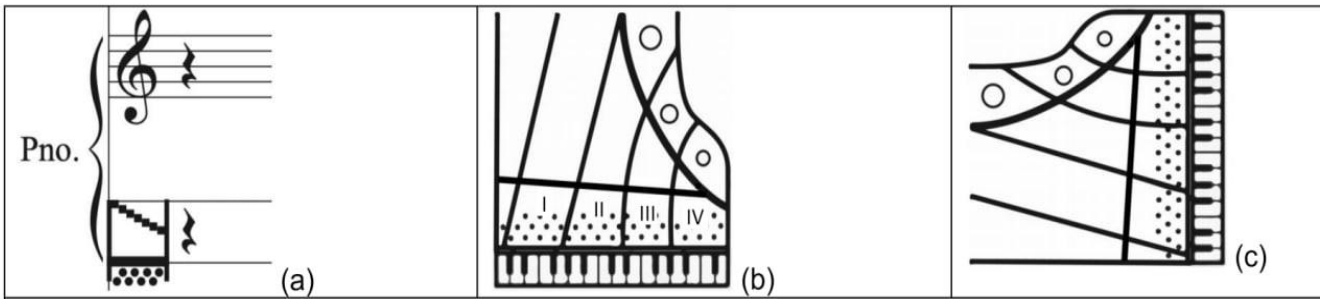
-The second section from the bottom corresponds to the instrument sounds half middle of the fingerboard to nearly the end.

- The third (top) section indicates the position of the bow from ST (end of fingerboard) to the bridge. The string number is shown in roman Numbers I, II, III, and Iv.

Preparation of piano

Spice shaker/Grinder 2x inches, 5x 13 cm Large Glass Marble. 2inches/ 5cm diameter

One corner should have a little bit of rosin applied with a bow and used from b.125 to end.



Piano Staff.

The interior piano is shown by the piano clefs with two lines staff and the bottom of the picture. The two lines (a) define the piano's two extremes. To write, go from front to rear or left (lower line). The gap between the bottom and top lines gives a proportionate spacing from the beginning of the string to the end of the string Or left lowest key/ string to right highest key /string. An extra indication about the

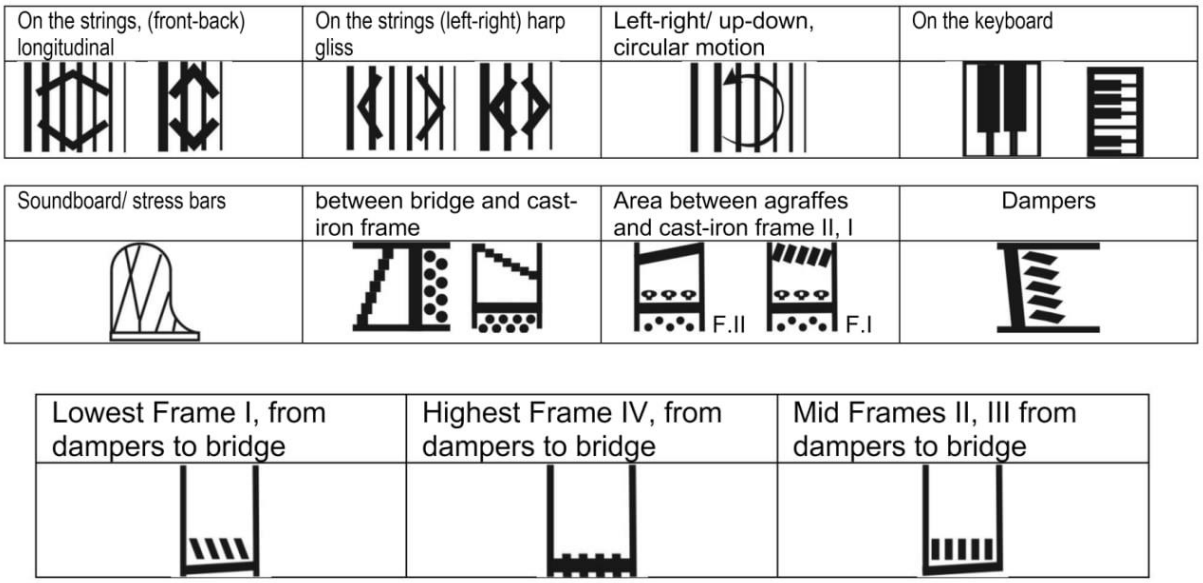
specific string, register, or frame is indicated with roman Numbers as frame I, frame II, III, and Iv. See image (b)

The vertical piano (b0 clef indicates movements longitudinal to the string (s) like a slide guitar.

The horizontal piano clef (c) indicates movements vertical to the strings. Like harp glissando. The two lines define the lowest string at the bottom and the highest string at the top.

NOTES: The depth of the movement toward the back of the board should not exceed the length of performers arm from the front of the piano.

In case the piano's frame constrains the gestures inside on some strings you can chose the closest most convenient position instead.

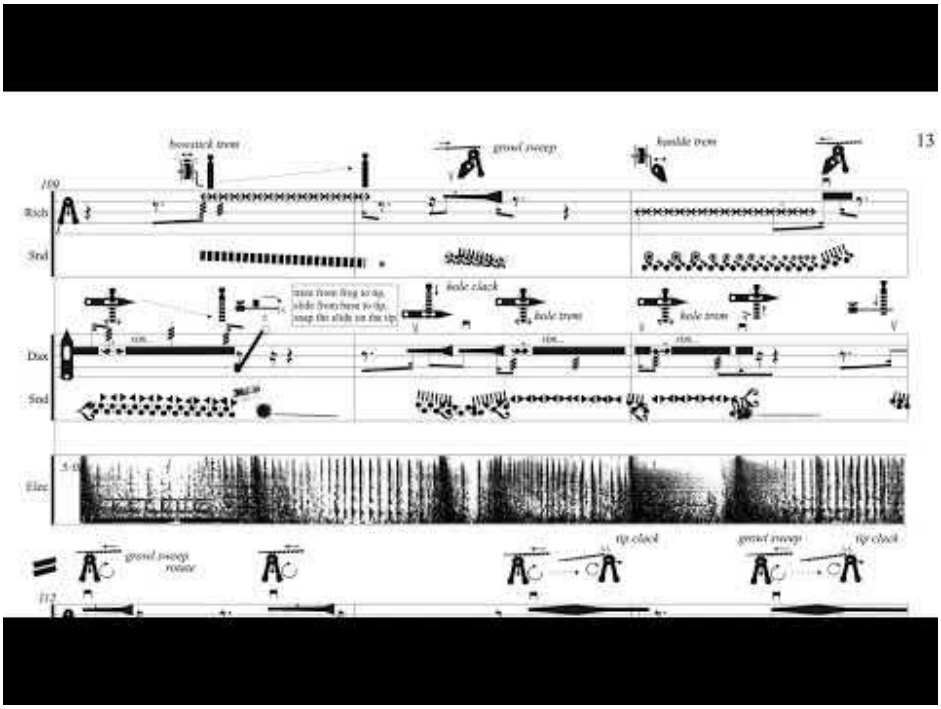


The second piece I'd like to analyse is called VIPER SNAKE . Panayiotis Kokoras created this piece for percussion and electronics in 2020. This piece lasts around (8) minutes.

Percussion list

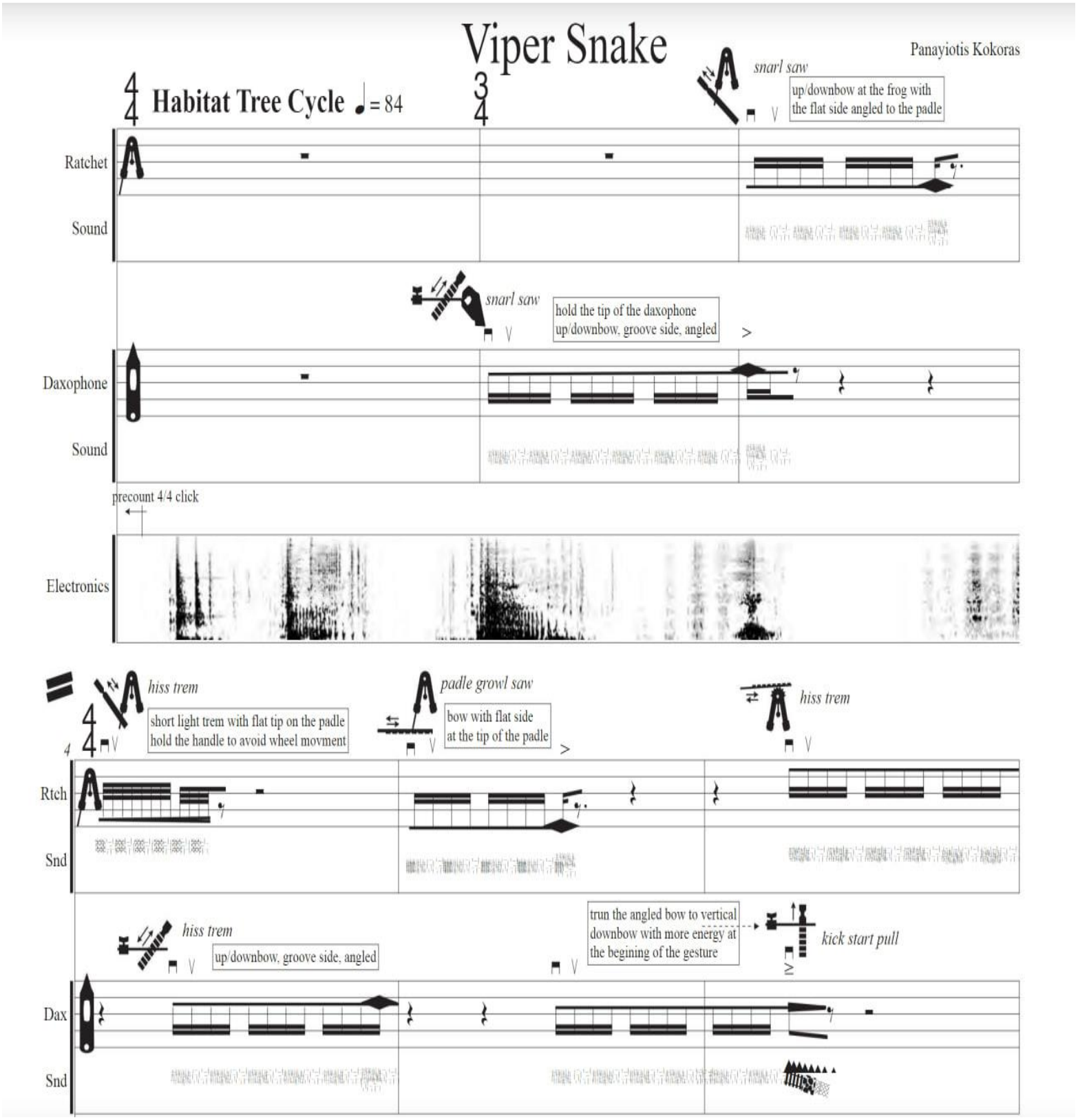
- Ratchet modified
- Daxophone D/Y with bow stick designed by the composer
- Link for listening to the piece : https://youtu.be/GL7UX85lslM

1. **Viper Snake for two percussionists and electronics (2020). eight minutes**



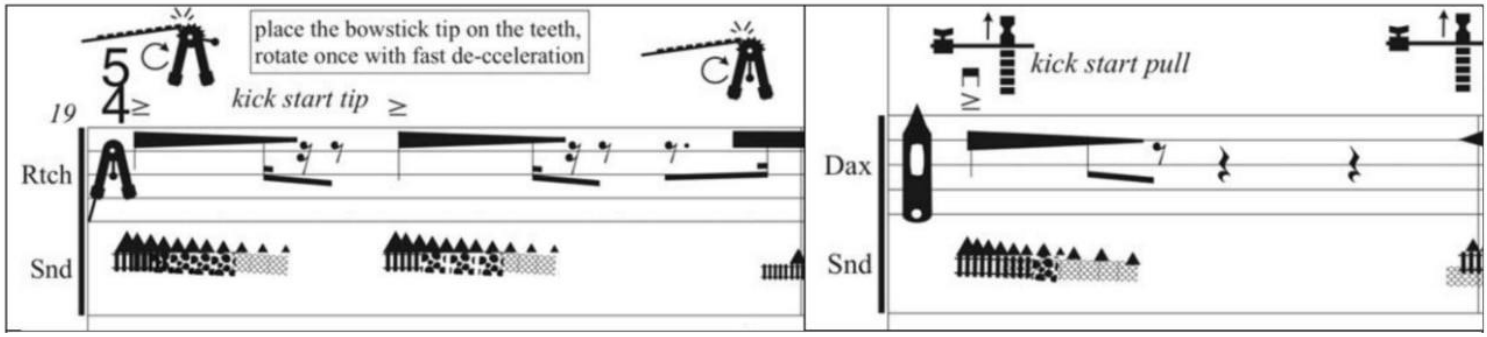
In 2020, he created Viper Snake for the contemporary percussion ensemble Synergein Project at CEMI Studios - Center for Experimental Music and Intermedia, University of North Texas, and his home studio. The work had its global debut in November 2021 at the IX Ciclo de Msica a Ccontemporánea de Lugo - MIHLSons-XXI in Spain. A modified ratchet and a custom-made daxophone are utilised in Viper Snake. The latter is a friction idiophone instrument created by Hans Reichel in the 1980s with a timbre similar to animal-like or vocal characteristics. His compositional approach extended with new phases that he truly loved while writing Viper Snake. He became an instrument designer and builder, building or modifying instruments using tools and his hands. He showed how to play these seemingly basic instruments to their full tone and melodic potential. He devised a number of notational solutions and included them in the score. Finally, he meticulously documented the whole process, including images and video instructions on how to make/modify the instruments, as well as audio/video performance notes on how to execute all of the distinct sounds in the piece. Viper Snake is divided into two main portions, each with several subsections, and one shorter segment in the center called Fantasia. In this segment, numerous field recordings were blended with instrumental components to create layered timelines and spaces. These chronotypes enabled him to explore the timbre space of the composition in a more immersive and expressive manner. Viper Snake was named a Judge's Choice in the 2020 Percussive Arts Society PAS Composition Contest in the United States.

2. Exploring ‘’ The technical aspects of the piece ‘’ ’Viper Snake’’



3. Exploring ‘’ The technical aspects of the piece ‘’Viper Snake’’

- The sound generated is not implied by the notation. The score serves as a guide for the performer to create and modify the necessary sounds.
- Timbre approaches are to be interpreted as ideal signals and may thus be treated freely and imaginatively in practise.
- Changing from one sound type to another should not be done all at once (unless specified), but rather at a transition period that allows the sound to be moulded. This transition period is a crucial and creative expression tool that should be taken into account throughout the piece.
- The emphasis should be on the correct and rich creations of the diverse sound options rather than the accurate and precise performance of parts that are not very difficult in the first place.
- The piece's virtuosity may be referred to as "la virtuosite du son". The musician's job is to create sounds, not to perform them.
- The piece's structure and concepts can only be exposed if the sound options are treated with scrupulous precision and correctness.



1) 1) **Ratchet Staff:** The Rachet staff is separated into four major pieces, with the paddle at the bottom. The handle in the centre. The gear wheel is on top. The length of the stretched note-head signifies time, while the thickness indicates the amount of pressure on the wheel or elsewhere applied by the bow-stick. The greater the pressure, the greater the thickness. Each sound is characterized by a keyword and descriptive symbols, such as "kick start tip" in the sample above. Furthermore, written remarks in the box may give additional information. The bow-two stick's sides are indicated by solid black for the smooth side and a dashed line for the grooved side.

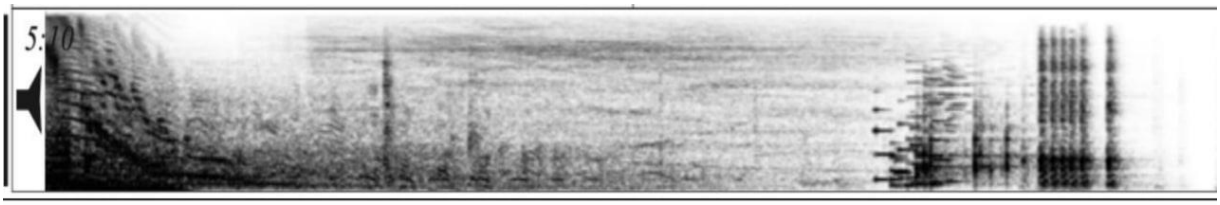
2) **Sound Staff:** The bottom portion of the staff depicts the sound that will be made. The vertical axis indicates frequency, whereas the horizontal axis represents time. Generally. The coloring/density symbolizes loudness, with black representing loud noises and white representing quiet sounds. The patterns in this part present an arbitrary depiction of the sound to be created, such as high/low and bright/dull. Smooth/coarse, ordered/chaotic, coherent/erratic. Also, a variety of onomatopoetic and/or echometric words and phrases intended to depict or reproduce a sound or its environment, such as hostile. Painful, melancholy scream of mental and bodily anguish. Grief or happiness.

3) **Daxophone Staff:** The daxophone staff is split into four main sections: the bottom space for the region between the mounting point and the hole of the daxophone's tongue, the rectangular hole, and the curved corner to the nose. The nose at the top and the tip is immediately above the staff. The length of the stretched note-head signifies time, and the thickness the amount of pressure of the bow-stick on the wheel or elsewhere; the thicker the more pressure, the thinner the less pressure. Each sound is characterized by a keyword, such as "kick start pull" in the example above, and a descriptive symbol. Also, written notes in a box may give further information. The bow stick indicates its two sides with solid black for the smooth side and a dashed line for the grooved side.

1. Fixed electronics;

The spectrogram below displays the frequency on the vertical axis and the time on the horizontal axis. Moreover, the coloring of grey indicates frequency loudness (from black for loud frequencies to white for silence) It works as a visual representation of the tape part in order to guide/ help the performer to follow it easier and more accurately.

The spectrogram aims to make it easier to discern individual musically meaningful features. At the left top corner of every staff, there is a timestamp of the pre-recorded material.



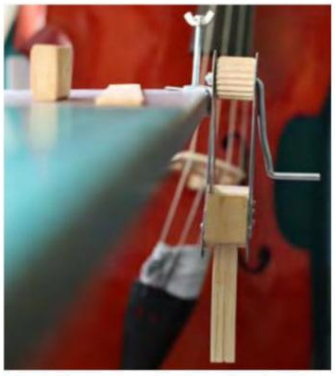
2. Amplification

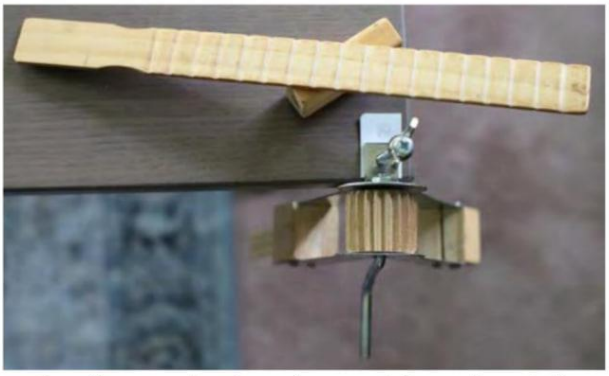
For the right projection of the sound details, the use of amplification should be applied.it is recommended that both instruments are amplified using a piezo transducer (contact microphone) and condenser microphones.

Here are some examples of the tools that have been used in kokoras' composition.

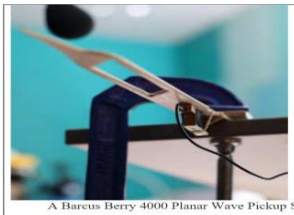
<https://www.musiciansfriend.com/drums-percussion/trophy-ratchet-effect>

Modified ratchet is mounted on table which works as a resonator, bowstick and daxslide

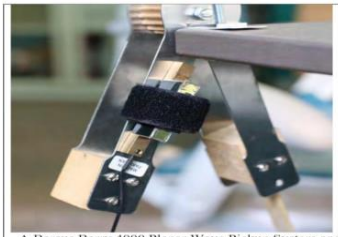


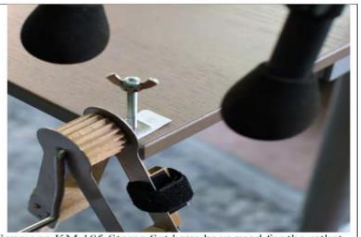


Paddle extended at the bottom of ratchet, the gear handle screw has been loosened for easier rotation



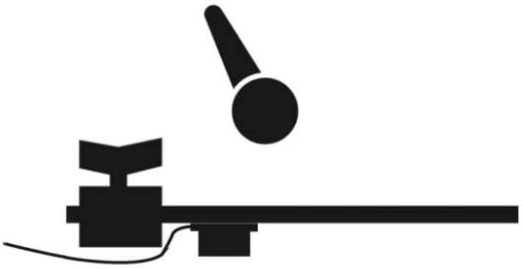
A Barcus Berry 4000 Planar Wave Pickup System and a Neumann KM185 have been used for the daxospone amplification



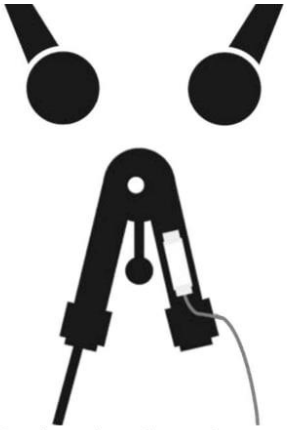


A Barcus Berry 4000 Planar Wave Pickup System and Neumann KM 185 Stereo Set have been used for the rathet amplification

bowstick design of grooved side, and profile



Daxophone microphone placement



Ratchet microphone placement

- Mixer / Audio Interface with 4 to 6 inputs
- 2 or more loudspeakers with subwoofer
- Compressor/ LimHighcutiter (optional)

To intensify the soft sounds and keep untouched the loud sounds without clipping some compression should be applied.

NOTE: It is part of the aesthetic of the piece to create a superficial amplification. which results in the loss of the neutrality of the classical known instrumental sound.

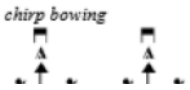
The final piece is CONNOTATION For String orchestra and electronics by KOKORAS (Peregrina, 2018)

Link for the score: **http://www.panayiotiskokoras.com/en/works.html**

1. **CANNOTATIONS For string orchestra and fixed electronics 2015.**

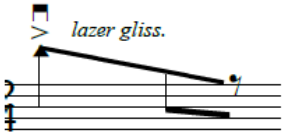
Here are the new extended techniques used by the composer in this piece for the string instruments. (Peregrina, 2018)

8) Chirp Bowing

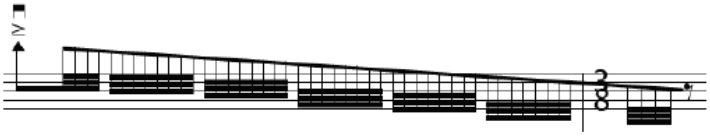


1) Screaming tremolo

2) Lazer gliss. (descending)

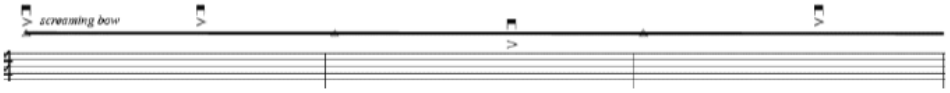


3) Combination of the two previous numbers (descending)

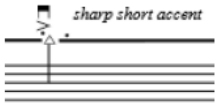


4) Reversed sound (asc. – desc.)

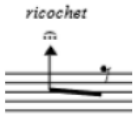
5) Screaming bow



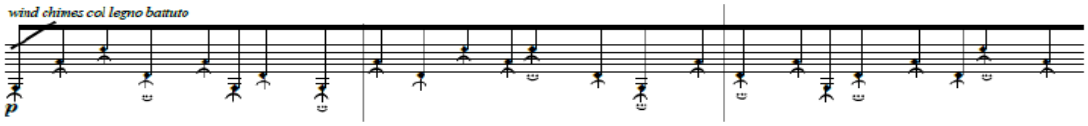
6) Sharp strong accent



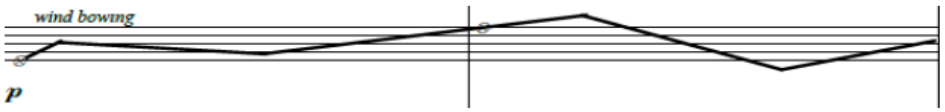
7) Ricochet



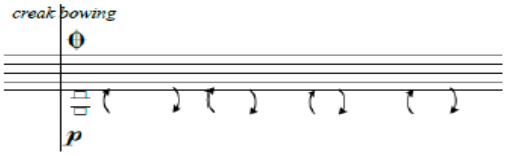
7) Wind chimes *col legno battuto* (specific pitches: G4, D5, A5, E6 (open strings)):



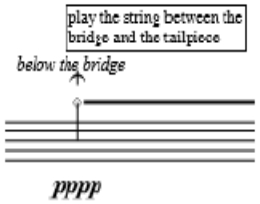
8) Wind Bowing



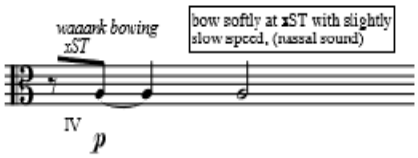
9) Creak Bowing



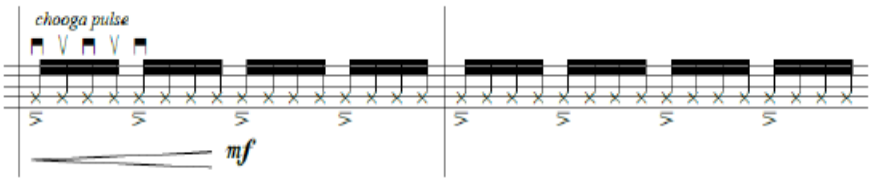
2) Below the Bridge



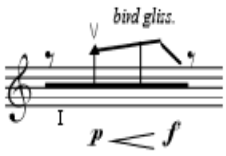
3) "*Waaank*" bowing (Although he uses specific pitches, these are intended only for blending string sounds with train whistle sounds: A4, C#5, D#5, E5, G#5, A5, B5, D6)



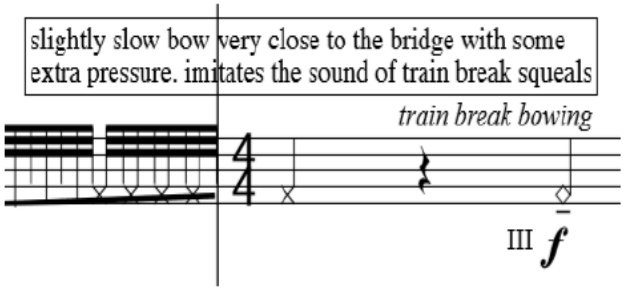
4) "*Chooga pulse*"



5) Bird Gliss

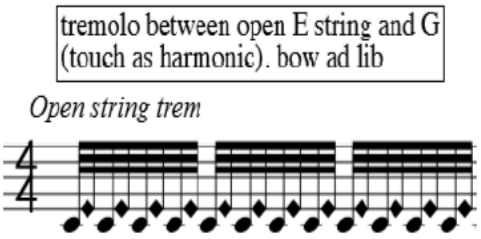


1) Train Break Bowing

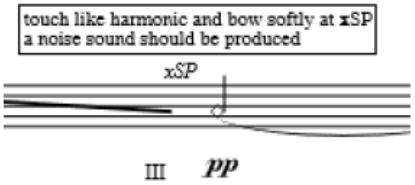


2) Voice "*sshh*"

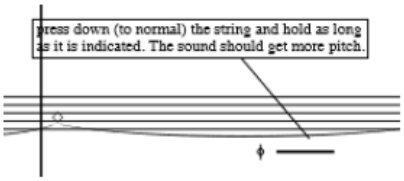
3) Harmonic Tremolo



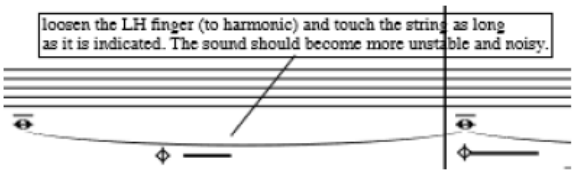
1) Noise soft sound



2) Pressure pitch



3) Unstable sound



3. ARCO CLANG

Triangle note head followed by a thick dashed line. Hold down and bow slowly with some pressure at the indicated area.

The two lines of the staff indicate the bridge at the bottom and the beginning of the fingerboard at the top. The space in-between indicates the distance from bridge to Fingerboard. The left hand most of the time will either hold the instrument or mute the string.

The sound obtained better at the frog of the arco bow. The further from the frog of the bow the less “clangy” the sound becomes.For soft dynamics you should not apply extra bow pressure or you might

need to apply very little pressure in order to obtain the “clang” quality. The “clangs” can range from regular to eregular

Other links for finding information about the composer.

https://www.panayiotiskokoras.com/

2. Holophony texture

Period	Graphic representation	Type of Texture
400 - 1450		Monophonic Texture
1450-1750		Polyphonic Texture
1750-1950		Homophonic Texture
1950-		Holophonic Texture

The synthesis of simultaneous sound streams into a cohesive whole with internal components and focal points is how holophonic musical texture is best heard.

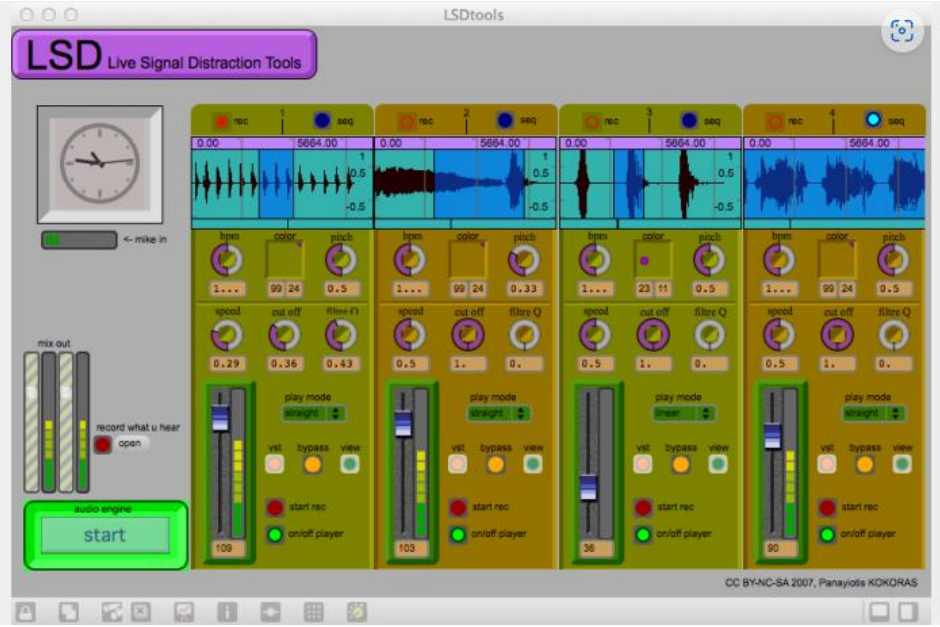
The texture of holophonic music is generated by the merger of many sound entities that lose their individuality and independence in order to contribute to the synthesis of a whole.

The term holophony is derived from the Greek words holos, which means [whole/complete], and phone, which means [sound/voice]. In other words, each separate phone (sound) contributes to holos synthesis.

Volume 2: Metamorphosis on a Holophonic Texture (Majd, 2019) .

4. MAX PATCHES

LSDtools is a four-track patch designed to process audio files and live sound in real time. Some of its features are pitch shift, filter with cut off and resonance, distortion, various types of playback, external vst effects, and step sequencer functions. (Peregrina, 2018)



CONCLUSION

Overall, I believe that the information provided above will significantly boost the chances of a performer effectively and frequently playing a piece using electronics. It is up to educational institutions to incorporate it into their courses or modify their curricula to provide students with the opportunity to acquire the essential information to carry out such initiatives. Music conservatory performance students should be able to follow classes with a focus on the performance of electronic music and should have close collaboration opportunities with fellow composers, and teachers should encourage and include compositions for instruments and electronics in examinations concert programs. All of these compositions are incredibly technically and professionally constructed, which has opened many doors for me personally. The understanding and expertise of hearing and seeing the works helps today's musicians evolve as they confront new instrument skills, and a broad auditory and artistic vision will aid in the discovery of new sorts of aesthetics in the twenty-first century.

NEW RELATIVE TECHNIQUES AND GENERATION MATERIAL FOR COMPOSITION BY COMPOSER.

Post-Pitch World: Timbre as the Primary Element of Form (escholarship.org)

Bibliography

Majd, A., 2019. *Post-Pitch World: Timbre as the Primary Element of Form.* s.l.:University of California, Los Angeles, 2019.

Peregrina, J., 2018. *Analysis of Connotations (2015) by Panayiotis Kokoras.* s.l.:Conservatorio nacional de musica.