

Electronic Music @ UNCo

(MUS 509 Electronic Music Final Project)

12/5/2023 @ 6:30pm

Campus Commons Rehearsal Hall

Program Notes

Alejandro Jose Arroyo Alberto: Electronic Deconstructions on a Salvadoran Theme (2023)

"Electronic Deconstructions on a Salvadoran Theme" blends Salvadoran musical heritage with contemporary computational techniques. The piece is inspired by a melody discovered during Maria de Baratta's field trips in the 1920s and 1930s, found in her seminal work "Cuzcatlán Típico: An Essay on the Ethnophony of El Salvador." This melody, performed by an unknown local musician who learned it orally from his father, reflects the diverse musical traditions of Salvadoran cultures, including the Maya Pokomam, the Pipil, and the Nahuatl.

In this composition, I integrate a MIDI (.mid) version of the melody and a original sequence of notes inspired by the same tune. The deconstructions are crafted using the ml.star package by Benjamin Smith, which utilizes Markov chain algorithms to create sequences where each note is probabilistically linked to the next. Additionally, I employ FM synthesis as the foundation for these sounds, adding a distinctive textural layer to the piece.

Python, a popular programming language, was crucial in the structure of the piece. It was used to generate a .txt file that controls the score or 'events' through the Max Msp qlist object. Finally, I used euclidean rhythms implemented with the Rhythm and Time Toolkit (RTT) by Phillip Meyer. These algorithmic patterns, which distribute beats evenly across a cycle, draw inspiration from the numerical principles of Pre-Hispanic Central American calendars.

"Electronic Deconstructions on a Salvadoran Theme" offers an auditory journey that blends historical melodies with modern mathematical models and technology, creating a unique experience that intertwines the past with the present.

Eirik Haugbro: Expansions (2023)

Expansions is double bassist and composers debut piece as an electronic musician. The composer's only goal was to explore timbres and textures. As a jazz musician and classical musician, Eirik Haugbro has spent many years exploring harmony, rhythm, and melody. But

with this project, they wanted to completely abandon that, and focus on only exploring timbre and texture. The piece is greatly inspired by the work of Wendy Carlos, specifically her album "Sonic Seasonings" in which Carlos explores the feelings of the different seasons through a textural soundscape. Many parts of the patch were inspired and borrowed from the user [ersatz_ben](#) on youtube, such as the wavetable as well as the reverb. While still trying to focus on the textures, this piece still relies heavily on rhythmic groove, and takes inspiration from House and Jungle mix music. This piece moves in sections, remaining on one tonal center for many moments and modifying different filters and effects before moving on to a new tonal center/ chord change. This piece was designed to build through out, and then rapidly drop down in volume and intensity at the climax to create a sense of relief.

This piece is called Expansions because of the way in which this course has expanded the composers view on sound and music as a whole. In the way that McCoy Tyner's record "expansions", in the way the McCoy explores harmony, piece attempts to utilize all the skills that this class has touched on, and expand on the approach to music composition.

[Jonas Heimbecker: *Derive* \(2023\)](#)

My piece is called "Derive". Derive is an improvisatory exploration of my recent endeavors with Max 8. The main synthesizer voice is driven by random noise color values. Everything is being driven by my QuNeo midi controller and routed through, and controlling many parameters of my patch. The drum machine component is inspired by the Missy Elliot version of "The Rain", called "Supa Fly" and the piece will contain a sample of the song. This song has been a large inspiration and ear worm for me and my roommate this semester. The "Chordal components" are synthesized additively but the "harmonics" are generative and microtonal rather than adhering to the harmonic series. The drums are being distorted through a varying bitrate. The piece challenges both the ideas of popular electronic music and the definition of music itself. A few of the artists that inspired this work are, Missy Elliot, Mr. Bill, John Cage, Adam Deitch, Lettuce, Rotary Connection, and my instructor Reiner Krämer. This semester has been a great joy and a respite from some of the more demanding courses I am taking. I hope to continue learning and growing with Max 8 and developing new and unique ways to create and think about music. Please enjoy the piece :)

[Mikaela Johnson: *Meditation in the Rain* \(2023\)](#)

"Meditate. Live purely. Be quiet. Do your work with mastery. Like the moon, come out from behind the clouds! Shine."

-Siddhartha Gautama

This is one of my first ventures into electronic music, and as such it is a simple piece with simple intentions. My typical style of writing is often deeply tonal in nature, and so I found it

challenging to distance myself from my natural voice, which is why I felt a meditation of sorts would be fitting for this project. The brief moments of tonality are like thoughts, leaving as quickly as they enter.

This piece is meant to create an atmosphere of stillness and calm; rain sounds are utilized alongside long-tones from the flute while altered “meditation bells” provide temporary distraction from the meditation. As with thoughts however, they occur and then pass by, only briefly disturbing the stillness of the moment and the meditation.

The delay and reverb effects you will hear are created using the MaxSpectralHarm and ChamberVerb tools. The flute is played into the microphone in various stages to create dissonance with itself, which is then resolved into quartal/quintal and unison harmonies, meant to convey a sense of resolution and peace. The found sounds that occasionally interject are created from various household objects such as metal mixing bowls, the rim of a glass cup, and a palm hitting the tenon of a piccolo. These sounds are inserted into the music via a simple qlist, which simply signals when a sound should start from the moment of hitting a single button.

[Ivory Masching: The Mundane \(2023\)](#)

“The Mundane” contains sounds taken from my everyday life such as crickets chirping, cats purring, a dog panting and me singing. The piece starts quietly as these sounds slowly layer in and play intermittently. The intensity is increased as the sounds grow in volume and frequency. The vocal melismas are added later in the piece as the third theme. These vocal runs give a grounded feel to the piece as they quietly bloom out of the chaos of the culmination of animal sounds. The vocal focus is maintained for the remainder of the piece until the animal sounds are added back in to close as well as some new sounds. The piece concludes in a similar way it started. The animal sounds slowly fade out until one last vocal is heard for the final statement. Other found sounds used in this piece include a box of crackers shaking, scratching a wall and water dripping from a faucet.

The inspiration for this piece was our first assignment of the electronic music class in which we were tasked to write a simple song using ten sounds found in our daily lives. I thought it would be cool to use that first piece written but include more electronic sounds we have learned how to make using the MaxMSP program since. Some of these new components include having lists of commands playing certain audio files in different orders at different times, and playing audio files at different speeds both forwards and backwards. These strategies and more are used in my piece “The Mundane.”

Hannah Rodriguez: Untitled (2023)

My main goal in this piece was to create a tasting menu of natural and unnatural tones through manual additive synthesis. Through studying Max, I was most excited at the opportunity to design sounds using partials. As a composer of jazz and pop, exploring timbre is something I love doing with the acoustic instruments I am used to playing, but I've always been less familiar with synthesizers and how to find the sounds I want and know what settings will produce them. Other than developing this skill, I wanted to synthesize a balance of natural and electronic sounding tones, and experiment with finding the uncanny valley for the natural side. To create a more dimensional piece I layered the selected tones and have them flowing and overlapping at times.

The piece is divided into 4 sections, increasing in complexity of tones and layers throughout. The first movement consists of long sine tones in natural harmonic partials on the octave. After a variety of tones are displayed, the second movement begins. Taking some of the same frequencies, the second movement develops by adjusting the attack and decays of the partials within each tone. Layers begin to appear in a gentle polyphony. The third movement is shorter and takes the same previously introduced concepts and puts them into square and triangle waves, prepping the listener for a shift. For the fourth and final movement I shift away from the natural mathematical formation of partials and design tones with my own partials, selected at random in advance from the Max random feature. I wanted the fourth movement to be the largest contrast in timbre and quality, and I hope the effect is great enough for the audience to recognize!

Trent Wells: *Audibly Wobbly (Can of Broccoli)* (2023)

"Audibly Wobbly (Can of Broccoli)" is the culmination of all of the techniques I've learned using MaxMSP and a reflection of my experience in graduate school at The University of Colorado. Throughout the piece, you will hear a variety of timbres and moods that portray different chapters of my life over the last year and a half. It follows a timeline starting in February 2022 when I first auditioned at The University of Northern Colorado up to finals week of Fall semester 2023.

That is the first option for the listener when deciding how to interpret this piece. There is in fact a second option that you may find more compelling when listening to "Audibly Wobbly (Can of Broccoli)."

This piece follows the quarter life crisis of an alien named Benny who journeys to a new planet after becoming sick of his life as an accountant. Seeking a life of adventure and excitement, he travels to the unexplored planet of Globzorb to find the meaning of life and/or treasure... whatever comes first. Along the way, he overcomes challenges and even makes a few unexpected friends! When he finally reaches his goal, his arch nemesis Robert reveals himself,

announcing that he had been following Benny the whole time! Armed with more experience and better weapons, Robert incapacitates Benny and steals the hidden treasure and/or the meaning of life. A defeated Benny is now stranded on Globzorb with a destroyed spirit and no treasure and/or meaning to life. With no way to return to his home planet, he is forced to become an accountant again.

Chloe Wheeler: *Winter Storm Warning* (2023)

"Winter Storm Warning" by composition student Chloe Wheeler invites listeners to embark on an exciting sonic adventure, weaving together seemingly basic elements of electronic music to create a larger, more comprehensive soundscape. Upon beginning this course, Wheeler's previous experience with music technology was extremely limited. As such, this piece serves also as a roadmap of what she has learned throughout the semester. It starts with some basic sequencing patterns that are then shuffled and built upon, mirroring Wheeler's own journey in the world of electronic music. As more elements are added and synthesized, a clearer picture begins to take form. Themes of exploration, curiosity, and playfulness are all present in the pallet of sounds, while remaining accessible and approachable for listeners of all audiences. Educationally speaking, this composition may perhaps serve as somewhat of an exposition to Chloe's own compositional journey, and over time the different pieces and tools begin to fit together in new ways, into something really wonderful. Through its whimsical tones and accessible composition, this piece invites listeners to share in the joy of discovery, encouraging both beginners and seasoned enthusiasts to appreciate the boundless possibilities inherent in the world of electronic sound.

About the Composers

Alejandro Jose Arroyo Alberto

Born in El Salvador, Alejandro is pursuing his D.A. in piano performance at UNC, where he studies with Dr. Lei Weng. Previously, he earned his Bachelor's Degree in Piano Performance with honors from the University of Costa Rica and a Master's Degree from UNC. Due to his international achievements, Central American Forbes Magazine featured him as “one of the most creative of 2020.” His prizes include: First Prize in the Fryderyk Chopin Piano Competition for Central and South America (Peru, 2020) and First Prize in the Young Artist Piano MTNA Colorado State Competition (United States, 2020 and 2021).

Eirik Haugbro

Eirik Haugbro is a jazz bass player based out of Denver Colorado. As a bass player, Haugbro has played at the Nocturne, The Muse, The Roxy, the Mercury Cafe, and many other notable venues in the Denver area. They have also played gigs with notable musicians such as Ali Jackson, David Mesquitic, and Julian McDonough. Eirik Haugbro has also made a career as a classical musician, subbing with the Vancouver Symphony Orchestra, and formerly the Principal of the Bellingham Symphony Orchestra. While attending their undergrad at Western Washington, Eirik was accepted into the Vancouver Symphony Orchestra Institute. Eirik is currently a TA in the jazz studies department at the University of Northern Colorado, working towards their masters degree.

Jonas Heimbecker

Jonas Heimbecker is a multi-instrumentalist musician and producer based in Greeley CO and Ithaca NY. In 2014 they began exploring composition and production and at 13 years old was given Logic Pro X. Jonas hails from a diverse musical background including classical and jazz trumpet. Though they have a wide range of influences, the core of their style is ambient electronic and experimental contemporary music. Jonas is in their third year of undergrad studying music business. “I’m hoping a part of my music connects with you.” If you’re looking for more go to soundcloud.com/jonas-heimbecker

Mikaela Johnson

Mikaela Johnson is currently a graduate student in her final year of coursework at the University of Northern Colorado where she studies flute with James Hall and composition with Paul Elwood and Drew Zaremba. She has performed across the United States and

internationally in Canada and Europe, and her compositions are becoming recognized across the world. She is an advocate for performance and creation of new music, having premiered numerous pieces by emerging composers (her own works included). Her personal style of writing can be considered a blend of post-tonal and impressionism, with a focus on soundscape, color, and timbre

Ivory Masching

Ivory has her undergraduate degree in viola performance from the University of Northern Colorado and is currently obtaining her masters in cello. She has performed at UNC's Open Space Festival as well as with the Greeley and Larimer chorales on violin and viola respectively. She is also a member of UNC's Spectrum Jazz Orchestra. Some of Ivory's brilliant mentors have been Christopher Luther, Anne Lanzilotti, Vijay Chalasani, Romina Monsanto, Mathew Dane and Sally Murphy. Alongside her cello degree, Ivory spends her time teaching private string lessons and learning new instruments such as piano and guitar.

Hannah Rodriguez

Hannah Rodriguez is an award-winning vocalist, multi-instrumentalist, songwriter, and teacher based in Northern Colorado. Influenced heavily by jazz, rock, and pop, Hannah has a passion for writing songs with blended style and harmonic beauty. Her variety of talents have been recognized by Downbeat Magazine in 2018 and 2022, and by the 2021 Sonic Spotlight competition put on by [Fort Collins Museum of Discovery](#) and [Bohemian Foundation](#). She is currently pursuing a Masters Degree in Jazz Composition at the University of Northern Colorado. You can find her regularly playing with her pop-funk band [The Cuddies](#), swinging with [Joe Smith and the Spicy Pickles](#), and in many other projects all around Colorado.

Trent Wells

Trent Wells is a drummer, composer, and educator from Salt Lake City, Utah. He is currently scheduled to complete his Master's Degree in Jazz Studies at The University of Northern Colorado in Spring 2024. Prior to moving to Colorado, Trent received a Bachelor of Arts degree in Music Education from Utah State University in 2021. He established himself as an educator and performer in the Salt Lake area playing with groups such as the Caine Jazz Combo, Caine Percussion Ensemble, an indie rock group known as The Narcs, as well as teaching at Sky View High School and KSM Music.

Chloe Wheeler

Composer and soprano Chloe Wheeler is currently pursuing her undergraduate degrees in music composition and music education. Her choral compositions, known for their intricate harmonies and witty topics, have been performed by local high schools and UNC choirs. As a performer, Chloe can be heard with the UNC Chamber Choir and Concert Choir, UNCO Opera Theatre, and as a member of the local punk band Ankle Biters. She currently co-directs Northern Lights A Capella, UNCO's premier treble a capella group. Chloe is thrilled to be sharing her first ever electronic music piece and is grateful for all the support she has received.