THE GENESIS OF AN ELECTRONIC MUSIC ALBUM

By

Jason R. Molina

A capstone project submitted for
Graduation with University Honors

May 21, 2020

University Honors
University of California, Riverside

APPROVED

_____
Professor Ian Dicke
Department of Music

_____
Dr. Richard Cardullo, Howard H Hays Jr. Chair, University Honors

Abstract

The purpose of this creative project will be conducted through the creation of a music album by highlighting the fundamentals of historical and social implications of the late 1900s and early 2000s. Within its implementation, the album will focus on particular thematic elements such as identity politics and technology to emphasize the tonality and ambience of the pieces. Soft sciences such as psychology and sociology will account for the reasoning behind how a particular song is perceived through qualitative data analysis. Within the process of creating an album, there will be an exposition on the musical theory and techniques that pertains to the roots of musical pioneers to illuminate the complexity of the electronica genre. Music theory such as expression and structure will be taken into account to the extent that it influences the design and methodology of the project. In this case, the project will identify main sources of influence through fields of research such as mathematics or politics in order to narrow down the criteria for sources of inspiration. Furthermore, to continue the trend of innovation and uniqueness, the project will pull from different samples of media such as movies, video games, etc., as well as certain details from various electronic genres to add more value to the soundtracks. In summary, the project will allow the listener to infer between the emotional and psychological aspects of music through the author's intent of connecting the pieces to historical and sociological evidence.

Table of Contents

Introduction……..2

Background and Significance……..2

Design……..8

Sample……..9

Ethical Considerations……...10

Timeline…….10

The Album and Analysis……...11

Album Title: Forest Industry……..11

Scarletti……..12

Gestalt……14

Zeitgeist……..16

Subterfuge……..17

Haunt……..18

Conclusion…….20

Bibliography…….21-23

Introduction

My Honors Capstone project will explain the reasoning behind the creation of my music album in regards to the formatting, structure, and theory behind my pieces. Due to the technological innovation and availability of composing and listening to various musical art forms, my approach to many of my pieces required me to acknowledge the fundamentals of electronica: the history behind it, the applications in terms of manipulating the waveforms, and the stylistic and social contexts of why the pieces are being made in this format. It is through these trends that enabled me to create a particular sound design and aesthetic that fit the narrative of these developments while improving my understanding of electronic music in general. I believe it is necessary to continue the legacy of electronic music while teaching others the importance of the freedom of expression and creativity.

Background and Significance

The sociological and psychological aspects of electronic music combined with the historical and political contexts influenced the thematic and compositional elements of my pieces. It would be difficult to pinpoint all of the layers of inspiration that I have brought into each of my respective works because there are many different samples and media sources I pulled from. However, some of the nuances in my music can be deciphered by how my music was created through the complexities of digital sound engineering as I can explain the composition and structure of an electronic music album. The crux of the issue is going back to the roots of what made an electronic movement with the development of particular technology from the 20th century onwards. In particular, much of the paper's discussion will be focused on the background of

electronic music, the socio-political implications of its technological developments, and the psychological/sociological portrayals it may contain.

Many scholars agree that much of the fundamentals of electronic music stem all the way back into the 19th century. The advancement of electronic music technology can be attributed to "the imaginations and achievements of not only musicians, but also physicists, engineers, inventors, and mathematicians interested in music (Webster, p.2)." It can be inferred that the earliest designs of electronic sounds was a multidisciplinary project that consisted of scientists and entrepreneurs and artists. With the rapidity of technological advancements, it was inevitable for some curious individuals to connect the arts and sciences together through experimentation. The hardware and software of the 20th century were synonymous with the time-period and global contexts that they were developed in. Historically, many people believed there were several phases in which each phase's electronic technology evolved. These phases are usually categorized through breakthroughs in sound aesthetic (harmonics, acoustics, overtones), electricity and coding, computer processing, and accessibility in owning computers. Figure 1 describes one of the many experiments associated with crafting the early designs for synthesizers. The chart illuminates that there are indeed relationships between the arts and sciences through the development of technology.

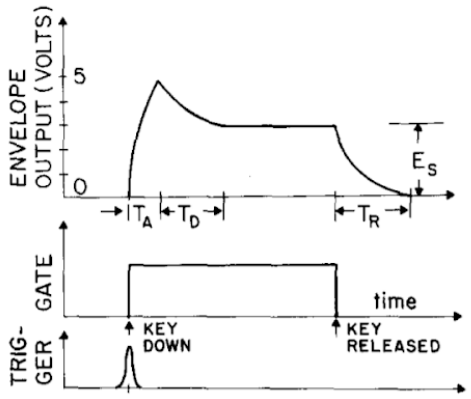

Figure 1: Interplay between electric signal inputs (trigger and gate) and sound generation on an analog signal output (ADSR envelope in volts) which is translated to musical timbre and color. https://web.pa.msu.edu/acoustics/ajpsynth.pdf

Even through the post-WWII periods, "most electronic music inventors labored against the grain of a conservative musical establishment. The business climate

for electronic instruments was immature, and sometimes...the political circumstances were dangerous (Roads, p.1).” In some instances, some were prosecuted and exiled from their positions (usually scientists) for deviating from classical art forms and punished for creating synthetic compositions. Much of the arguments insisted that state governments did not support the works of non-traditional forms of art and exiled these researchers (to which some of them went into hiding and experimented on technology by themselves). Despite the threat of political backlash, Germany and France were the first countries to innovate the first electronic genres with elektronische musik (synthesized sounds recorded to tape-recorders) and musique concreté (microphone recording and manipulation) respectively. Karl Stockhausen was a German composer that procured a series of electronic experimental or avant-garde pieces called Studie I and Studie II. Figure 2 characterizes the technological approach and scientific background of electronic music during the 1950s. Spectrograms were often utilized to gauge the incoming volume and pitch of a sound source. For the time period, many scientists used tape machines or tape recorders in the post-WWII era because it was the most available piece of technology at that time. Tape machines were most commonly used in the genre of elektronische musik. Sound synthesis and sound production were at the forefront of adapting the tape machine into a purely electronic instrument. It was here that researchers began to experiment further with creating electroacoustic pieces which caught the attention of other countries such as America and Japan.

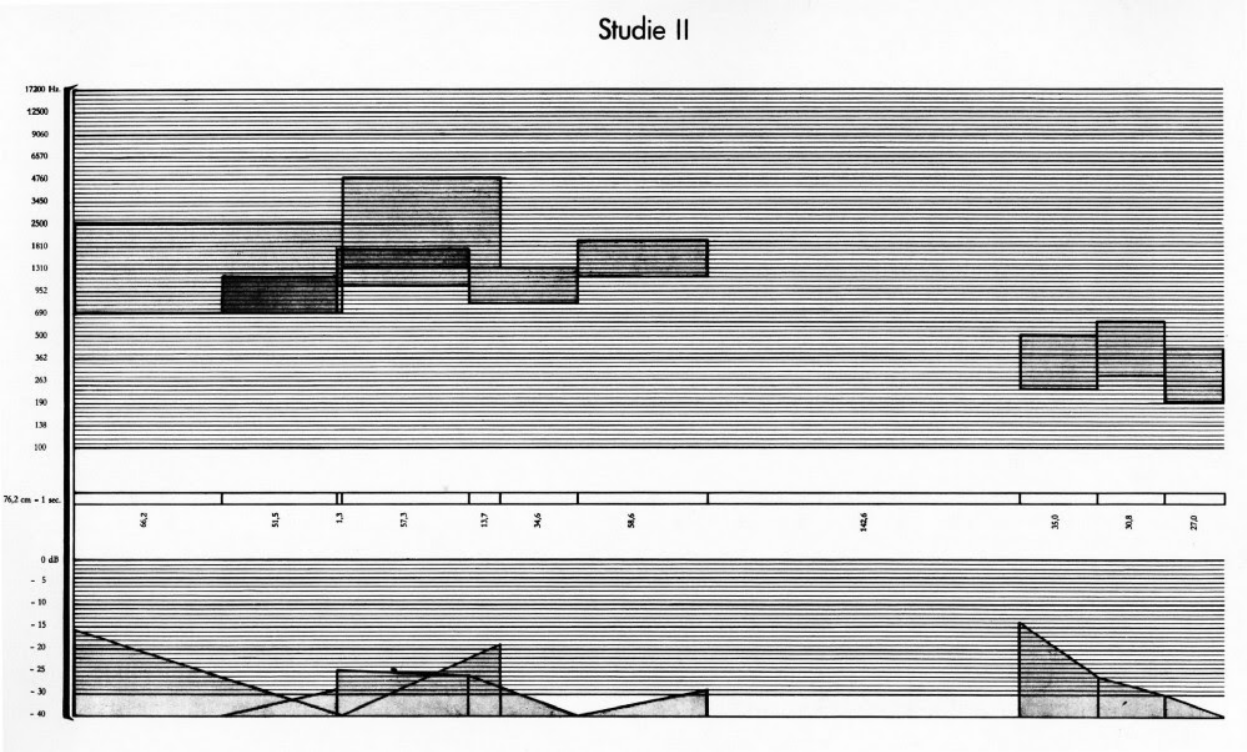

Figure 2: Studie II created by Karl Stockhausen. The top spectrogram identifies the boxes in Hertz or frequency bands from 100 Hertz (a low sub-bass) to 17200 Hertz (a near unrecognizable high-pitch shrill noise). The middle bar represents the timeline of the piece in centimeters which is converted into seconds because the music was recorded via the length of the tape recording. The bottom spectrogram highlights the shapes in decibels with 0 decibels being the loudest and -40 decibels being the softest.

It is argued that during the later part of this century, the 1970s, that "...this time period [was]...impressive for its major advances in music software...music production software for music printing, sequencing, and digital audio emerged (Webster, p.4)." For example, the synthesizers during this era, the Moog and Buchla, were created and commercialized by Donald Buchla and Robert Moog. This meant that tech-savvy pioneers and their fascination to develop synthetic sounds increased the accessibility of electronic music substantially. Experimental sound designs led to the proliferation of genres which became categorizations of particular elements for the listener to observe techniques and mixtures of sounds and the contexts in which they were brought from. Sonic-sound manipulations such as pitch, loudness, modulations, and delays, were all features of early analog synthesizers. Despite only a few musical effects, the mathematics and

physics that went into creating these soundforms greatly added to the variety of normal acoustic music, which many more artists would later utilize in their own music. Thus, "...commercial electronic-instrument manufacturers produced smaller, more convenient versions of Buchla's and Moog's designs, and these were widely used by keyboard musicians in...popular music idioms (Moog and Gamer)." Figure 3 portrays a Moog synthesizer with dual keyboards. The wires shown in the photo are routing signals (which have both an input and output signal) that influence Effect A on Effect B such as hooking up a pitch modulator (a waveform that oscillates the frequency of a note) to a filter output. The frequency would oscillate like the vibrato of a violin while oscillating the filter of the sound or mask particular frequencies using the oscillating input signal of the routing wire.

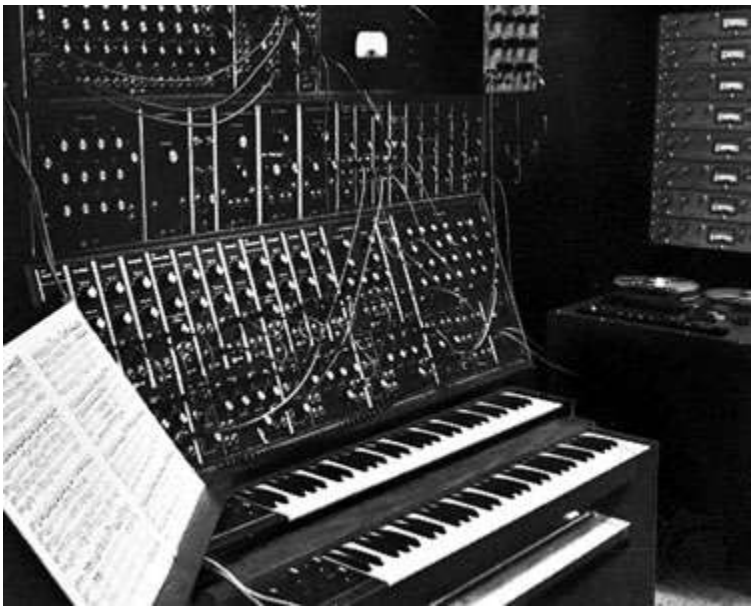

Figure 3: A Moog analog synthesizer during the 1970s. A scoresheet of a classical song is placed alongside the synthesizer, possibly for recording a traditional song through electronic filters and effects.

New identities and cultural movements formed, such as Electronic Dance Music Culture (EDMC), which were often responses or counter-responses to traditional values and societal norms. Even further into the 20th century, "as synthesis and processing tools were developed, the ability to create sounds became, for many composers, [became] the fundamental reason to engage in electronic music (Chadabe, p.3)." Many Western (Netherlands, Germany, United Kingdom) and Eastern (India, Korea, Japan) countries modernized synthesizers and more contemporary forms of

electronic music, many of which became popularized into forms of entertainment and dance rather than subjects of research and science. The momentum was furthered by the continued funding of electronic music through radios and television, which were both inventions of the past that were part of the collaboration of electronic music culture. Youth cultures, from adolescence to young adulthood, were the main driving force towards the consumption of electronic music as more individuals adapted to the technology of globalization and economic progress. This era could be described as a profound change in the music tastes of the average listener where the culture heavily dictated the formation of communal congregations. While there is no exact definition of what consisted of this culture, it could be stated that "EDMC is replete with discourses of consciousness expansion, self-empowerment and metamorphosis that inflect the quest for self-realization (John, p.15)." In comparison to older eras, the need to interact and influence were the social contexts in which marked the advancements of electronic music. Electronic music followed the trends of commercial personal computers (PCs) and improved software/hardware during historical events such as the Digital Age and the 2000's crash.

With all these in mind, my music project will enable me to create an album of approximately 10-20 minutes worth of music that reflects existing electronic works through more modern means. I will be sampling a number of different mediums such as soundtracks from movies, shows, songs, video games, etc. in order to carry through the importance of electronic music technology. By connecting the sounds together and manipulating them into various sound textures, I am providing an emotional and historical undertone to the music. In a broader sense, the album will consist of my own interpretations of both my research and my experiences. I want to find a middle ground where there is a balance between the abstract and concrete to show tension and inner conflict while simultaneously conveying the development of electronic music over the

past century and be able to convey these particular themes throughout my pieces. Therefore, I am learning about the various electronic techniques that will enhance the cohesiveness and uniqueness of my music, by experimenting on different genres including Electronic Dance Music (EDM), Intelligent Dance Music (IDM), jazz, classical, etc. In this sense, I want to find out how sampling can be considered an art and why synthesizing music could be entertaining for some people including the composer. I want to elaborate on what sort of effort and workflow is needed to publish an album (10-30 minutes) and what type of feedback I could be given such as historical considerations or personal preference. In order to assist the listener to understand that there are numerous different genres and musical compositions in the world that are seldom heard by the general public, I will closely maintain this notion through my ideas and sound design. The sampling or remixing of certain parts of a song can reintroduce familiarity and add a new level of complexity to music.

Design

I planned for the album to reflect my themes in a manner that would be easiest for the listener to observe. The structure of the music will include several noticeable features such as tonality (chromatics and dissonance) but more subtle features such as emotive passages and aesthetic designs. Thus, I mapped out the framework of the album i.e. the track names, general atmosphere, and possible meanings in order to be most prepared for this musical venture. The skeleton of the mix mirrors a 2, 1, 2 palindrome because I am attempting to portray a simple sound flow under the guise of more complex sound design. The thematic elements in each song will include “natural” sounds (nature/acoustic), synthetic sounds from the manipulation of soundwaves, and a cross-section between the distinctions of the two. This will be executed through

the software, Ableton Live, through short samples and renditions of other real-world instruments, songs, and other mediums. Musical elements such as applied music theory will be present within my work to reflect the tonality and textures of my pieces. In this sense, I will be drawing inspiration from my personal experiences to connect to the emotional and historical baggage from the samples that I will utilize.

The main methodology behind my research will involve several layers such as physical (what is being listened), emotional (how the audience perceives it), psychological (why the audience perceives it), sociological (what shared values or patterns the audience observes), and political (implications and context) undertones. Thus, I will be investigating what sort of possibilities I could utilize for my songs. Other points of interest for my research is listening to new genres to implement my ideas while simultaneously looking up tutorials for complicated techniques on YouTube or Google. Furthermore, I will capitalize on the expertise of my Music Mentor, Professor Ian Dicke, to stay engaged with the project.

Sample

The creative project will utilize a large sample size of bits and pieces of different sources such as sounds from movies, television shows, video games, pre-established sound packs, and more. The approximate measurement will most likely number up to 200 different and unique accumulated samples which will more closely encompass acapellas (isolated vocals), dubs (different singers/voices than original source), foley or field recordings (sound effect noises), and more. The intended audience for my music will most likely be random listeners from online (Youtube, SoundCloud, MuseScore, etc.) and live audiences (Research Symposium, peers, composers, family, friends, other students).

Ethical Considerations

I believe there are no significant ethical considerations where I would have to submit an IRB form to the board. However, there are other unique complications that could arise from my project such as copyright laws from the samples that I integrate or stress from overworking and multitasking. Another difficulty that would arise is the usage of swear words, where if I were to publish this for commercial use, I would need to apply a Parental Advisory Explicit Content label onto my music. On that note, I would need to ask permission to use artwork or videos to any artists for any content that would be relevant to my music.

Timeline

The steps that I have taken so far started in the Winter Quarter of 2018-2019 where I met with Professor Ian Dicke and enrolled in his class called MUS145A Digital Audio and Sound. This class consisted of core concepts such as fundamental sound engineering and the historical background taught in class. Towards the end of the Winter Quarter 2019, he agreed to be my mentor as I collaborated with him about my creative project. These meetings with him were mostly about the logistics and improvements I could make to my tracks. I continued to engage with Professor Ian Dicke in the research and topics relevant to my project. I would be finalizing and adding touch-ups to my album within the Winter and Spring Quarter of 2020 to prepare for my Honors Presentation. I will be cross-referencing with my mentor and music peers in order to gauge what sort of perceptions they have of the music. Towards the final few weeks of the Spring quarter leading up to the Symposium, I will be double-checking and finalizing my presentation in order to stay on top of my deadlines. Other deadlines include applying for my Master's in Public Accountancy (MPAc) at UCRiverside during September to December of 2019-2020. I have been

accepted to the MPAc program and plan to pursue the MPAc Program at the Graduate School of UCRiverside in the Fall 2020.

The peer feedback aids in my understanding of how to improve my presentation through critiques such as the methodology and practicality of my research. The more general points such as public speaking and presentation clarity will be of top priority as I synthesize my research. I predicted that many would be curious about what sort of music I would compose and that many would be interested in learning about the fundamentals of electronic music in general. I will impart to others the principles of digitized music and composing original soundtracks for my album.

The Album and Analysis

Album Title: Forest Industry

The title of the album perfectly encapsulates the thematic statements that are developed throughout its entirety through an oxymoron. The name *Forest Industry* could be interpreted in many ways. In a similar vein, the made-up title is synonymous with another term called concrete jungle which by Merriam-Webster dictionary means "a modern city or urban area filled with large buildings and regarded especially as a harshly competitive, unwelcoming, or dangerous place." This could describe the emotive and structural elements of my album which is the synthetic versus acoustic or natural sound instruments. These meanings could be further interpreted as a more socio-political statement such as industrialism or a more environmental message such as pollution, deforestation, etc. which are the byproducts of industrialism. Thus, I planned the title to become a conflicting statement about the progression of global societies and cultures but not a criticism

about particular historical events or matters. In this sense, the album is simply my observations or thoughts on these concepts as a whole.

Scarletti

For my first piece, I began with a harsh sounding texture that is both chaotic and refined. The conflict shown here can be observed through the orchestral samples and various synth noises. As the central piece, the percussion is the most complex of the mix. I utilized what is called the *Amen Break* which is a very popular drum break sample by the Winstons in 1969. To this reason, I applied distortion and saturation to these drums while speeding up the tempo of the track to give the song urgency and ferocity. Figure 4 is the general notation or template of the Amen Break. As to why I sampled this piece in particular, I planned for my first piece to be as complex as possible with each layer of noise i.e. the melodies, harmonies, percussion to compete to be the center of the piece.

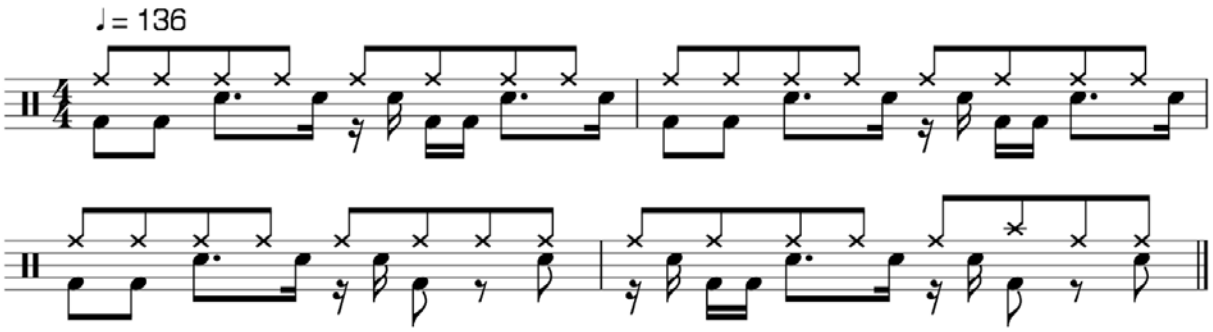

Figure 4: The original 4-bar notation for the Amen Break by the Winstons. In musical terms, the sample is heavily syncopated and rhythmic in the kick (lower notes) and the snare (middle notes). Original song: Amen, Brother (1969) by the Winstons.

This conflict between synthetic and acoustic (natural sounds versus computer-generated noises) is developed further with each song. In terms of structure, it is at the beginning of the skeleton palindrome where most of the track is dictated by synthetic noises and effects. The flutes, trombones, and other instrument-esque sounding noises are all chopped and manipulated to

convey the sense of artificiality. In particular, I intended for the mix to be a blend of the manipulated acoustic instruments to become synthetic and the synths to become more natural sounding or orchestral and melodic. There are several instances in the piece that describe this notion such as the middle or end part. The samples varied from classical pieces to video games to experimental compositions.

From my perspective, the preference to choose seemingly random media sources was not accidental. On composition theory, "…computer programs become an integral part - if at times an alter ego - of the composer. In short, computer programs enable the composer to choose, not only his materials, but his process as well (Laske, p.4)." The software, Ableton Live, compared to the technology of the 20th century, allows me to vary up my sound textures without the limitations of tape recordings or regionality (accessibility to other media sources). Psychologically, by tapping into heavier or denser rhythms while simultaneously mixing in classical pieces or acoustic instruments, allows me to differentiate myself and create an identity that allows me to express my views without limitations.

Scarletti is a subtle nod and mix of different source media. The song title Scarletti closely resembles a classical composer named Domenico Scarlatti (1685-1757) who was an Italian Baroque composer who mainly created sonatas, operas, and chamber music. While I did not personally choose samples directly from Scarlatti, I found it interesting that some of the samples used in my piece, such as the flute and orchestral instruments, closely resemble more traditional forms of classical music. The song title is an allusion to the main sample of the mix (the one with pizzicato strings) which is called Scarlet Forest, created by video game composer Toby Fox. Once again, the clash of synthetic and acoustic sounds can be observed which reinforces the conflict and tension of the song.

Gestalt

As a continuation of the trends from the first song, the second piece is a callback to the industrial (synthetic) themes I wanted to portray. The composition portrays a theme of hip-hop fundamentals and traditional sounding music (Indonesian gamelans) where the conflict is once again developed between the sampling sources. The intention behind this particular song is much different in terms of personal experiences and worldviews. While the first song offered a more general outlook to the themes of conflict, this song is more subtle in the blending between the acoustic or natural sounds and synthetic computer-generated noises. To connect to the psychological aspects of my research, I utilized various genres from my past experiences. These "music preferences are representative of adolescent subcultures, which provide behavioral patterns that are shared with peers...such as identity formation, self-determination, and transition from the family to peers (Miranda & Claes, p.3)." I personally had the liberty of belonging to a community of composers in my younger years which created an amalgamation of ideas in my mind at the time.

Some of the reasons why I chose the song title Gestalt is the intermingling of different songs and source mediums. Gestalt, in this sense, is the combination of several parts that becomes an entirely different entity as its whole. Compared to the previous track, the composition is much more involved with various songs, many of them linked to my adolescence and more recent years. As open-minded as I am right now with the experimental nature of electronica, my peers aided in the maturation of my composition skills and inspirations. This identity formation assisted me to locate and identify the complexities and nuances between different genres to which I apply here in this song. By combining and manipulating different songs and sonic images, I create an entirely

new track which wouldn't have been possible in isolation. Thus, "even though many individual electronic/dance music subgenres have very different histories, they are grouped together by the media and consumer outlets that serve members of the subcultures that consume this music (McLeod, p.5)." It can be implied that belonging to different subcultures, such as being able to access YouTube and peer groups, enabled me to research different ideas and form them much easier, compared to only being able to listen to one specific genre or subgenre.

Figure 5 illustrates the general process of my music and how I interpret songs I listen to online. Much of the chart has to do with how the compositional elements are formed from the listener to the composer. I would sum up my music as an homage to many existing musical genres and individual songs, which in turn, aid in the consumption or appreciation of music. By applying what I understand on classical music and electronic music theory, I am able to approach how I create the album in a much more expressive fashion rather than having to copy a template or skeletal structure of a modern electronic composition. This organic style cohesively ties the thematic statements and recurring sounds better because I have more artistic liberty on the sound aesthetic of the mix.

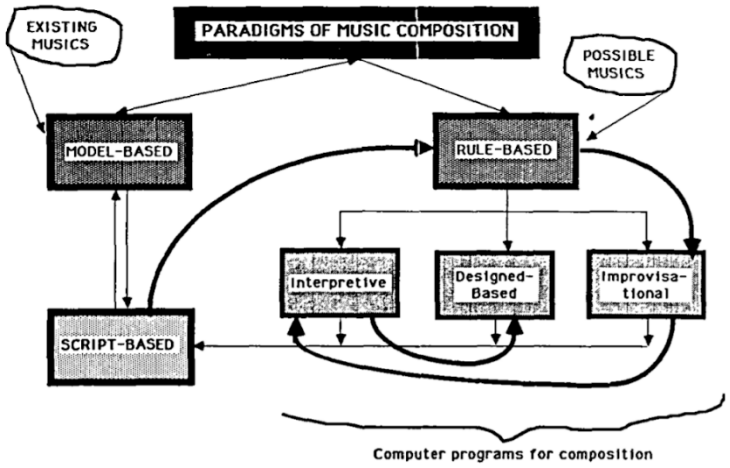

Figure 5: Music composition theory. Model-based consists of inspirational elements while rule-based is up to speculation. Script-based are the mechanics of the software program. Interpretive, design-based, and improvisational are all aesthetic choices up to the composer for idea formation on a specific computer program.

Zeitgeist

The 3rd piece, which is the most melodic with constantly changing harmonies, is the most complex in terms of pitches and tonality. There are nuances such as overtones and undertones to be considered with the depth of the mix. The music theory and techniques involved are further compounded with the intricacy of the track such as the time signature being in 7/4. For example, there are a lot of instances of chromaticism and passing notes throughout the piece and an ample amount of dissonance. One could describe the track as atonal as there is no anchored key signature. However, the beginning of the song ensures that there is an ongoing pattern in the mix which acclimates the listener to a more complex display of atonality. One particular technique that should be noted is the usage of rest for beats or substitution-based rhythms. My music mentor, Professor Ian Dicke, prefaced me on the foundations of Steve Reich's minimalist techniques which added another layer of intricacy to my music. In particular, one may listen to the song and hear a constantly changing bassline with the sequential addition of notes as the song progresses.

My intention with naming this piece was based on the feedback and pointers from my mentor that directed me towards the term Zeitgeist. The scientific definition of Zeitgeist, in summary, is the subtle trends that heavily influence the characteristics of a given era. During my meetings with my music mentor, we often bounced ideas in a collaborative manner. As composers and musicians, this was made possible through the accessibility of the Internet as we had direct and constant access to referencing various sources of media and inspiration. Thus, "the increasing significance of compositional technique and technology in general was not only determined by the astounding experiences which the composers had in the studio; it was also a reflection of the Zeitgeist (Borio, p.3)." Since the album is a reflection of bygone periods of electronica, my mentor assisted me in focusing that idea and applying more technical elements into the next half of my

songs, particularly the third, fourth, and fifth pieces. The complexity shifts from density of samples to more classical nuances such as the composition and the structure. Composition-wise, this song introduces a different conflict of the synthetic versus acoustic theme: the synths fade in and out to give way for the more natural sounds (orchestral noises and samples). Furthermore, the tones or pitches of the instruments are more defined rather than ambiguous or in the background of the mix. They are placed at the forefront of the piece and progresses rather smoothly as different voices layer themselves according to the flow of the changing harmony. Repetition is another classical technique that I intended to use in the piece which allows the audience to become accustomed to the thematic statements (only for the piece to travel to completely different directions than the listener would normally expect). Subversion was another tactic that has been consistently employed in this track and prior pieces. My music mentor commented that my songs often follow the usual template of electronica but the sound design and aesthetic textures or characteristics are heavily layered and purposeful. To this end, the term Zeitgeist can purposely be shaped to act as the turning point or apex of the structural skeleton of the album towards a more experimental and technical approach rather than a dense and sample-heavy mix like the first two songs.

Subterfuge

The fourth piece is a reflection of the first track in the album through another reimagining of the Amen Break. In this composition, instead of the heavy glitching and more busy-sounding or distorted percussion from the first track, the drums are manipulated to sound more smooth and less jittery to the other percussive elements. With the inclusion of field recordings such as white noise, natural ambience (forestry sounds), and water splashing, the tone of the piece conveys more natural acoustics despite the manipulation of the percussion. However, while the piece may be

smoother or less harsh sounding than the first or second track, the off-putting 5/4 time signature creates a distinct element of tension that breaks the natural flow of a 4/4 piece. In most cases, the drums are meant to drive the beat of 4/4 but the strange placement of rhythm adds another 1/4 to the song like a tug-of war. The listener can observe that a lot of the electronic effects in this track are devoted to "submerge" the piece as if it were underwater. This is heavily implied with the water losing its upper frequencies in some instances which is compounded with inclusion of lush bass pads and bass kicks to portray the song's hint of the sea or a body of water. The title of the piece, Subterfuge, implies that the track is more menacing or negative in tonality. Though, the intention of the piece is to develop further contradiction between the synthetic and natural, it should be mentioned that what drives the piece forward is not particularly the individual tones but the complex rhythms. Unlike the third track in the album which was primarily focused on melodic and harmonic structure, this piece involves heavy use of rhythms specifically through the sample of a drum-line and heavy metal blastbeat sample. The drum-line and blastbeat sounds are another point of contention between the Amen Break and the heavier or busier sounding percussion. Along with Ableton's Beat Repeat effects, which glitch the sample and provide some variations and even individual tones with the percussion, the continued use of reverb and delays contribute to the overall atmosphere of the piece.

Haunt

The last piece of the album is a breather from the density to all the previous tracks. This song only has one sample and is composed of layers (panning, certain frequency amplifications, etc.) of sounds that are reminiscent of a tape recorder from the 20th century. In particular, reverb, delays, reversing the sample, speeding up or slowing down the sample, and scooping out the

middle frequencies of the mix are all possibilities or aesthetics of the tape recorder, but now in software form. There is another sample of record static that helps tie the mix together and give the illusion that the song is older than it may seem. Otherwise, this piece solely utilizes one sample as the main focal point for developing the synthetic versus acoustic theme. While the song itself is created from real-world instruments (vocals, the band or orchestra, etc.), the sample is manipulated through stretching, reversing, pitching up and down, panning, and more to show the audience that the theme can still be expanded upon. The haunting nature of the piece, hence the title, illuminates a more neutral response from the listener that is neither negative or positive but rather a more contemplative or wandering emotion.

My inspiration for the ending of this album was to illicit nostalgia and lucidity. The main aspects of the mix (the method in which the sample is handled like an antiquated recording) is based on the loose term of hauntology. This concept could be defined as something "not so much the past as all the lost futures that the twentieth century taught us to anticipate (Fisher, p.1)." As pessimistic as this may seem, my intention with the creation of the album is that everything loops back to the past. This duality that society progresses yet the context and terminologies remain intact and are based from historical experiences is the core of the conflict. The acoustic versus synthetic representing their respective forms: the past and the future. This is blurred through my intention to manipulate natural sounding samples through software effects while simultaneously creating very dynamic synths and constantly changing patterns that mimic violins (vibrato or tremolo) or other instruments instead of a static waveform reminiscent of oldschool sine or saw waves. Thus, the title is a reference to the term, hauntology, which expresses the totality of my thematic statements and a proper conclusion to my album.

Conclusion

The creative project of this Honors Capstone assignment enabled me to express my artistic vision in a focused setting via research and feedback. By connecting my ideas to the historical aspects of technology, psychology, sociology, and music theory, my music attained several layers of depth which facilitated me to recognize that structure and context is indeed important for creating a music album. In terms of composing electronic pieces, I have a deeper respect for the pioneers and scientists that devoted their time into combining science and art together. As an artist and musician, I believe my technicality and musicianship matured when creating this album. The hours I have put into each song can be reflected in the musicality and rigor of the compositions such as the textures, themes, melodic lines, rhythms, and harmonies.

I am very grateful to my music mentor, Professor Ian Dicke, for collaborating with me on this 2-year journey. Through his guidance and constructive feedbacks, I learned how to properly plan and compose several electronic pieces. Working side by side with him, I believe my pieces are much more cohesive than if I were to otherwise compose alone. My meetings with my music mentor gave me more insight on my personal workflow. I thank him for all his time and for allowing me to express myself through music.

Bibliography

Chadabe, J. (1996). *The History of Electronic Music as a Reflection of Structural Paradigms* [Ebook] (6th ed., pp. 41-44). MIT Press. Retrieved 18 May 2020, from https://muse.jhu.edu/article/585352/pdf.

Claes, M. & Miranda, D. (2008). Personality Traits, Music Preferences and Depression in Adolescence, International Journal of Adolescence and Youth, 14:3, 277-298, DOI: 10.1080/02673843.2008.9748008. Retrieved 18 May 2020, from https://www.researchgate.net/publication/232482255_Personality_Traits_Music_Preferences_and_Depression_in_Adolescence

Fisher, M. (2012). *What Is Hauntology?*. JSTOR. Retrieved 18 May 2020, from https://www.jstor.org/stable/10.1525/fq.2012.66.1.16?seq=1#metadata_info_tab_contents

Gamer, C., & Moog, R. (2015). *Electronic instrument - Post-World War II electronic instruments*. Encyclopedia Britannica. Retrieved 18 May 2020, from https://www.britannica.com/art/electronic-instrument/Post-World-War-II-electronic-instruments.

Gianmario, B. (1993). New technology, new techniques: The aesthetics of electronic music in the 1950's , Journal of New Music Research, 22:1, 77-87, DOI: 10.1080/09298219308570619. Retrieved 18 May 2020, from https://www.tandfonline.com/doi/pdf/10.1080/09298219308570619.

John, G. (2007). *Electronic Dance Music Culture and Religion: An Overview*. Taylor & Francis

Online. Retrieved 18 May 2020, from https://www.tandfonline.com/doi/full/10.1080/01438300600625259?scroll=top&needAccess=true.

Laske, O. (1989). Composition theory: An enrichment of music theory, Journal of New Music Research, 18:1-2, 45-59, DOI: 10.1080/09298218908570537. Retrieved 18 May 2020, from https://www.tandfonline.com/doi/pdf/10.1080/09298218908570537

McLeod, K. (2001). Genres, Subgenres, Sub-Subgenres and More: Musical and Social Differentiation Within Electronic/Dance Music Communitie. *Journal Of Popular Music Studies*, *13*, 59-71. https://doi.org/https://doi.org/10.1111/j.1533-1598.2001.tb00013.x

Merriam-Webster. (n.d.). Concrete jungle. In *Merriam-Webster.com dictionary*. Retrieved May 10, 2020, from https://www.merriam-webster.com/dictionary/concrete%20jungle

Puckette, M. (2005). *Some Mathematical Tools for Music-Making*. ResearchGate. Retrieved 18 May 2020, from https://www.researchgate.net/publication/250119107_Some_Mathematical_Tools_for_Music-Making.

Rill, B. (2010). Identity Discourses on the Dancefloor. *Anthropology Of Consciousness*, *21*(2), 139-162. https://doi.org/10.1111/j.1556-3537.2010.01026.x. Retrieved 18 May 2020, from https://anthrosource.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1556-3537.2010.01026.x

Roads, C. (1996). *Early Electronic Music Instruments: Timeline 1899-1950* [Ebook] (3rd ed., pp. 20-23). MIT Press. Retrieved 18 May 2020, from https://www.jstor.org/stable/pdf/3680817.pdf.

Webster, P. (2002). *Historical Perspectives on Technology and Music*. SAGE Journals.

Retrieved 18 May 2020, from https://journals.sagepub.com/doi/pdf/10.2307/3399883.

Links

Scarletti

https://drive.google.com/file/d/1sO4P_J93DJ-WrxgOzMpvl7ru_fqFA5hW/view?usp=sharing

Gestalt

https://drive.google.com/file/d/1siegYmlaMc4DHT38ac6pycR5wFREIUUu/view?usp=sharing

Zeitgeist

https://drive.google.com/file/d/1Zz3uwAup4ZeEwGkZCcFUh7bYS80Rv1Ai/view?usp=sharing

Subterfuge

https://drive.google.com/file/d/1fjIDNyUHJrmsTM29B9rk08a2Y4GwVNc6/view?usp=sharing

Haunt

https://drive.google.com/file/d/1bAOO7qDHewU4ov8oB6cWaIkWqAQnpnFP/view?usp=sharing