

Berklee College of Music

Gazing Through the World
- A 5 Tracks Album about
the Sound Around the World

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Master of Music in Music Production, Technology and Innovation

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Abstract

This project aims to combine modern music with various elements to show the new possibilities of musical storytelling of the world we are living in. Within five tracks of pieces written in different styles and themes breaking and blending among genres into one album, this project tests the boundary of the capacity of music and sound, discussing human and nature, light and darkness, philosophy and logic, time and space, all through her lenses of seeing the world. The album is created with the artist's skills of songwriting, digital producing, hybrid recordings, and mixing with sampling and live recording, immersive audio mixing. Features genres cross contemporary music, electronic music, futurism, minimalism, pop, rock, and various ethnic and world music styles.

Keywords: Contemporary music, Pop, Sampling, Immersive Audio.

1. Introduction

The idea of forming this five tracks album first occurred to the artist during the application period. It starts with the thought of combining the sound from nature with music, then merges to become a project that is about discussing the contents between humanity and the natural environment through various genres of music.

During the summer of 2017, the artist was volunteering at an animal rehabilitation located in South Africa; although she never considered herself an animal person, the whole experience of interacting with different species of creature significantly changed her view of being a composer, artist, or just human. Helping and living with wildfire animals made her feel it was the first time she was so close to nature, and when the application asked about the artist's ideas of a potential project, she suddenly had this thought of wanting to find a way to recreate that magical moment.

Later on, as the global pandemic hits the world, she realized that only writing about the natural world could not fulfill her current state of creativity. She wants to compose pieces that reflect why things happen the way that always repeats in people's modern lives. She tries to find the answer of why people think and act in a certain way, the relationship between human beings and the environment, and extend the boundary of music to make it contains more messages other than notes and melody, but emotions and stories. Creating this album featuring different genres using all the new skills she learns from Berklee has challenged her ability to balance words and music, aesthetics and commerce, and convert imagination into a piece of music.

40 Review of the State of Art

2.1. "Bird Cage" by John Cage

"Bird Cage," composed by John Cage in 1972, is one of the most representative, pioneered, innovative pieces in the history of contemporary music. By combining samples of bird's tweets, Cage himself speaking and singing, daily human activities, and mechanical and electronic sounds. Cage created, and as he described himself: "Twelve tapes to be distributed by a single performer in a space in which people are free to move and birds to fly."³

The distorted roughness of the piece is born because of the era where new technology has just begun to rise, and this shows how one's imagination and creativity can merge and land with whatever sources qpg can get. Cage chose the sound both occurred from natural and artificial, one that happened organically and one been manufactured, organized, treated, and layered followed by his logic, and created the piece that represents the sound of art in a way that no one has seen before.

2.2. "Earth Song" by Michael Jackson

With the content, the lyrics, and the music video, "Earth Song" is one of the most well-known commercial pop songs that sing about environmental, animal welfare, and anti-war ideology. Michael Jackson wrote and co-produced this song, which incorporates elements of blues, gospel, and opera, released on Nov 27th, 1995.⁴

³"Dkf "Eci g.ö"lqj p"Eci g"Eqo r rvg"Y qtmu."ceeguuf "F gego dgt": ."4242." j wr u<llqj peci g0ti l r r llqj p/Eci g/Y qtmF gvckfcho Ay qtmæ ? 55%ç <gz v? Rgvgtu' 42Gf ksqp' 42GR' 428: 32. lqj p' 42Eci g' 42' 4F' 42Dkf' 42Eci g"

⁴"Mpqr r gt."Ugxg"%4: "Lxpg"4238+0MJ: *The Genius of Michael Jackson*!Uko qp"cpf "Uej wugt0r r 045560" KJDP"; 9: /3/6989/525: /90"

The song starts with the sample of the bird's tweets with ambient sound effects to create the feeling of a perfect world without the massive disasters caused by human activities. The piano brings in the intro and strings adding layers to help the accompaniment merge to the pads that later play the chords; the emotions shift to sorrow with the lyrics that keep asking the question: "What about..." With string pads, tambourine, background vocals in the chorus; guitar adding riffs, synth, bass, drum kits that come since the second chorus; then more strings, background vocals, and ensembles that are singing gospel in the last 2-minute outro while the question "What about..." repeats again and again until the end of the song. The song itself is pretty inventive both genre-wise and structure-wise since a near 7 minutes song is extremely uncommon (even longer than Queen's Bohemian Rhapsody). With shifts between elements, the mood, the key changes, it still becomes a song that everyone knows and sings through the generations.

2.3. Voyager Golden Record (Golden Disk)

The Voyager Golden Records are two phonograph records that were included aboard both Voyager spacecraft launched in 1977 (fig.1).³ It contains 115 images, a variety of natural sounds (wind and thunder, birds and whales, etc.), musical selections from different cultures and eras, and spoken greetings from Earth-people in fifty-five languages, all selected for NASA by a committee chaired by Carl Sagan of Cornell University, et al. Dr. Sagan and his associates, and also printed messages from President Carter and U.N. Secretary-General Waldheim.⁴

³ Lafrance, Adrienne (30 June 2017). "Solving the Mystery of Whose Laughter Is On the Golden Record". *The Atlantic*. Retrieved 1 July 2017.

⁴ Jet Propulsion Laboratory. "What are the contents of the Golden Record?" <https://voyager.jpl.nasa.gov/golden-record/whats-on-the-record/>

within the earth, ethnicity, languages, culture, changes throughout the different era, all in two golden vinyl, just like a two-side super-condensed business card of all humankind. Although there might be new updates in the future since our technology updated second by second, with the concept itself stands still; this is possibly the ultimate but unachievable goal for me, to create a record that is one of a kind, which contains all the possible content I could think of, all together on two discs.

2.4. "The Dark Side of the Moon" - by Pink Floyd

The legendary album that breaks countless records in history, "The Dark Side of the Moon," is a valid symbol of innovation in the music industry. Starting with the prelude combines all the samples that come up in the later tracks, the whole album forms a unique sonic world that nobody has heard before. With the use of sampling, merged with progressive rock, minimalism, experimental, ambient music, and countless little details hiding in different tracks, the album breaks and conceals the boundary of music and inspires millions of music lovers till now.

As a classically trained composer, the artist herself has been exposed to 20th-century new music, which is usually found to be hard for people to relate to, but still shows us the ultimate way to be creative. With great inspirations that passed down from the giants that were born in the past, she decides to create an album combining the sounds made from different species, nature, and music, to show the audience the true beauty of the world that we are living in, and to call attention to protect our environment and the animals that we are living together, which she is coming to talk about in the following sections.

50F guet k vqpp

Within this 5-track concept album forms into a song cycle, *The World Festival*, created, composed, produced by the artist; she brings the listener with her to go onto a journey to discover the brand new possibilities of music and sound. The album is based on the artist's personal experiences, the things she learned and saw in the past, the life she is experiencing now, and her imagination of the future. Each track tells one unique story, linked together into this imaginary world that the artist sees. The artist gathers her experience through her eyes and eyes while living and traveling in the world, collects the fragments of what she sees and feels into stories, and tells them only through her music. Each song comes with a music video, but only to show one person's perspective to help the listener visualize the story. Still, only their ears and imagination would show them the real story they see in their head. The artist prefers to capture the real story as a secret to herself and let the audience discover more by themselves. As a proverb said: "there are a thousand Hamlets in a thousand people's eyes." The artist can not wait to hear the story that each listener has. As she would say: Not having an answer for the test is the perfect answer after all.

60Kppqxcvkg'Cur gevu

With the training from a researched-based school of composition, links to Berklee's Music Production, Technology, and Innovation program, the first and only innovative idea that came to the artist's mind was to find common ground between music and technology - Contemporary music with an immersive experience. Within five tracks in this album, each track is composed in a different genre, written in its own unique story, and led into this journey of "*The World Festival*." Contemporary new music, minimalism, electronic, pop, ambiance,

classical, folk, and world music, all the genres merge into one to show the listener a brand new listening experience of seeing a story through music. With the help of immersive audio, the listeners can travel with the artist through time, to listen and see the story she sees before, now, and in the future.

70P gy 'Unkm/Ces wkt gf

As a trained classical composer, the artist forced herself to learn as much as possible to utilize all the new skills that she got from the program in this project. Because the whole album is about bringing in sound as part of the music, she got out of her comfort zone and tried to be as creative as possible. She also brought new technologies as part of her composition. The immersive experience of the audio is the central aspect she was focusing on. The immersive experience of the audio is the central aspect she was focusing on. She first produced the tracks in 5.1 surround sound and mixed them within the 3D immersive soundscape but eventually abandoned the whole drafts because - most of all, it is tough to ask each one of the listeners to have an entire theatre system at home; and second, in order to merge it to the video while playing it through multiple media, the artist had to downmixing all the tracks from 5.1 to stereo, which a lot of details and information has lost in the middle of the process. The artist then worked with another engineer, Billy Nieves, her classmate, to help her transpose the immersive experience to the binaural environment using a plug-in called DearVR. They have learned to use similar plug-ins while learning in the class, but they chose DearVR specifically because of its functionality. However, with new technology comes a significant challenge. Since this technique is still developing, there are certain limitations that they could not get rid of. The spectral effect of the plug-in heavily relies on filters; since the user is still using a set of headphones, it is often hard to

tell if something is in the front or back without specific references. It could also change the instrument's tone since it would cut off some lower range when moving the sound further, but it does not affect the sound samples most of the time.

Speaking of samples, the artist also used sampling to enrich the music. During this fantastic journey of gathering and recording sound samples, the artist has also learned to use audio engineering to convert a simple sample into music. She used RX8 to recover the audio sample when she could only record on her phone. She used sample libraries for some of the orchestral effects, recorded live instruments, and practiced mixing them as they were performed from the same space. She used sampling taking from different kinds of natural environments sources and mixed them to fit within the track that allows them to shine as their own.

6. Challenges

Creating this album is indeed a true challenge to the artist herself. Besides the writer's block that could happen at any time to any creator, the artist has also faced the challenge of being a producer and a coordinator. The artist has her first time to be in charge of a recording session with 15 players: 4 Violins, 1 Viola, 1 Cello, 2 Trumpets, 2 Horns, 2 Trombones, 1 Tuba, 1 Piccolo/Flute, her first time collaborating with 14 people who came from different countries and asked them to translate and sing the lyrics in their native languages; and her first time to make music videos for the entire album.

Through the process of making this album, although the artist is trying to do everything by herself, it would be impossible to finish an album by one person completely. Thanks to her friends and amazing colleagues at school, she is able to get help from many terrific engineers and musicians who help her bring the music to life. As a person who used to work independently, she

has been struggled with asking for help or leading a group, but now she can step out of her comfort zone and gather all the talents and creatives to achieve a bigger goal.

It is also the artist's first time working with another engineer with new technologies. As the previous section mentions, she decided to switch from 5.1 to binaural 3D mixing because it's easier for people to access it. Although it avoids many technical difficulties that might cause by the media itself, her mixer Billy and she realize that it is still a technology in development. By using DearVR as their major plug-in to process the tracks, they have found that it is easy to tell the 3D spatial effect if they move the sound source from left to right, but it would be hard to differentiate front and back without distinguishing comparison. The software mostly used filters to simulate the spectral effect with different setups of frequencies settings, but it works fine with samplings. Still, it can easily change the timbre of the instruments, especially instruments with lower frequencies. However, since it was their only choice, they carried on the challenges. Take advantage of both traditional and novel technology and eventually overcome difficulties.

Besides the music part, making the videos is indeed the most challenging part of this project. The artist invited her friend, Yawen Zheng, a professional photographer, to help her create the videos together. The artist first shares her vision about the music and the image she is aiming for, and they come up with the concept for the first two songs together. Because of the Covid restriction, it is impossible to film the scenes that the artist wants. For example, they wanted all-night scenes for the lullaby, but it is impossible to avoid image noise even with a professional camera. The artist has no choice but to search and purchase some of the footage online. Later on, she uses Resolume arena to recreate the footage to what she wants and use it to synchronize the video's motion with the tempo of the music. Although all these areas are new to her as well, she is surprised that she actually enjoys doing it very much.

7. Future Ramifications

Learning is a lifelong process, and for a composer, there is never an end to finishing a piece. During the developing process, the artist decides to cut two songs so there will be more time to present more pieces as a whole, and she is planning to bring them back and maybe add more songs in the future. More importantly, the artist will keep developing the work as her skills grow. However, there must be a point for the world to see it, bring the babies to the world, and let them be judged. In order to allow the listeners access the immersive experience of the album, the artist will release her album on streaming platforms that aim for 360 audio, such as TIDAL and the upcoming Apple music featuring spatial audio. She will also remove the album on other streaming platforms to reach larger audiences. Moreover, the artist would like to perform or showcase the pieces in public, either with real players on stage or as an immersive experience in a small space, to discover and learn from listeners' reactions and further develop the pieces and grow as a music creator.

8. Conclusions

Creating this album has been a wonderful and challenging experience for the artist. She has pushed her limit as a composer, a producer, an engineer, and most import, a storyteller. She is pleased that she faces her true self and finally creates something she always wants to do. Through this journey, she has learned so many new skills from classes and her colleagues. She can now say with complete confidence that the work represents herself as an artist and can not wait for the world to see it. This whole experience has made her a better artist and a better person. She is very grateful to watch this album is finally coming to life.

Appendix A. Resources and Budget

Resources:

- Computer
- Monitors
- Camera
- Softwares: Ableton Live, Logic Pro X, Pro Tools, iZotope, Max, Adobe suite
- Music libraries: Native Instruments, Spitfire, etc.

Budget

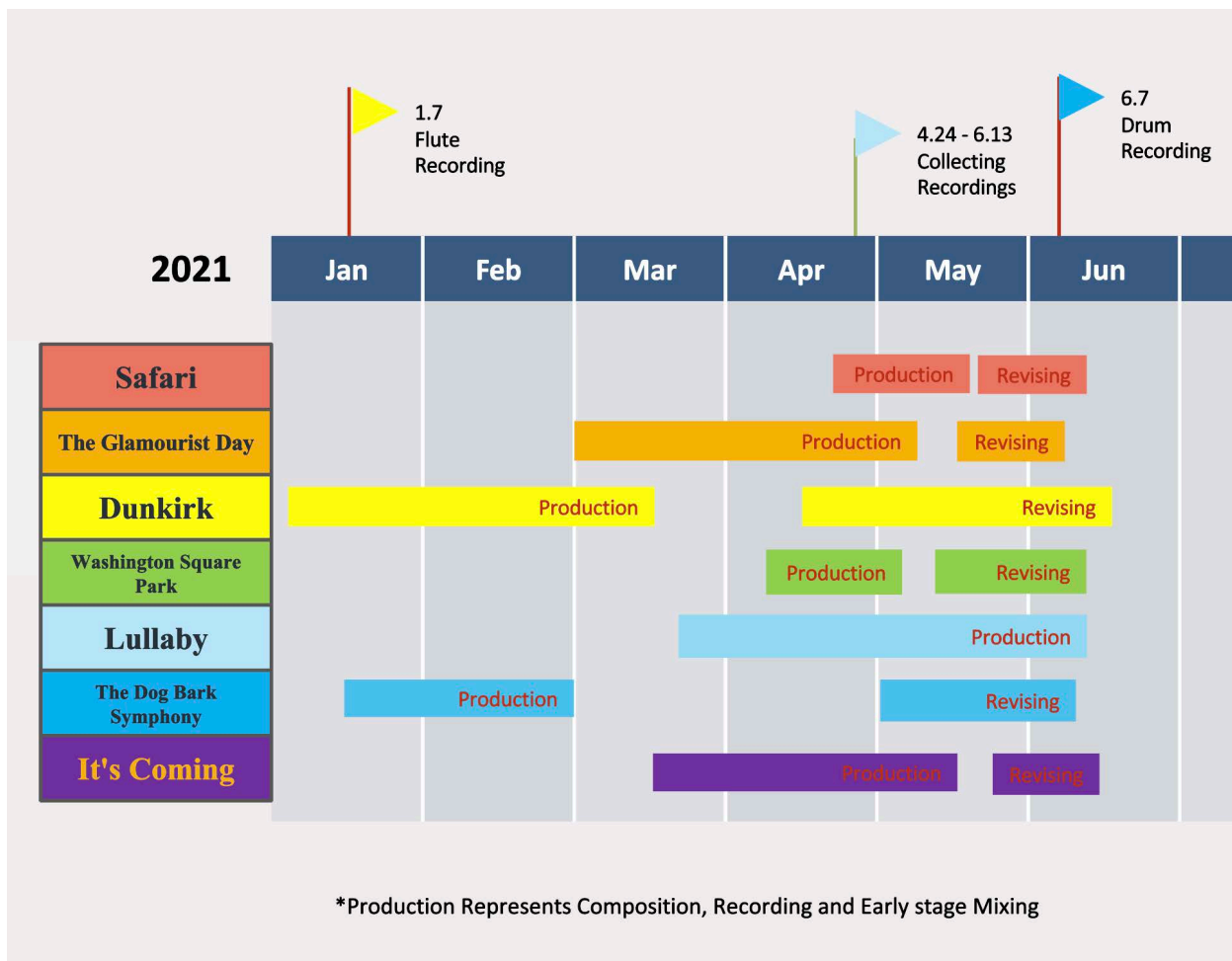
ITEM	PROPOSED	REAL	ACTUAL (RUNNING)			SUBTOTALS
			INITIAL	AFTER 1 MONTH	FINAL	
MATERIALS (disposables)						
Hard Drives		\$300	\$290	\$0	\$0	\$0
Memory sticks		\$50	\$35	\$0	\$0	\$0
Memory cards		\$75	\$20	\$0	\$75	\$75
						\$75
EQUIPMENT						
HARDWARE						
MICS (Rental) 6 days		\$200	\$0	\$0	\$200	\$200
INTERFACE (purchase) 120 days		\$700	\$0	\$0		\$700
COMPUTER (purchase) 120 days		\$2,500	\$0	\$0		\$2,500
CAMERA (rental) 10 days		\$1,200	\$0	\$0	\$0	\$1,200
SOFTWARE						
ABLETON (purchase) 120 days		\$XX	\$580		\$XX	\$XX
RESOLUME (purchase) 120 days		\$XX	\$0	\$0	\$XX	\$XX
MAX MSP (purchase) 120 days		\$XX	\$0	\$0	\$XX	\$XX
						\$4,600
PERSONNEL						
MUSICIANS # of players x rate x hrs		\$1,200	\$0	\$0	\$1,200	\$1,200
ENGINEERS		\$3,000	\$0	\$0	\$1,000	\$3,500
CAMERAMEN		\$1,500	\$0	\$0	\$0	\$1,500
DIRECTOR		\$2,000	\$0	\$0	\$0	\$2,000
MAKEUP		\$300	\$0	\$0	\$0	\$300
MIXERS		\$2,000	\$0	\$0	\$0	\$2,500
EDITORS		\$2,000	\$0	\$0	\$0	\$2,000
						\$13,000
STUDIO						
BERKLEE daily x # of days		\$XX	\$0	\$0	\$XX x 1 mo	\$XX x 4 mo
HOME daily x # of days		\$XX	\$0	\$0	\$XX x 1 mo	\$XX x 4 mo
						\$XX
CATERING						
MEALS cost/person x #persons x meals		\$XX	\$420	\$0	\$XX x 1 mo	\$XX x 4 mo
						\$XX
OVERHEAD						
RENT		\$XX	\$1270 x 4 mo	\$0	\$XX x 1 mo	\$XX x 4 mo
POWER		\$XX	\$90 x 4 mo	\$0		
WATER		\$XX	\$18 x 4 mo	\$0		
GAS		\$XX	\$49 x 4 mo	\$0		
INTERNET		\$XX	\$30 x 4 mo	\$0		
PHONE		\$XX	\$12 x 4 mo	\$0		
						\$XX
FEES						
YOUR FEE		\$XX	\$0	\$XX	\$XX	\$XX
YOUR PARTNER'S FEES		\$XX	\$0	\$XX	\$XX	\$XX
						\$XX
TOTALS		\$17,025	\$7,216	\$0	\$2,475	\$17,675
						\$17,675

Appendix B. Plan of Action and Timeline

For the preparation, the artist has started to gather resources and inspiration since the beginning of this semester.

Start of recording date: 1/1/2021

Ending of the recording date: 06/16/2021



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