

Berklee College of Music

Thesis Paper

The Making of BBC Earth,

The Hunt:

Sardine Feeding Frenzy

(Whale, Shark, Dolphin and Sea Lines)

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Master of Music in Scoring for Film, Television and Video-games - 2020

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Abstract

This project represents my progress and achievement this year in Berklee Master in Scoring for Film, TV and Video Games. This paper records my process of research, choosing the project, composition and my personal experience.

Each course I took in SFTV, whether it is composition for different genres, MIDI sequencing, conducting, orchestration or sound designing, have provided me strong support in completing this project.

I've been through some difficulties working on this project, but good things are a long time in coming.

In this special circumstance which COVID-19 swept across the world, college was closed and the recording in London Air Studio was delayed to an undetermined date, I am looking forward to the final recording of this Master program and pray for peace and health for mankind.

Acknowledgements

I would like to thank all the SFTV faculties and classmates for their support and inspiration. 2019 - 2020 in Berklee Valencia is very intense but full of joy and improvement. I've Ascended to a more professional musician from a beginner. Even though knowledge is infinite, I am full of confidence and ready to challenge myself.

Special thanks to my two wonderful directors Lucio Godoy and Alfons Conde for encouraging me and guiding me to the professional field. I feel the passion for music from both of them and the care for each student.

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Music Influences in Berklee SFTV

During the last few months as an undergraduate, my favorite piano tutor talked to me twice for continuing to work on Piano and take a performance master degree. However, film composition is the most attractive thing to me since I was young, especially after taking the Media Composition course in my sophomore year, I confirmed my love for film music. My piano tutor respected my decision and wished me luck. I think the offer from Berklee SFTV and my progress in the past year will not let her down.

Before entering Berklee I didn't have any composition knowledge at all, yet I like to create and express myself musically. Film music to me is a synonym for free, which means I can write any genre of music. And SFTV taught me how to compose in a limited but free frame.

All things happened this year affected my musical thinking, strengthened my skill in composition and seeing music in diverse perspectives. The Six different courses influenced me in different ways. In the Music genre class, I was "forced" to write fast in various genres of music. For example, when I knew that we needed to record a Jazz theme piece in a week, my mind was blown. I had never composed any Jazz music and have no knowledge about Jazz. A week later I completed a piece of jazz, though I was not satisfied with it, my mind did change a lot. It occurred to me that even I cannot write perfect music, trying is still a great start for everything.

Orchestration class is an art. I didn't like the sound of oboe very much until I heard a beautiful playing in the class. From then on, I firmly believe that every instrument has its own unique and pretty sound, what I should do is finding and using each sound in a creative way.

My classmates in SFTV are amazing. Each of them has their unique music voice, which is charming and exciting. I am always surprised by how we compose so differently when we get the same assignment topic. And there are two people's music I like the most, Christopher Gough and Lucie Treacher. Chris seems very calm about everything and can compose fast. I had a cooperation with him for a video game cutscene. I asked him to write a big orchestra piece for the cut scene, and he did it perfectly in two days. The music he did for Sword Duel, in my opinion, was the best one in our class. His understanding of orchestra is surprising. I guess listening and playing orchestra music helped him a lot, and I was motivated to keep playing master's pieces. When I think about Lucie, her music sounded in my ears. Her music delivers a sense of spirituality, which reminds about the world of faery. I love fantasy stories and the dreamlike world, and Lucie's music can always inspire me.

Assignment preparation

I began to contact student directors from January 2020, and I have talked to about 20 people in total, then I give to work with young student directors. Most of them want pop or electronic music for their movie. Few of them want orchestra sound but not 51 players of big orchestra music. The main problem is that they don't have a big budget for film making, which made the image look not strong enough for support with a big music. Besides, I want to write music that can use all the instruments I have in London. Thus, I changed my plan to search online videos.

I watched many videos on Vimeo, Blender and New Studio Media. There are few types of short film and they need experimental, relaxing light music, pop, trailer, electronic and orchestra music. Thus, the amount of appropriate videos is small. Personally, I want to find a video which has narration and more than one mood, at the same time the music outcome could be fair-sounding even without the video. My expectation made it even harder to find the right one.

In April 2020, I had a connection with a great young composer in China and had the chance to work for a war film named *Our July* as a music editor. He also offered me the chance to write music for it. I decided to write the music in any case they want it and I can get the credit, or I can use it for the London recording. I was excited and worried. On one hand, I will have the original video with sound effects and dialogue and it is a great opportunity to challenge myself to write action war music, on the other hand, I was not very passionate about writing war music and the story and image was not inspired to me. Finally, I decided to give it a try and started to compose in May.

However, after a week of composing war music, I decided to stop writing for two main reasons.

Firstly, I can barely use woodwinds in that war scene as the director wants more synth sounds music but not orchestra and natural instrument sound. Secondly, I didn't enjoy writing it at all. If I have to write something and I have the choice, why not write the music style I like the most? I've been working hard to write different genres whether I am good or bad at it, it is time for me to make the choice for my final project. The next question comes, what should I write.

Finding a new video

Documentary of animals is one of my favorite, especially those made by BBC. There are plenty of elegant images with no loss of dramatic narrativity. I searched *Planet Earth* and *The blue Planet I*

and II. Even though the music was composed by different composers, namely Hans Zimmer, George Fenton and Jacob Shea, the music is in a quite similar style. I love the elegant and the beauty of this type of music. They are not competing for attention but lying smoothly at the back, telling the story that in the images or hidden behind it.

I found an interesting video about six hunters hunting sardines. The video starts with relaxing sardines and seals swimming, then hunters come one by one and sardines become the dishes on the menu. The length of the video is around 3.5 minutes, due to the limit of 3 minutes recording, I decided to edit and cut by myself. There are seven animals, seal, sardine, tuna, whale, shark, dolphin and gannet. I cut the part of shark and few seconds of Tuna. And I try let the scene cut follow the tempo of the whole video, which is from slow cut to fast following by the increasing tension.

Research:

Music Of Masters

Listening to master's music is a great start point for me to be prepared for the style I am going to write and get inspired by them. For this video, I want to find some music has the quality of natural feeling, vivid and elegance. I found four composer's music that might help me with this project.

Thomas Newman

I can always find some interesting sound from Thomas Newman's music. Pixar and director Andrew Stanton want to break away from the usual sound and find a new way, they asked Newman to score for *Finding Nemo*, the animation studio offering for summer 2003.[1] I want to get inspiration from its soundtrack, for example, the instrumentation, the sound combination and the feeling of underwater. There are many elements make the soundtrack sounds unique, such as the upbeat music, whimsical chords in piano and woodwind, the lush string chords, and so on.

Alexandre Desplat

The soundtrack of *Little Woman* sounds very Europe and elegant. Desplat is an expert of using small motifs with syncopation countermelody to develop the music. The flowability of his music creates the image of water glistening under the sunshine. In the piece *The Beach*, piano and woodwinds plays the main melody by turns, harp plays a repeating melody for the flowing effect.

When I listened the book, the music itself tells a lot of stories. Different instrument comes and plays the main melody, which keep the music change but in a well-designed frame. Desplat's music

motion is just perfect for the Sardine video. It gives me the inspiration for beautiful and elegant underwater feeling without losing the flexibility.

George Fenton

George Fenton had composed for two BBC nature documentaries, *Planet Earth* and *The Blue Planet*. He scored each episode like a mini-movie, giving each one its own sound. [2] To my point of view, he knows the BBC documentary sound and will be great for me to learn from his music. And in fact it is, his music presents the energetic wildlife and beautiful nature. I collect several cue he did for BBC documentary, *Elephant Seal March*, *Sardine Run*, *A School of Five Hundred*, *Elephants in the Okavango* and *Planet Earth Prelude*. These cues influenced my musical thinking and guided me to the documentary sound.

Steven Price - The Hunt

Steven Price is the original composer for *The Hunt*. I only listen twice in his music for the Sardine feeding frenzy cue. Firstly I want to have my own idea of music and don't want to be influenced by the original music. Secondly, he used some electronic instruments in this soundtrack including this cue, but I would like to use only acoustic instruments for the whole cue. I like how he designed the music into two main parts decided by tuna's appears. [fig. 1] The first part is only relaxing elegant music, but tuna changes the atmosphere to very intense and danger. Steven use reversed piano which sounds like a synth to represent the danger of tuna, I like the sound combination he created, and I want to find my own sound color.



Fig. 1

Making Sound effect

As I won't be able to get the original video from BBC, sound effects are part of the job that I need to make by myself. It's not as easy as I thought when I searched the Deep ocean or underwater sound effect online. I didn't find many perfect sounds for the video, so I decided to do more editing with sound samples. There is a very useful YouTube channel, Sound Library. I download many short fish swimming sounds and most of them are about two seconds. Then I started making the sound for the video in Logic Pro.

Firstly, I chose two underwater ambient sounds as the two main basic sounds, one is with deep low frequency and the other is light and with bubble's sound. The use of both sounds depends on the camera's position. When it's close shoot or close to the sea surface, I would use the light sound. But if the angle is from a low position to look up or from far away to shoot the whole view, it's better for the lower sound.

The next step is to sync all the animals' movements. Due to the limitation of sound samples and my technology for sound design, I can only sync some important and big movements. The video contains three parts, relaxing preparation time, start to hunt and hunt. I left the first part very quiet with an ambient sound and only a few sound effects for the seal's swimming. Tuna comes out in the second part, smaller movements can be seen in the video. In order to create a busy small fish swimming sound I cut the fish swimming sound effect into two or more parts and mix them in a new order. After gannet joins in, the tension is raised and brings more animal actions. However I didn't sync every action but focus on the new hunter, gannet. There is an interesting scene when a gannet comes in from the sea surface into the sea and carries off a sardine. I cut a stream flowing

sound to synch the dash into water action and connect it with a swim sound which has more underwater quality. The last and the third part is extremely intense. Rather than synch each movement I decided to volume up the ambient sound. The last scene is when a whale comes to finish the hunting. I changed the EQ and pitched down the ambient sound to create the heaviness of the whale.

The next step is balance the volume, equalizing each sound and pan them to the right side by following the video scene. The loudness of each sound should follow the distances and the shape of action. For example, seals normally make a bigger sound than gannet as seals have a larger body.

For the EQ, I didn't change much with the two ambient sounds but many high cuts for the other swimming sound effect to make them sounds more likely in a deep ocean. It has a lot of fun to do with the panning, when the sound is moving with the animal's movement, the scene comes to life.

Writing Sardine Feeding Frenzy

The two things before composing is to set markers and tempo. In this video I made 16 markers for important scene change and sync points. At the beginning, I decided to have several tempo changes according to the level of tension of the scene, and the tempo will be on an ascending curve for the whole video. However, after directed study with Alfons Conde, I realized that a consistent tempo would be better for recording and it will be boring as long as the rhythm and orchestration are interesting. Thus, I found two perfect tempos, one is in BPM 71 for the first section 0:00 to 0:57, the other one is in BPM 66 for the second 0:58 to 2:17 and third 2:17 to 2:49 hunting sections.

When I think about the theme, my mind comes out with a short motif I composed in 2017 when I was 20. It is a short but sweet arpeggio in octave. [Fig 2.] It reminds me about forest and stream. I didn't find a perfect chance to develop it, but it sounds very appropriate for this video as a beginning melody. I used harp and piano to play the motif syncopated as the baseline and strings played the melody on the top and woodwinds played short fast arpeggios as decoration.

One of the tough things to me is the color. What strategy should I use to make the color fresh. Also, when I compose this piece, I think about the music development and orchestration at the same time and it's not easy to have only library instruments with limited articulations. The composing process was getting slow because of the amount of instrument number and the pressure of London recording, I don't want to destroy my music.

Fig 2. Motif



Fortunately, the music for the first section came out fast and smooth. But due to the time arrangement, I need to stop composing and finish the other works which have a closer deadline.

I began to continue composing after two weeks. When I play back the music I wrote, it sounds so strange. I forgot my musical thoughts, which made me unhappy with what I've done. I decided to try and compose an entire new melody from the very beginning. However, after two to three hours watching the video over and over again, it brought back my original idea. Thus, I opened my old project and continued to compose followed by what I had.

The second and third part need action like music which is not my strength. What's interesting is that just a year ago, I thought I was very good at action music writing, but after studying in Berklee SFTV and many compositions, I have to admit that I write romantic music better than action. Also, when I was in undergraduate I believed that I can play Beethoven and Chopin piano pieces better as I like to listen to their music. However I got a high grade in playing Bach and Mozart pieces and I enjoy more playing them. It's a funny and exciting process of figuring out what I am good at. Back to the composition, I need to find references for the dangerous and action feeling. The first day, I didn't come out with any music, but focused more on finding the right sound for it.

Late at night, I was playing PingPang with my brother, and my phone was playing a few albums I collected. Just suddenly I heard the soundtrack “Baitball” from *The Blue Planet* by George Fenton. That is exactly the right music I had been looking for. It is in the right mood, nervous and with just a little action, it is more like building a tension. At the same time, it has a lot of changes including keys and moods. I listened to it many times and paid attention to how George made these key and rhythm changes and how he connected them naturally. You can hear the influence of his Baitball 2:30 to 2:45 in my piece from 1:45 to 2:01. I used the similar layering which is a lower repeating short melody with an octave higher doubling alternated. The texture he used from 00:46 to 1:10 has a top melody line played with a lower consistent rhythm pattern. I also used this apply to my writing where it can be heard from 1:27 to 1:40.

In order to create a lively aquatic life atmosphere, woodwinds play an important role in this piece. I used woodwinds almost through the whole piece. In the first and second parts, I mainly used them to play long note doubling with strings to create different sound color and short run notes for the waterline feeling as decoration. The third part I let flutes, oboes and clarinets play the same melody in octave to create a strong sound in order to be heard while brass instruments are playing.

After finishing the composing, I played it to my family to test the musical speaking. The video doesn't have a voiceover to tell the narrative and I didn't tell the story before I played it. The results are not bad. My brother and mom can see the story just from the video and my music. When I played with my father who was driving and didn't watch the scene at all, he asked if this was happening underwater, I said yes and asked him what is happening in the sea. He replied, chasing. His reply dispelled my doubts, and I decided not to voiceover the video.

The Mock Up Mixing

I composed the music in Logic Pro. It is not very convenient to draw all the CC during composing. Thus, I usually note down some dynamic changes and articulations and mark them when I make the score. Also, some new ideas of orchestration and articulations will pop up during the process. So I need to change my mock up later.

I am always concerned about the music color and volume of my mock up. Even though a music library is close to real instrument sound, it is still not easy to balance the instruments. I used mainly spitfire for my mock up and it sounds great in general. However the brass library always sounds a bit louder than the others and woodwinds sound a bit weak. Therefore, I would volume down the brass and up the woodwinds to make the mock up sounds balanced like the real instruments playing. In order to make the mock up sounds as real as possible, I mainly draw all the cc and balanced the volume of all instruments.

When I editing my music with sound effects, it didn't come out with the sound I imagined. In principle, the sound effect should be louder than the music. But this time I would like to set the music in the front in order to show my composition work. Because the video is about underwater life, it is full of consistent low frequency sounds and it makes the whole sound dark and a little bit dirty. For instance, there is a distant view with a big deep ocean sound, the music is following the scene change with bass instruments coming in, at the same time, the sound effect turns loud and low. This sudden double low sounds will destroy the balance and pull the audience out from the immersion.

Conclusion

I realized more of my personal style and characteristics through this project. In the beginning, I always thought of composing a perfect piece of music. I tried to compose for a war film and gave up halfway because it collided with my cheerful and lively personalities. I wasn't satisfied with the outcome. The good news is that I gradually found out that a perfect work for me might not exist. This Sardine piece is not a perfect work, but I tried my best to express my feeling aroused by this video. I really enjoy writing this piece, the peaceful and elegant nature inspires me to write beautiful melodies all the time. In addition, I did the exercises and strengthened my skill for composing for big orchestra in this project, and developed a deeper insight into sound combinations and harmonics. I am looking forward to the London Air Studio recording, which I believe will bring more organic sound qualities to my music, and I am ready to learn from conducting a big orchestra with the best players around the world.

Thanks again to all the faculties' and classmates' help and support, particularly Laura Blasco Llopis helped me with my score checking and being so kind to me all this year. In the days to come, I wish that I could be someone who is useful for others and keep studying music. I wish I could learn more music knowledge from different people and my career, be mature for more music styles and have my own musical voice and expression. I wish that my music can encourage more people and be the delight of my life. I wish the best to Berklee Valencia campus and all musicians over the world. Music can always heal our fatigue and bring joy to our life, I will bear this in mind and move on to embrace all the challenges ahead.

Reference:

[1] Broxton, J., 2003. *FINDING NEMO – Thomas Newman*. [online] MOVIE MUSIC UK. Available at: <<https://moviemusicuk.us/2003/05/30/finding-nemo-thomas-newman/>> [Accessed 28 June 2020].

[2] Southall, J., 2018. *The Blue Planet*. [online] movie-wave.net. Available at: <<http://www.movie-wave.net/the-blue-planet/>> [Accessed 28 June 2020].