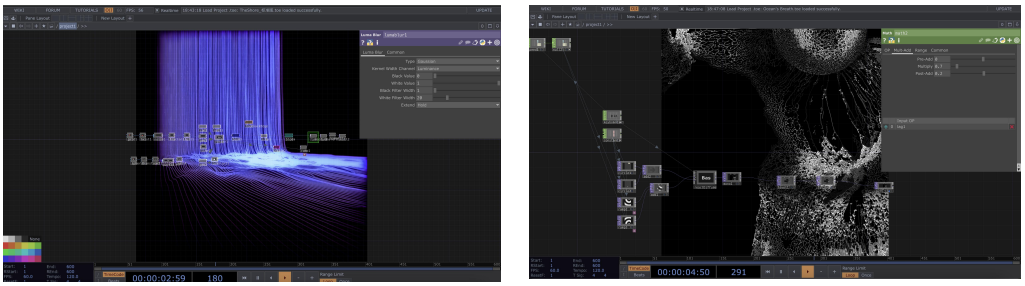
# Audio-Visual Interactive Suite: *Voice of Oceans*

*Voice of Oceans* is an audio-visual interactive suite inspired by the ocean, consisting of two movements: an ambient electronic music composition and an electroacoustic music piece. This suite is 7 minutes and 47 seconds long.

The first movement captures the ocean's mystical beauty with sweeping melodies and lush harmonies, while the second uses sampled ocean sounds, manipulated through electronic music techniques, to represent an ocean whose environment is deteriorating. The stark contrast between the two movements aims to raise awareness about protecting marine ecosystems. Additionally, I integrated both pieces of music with audio-visual interactive projects created by TouchDesigner, which represents the music through both visual and auditory experiences.



**TouchDesigner projects**

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# Ambient Electronic Music (Audio-Visual Interaction):

## *Voice of Oceans: 1st Movement*

YouTube link: *https://youtu.be/hr0HMvfDQMM?si=02Fh8Qrev-omMBox*

Full Score link: *https://drive.google.com/file/d/1VirOWoW_bptjUbLXjzwdYDpDvkGYwbyP/view?usp=sharing*

The first movement is an ambient electronic music piece. The sounds of waves and seagulls are paired with graceful electronic melodies, while shifts between major and minor keys and

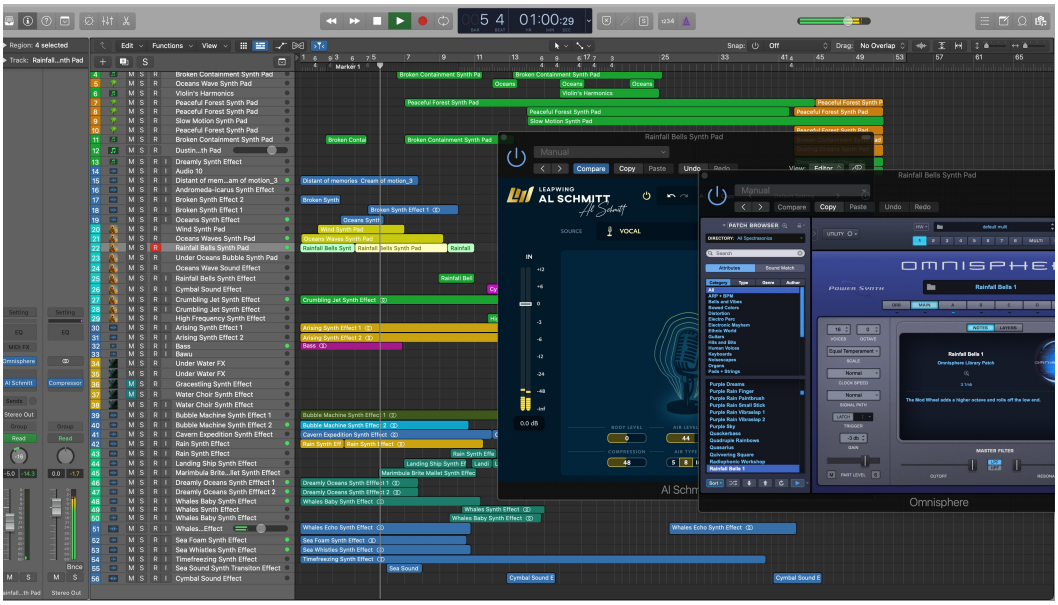
harmonic variations evoke the grandeur and mystery of the ocean. The music paints a stunning seascape, resembling a blue wonder, drawing in the listener.

This movement was created with Logic Pro and mainly features sounds from the “Omnisphere” synthesizer. The piece is structured in an ABC format and is 3 minutes and 45 seconds long.

# 1. Technology & Music Documentation:

## A (00:00-00:57):

Utilizing “Omnisphere” patches like “Distant Memories” and “Cream of Emotion”, section A begins with a rich, expansive soundscape in C# major. The sound is full-bodied and atmospheric, complemented by crashing waves, symbolizing the ocean’s vastness and beauty. Additionally, I introduced variations in rhythm and tempo to break away from conventional time signatures, capturing the ocean wave’s dynamic and unpredictable nature. In the latter half of this section, the music gradually modulates to A# minor, suggesting the sea’s deeper, unknown parts.




**The Project Screenshot**


**Parts of my plug-in**

## B (00:57-02:16):

The B section begins in C# minor, introduced by the Cavern Expedition sound from Omnisphere featuring striking sound effects, paired with dissonant metallic timbres from Kontakt's "Orchestral Essentials", symbolizing the dangers lurking in the depths of the ocean. Next, I recorded the sound of cymbal rolls performed by a drummer, using it as a transitional sound into the latter half. In this latter section, the music changes between the D#11 and Am chords, creating an unstable auditory experience reflecting the ocean's ever-changing environment. Finally, the section gradually transitions to an ending in E major with the Distant Memories timbre.

## C (02:16-03:45)

Section C picks up the sonic material from the end of section B, naturally transitioning from E major to C# harmonic minor. This introduction leads into a more developed second half, incorporating deeper bass pads and bright arpeggiated sounds, accompanied by the sounds of rolling ocean waves. The section concludes in C# minor, musically depicting the beauty of the sea.

## 2. Summary:

The timbres in the first movement are cohesive. Using melodic electronic music composition techniques, the movement showcases this beautiful and mysterious blue wonder through ambient electronic music, evoking a sense of yearning among the audience.

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# Electroacoustic Music (Audio-Visual Interaction):

## *Voice of Oceans: 2nd Movement*

YouTube link: *https://youtu.be/Mrwee9MxTIA?si=sAZSXctk4WmBo0un*

The second movement focuses on the destruction of marine ecosystems. I continued using ocean wave sounds from the first movement, transforming these sounds and incorporating dolphin call sounds as cues. Through electroacoustic music techniques, the material develops and evolves to depict the devastated ocean environment, making the audience feel as if the sea is lamenting.

I excel at and enjoy using the samplers in Ableton Live, as it allows for detailed and unique sound design. Therefore, the second movement is produced using Ableton Live, with nearly all sounds derived from manipulated real marine audio samples. The work has a total duration of 4 minutes and 2 seconds and is structured in ABA form.

## 1. Technology & Music Documentation:

### A1 (00:00-00:59):

The A1 section begins with sampled recordings of natural ocean wave sound processed through the sampler serving as the foundational pad, enhanced with delay, resonator, reverb, and other effects, with some automation (Fig. 1), which is complemented by a low-frequency pad processed from this foundational pad with pitch shifting and phaser effects, alongside

dolphin sounds that have undergone acoustic transformation (Fig. 2). The music gradually builds towards a climax in A1, concluding with a booming transition sound effect. The increasing distortion and intensity symbolize the destruction of marine ecosystems and the lament of ocean creatures.

**Fig. 1**

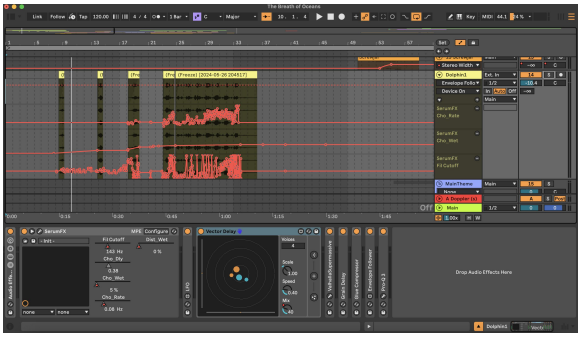

**Fig. 2**

## B (00:59-02:31):

In the beginning part of this section, I introduce sounds of plastic bags that I recorded into the "Grain Scanner" sampler, using the "XY Pad" from Max Audio Effect to map the X and Y axes to control Pitch and Layers in the "Grain Scanner" for real-time manipulation of the recorded sounds (Fig. 3). The recorded sounds are then processed with an allpass filter in SerumFX that features a resonant "O" vocal sound (Fig. 4). This technique is also applied to dolphin sounds in the latter half, adding resonance from vocalizations like "ya" and "yi" to enrich the music. The dolphin sounds are also fed into another granular sampler connected to an "XY Pad" for real-time control of Pitch and Layer, followed by pitch shifting, vocoder processing, etc. This sound effect creates a low-pitched wail in dialogue with the high-frequency sounds, interweaving these experimental oceanic and waste sounds with elements of human voices, raising awareness that the destruction of marine environments ultimately threatens humanity itself.

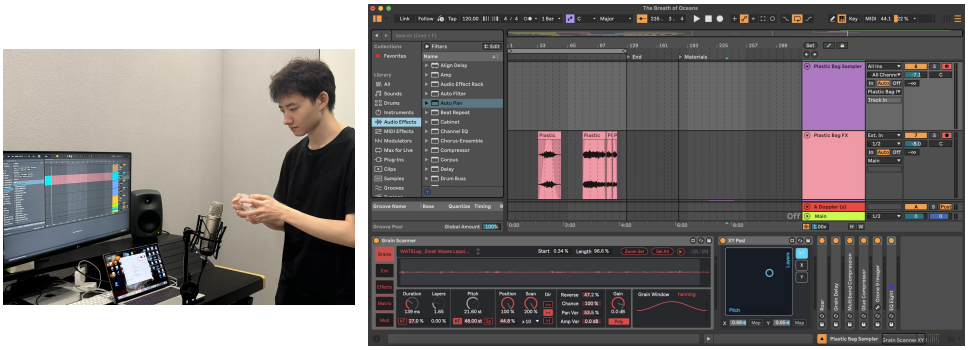

**Fig. 3**

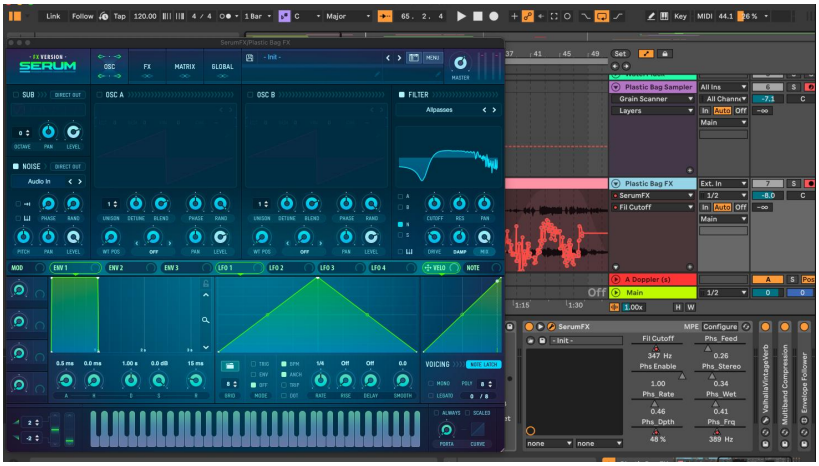

**Fig. 4**

## A2 (02:31-04:02):

This section reintroduces the dolphin sounds from A1, with gradual pitch-lowering automation applied to create a descending wail (Fig. 5). This soundscape is complemented by the sound of plastic bags processed through an all-pass filter featuring changing vocal resonance, allowing the two elements to engage in a dialogue that reflects the decaying state of the marine environment and the devastating impact of pollution on ocean life. The piece concludes with the sound of waves processed through a spectral resonator, gradually reducing the wet/dry mix, which brings out the original pure ocean waves' sound for a moment, prompting the audience to reflect upon the theme.


**Fig. 5**

The materials used in the second movement are unified and straightforward, focusing on the increasingly dire state of the ocean ecosystem. Through electronic music techniques, this movement portrays a polluted sea, allowing the materials to engage in a dialogical processing that conveys oceans' wails, urges the audience to protect the marine environment, and encourages reflection.

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## Summary:

Overall, *Voice of Oceans* is a suite consisting of two strongly contrasting audio-visual interactive music pieces. It aims to deeply resonate with listeners about the damage inflicted on the ocean environment, using electronic music and audio-visual interactive technologies to highlight the importance of its protection.

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