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MMT Y1 – Dec 2015

Electroacoustic Composition 1: Assignment 2 – Acousmatic Composition (Report)

## Metamorphosis



*Artwork by Optiknerve*

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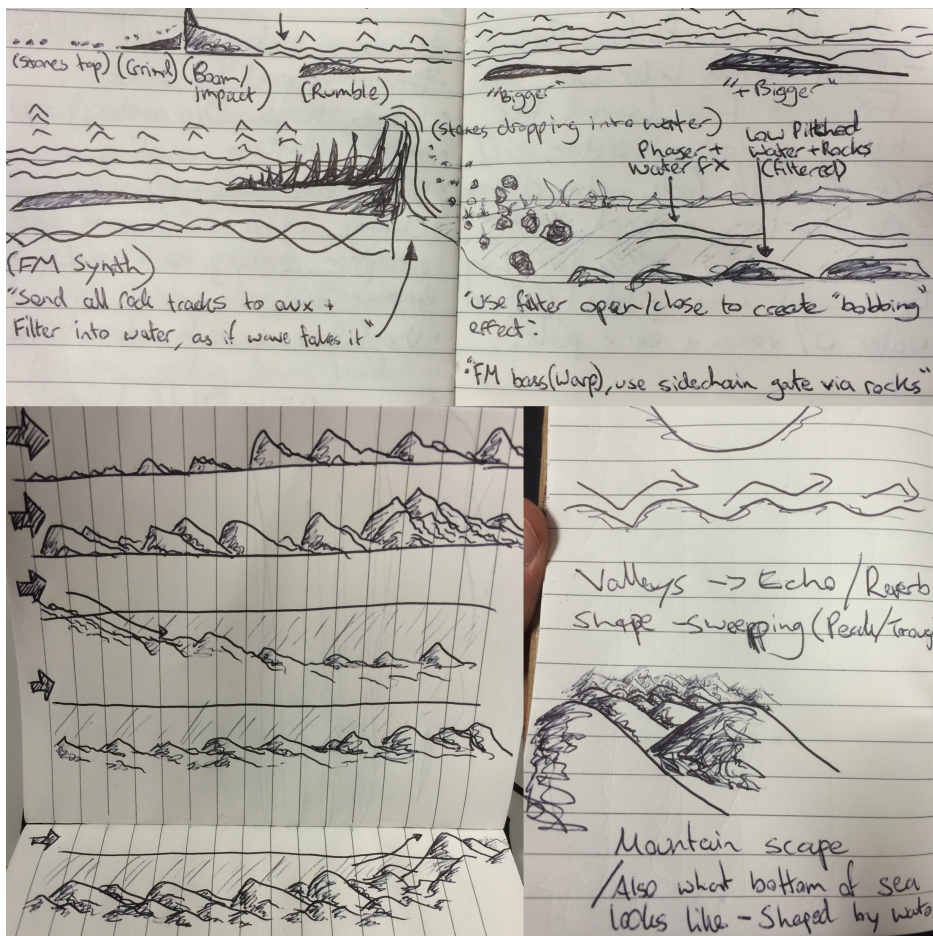
## **1. Approach to Composition:**

Given the criteria of the brief, in that we could now make use of synthesis, my approach was to use synthesis to add further texture and spectral content to the recorded & processed audio. As for the theme of this work, my fascination with nature once again inspired me to develop a theme based on Earth, more specifically the relationship of rock and water on Earth's surface and how it can be transformed. I planned to record the sound of rocks and water, and through processing, editing and arrangement, I would demonstrate the relationship between the two.

## **2. Title / Concept:**

The definition of 'Metamorphosis' is "*a change of the form or nature of a thing or person into a completely different one*". In my piece I wanted to use the relationship of rock and water to convey the concept of metamorphosis on an auditory platform. The Earth's crust is solid rock, yet there are many factors that shape this rock and distort it entirely. The movement of tectonic plates - shifting and grinding of rock plates thousands of miles across, floating on top of the Earth's molten core forming mountains and deep-sea trenches. Gravity is another (or rather the relationship of object to the mass of the planet), and this is where water has its role. Water sits on top of the solid outer-shell of Earth, yet through the gravity, it can shape and carve out rock beneath it, and here is the endless relationship between both rock and water, what landscapes, monuments, valleys, and un-reachable abyss' will be transformed by process of 'Metamorphosis'.

### 3. Form / Structure:



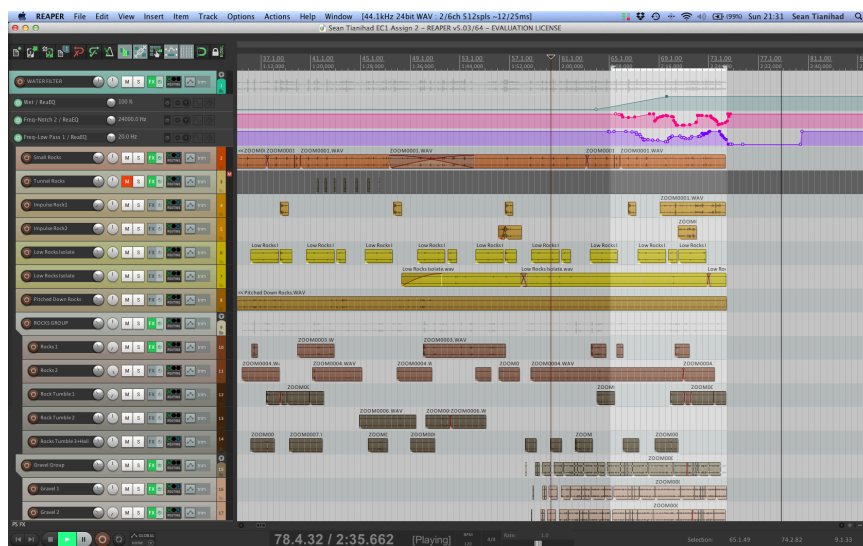
Sketched form ideas;

Before I even recorded any audio, I had planned out the structure of the composition (somewhat loosely), describing the sounds, transitions, and technical means to be used. My idea was split into 2 phases: Phase 1 - Rock sounds (this section represents how rock shapes itself via plate shifting etc, to create mountains & dynamic landscapes), consists of rock gradually morphing over the course of the section into more abstract sounds, and building along side organic rock sounds, creates a cacophony of real and non-real sounds; Phase 2 - Water & Rock sounds (this section represents how oceans, rivers, rain, etc, shape and distort the Earth's outer-shell), creates the impression of going underwater after the transition from phase 1, where the listener visits the oceanic landscapes and what



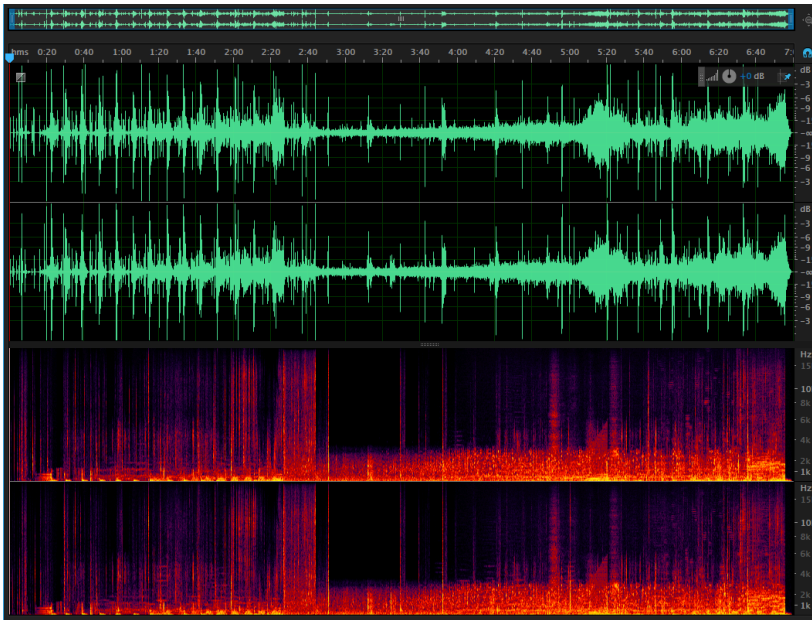
interactions occur there between the ocean floor and water. This is achieved with filtering, and pitched-down water loops. Eventually non-real sounds are introduced with oddly timed delays, and I leave them unfiltered to create a contrast and introduce a new stimulus for the listener. The entire piece contains organic sounds, several forms of synthesis, abstract & abstracted syntax (abstract being the voices or eerie pads, and abstracted being the ANS impact rumble), and the overall piece I feel could be described as having (for the most part) mimetic discourse - although some of the more metamorphic sections could be described as abstract discourse.

As the shaping of earth takes place over millennia, my piece would represent this with a gradual progression throughout the arrangement (although keeping the piece within a reasonable timeframe so as not to feel dragged out). As there are only 2 phases in this piece, one major transition takes place between the two and this will be the introducing of the section with water. The main transition was achieved by sending all the sub-groups and individual tracks from the first section to another group Bus, where I used low-pass and notch filtering to create the impression of a wave of water engulfing it, which cuts off and leave you with only a clear lake recording.



*Automation for filter transition;*

The sound design of both the audio and synths plays a key role in the character of this track. One of the sound design objectives for the recorded audio was to replicate the various forms of erosion (abrasion, attrition, solution, hydraulic) by manipulating textures, tones and pitch, and transform the sounds into something sonically different. Synthesis was used to focus on some aspects of the recorded and processed audio, and also to add aesthetics to the piece in the relevant sections. Another less evident feature of this work was the actual waveform of the overall composition, which has huge peaks and troughs, mimicking the appearance of a mountainous landscape.



- Arrangement: Peaks & troughs mimic mountain landscape;

#### 4. Sourced Material:



- *Locations of recorded material;*

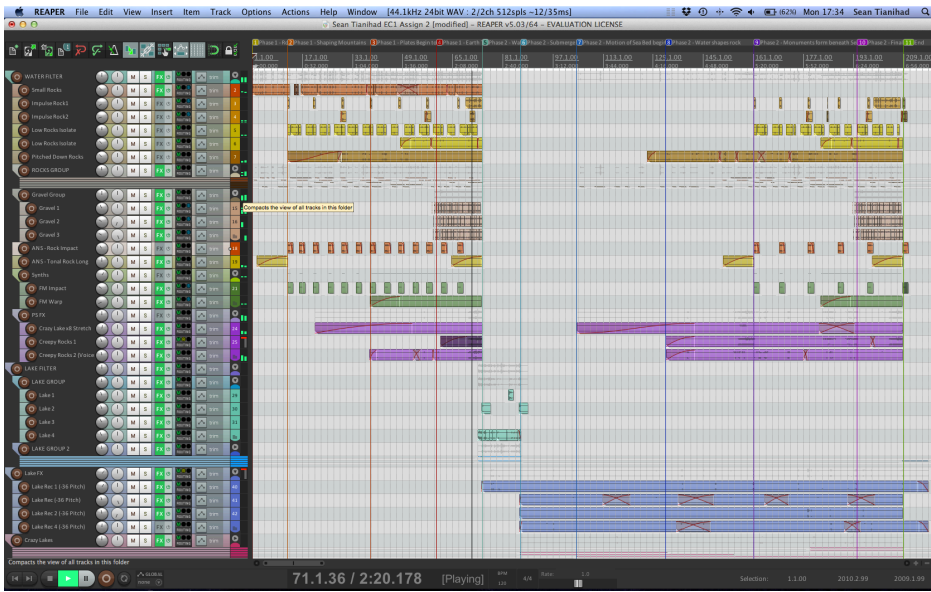
I gathered recordings from 2 locations for the purpose of this piece: a quarry, and a lake at the foot of a valley. Majority of the takes from the quarry consisted of dropping stones (large and small) onto other stones, rolling stones down hills in the quarry, and grinding rocks off each other. As for the lake, I recorded waves of the lake splashing against the shore, and also stones being thrown into the lake).

#### 5. Technical Setup:



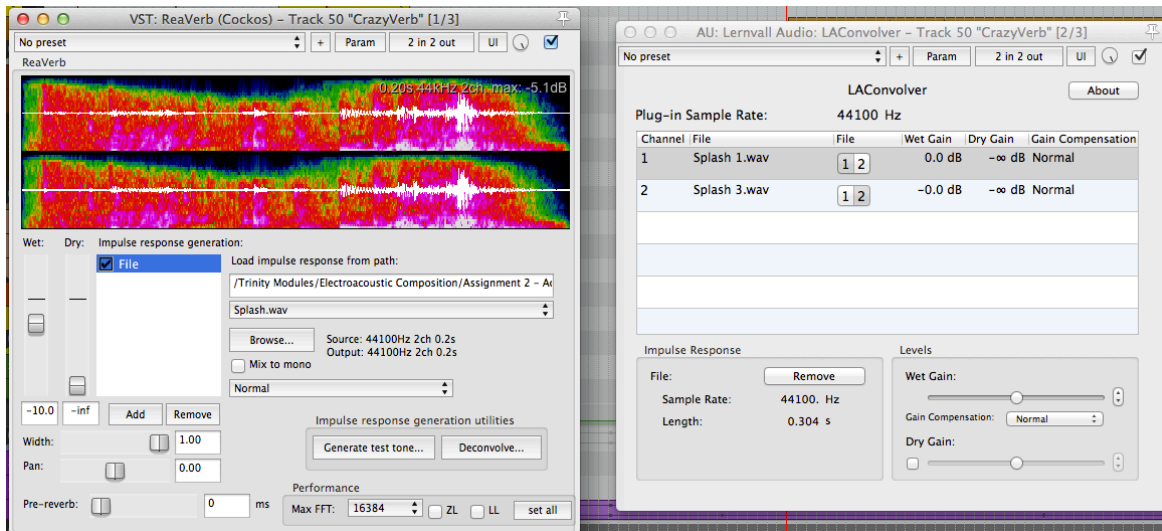
For recording the audio in this piece I used the Zoom H2n in XY polar pattern. All audio was then edited and processed in Reaper, as well as PaulStretch, ANS Synth, and Audition.

## 6. Method / Process:



Final Project Arrangement;

The first objective was to bring all the recordings into Reaper to find the clean and usable takes, organizing them into individual sounds and phrases. Several processes were used to manipulate the audio (both rock and water):

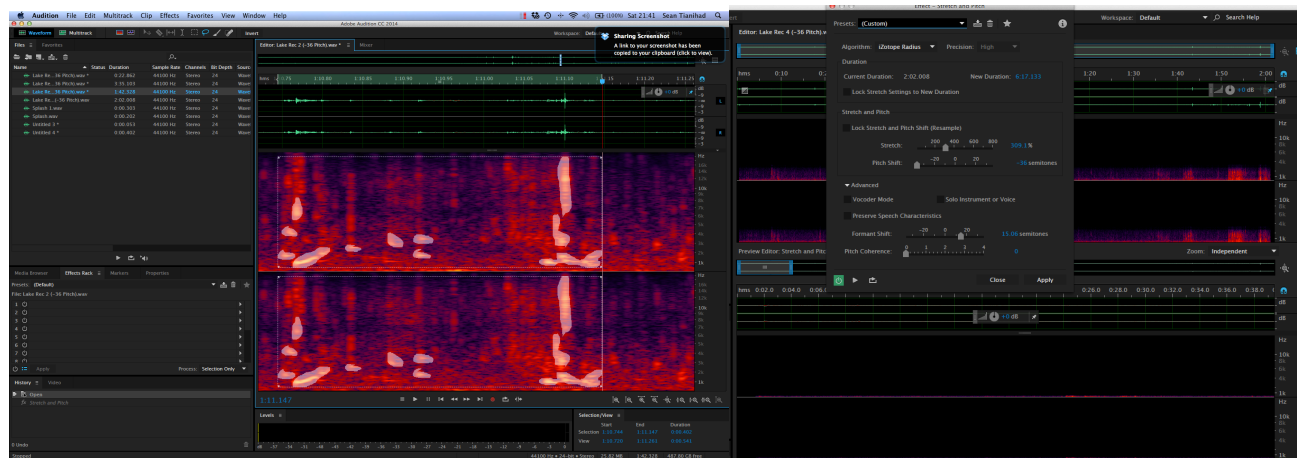


LAConvolver / ReaVerb (Convolution Reverb) -

For one instance of convolution, I loaded a pitched down rock clip into ReaVerb, then played a different rock sample through it via Aux send, creating a long low-pitched rumble. I also

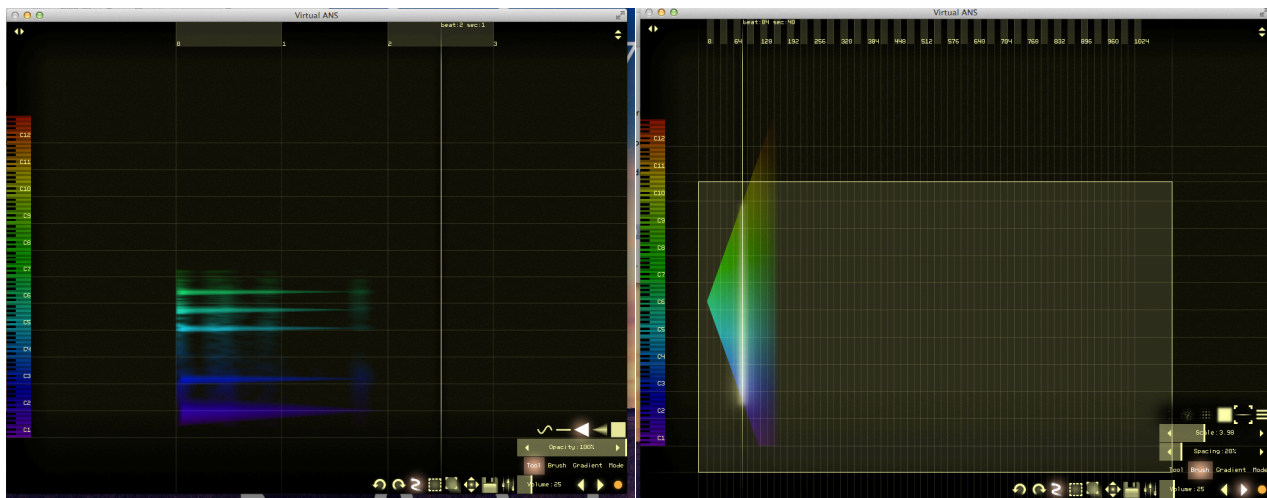


used some of the isolated splash clips from Audition, loading them into LAConvolver (which you can load individual samples into left and right channels of the plugin), and again using an aux send on rock samples, generating unusually textured tail ends.



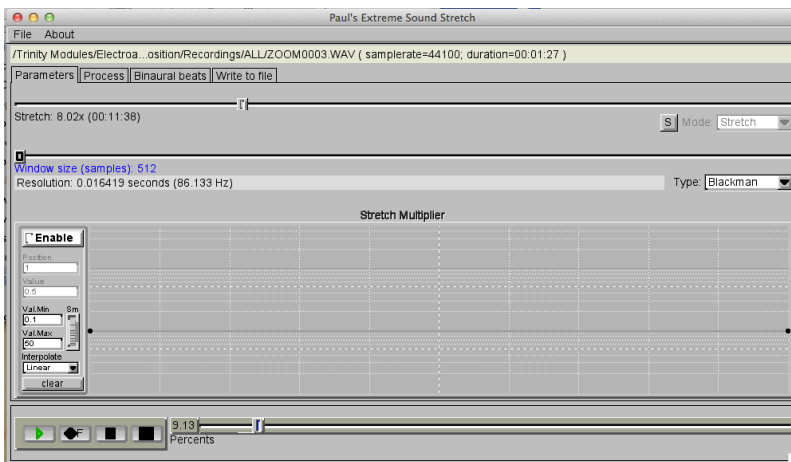
## Audition -

The Time and Pitch Stretch tool in Audition gets some very interesting results. Changing between various percentage stretches (200-400%), then dropping pitch by 24 and 36 semitones, this created some heavy gritty textures from the rock takes, and created the illusion of deep sea water from the lake recordings. Experimenting further with this, I then took the pitched down lake, then pitched it up 36 semitones, and stretched it again 300%, while deselecting the 'Preserve Speech Characteristics', this resulted in the water sounds turning into an electronic-like random arpeggiator (and pitching this down while stretching further again totally transformed this again, which is the what I aimed for with metamorphosis as the concept).



## ANS Synth -

With ANS I imported some of the short rock dropping clips, and created a long resonating decay, with a slightly short & quick attack, much like a kick, to create a sort of synthesized reverb impact. Also one of the convolved stone samples was imported, and I highlighted some key tones (using brush strokes) that seemed to stick out of the frequency spectrum, and this created a short tonal drone (which I would then use in the arrangement reversed). Later in the project I brought in lake clips into ANS, and using the brush tool sketched an interesting tonal riser, and odd arpeggiated pad-like sound.



## PaulStretch -

3 very unique items were generated from PaulStretch (which most definitely inspired and developed the concept further during the production stage). First, one of the long take rocks was imported and the result of which (slowed down 8x and a low sample size) created unsettling voice-like sounds, almost like whispering spirits or demonic chants, which most definitely worked for the narrative of 'metamorphosis'. 2 other already processed audio phrases were imported, a time stretched & pitched up lake sample - which turned into a long, eerie, almost choir-like pad sound; and another stretched rock recording had created some huge rumbling effects, and what I am assuming is wind, had created long, sweeping white noise.



### TAL-Elek7ro (FM Synth) -

As I wanted the waveform of the arrangement to look like a mountain scape, I achieved this with massive impacts in a somewhat regular but non-rigid pattern. Using the rumble impact created in ANS as a reference, I used the Elek7ro synth in FM mode, blending oscillators 1 & 2, and manipulating the envelope, created a more tonal and sub-heavy layer to the impact (coupled with compression settings for a kick drum) - this mixed with the ANS impact resulted in a huge rumbling impact which could be perceived as subterranean movement. The other patch I created using Elekt7ro was also an FM synth, this I used for a more atmospheric element, contributing to the metamorphic part of the phases (some long reverb added to this generated a very rich and unusual texture).



## **7. Conclusion:**

The creative planning of this work was mostly on paper before anything was even recorded, creating drawings, writing out the flow of the arrangement, what sounds should be recorded, how they will be manipulated, and the entire concept and direction of the piece. I have never done this before so it was something quite out of the ordinary for me but opened up a completely new avenue of visualizing the music before an instrument or piece of equipment is touched. Also a massive influence in the concept of the piece was in actually processing and manipulating the audio, as the new textures and sounds inspired more of the character of the song completely out of the blue - inevitably steering the direction and narrative of the piece (many would describe it as "*happy accidents*"). Reflecting on the piece I am quite happy with how it developed, from the ideas on paper, through the production process, and to what is now the finished piece.