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CAP3020 (Ambient Narrators) Dev Journal #2

This week I thought I'd focus this dev diary on audio and music! As "introductory" as the rest of our game is, audio is an area where we really can put our best foot forward. This dev diary will use some audio/music related jargon and terminology.

Although applicable to basically any creative field involving technology, I believe music is an area where someone in their room with some relatively inexpensive gear can create work up to par with industry professionals in million-dollar studios.

I. Art Direction and Creative Philosophy

For *Stellae* we've wanted to create a warm, peaceful, organic ambience. From the point of view of an older child, the late summertime setting evokes a feeling of stillness and rest, both in preparation for the upcoming school year but also in closing of their last year.

Specific to our story, these themes of growth and progression are contextualized with a stunted relationship with a parent, and the self-reliance something like that requires from a child. Our vague Appalachian setting sets up our temperate, comfortable climate where we deal with the confusion of muted emotions and mutual understanding.

II. Creative Application

Wanting to record our own sound was a goal heading into this project, so a basic field recorder and some local nature parks would have to suffice.

Without any sort of isolated recording solution, field recordings were the most efficient way to get immersive, ambient audio from a similar environment. These locations, out at Paynes Prairie Preserve State Park were far enough away from roads to not have the sound of a highway in the background.

A soft breeze, trees and plants rustling, birds chirping, insects flying around, and other natural sounds were captured – what I've heard in the past is that ambient noise is something that you won't notice until it isn't there and introducing some more noise into our game really reinforced this sentiment.

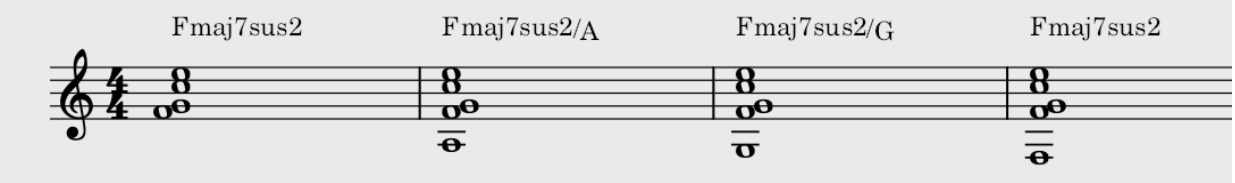
Regarding our score and music, I decided to focus on a guitar-centric ambient style.

An ambient/environmental genre was one of the initial ideas going into this game concept, where a large focus is on generally unfocused feelings and moods. Ambient styles avoid obvious motifs and strong tension/release in favor of more constant, still energy.

Being centered around camping, a guitar is the instant front runner for instrumentation, but the reasoning goes further. Guitar music is ubiquitous in part due to its accessibility, and approachability, also lending itself towards a largely solo arrangement. As opposed to piano or synthesizers, a listener can recognize what is being played on guitar, largely because of modern music reusing patterns unique to a guitar's layout.

An acoustic guitar is much more straightforward in tone and sound, so instead an electric guitar was used as (with a clean tone) it can be treated as a blank canvas for all types of sounds.

Compositionally, tonal harmony is widely used, with sparse voicings. A chord progression might look something like:

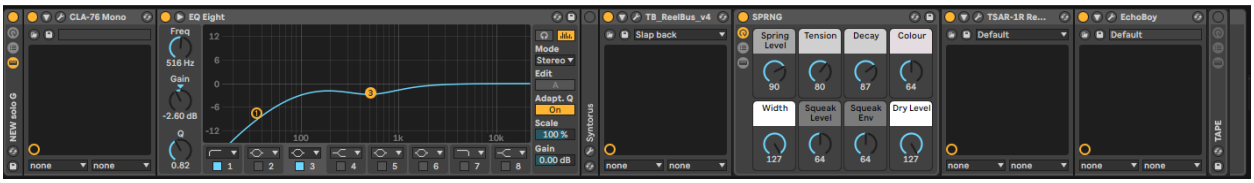


with a gentle drone in the treble marked by a descending bass that resolves an octave below the start. The effect created here could be one of tranquility, but without a 3rd scale degree in any chord, this tranquility is generally suspended and neutral.

III. Technical Application

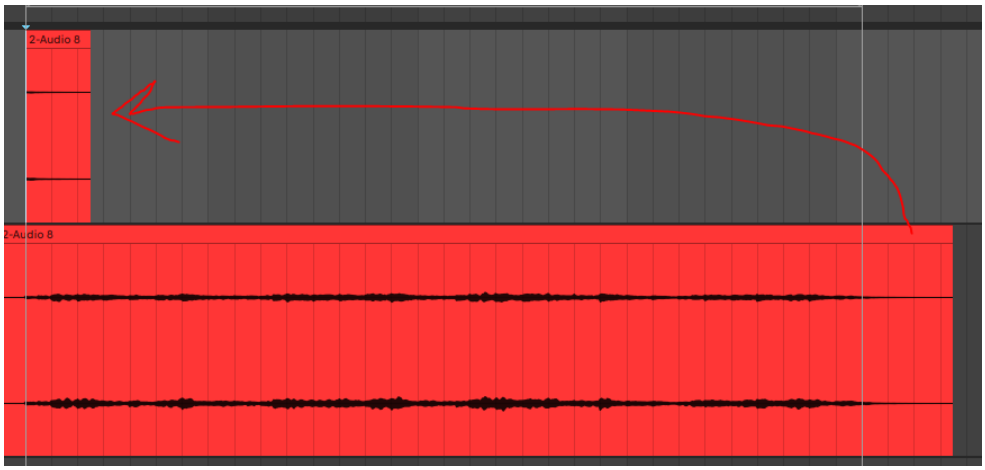
Starting with my field recordings, much of the audio can be used and looped as is in Unity – processing may start and end with slight equalization and some volume normalization. (Across files, that is – within the same file the few spikes in signal were some external factors like hitting the mic stand or a phone ringtone.)

Producing music started with my Squier Telecaster, chiefly for its round, warm, open tone. (For clarification, as opposed to more trebly, gritty, compressed tones you'd associate with genres like rock and funk.)



Broadly speaking, an assortment of time-based effects like reverb and delay make up the wide sound, with only a limited amount of modulation as not to make the sound too "spacey" or even "psychedelic."

In Unity, looping audio is very basic, and although it works ok especially for quiet environmental noise has its shortcomings – not being able to loop seamlessly. A custom solution consisted of exporting two different versions of audio – a basic export/mix and a version with the tail of the song fading out playing at the beginning of the file.



A custom script plays the unmodified base audio file, then loops the audio file with the tail for a seamless effect:

```
void Start()
    {
        musicSource.PlayOneShot(musicStart);
        musicSource.PlayScheduled(AudioSettings.dspTime + musicStart.length);
    }
```

Also, slight fades are needed on any looping audio file as Unity doesn't support gapless looping/playback – clicks and pops on loop will be audible otherwise.

In summary, this process has gone smoothly, with solutions presenting themselves when needed partly due to prior experience. This aspect of the project was largely in isolation from the rest of the group, and I'd like to note I enjoyed writing this diary entry as having to explain choices past "it sounds good" seems like a strong skill to develop.