Assignment 2-1: Building a short film with the Unity Timeline tool

EEMT21 INTRODUCTION TO XR: APPLICATIONS AND TECHNOLOGIES

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1. Overview and Project Introduction

1.1 Executive Summary

The objective of this project is to showcase my artistic scenes in the form of a short film. I have used Unity's Timeline tool and dynamic camera movements to incorporate various cinematographic techniques, such as rhythm changes, forward and backward motions, and rotational accelerations. I have also carefully selected music to bring the original design purpose to life more vividly. Although the setting remains the same as my previous project, I have intensified the focus on key areas. The aim is to emotionally connect with the audience through two contrasting scenes, providing a moment of tranquillity and solace. In this short film, I will take the viewers on a journey through parts of my scenes, set against the backdrop of contrasting musical pieces, showcasing the overall ambience.

1.2 Aims and Intentions

The main goal is to use cinematic techniques and music to portray two distinctively contrasting scenes. The first scene is designed to evoke feelings of sorrow and gloom within a desolate setting, with smooth and unobtrusive camera movements. In the second, verdant scene, I aim to make the audience feel as though they are walking through lush landscapes under a clear blue sky, breathing in comfort and freshness. I hope that viewers will be immersed in a sense of freedom and relaxation, imagining themselves amidst forest paths, surrounded by the harmony of nature, embracing the essence of youthful freedom.

2. Style and Methodology

2.1 Visual Style Overview

In the first scenario I created, a cyber-city is shown decaying after a flood; it can also be imagined as a barren human world following an extraterrestrial invasion. The sky still shows signs of the alien invasion, creating a gloomy and menacing environment with a strong dark yellow colour and a dusty atmosphere that emphasises a heavy and depressing tone. The second scenario, on the other hand, depicts a peaceful, prosperous utopia that is full of vivid flora and sunny, clear weather. The design revolves around trees, verdant meadows, and an abundance of flowers, with tall trees and wide pastures encircling the area to create a tranquil and lovely atmosphere.

2.2 Narrative Technique Analysis

The project begins with a standard player viewpoint, which lets the user fully immerse themselves in every scenario. After that, the perspective changes to an aerial camera that is free-floating and gives a broad overview of the whole system. Through portals, the transition

between the opposing viewpoints is deftly carried out. This increases the story's flow and opens up new creative possibilities.

2.3 Inspirational Background

The inspiration for this project comes from the ups and downs of life's challenges and moments of relief. While pursuing my master's degree at Trinity, my lab mates and I often found ourselves working late into the night, juggling over twenty assignments per semester. During those times of intense pressure, we chose to unwind completely and embrace a wild sense of freedom. This project was conceived with that same mindset; I aimed to create a form of relaxation through my creation. In some ways, this project also reflects my personal psyche.

3. Production Process and Storyboarding

3.1 Cinematography and Visual Storytelling

In this section, I would like to highlight two main cinematographic techniques that significantly enhance the narrative. Firstly, in the desolate cyber city scenario, I employed slow push-in and pull-out shots to emphasize the grandeur and the vast emptiness of the ruins. The methodical pacing of the camera movements draws the audience into the solemn atmosphere of the aftermath. Secondly, within the utopian forest landscape, I used rotating shots and ones that glide through the canopy to dynamically capture the essence of life in nature. The camera movements here are smooth and deliberate, reflecting the serene and vibrant energy of this setting. Overall, the pace of the shots is carefully balanced. Rapid movements are used to convey the scope of the landscape panoramically, while initial entry into scenes, presented from a first-person perspective, focuses on an authentic detail-oriented experience. Here, the camera slows down, with gentle rotations adding intrigue, and the inclusion of side-to-side glances provides a realistic point of view that is maintained across both scenarios.

3.2 Storyboarding and Preliminary Planning

During the preliminary planning phase, I approached the project with an intuitive and practical method, rather than following traditional professional guidelines. To begin with, I used my smartphone's camera to simulate the camera movements within Unity, which helped me to visualize and finalize the desired effects. I also drew sketches on a sheet of paper to create a basic storyboard, mapping out key frames and camera transitions. The camera's journey starts with an emergence from a pavilion amidst a flood, observing the surroundings with a sense of newness, similar to stepping through a portal. This feeling of discovery and exploration is a recurring theme in both scenarios. Halfway through the journey, the camera moves upwards, transitioning to an aerial view, providing a god-like perspective over the entire landscape. This elevated viewpoint not only reveals the spatial arrangement of the settings but also represents a narrative shift from personal engagement to observational overview.

4. Explanatory Elements and Structure

4.1 Narrative Beginnings and Endings

We begin in the desolate ruins of a cyber city devastated by flooding, to the strains of Samuel Barber's "Adagio for Strings." The gloomy atmosphere is echoed by the sombre strings, whose extended notes reflect the stretched shadows and the lingering hopelessness of the surroundings. Like the music's slow build to a crescendo, the story slowly reveals itself, inviting the viewer to explore farther into this terrifying world.

However, the story ends in the utopian forest, where the lively "Wiener Waldwalzer" (Vienna Forest Waltz) echoes the narrative and the serene surroundings. As the camera pans up into the sky, the uplifting rhythm of the music creates a sense of rejuvenation and contrasts with the prior seriousness, giving the conclusion a positive tone. The audience is left feeling revitalised and yearning to return by the lively energy that the forest waltz transmits.

4.2 Synchronization of Music and Visual Components

Music Synchronisation: The melancholic notes of Barber's "Adagio for Strings" provide a soundtrack for the bleak landscape of the cyber city. The visual tour of the city and each swell and diminuendo of the music are expertly matched, adding to the images' emotional depth. The melancholic melody of the adagio captures the visual story of loss and the ruins of a once-thriving society.

Visual Synchronisation: The "Wiener Waldwalzer"'s visual synchronisation with the environment creates a dance between music and vision in the utopian forest. The camera glides among the trees in a way that seems both planned and natural, its movements timed to the waltz's speed. The waltz's exuberance gives the images a playful quality that goes well with the vivid hues and lively forest scene.

5. Appendix

Demo video: https://youtu.be/fTv-h_hkEF4