BScCM Final Year Project 2019 – 2020
Phase II Final Report

<< Group Name: Arcana ; Group No.: 32>>

<< From Silver Halide with Love >>

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A. Directory

B.   Introduction

From Silver Halide with Love is a game project that aims to recreate the feeling of old school film camera shooting while exploring the world with the control from physical camera set instead of a controller or mouse and keyboard.

During the process, a narrative concept is added to introduce the player on the process in which photography gradually became what people knows it today. 7 photographers, artists and scientists are chosen and during the process of gaming, each one of their famous photo will be recreated by the player.

Because of numerous factors, such concept did not get fully realized. In the end, only one full scene has been recreated. Still, the goal of recreating the feeling of using film camera is achieved.

C.   Objective

The idea of this project is generated when I got in touch with an old camera which runs on films. The experience of old camera shooting feels special since each take must be manually rolled and no one could see the result until the entire roll is developed in the end. I want to recreate that feeling of special in my project, especially in an age when digital cameras are everywhere and taking pictures becomes one of the most common things to do.

The goal of this project is to recreate the experience of taking pictures with film camera. During the project, the player could personally feel the specialty of taking photos in the olden days, and possibly changes how they consider photo shooting in the future.

D.   Background Research

The principle behind all physical photo shooting are the same. The chemical compounds formed with silver and one of the halogens are extremely sensitive to light, which suits perfectly for the job of photography [1]. The name of this project also came from this property since silver halide is the cornerstone of all photography.

Whiling considering the photography from today, it is easy to ignore that in the early days, the whole process of taking pictures is not considered art, but mere a simple copy of the reality [2]. During the research, 7 photographers, artists and scientists are that are essential to the development of photography in which it established itself as a form of art.

Louis Daguerre along many from his years created photography. His system, Daguerreotype, uses a polished copper coded with silver iodide to expose pictures onto the plate directly [3]. It was one of the first system fully capable to make images.

Henry Peach Robinson was the leading artist of the movement Photomontage. Such artists manipulated their photographs to project their "emotional intent into the viewer's realm of imagination" [4]. Being one of the artists that pioneering the movement, Robinson was best known for joining multiple negatives to form a single image [5]. From them, the photograph became not only the copy of reality but photographer's way of expression.

Alfred Stieglitz dedicated his life in making the art an recognized art form. Stieglitz believed that photography could at least have the same potential with painting and the traditional graphic arts [6]. In his 50 years of career, he established the Photo-Secession group, pioneering in the modern photography area and grew reputation in the art society [7]. In the end, the fully recognition of photography as an art has been achieved thanks to his efforts.

Ansel Adams is the father of the famous light theory. He and his members in Group f.64 believed that photography should use sharp focus and make use of the entire gray scale of brightness [8]. His later works of the West Coast of America deeply attracted lots of public attentions and help increase the public acceptance of photography as a fine art [9].

Walker Evans unlike those mentioned above, believed that photography should based on the reality and facts [10]. During his work as a member of the "historical unit" of the Farm Security Administration, he made a collection of photos which would be later considered the shared visual history of the Great Depression [11]. His

work alongside his attitude towards reality, made him the pioneer of the documentary property of the photography we seen today.

Man Ray on the other hand was a pioneering photographer of avant-garde photography. He contributed a lot in the Dadaism and surrealist movement through the form of photo [12]. In his lifetime, he experienced with making "cameraless" pictures and pursuing modern art in fashion and portrait photography [13]. His efforts paved the path of modern art in photography and led the way for later artists to experiment on.

Lastly, Steve Sasson, former technician of Kodak, who invented the first working prototype of digital camera [14]. From then on, the age of the digital camera exponentially grew and taking photo becomes more convenient than ever.

E. Framework

The basic structure of the project is relatively simple. The computer part where the game actually runs and a camera on a tripod which will be modified to have the functions of a controller.

The main game is ran on Unreal 4 engine, and each picture taken will be stored in the game to be displayed.

The camera controller part are assembled with several components. A gyroscope and accelerometer which will calculate the orientation of the camera and input camera changes accordingly. A joystick that is connected to the bottom of the tripod. When moving the tripod, the movement will be transformed into movement instructions in game. A Proximity switch that will detect the close-up action to the viewport. And a switch bedded inside the camera that will react to the shutter action.

F. Implementation and evaluation

As shown in the demo video, the project is available for play and can offer the objective experience to some extents. The game could be totally controlled by the camera but the game itself only finished one scene.

Due to social factors and the overwhelmingly large amount of time spent on researching, the final product didn't fully realized the narrative part. Only one of the seven scenes is fully recreated with graphical limitations. Due to difficulties in finding appropriate resources and limits of my own computer's power, the final rendering is not well performed and occasionally crashed the computer. Due to inappropriate time arrangement, most of the narrative parts are dropped from the project and even though two more scenes are under construction, only one scene can be fully played.

However, the physical part of the project is achieved. The camera controller works fine and could achieve most of the functions considered in the beginning. It is capable of providing the player the experience of using a film camera in general.

G. Concluding remarks and future perspectives

The overall result of the project achieved what was proposed in the beginning. A self-contained experience with a cully camera control is realized. Yet the most content enriched part of the narrative story is unfinished and left out. This was due to a fatal mistake in time arrangement which cost me most of the time into researching the history of photography instead of making the project itself.

In future projects, a better project management is a must to improve. Time arrangement must be better written and strongly executed to avoid time consuming blackholes like the researching in this project. The project itself might still have chance of refinement. The left scenes could be built and voice narration could be recorded given enough time. The interactions currently are still weak and could be better improved by means like more gameplay mechanics and better stage design. Overall, this project still have unlimited potential of improvement.

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