SP.757 Final Project
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Idea

The idea of my final project stems from a project assigned to us during the term. The project was milk drop, and the goal of it is to photograph image formed the instant a drop of liquid (preferably milk) strikes a surface full of that liquid. The idea image would be a ring of droplets bounces out due to the momentum of the original droplet. Many photographer has attempted at this, my motivation for making this my final project is my desire to take a series of pictures that shows the formation of the crown shaped surface.

Preparation

During the term, I used water instead of milk for the drop because when I compared shots taken, there were more detail shown in the water droplets than there were for milk. After I consulted with the instructor, I realized that a diffuser is needed to make the milk drops more visible. With that in mind, I decided to use milk for the final project. The apparatus used is the milk drop equipment provided in the digital darkroom.

Shooting

All the pictures were taken by a Kodak Z510 Digital Camera. The camera was mounted on a tripod to avoid blurry shots. In a traditional film camera, usually there is a mode that allows the shutter to be opened for an extensive period of time. The mode is very good at taking milk drop pictures. For my digital camera, although there is a manual function in which the user can adjust the aperture and the shutter speed, it lacks the mode that keeps the shutter open. I decided to use a 6 second shutter speed to compensate: the interval between drops rarely exceeds six seconds, this implies that when the shutter opens, it will capture the image shown when the flash is activated, provided that I'm fast enough to press the button on the apparatus to activate the flash.

Initially, there was some problem with the focusing feature on the camera. Since this is not a professional camera, it lacks manual focusing. In the dark, the camera loses focus automatically. My solution was to open the shutter when the light is on, then turn it off immediately after I presses the shutter, that way I can keep the non-flash exposure to a minimum.

Problem also arose when I could not find a diffuser in the digital darkroom. (It may be there, but I don't know the shape of it.) This problem was solved when I decided to use other materials to mimic the function of a diffuser. First I used a white plastic bag, but it was too translucent. Then, I used a standard 8.5in x 11in printing paper. It worked well. The details of the droplets were shown, though a bit dark due to the thickness of the printing paper.

I tested the timer to find the moment the crown appears, from there, shots were taken as I turn back the timer so the camera can capture the process of the formation; Shots were also taken as I turn forward the timer so the camera can capture the disappearance of the crown. The shots were satisfactory: in some shots, one can clearly see the droplet before it hits the liquid surface, and in others, one can see the waves formed when the crown shaped ring drops back to the the liquid.

Photoshop

The pictures was transferred to a Windows machine to be photoshopped. When I was choosing a style for the project, I decided to go with black and white to contrast the shadow from the milk. It was successful. First I switched the picture to greyscale mode to rid them of colors; then I adjusted the black and white levels to distinguish the shadow from the white colored milk.

Printing

The printing of the pictures was done in the digital darkroom using a MacIntosh computer and an Epson printer that prints from a roll of paper. The quality of the prints are good, but most prints were darker than how they seem on the screen, the problem may be uncalibrated monitor or printer.