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CREATING PINHOLE CAMERAS AND IMAGES WITH LIMITED RESOURCES

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CREATING PINHOLE CAMERAS AND IMAGES WITH LIMITED RESOURCES

by

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A thesis submitted in partial fulfillment of the requirements
for graduation with Honors in the Art, Studio

Jeff Rich
Thesis Mentor

Spring 2017

All requirements for graduation with Honors in the
Art, Studio have been completed.

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With climate change, over-population, and resource depletion in mind, I decided to explore what photography might look like in an apocalypse-like situation. High-end DSLR cameras have become ubiquitous in photography today but they are not the only means of producing photographs. In my honors project, I examine how images can be created with even the most limited technology.

To simplify photography as much as possible, I researched pinhole photography, which was first used in the mid-1800s. By creating a small enough aperture with a tool such as a pin, an image could be projected onto a film plane. This was the perfect technique for my research, because pinhole cameras did not require a lens, viewfinder, or a shutter more complex than a piece of black tape. I could easily construct a pinhole camera even in the most limited conditions. I found containers in various locations and fashioned them into pinhole cameras using tools I either borrowed or previously owned, staying true to my apocalyptic theme. I purchased only \$15 worth of new materials to construct the cameras. Even the books I used for research were either purchased secondhand or borrowed from the library. To record the images, I used 5x7" sheets of semi-matte low contrast Arista.Edu darkroom paper as my negatives in the larger cameras. In the small camera, I used both 100 ISO 35mm color and monochromatic film.

Through my project, I identified exactly what tools were needed, at minimum, to make a camera that could produce a photograph. I also learned how to precisely measure the pinhole and focal length for the clearest focus. Beyond this, the process was not highly rigid. Many of the components could be improvised using items already in my home: black electric tape to make the camera light-tight, a magnet for an impromptu shutter, previously-used film canisters as take-up reels. Each pinhole camera had its own unique flaws, but they were relatively minor considering their makeshift quality. Shooting perfect images with the cameras, though, was nearly impossible. While virtually any container that could be made light-tight could be fashioned into a camera, they lacked the conveniences of modern cameras. Yet, each of these limitations tested my knowledge and ability as a photographer like never before.