Report Guidelines

- ***Because this assignment will be graded using GradeScope, it is imperative that provide the answers in the designated space on each slide****. Do not add additional pages or make changes to the template. Assignments can not be graded if answers appear in the wrong location.*
- ***Instructions are provided in the "speaker notes" section of this template. Sample answers are provided in "blue" in this section.***
- *We like images, but resize each image to 2MB or less before pasting them into the template to reduce file size and make grading easier.*
- ***We expect thoughtful answers*** *that provide clear explanations. Short, simplistic answers will not receive full credit. You may need to do research beyond just watching the class videos and reading the technical resource papers.*
- *When you are done, convert your template report to PDF* ***and then check it!*** *Students often end up with lines cut off on page bottoms. We can only grade what appears in the report.*

DELETE THIS SLIDE BEFORE YOU SUBMIT

Computational Photography

Assignment #2: Epsilon Photography

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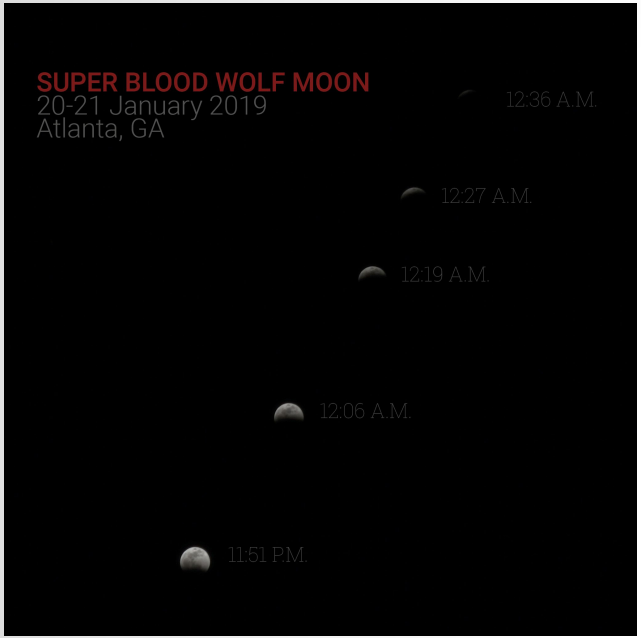
Spring 2019

Epsilon Project Overview



Final Artifact

Description:

- These photos of the moon before and during the 2019 lunar eclipse clarify how the moon looks during penumbra through the epsilon change of time passing.

Project Discussion

- What is your epsilon parameter? Time
- Location of pictures? Atlanta, GA
- Date and time? 20-21 January 2019 from 11:59 P.M. through 12:36 A.M.
- How did you control the settings, the environment, and the camera to meet your epsilon requirement?
    - I set all camera settings to manual, and set it atop a tripod next to a pillar. It was very cold and windy outside, so the setup was ideal for keeping the camera out of the wind and myself out of the cold.I kept an eye on the gathering crowd to ensure that nobody bumped into my camera, and I paid attention to the time to take a photo roughly every 15 minutes.

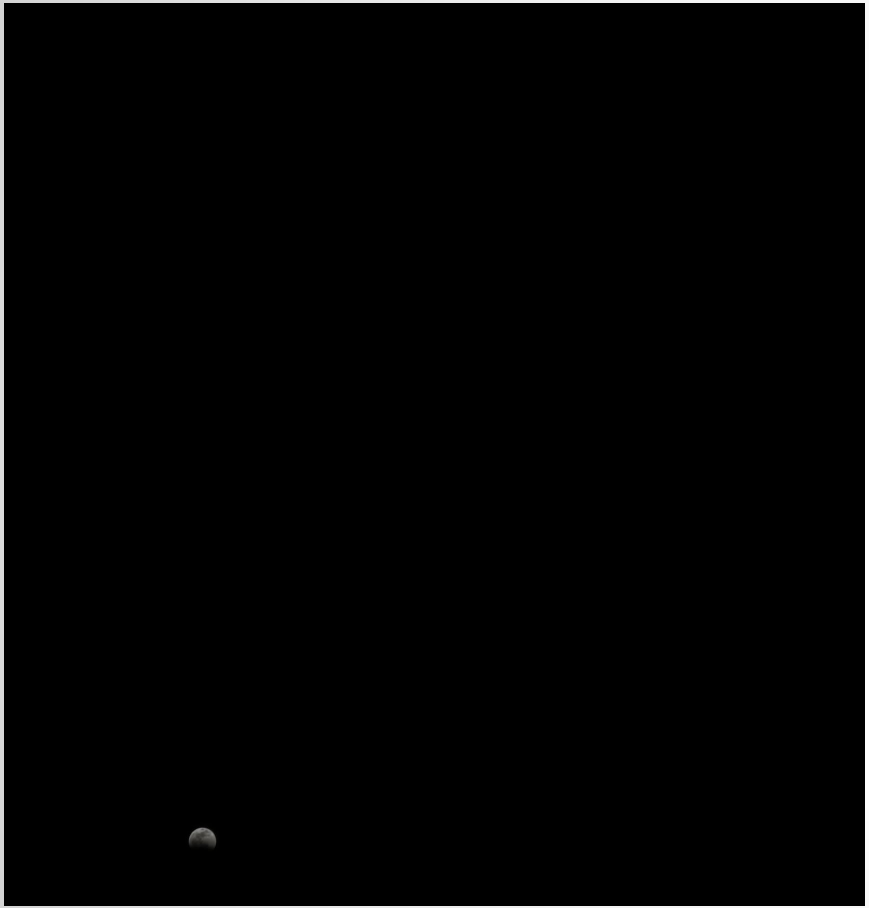


Image 1

Description:

Photo of the moon entering penumbra at 11:51 PM

Camera settings:

- *Exposure Time: 1/15 sec.*
- *Aperture: f/36*
- *ISO speed: 50*
- *Focal length 70mm*

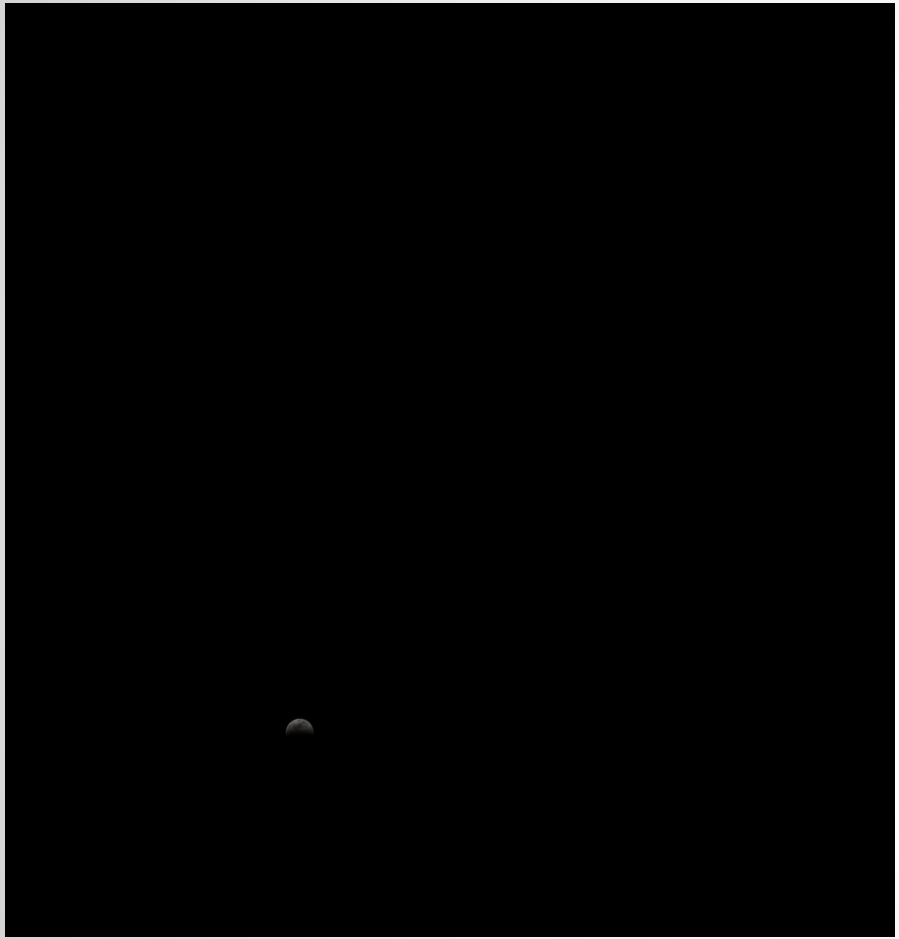


Image 2

Description:

The moon at 12:06 AM

Camera settings:

- *Exposure Time: 1/15 sec.*
- *Aperture: f/36*
- *ISO speed: 50*
- *Focal length 70mm*

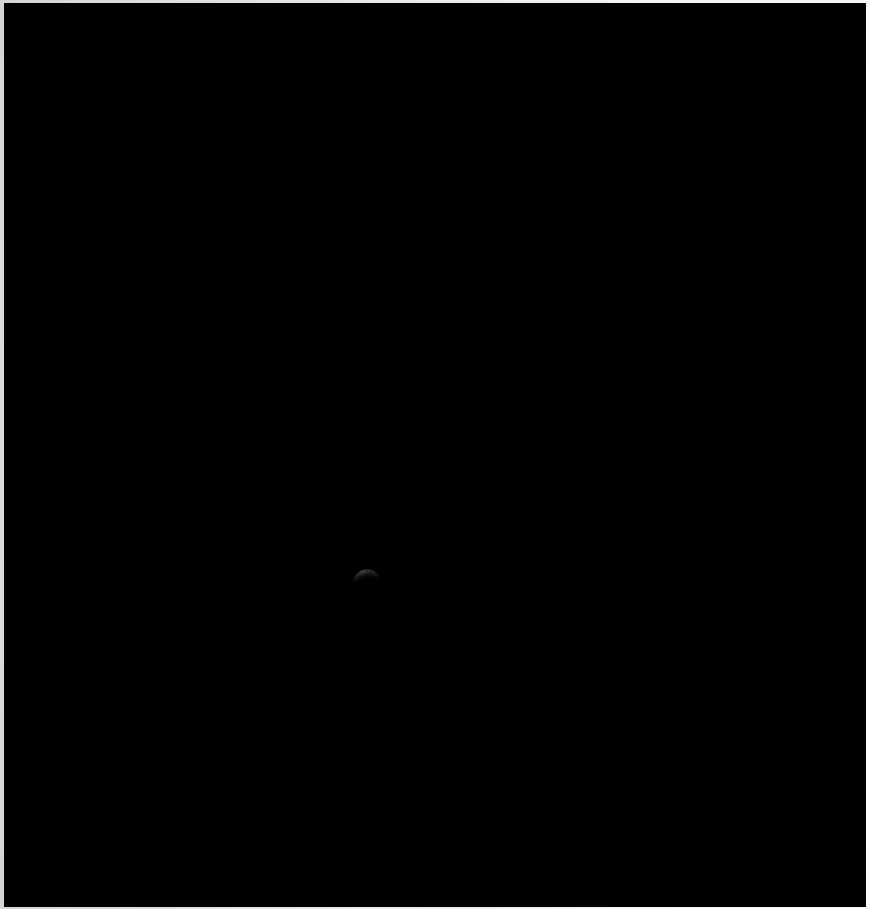


Image 3

Description:

The moon at 12:19 AM

Camera settings:

- *Exposure Time: 1/15 sec.*
- *Aperture: f/36*
- *ISO speed: 50*
- *Focal length 70mm*

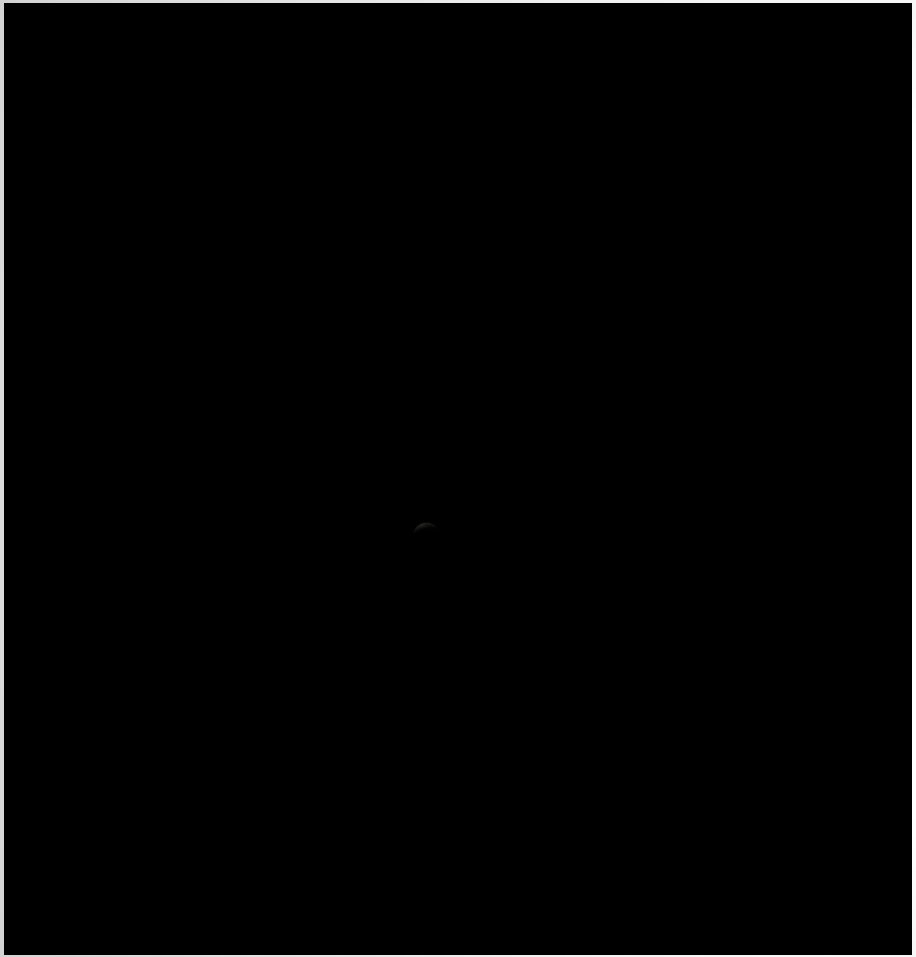


Image 4

Description:

The moon at 12:27 AM

Camera settings:

- *Exposure Time: 1/15 sec.*
- *Aperture: f/36*
- *ISO speed: 50*
- *Focal length 70mm*

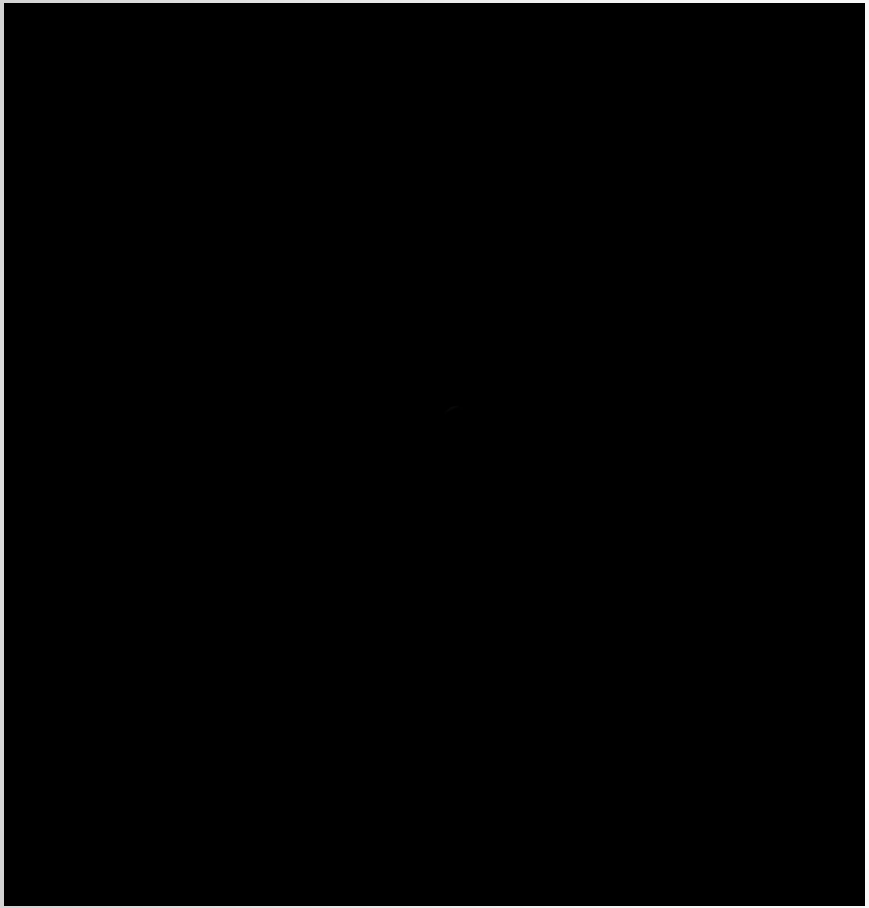


Image 5

Description:

The moon at 12:36 AM

Camera settings:

- *Exposure Time: 1/15 sec.*
- *Aperture: f/36*
- *ISO speed: 50*
- *Focal length 70mm*

Image 6

Description:

Camera settings:

-

Image 7

Description:

Camera settings:

-

Image 8

Description:

Camera settings:

-

Final Artifact

Link :

Final Artifact Details

Discuss how your artifact demonstrates your epsilon.

- *I used Photoshop CC 2018 to compile, manipulate, and add information to these photographs. I added the images to a blank black square, set them each to the screen blending mode, brightened them, heightened contrast, scaled them to be larger, and added text to complete the final product. I could have made an animated GIF or interactive flash applet to differently display the status of the moon at different times, though I do not feel this would have improved the final artifact.*

Project Retrospective

- In what ways was your project successful?
  - The photographs accurately depict the appearance of the moon at the different times listed, and I was proactive enough to find a spot where I could leave my camera at the right place and time to create a consistent epsilon photography artifact.

- If you were to repeat the project, is there anything you do differently knowing what you do now?
  - I would have taken more photographs at shorter intervals, and I would have captured the moon during its umbra phase to better show the event.

Other Details

- *If I had done more research beforehand, I could have figured out a better angle and better settings for my camera to capture the moon during its umbra phase. While I did take separate photos of the moon in umbra, they varied in settings and were not valid epsilon photography artifacts.*

Above & Beyond *(Optional)*

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- I used photos that I took of the 2017 solar eclipse and attempted to apply several epsilon photography composite techniques to the series. Despite including multiple varying factors and thereby excluded from being a by-the-book example of an epsilon photography artifact, the final image allowed me to test several techniques in photo compilation. I manually adjusted the scale of each image and warped them in Photoshop CC 2018, then slightly adjusted the colors of the images in the final artifact to better indicate the phase of the solar eclipse the photo was meant to represent. Below is an earlier composite image I created before this assignment.

Above & Beyond *(Optional)*

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Resources

- ***https://www.jpl.nasa.gov/edu/events/2019/1/21/total-lunar-eclipse-and-supermoon/***
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