

INTRO TO DIGITAL PHOTOGRAPHY

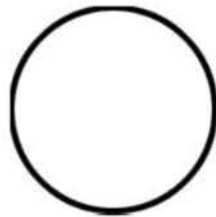
MassArt | Fall 2020 | Rebecca Morrison | Th 6:30-8:30pm

CLASS 2: 9/17/20

Below are some ordered pairs of f-stops and shutter speeds.

F-stops	F:1.4	F:2	F:2.8	F:4	F:5.6	F:8	F:11	F:16	F:22	F:32
Shutter Speeds	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4

APERTURE:
Smaller number = larger opening



KEY NUMBER:
Slower creates shake (blur)

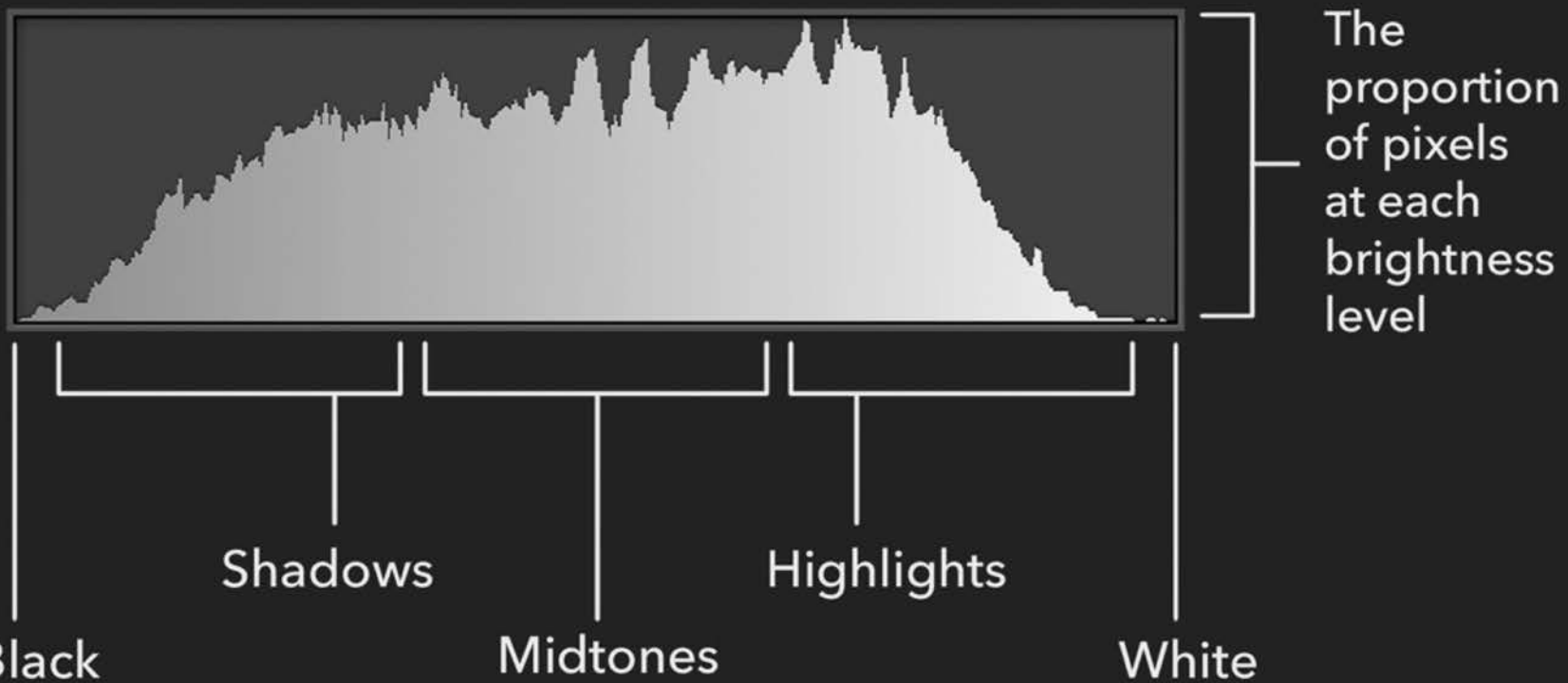
APERTURE:
Larger number = smaller opening



The above pairs would create a proper exposure for a particular lighting situation only:
in this case, outdoors on a bright but overcast day at around ISO 400

Camera Metering / The Histogram

The Anatomy of a Histogram



HOW YOUR CAMERA "SEES"

Camera Metering / Silhouetting

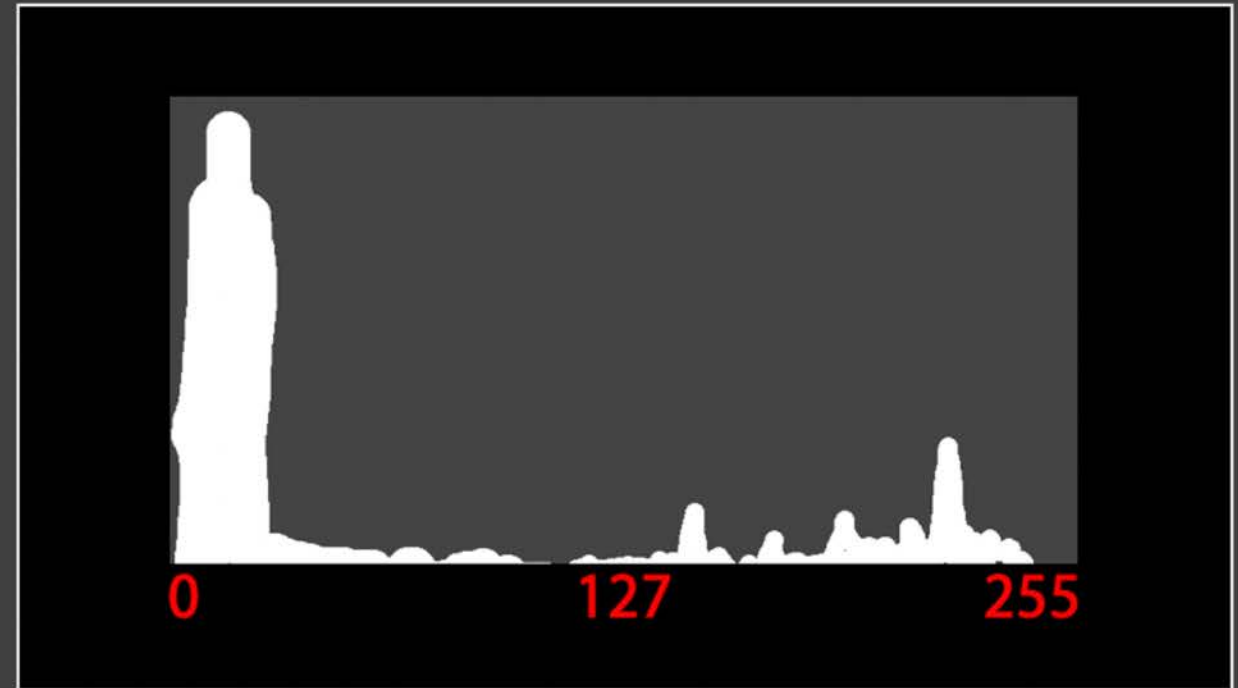


HOW YOUR CAMERA "SEES"

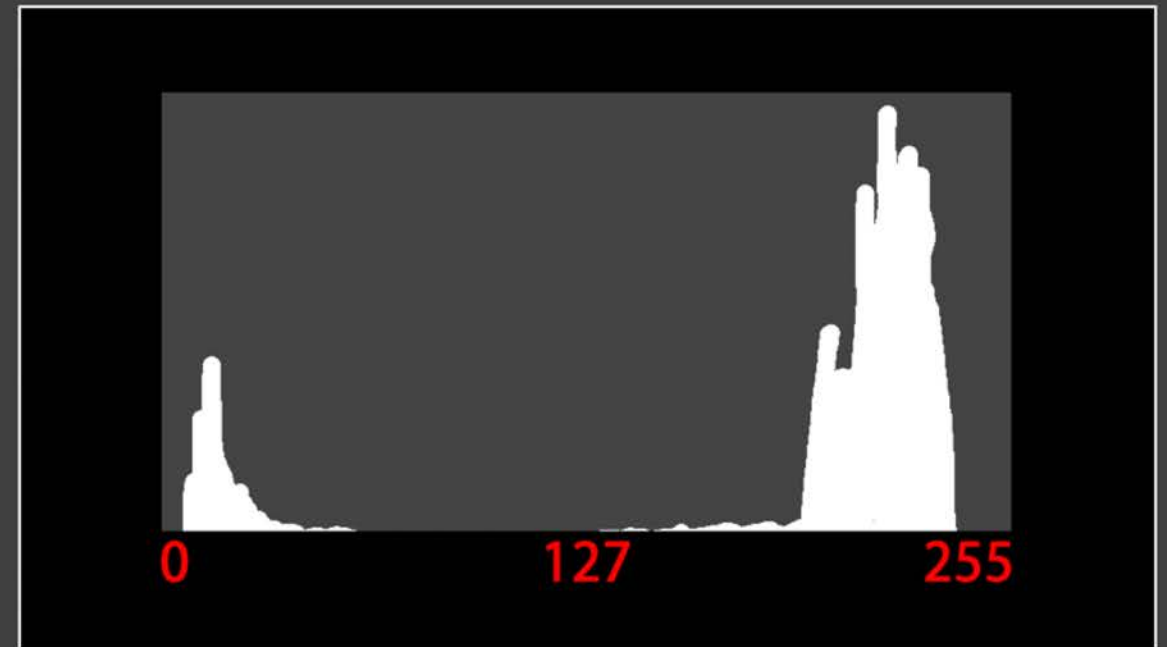
Camera Metering / "Blowing Out" Highlights



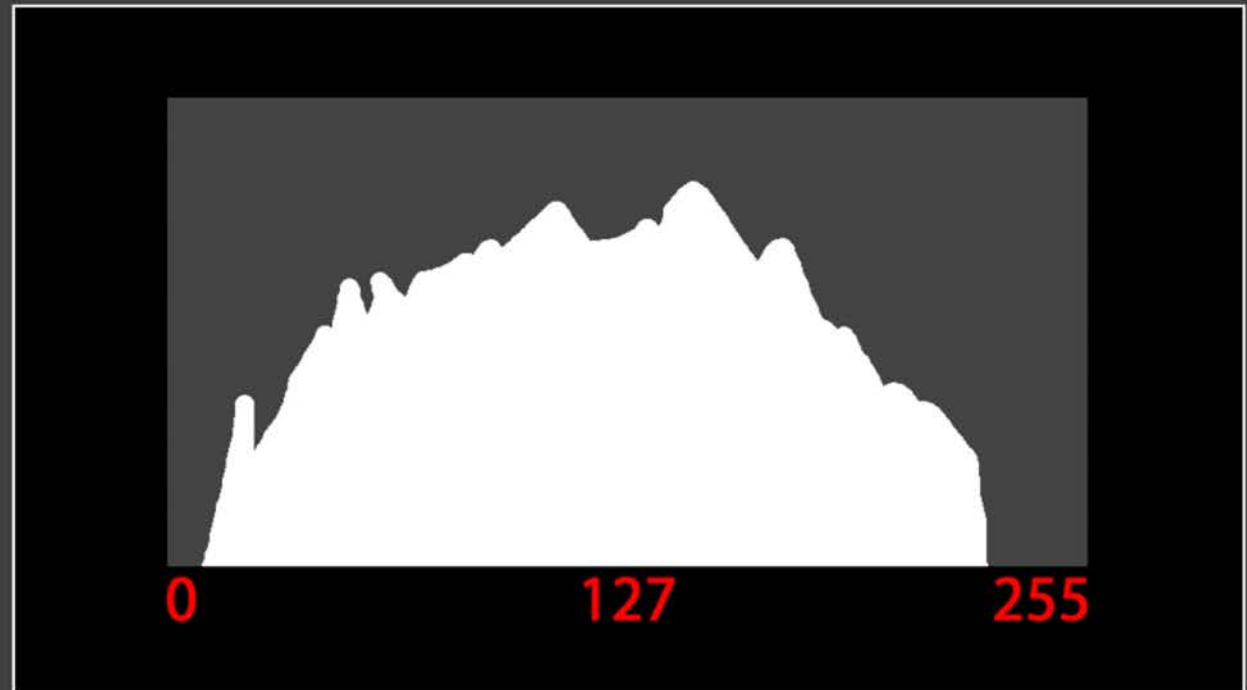
Camera Metering / The Histogram



Camera Metering / The Histogram



Camera Metering / The Histogram



DEPTH OF FIELD

=

The amount of the image, from foreground to background (depth) that is in *relatively sharp focus*.

*not to be confused with the FOCUS POINT.

THERE ARE 3 MAJOR FACTORS THAT CONTROL DoF:

1. Aperture

(the smaller the aperture opening [large f:stop number], the more DoF)

(the wider the aperture opening [small f:stop number], the less DoF—more *selective focus / bokeh*)

2. Focal Length of the lens

(the wider the focal length of the lens [“Zoomed out”] the more DoF)

(the longer the focal length of the lens [“Zoomed in”], the less DoF—more *selective focus*)

3. Distance of camera to subject

(the further away the subject, the more DoF)

(the closer the subject, the less DoF —more *selective focus*)

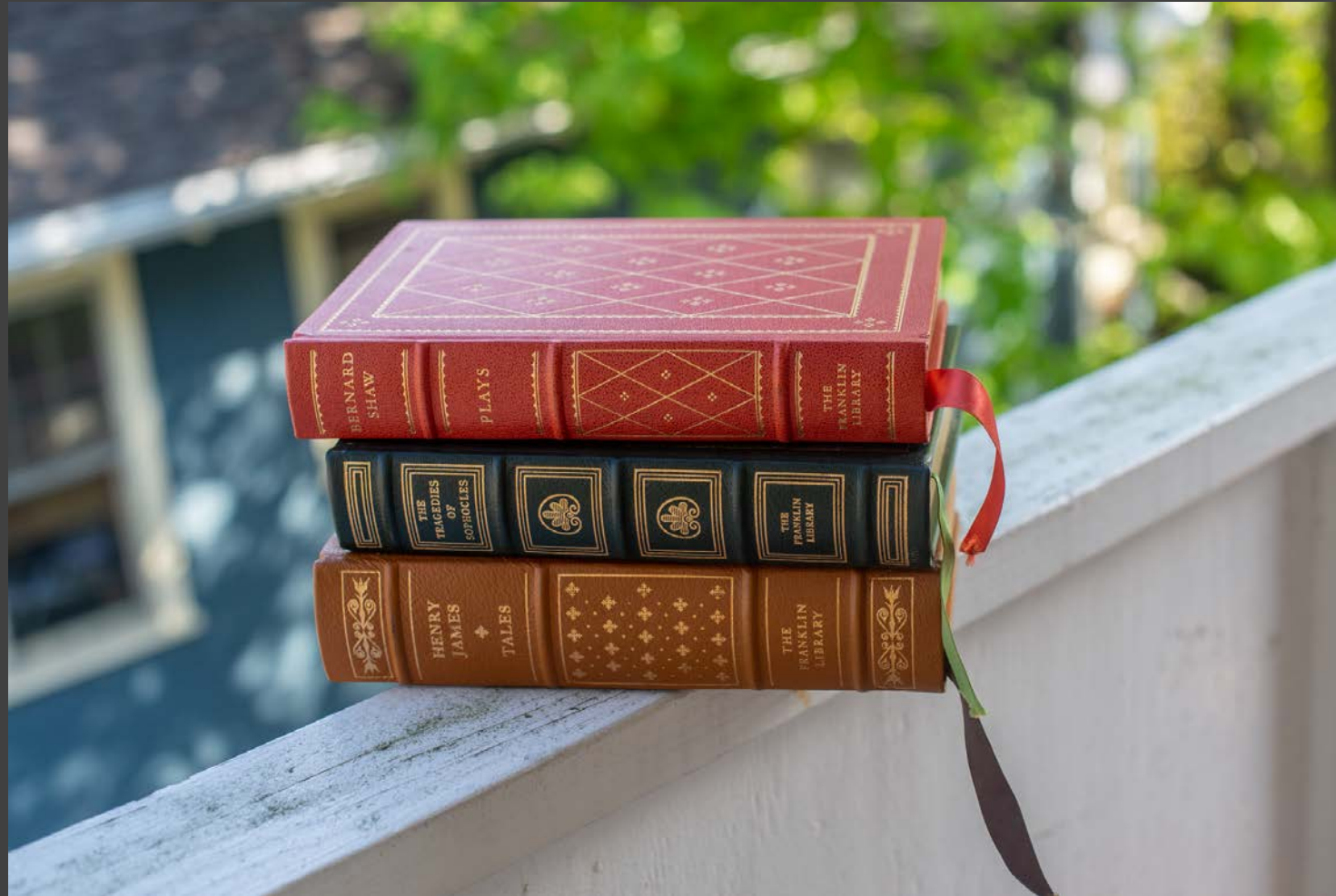
DoF: Aperture

F1.4: Minimum DoF



DoF: Aperture

F5.6: More DoF



DoF: Aperture

F11: Even MORE DoF



DoF: Distance and Focal Length

14mm wide-angle prime lens, f:2.8



DoF: Distance and Focal Length

50mm **normal** prime lens, f:2.8



DoF: Distance and Focal Length

180mm telephoto prime lens, f:2.8



DoF: Distance and Focal Length



14mm wide angle

DoF: Distance and Focal Length



50mm normal

DoF: Distance and Focal Length



180mm telephoto

DoF: Distance and Focal Length

50mm **normal** prime lens, f:2.8 – at approximately 8 ft. away



DoF: Distance and Focal Length

50mm **normal** prime lens, f:2.8 – at approximately 5 ft. away



DoF: Distance and Focal Length

50mm **normal** prime lens, f:2.8 – at approximately 2 ft. away



DoF: Distance and Focal Length



DoF: Distance and Focal Length



DoF: Distance and Focal Length

