Queens College
Art Department / Photography & Imaging
PHOTO 245
Digital Pinhole Imaging & Large Format Printing
Prof. Greco

Assignment #2 – Expose and Print:

EXPOSE
-Bring pinhole camera into darkroom and load with piece of 5x7 RC photo paper (shinier side toward pinhole). **CAUTION - DO NOT HANDLE PAPER OUTSIDE OF DARKROOM**
-Close camera – close shutter – head to shooting area – choose exposure time

Bright sunny day will be around - 2min
Cloudy day will be around - 15min
Notice the large difference between exposure times on a sunny and cloudy day.
-Use exposure guide on pg. 2 to find exposure starting point for unusual weather

-Make your exposure
-Return to darkroom and unload your paper. Follow development directions below:

DEVELOP
-Place print face down in tray, submerge completely, agitate tray by gently lifting corner
-Develop for roughly 90 sec or until desired density is reached
-Lift print out of tray with **correct** tongs; allow excess chemistry to drip off

STOP BATH
- Place print face down in tray, submerge completely, agitate tray by gently lifting corner
-Stop bath for 10 sec
-Lift print out of tray with **correct** tongs; allow excess chemistry to drip off

FIX
- Place print face down in tray, submerge completely, agitate tray by gently lifting corner
-Fix for25 minutes
-Lift print out of tray with **correct** tongs; allow excess chemistry to drip off

WATER WASH
-Place print in print washer for 10 minutes
-Print washer has two sides, one inside the darkroom and one outside. To retrieve print **knock twice on outside part of print washer** to alert the darkroom you are opening the lid, open lid and retrieve print
-Squeegee print over sink and hang to dry

INSPECT
-See if your image has the correct density – not over or underexposed – if over or underexposed load another paper, change time and make another exposure.

If too light add time – if too dark remove time. **You need 2 final captures for scanning.**

Relative F-Stop

Camera Length	Needle Size	Diameter of hole	Relative f/stop
8"	8	.023"	f/350
6.5"	9	.020"	f/300
5"	10	.018"	f/280
4"	12	.016	f/250
2.5"	13	.013	f/190

or you could use this formula...
dia/focal length

Pinhole Exposure Guide

Making exposures?...Start here

Weather Conditions	f/stop	Photo paper	ASA 125	ASA 400
Bright or hazy sun. A scene with light sand or on snow.	250 300 350	17 seconds 29 seconds 44 seconds	1 second 1.6 seconds 2.5 seconds	1/4 second 1/3 seconds 1/2 second
Bright or bright-hazy sun. The shadows are distinct (sharp) Your typical nice, sunny type day.	250 300 350	49 seconds 1.3 minutes 2.1 minutes	2.8 second 4.6 seconds 7.1 seconds	1 second 1.25 seconds 1.5 seconds
Weak or hazy sun. The shadows aren't distinct (soft) An OK type day.	250 300 350	2 minutes 3.3 minutes 5.1 minutes	6.7 seconds 11 seconds 17 seconds	1.3 seconds 2.2 seconds 3.4 seconds
Cloudy. But bright! No shadows No sun. No rain.	250 300 350	5.4 minutes 9 minutes 14 minutes	18 seconds 31 seconds 47 seconds	3.6 seconds 6 seconds 9.2 seconds
Open Shade or heavily overcast No shadows Either a grey day or in the shadow of a tall building	250 300 350	14 minutes 23 minutes 36 minutes	47 seconds 1.3 minutes 2.0 minutes	9.2 seconds 15 seconds 24 seconds
Dawn or Dusk Dark out here... Like it says. Early morning or early evening	250 300 350	38 minutes 1 hour 1.6 hours	2.1 minutes 3.5 minutes 5.4 minutes	25 seconds 42 seconds 1 minute