Special Techniques

Chapter 13

Close up

- Possible to enlarge a portion of a negative to make "large," but quality poor
- Normal lens can't get closer to subject than min. focus, usually about 1.5 feet
- Normal imaging will not go less than about 1/10 lifesize (film image:object image)
- Depth of Field very shallow with closeups
- Normal photography ranges from 1:∞ to 1:10.
- From 1:10 to 50:1, imaging is macrophotography
- From 50:1 to ∞:1, imaging is microphotography

3 Ways to enter “Macro” World

- Put “glasses” on camera lens
- Buy special lens for the purpose (macro lens)
- Move lens away from camera with extension tubes or bellows extension

Macro Lens

- Will take only close up pictures
- Highest quality images
- Most expensive
- Useful for those who spend much time in closeup world
- Does not have distance measurement on lens, but rather shows reproduction ratios
- Method: take off regular lens, install macro lens
- Some zoom lenses have macro capability

Supplementary Lenses

- Add to outside of lens
- Magnification measurement in diopters
- If 1 diopter is attached to lens that is focused at infinity, combination focused at 1 meter (39.4”)
- 3 diopter would focus at 1/3 meter, etc
- Diopters can be stacked, added
- Not as good quality as macro lens, but also not as expensive.

Extension Tube/Bellows

- When lens is focused on an object close, the distance from lens to film gets larger
- To make even closer image, separate lens from body at a longer distance with tube
- Extension tubes come in sets to give increments of focusing range
- Bellows units are similar, but offer continuous focusing range, not increments
- Tubes/bellows fit between lens and body

Problems with Extreme Closeups

- The farther the lens is moved from the lens, the less light that gets to the film
- Called a bellows factor
- Can be calculated (but you don't need to!)
- Exposure increase is needed to compensate for light loss

Other special techniques

- Photogram--placing objects in contact with paper or film
- Sabattier--reexposing print to light during processing. Follow controlled directions
  - Intersection of light and dark areas has a white line formed called a mackie line
- Litho/line film makes high contrast images with only blacks, whites. All prints for printing with ink are made on litho materials.