

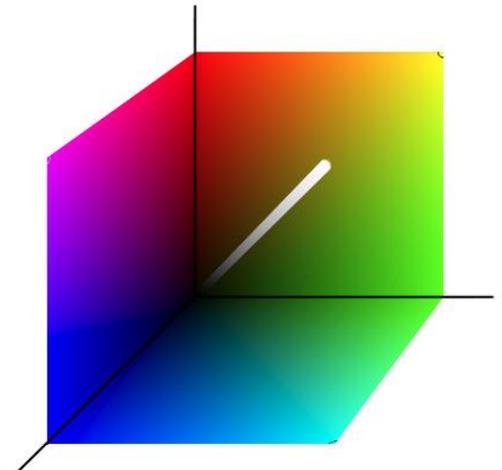
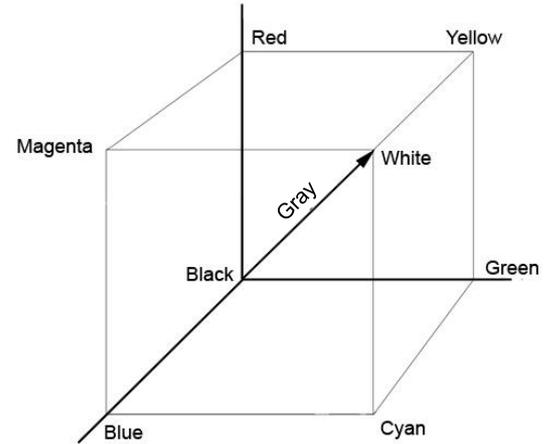
Printing Black and White

Black and white photography abstracts things and I like that.”
Henri Cartier-Bresson

“What sets black and white apart from color is that it is not the way
we see the world, and it does not pretend to represent reality.”
Michael Freeman

What is a B&W Image

- A B&W image is a neutral gray image ($R = G = B$).
- Some monochrome images may be toned with a single hue(eg, sepia toned).
- Multiple hues are used to create split tone images that are often seen in publications and galleries. More later.
- Spot toning is to add color to an element within the image (eg, rosebud).



Why Black and White?

- Color tends to be faithful to what most people consider to be visually real. Black and white provides an alternative visual world where everything is different than we normally experience it.
- Color provides information while black and white reduces an image to its essentials. Allows the graphic elements and dynamics to increase in importance.
- Removing the distraction of color simplifies and helps focus attention on the meaningful elements in a scene.
- Black and white allows more extreme manipulation and a greater freedom of expression than color before challenging one's sense of rightness.
- Black and white provides a creative choice emphasizing design, form, shape, texture and composition.
- Black and white is an important part of photographic history and is often associated with fine art photography.
- Consider B&W when have high contrast, color is essentially monochrome or inconsequential, color is distraction or if the image is graphic, and is high or low key

What Makes a Good B&W Image

- Extended dynamic range
- Deep, rich shadows with detail
- Bright highlights with detail
- Smooth mid-tones often with more contrast than color image
- Reduce image to most basic elements
- Emphasize graphic, abstract qualities
- Keep it simple
- Significant use of negative space
- High key, low key and IR all can be spectacular in B&W
- Remove unwanted elements and color cast



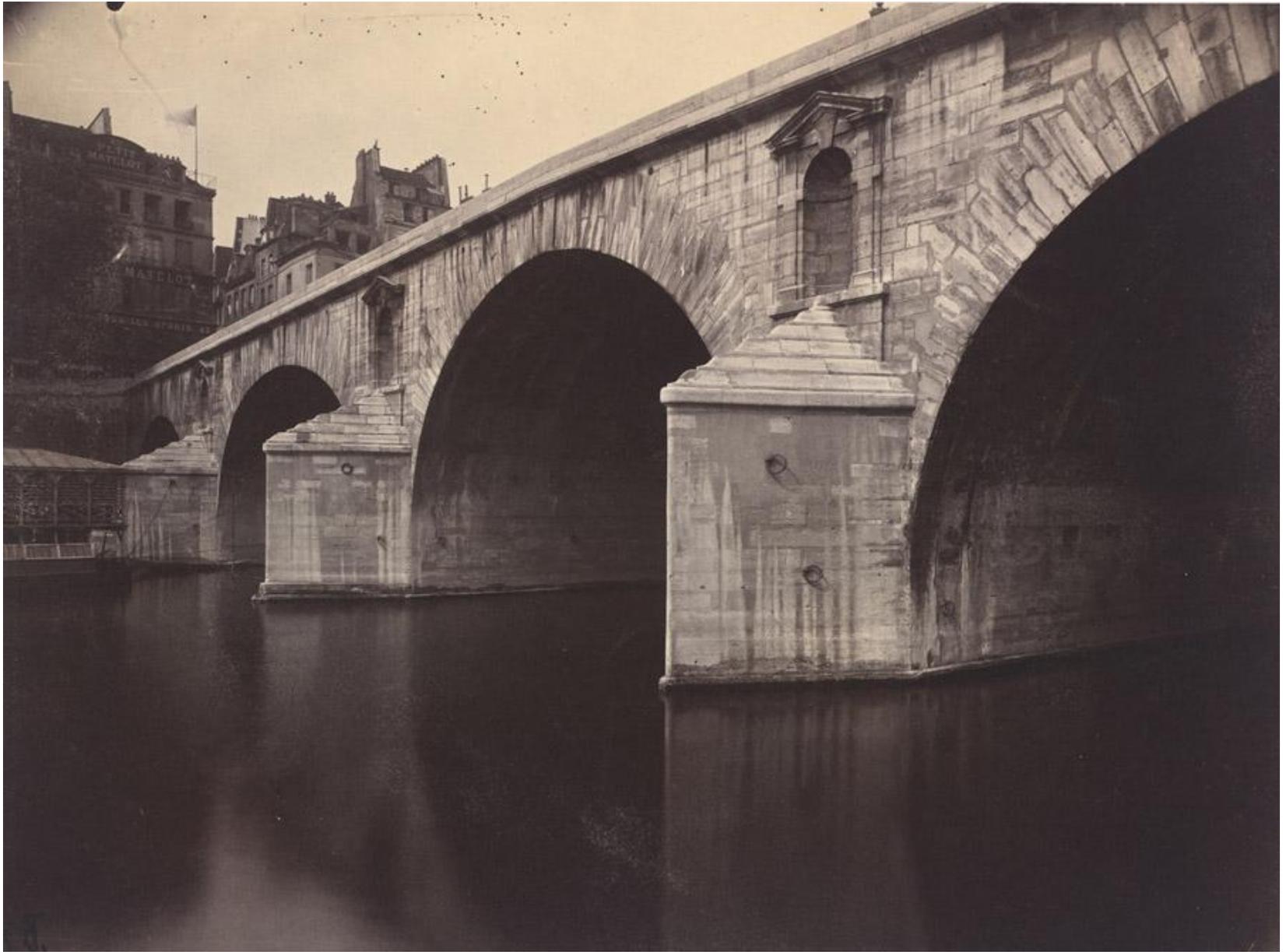
Ansel Adams



Harry Callahan



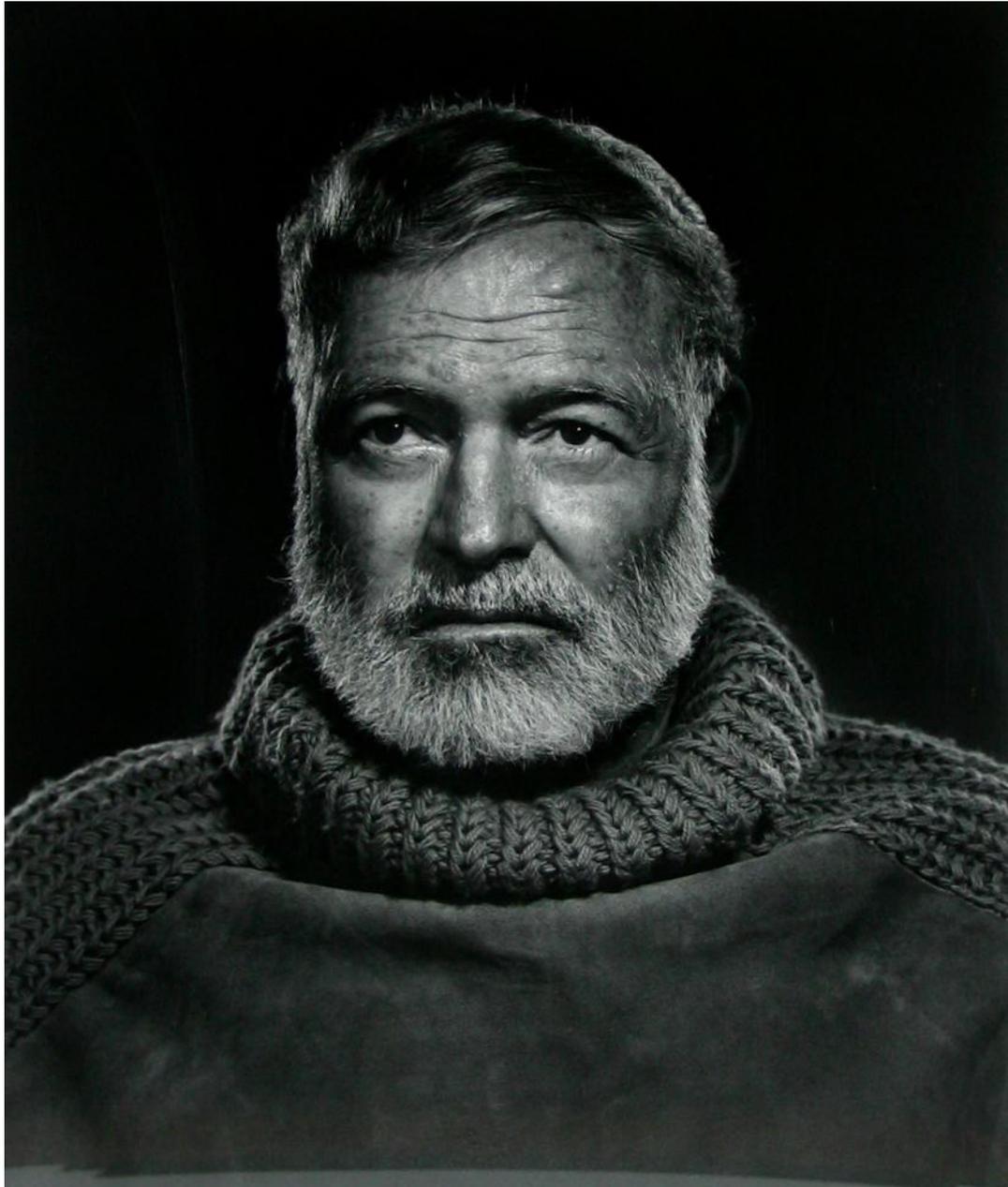
Michael Kenna



Eugène Atget



Harry Callahan



Karsh



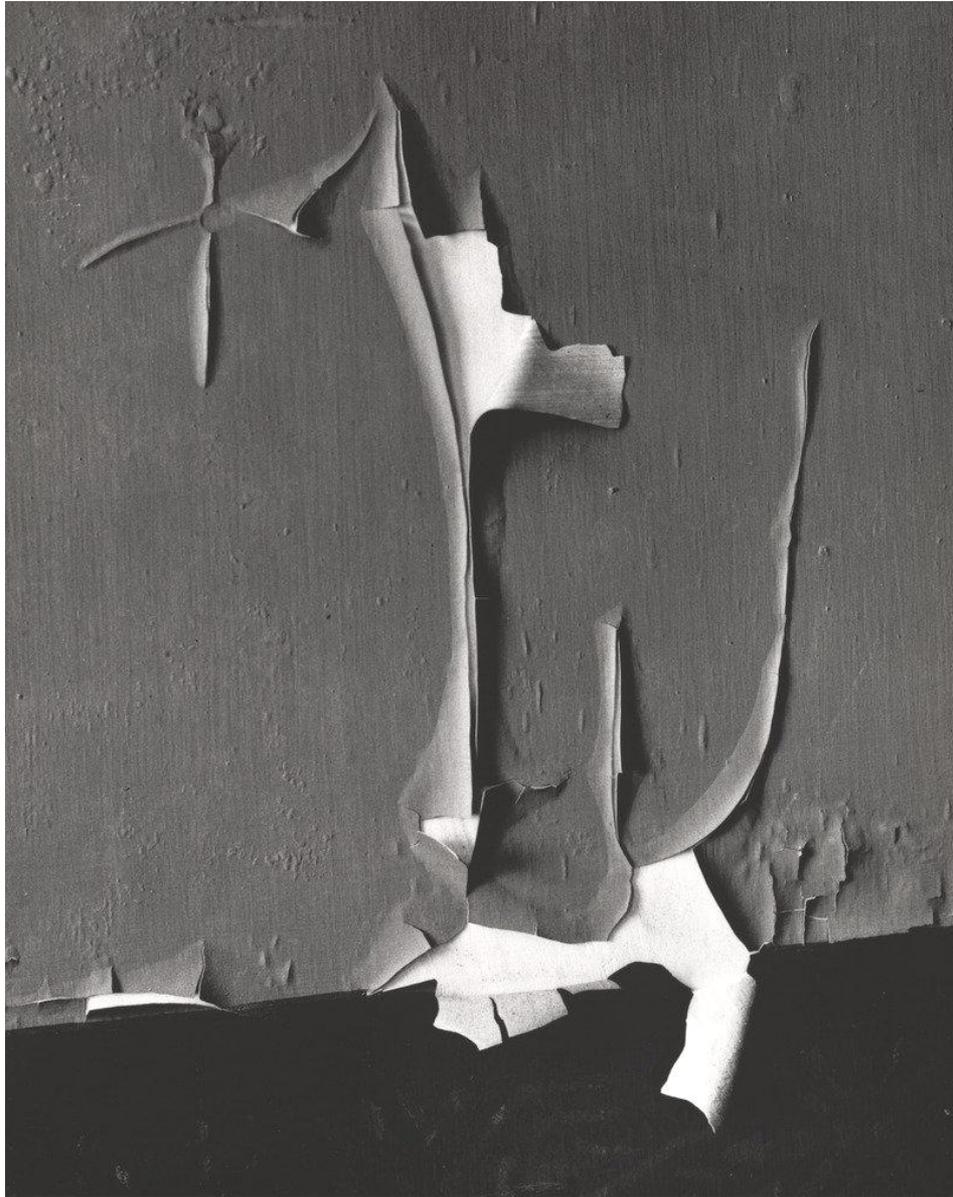
Paul Strand



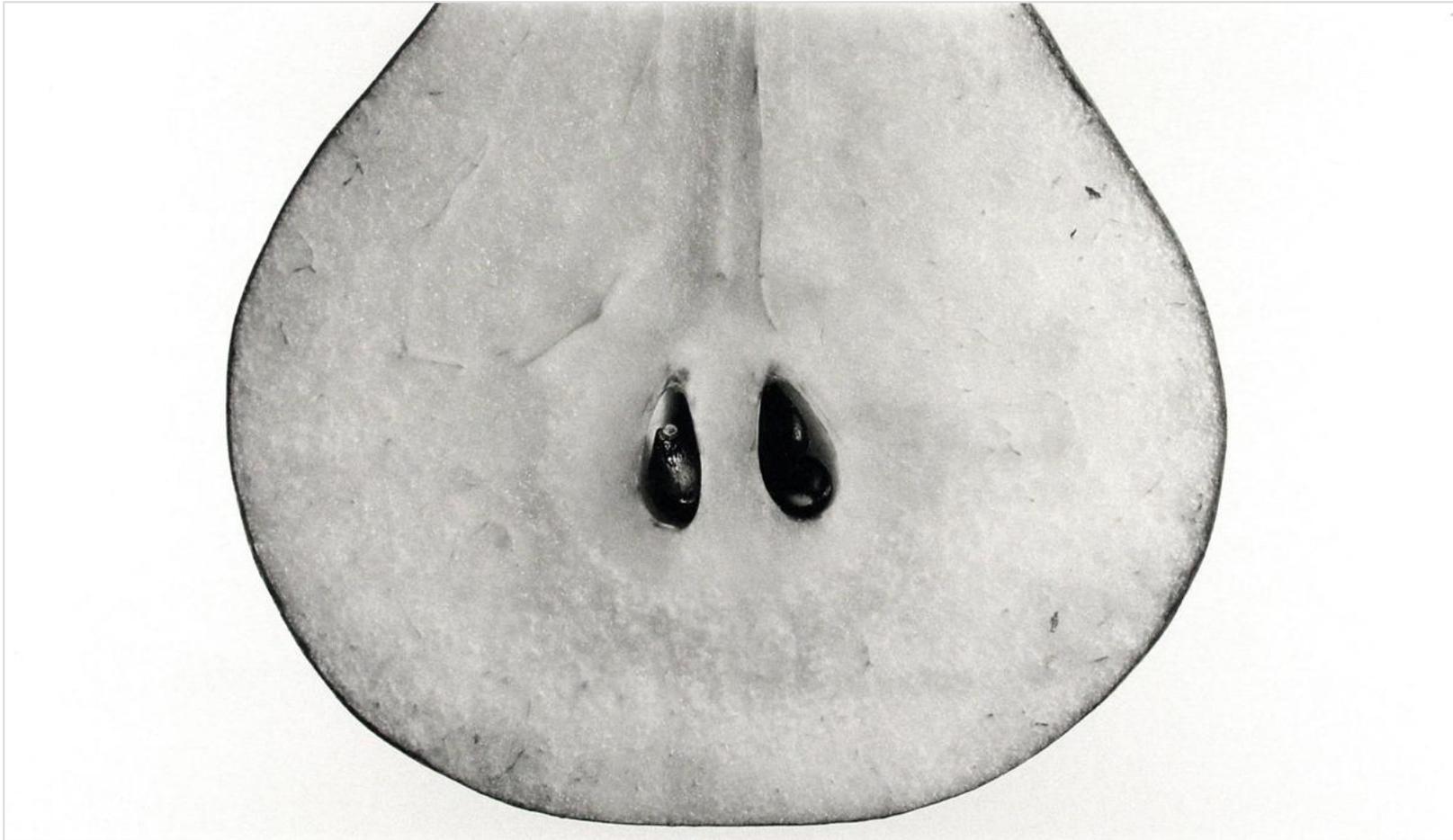
Julius Schulman



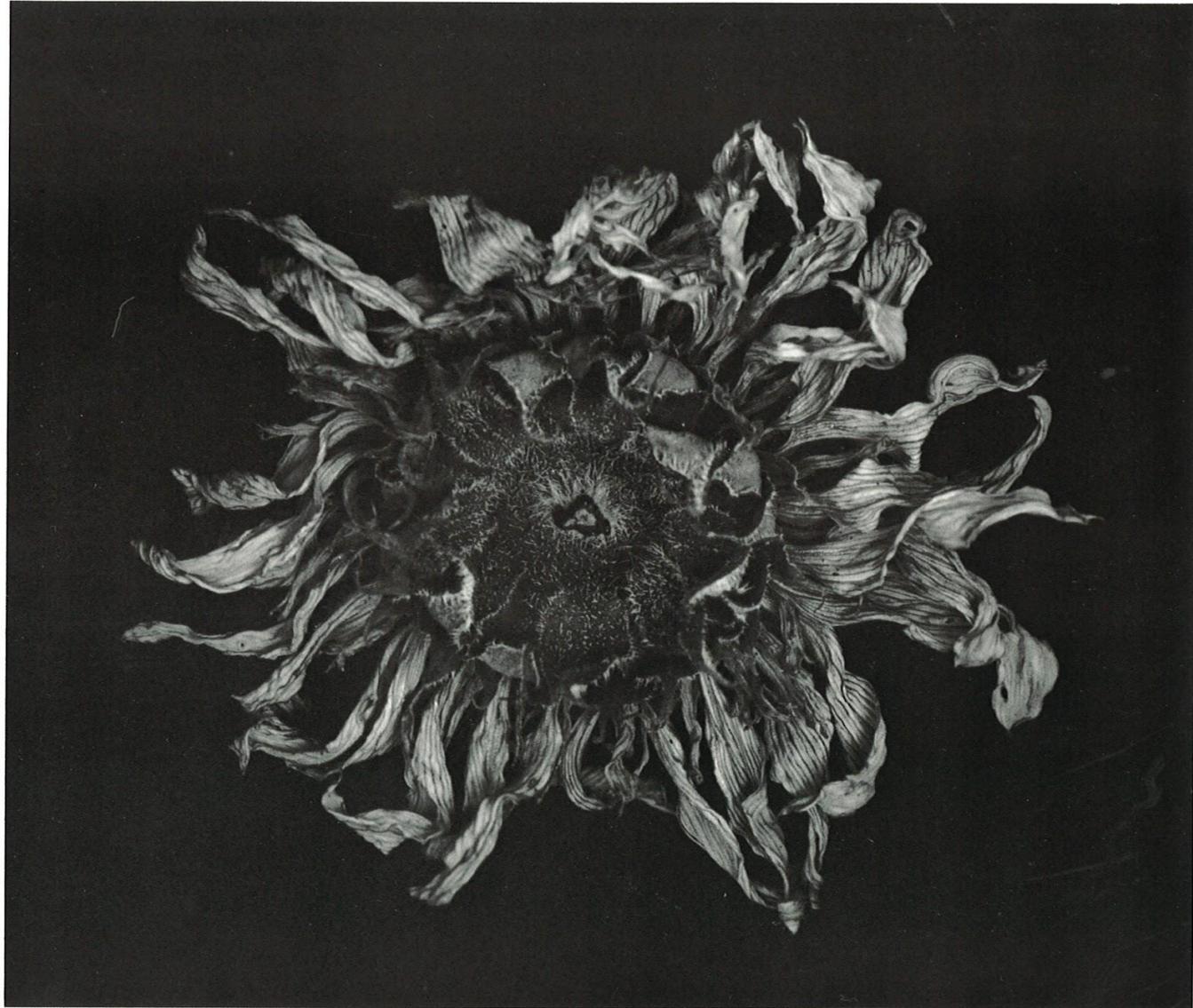
Hiroshi Sugimoto



Minor White



Irving Penn



Paul Caponigro



Andre Kertesz



Henri Cartier-Bresson



Margaret Bourke White



Edward Weston



Ansel Adams



Arnold Newman



Richard Avadon



Irving Penn



Nick Brandt

Black and White Workflow

- Camera settings – shoot color and convert to B&W
 - Selecting mono in camera displays image in black and white
 - JPEG - removes color, bakes in B&W conversion and 8 bit file
 - RAW - retains color, increased dynamic range, 16 bit file maximizing processing options. Preferred.
- Processing – Apply adjustments and convert to RGB B&W image in LR, PS or third party software.
- Tone image if desired
- Make paper specific adjustments
- Add print sharpening
- Print with LR or PS using ICC managed color or printer B&W mode if available

What file format should I use?

- Generally, do not convert to Grayscale mode (PS) which removes all color info and retains only the luminosity information. Limited to 8 bits.
- Stay in the RGB mode. When converting to B&W using LR, PS or most third party software, you will have a desaturated (neutral) RGB B&W image – R, G and B color numbers are equal. Use 16 bits if shooting RAW.

My Processing Workflow

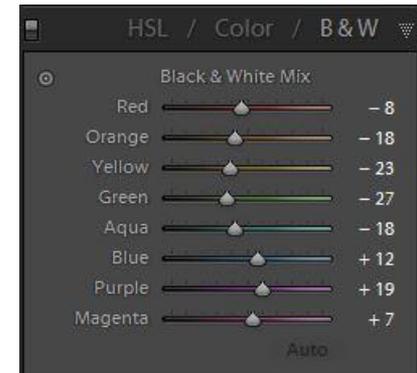
- This is how I do it. There are many variations on this theme.
- Start with 16 bit RAW file
- Prefer doing as much as possible in LR during RAW conversion. LR and PS ACR are powerful, provide maximum latitude, provide flexibility of processing RAW, and are reversible.
- LR is great for global adjustments. Not so good for local adjustments, but getting better with every release.
- Everything I do in LR can be done in PS or other software.
- Can use PS and third party to solve specific problems.

Processing Workflow

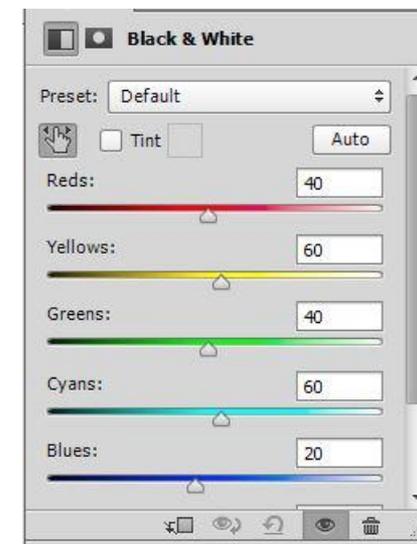
- Ansel Adams said that there is “great latitude for creative variation and subjective control” with “endless subtle variations which are yet all tied to the original concept.”
- Think about what you want out the image and make a plan of attack
- I like to start in LR optimizing the color image making global adjustments to RAW color image (using ideas discussed in last class).
 - Import defaults include lens corrections, import sharpening and noise reduction
 - White balance and tint
 - Set mid-tone exposure
 - Adjust clarity
 - Adjust tonality with contrast, and black and white points and maybe curves
 - Adjust shadows and highlights
 - Adjust vibrance and saturation (B&W mode ignores these adjustments)
 - HSL to tweak specific colors (B&W mode ignores these adjustments)
 - Revisit until like result
 - Remove defects with healing and clone brushes (PS works better for difficult cases)
 - Creative sharpening and noise reduction

Processing Workflow (continued)

- Make a virtual copy to use for B&W interpretation
- Use LR/ACR B&W to adjust grayscale brightness of various hues. LR conversion is flexible and reversible. PS B&W adjustment layer and third party processing software are working on pixels.
- Local adjustments to fix problems and add emphasis.
- Go to PS or third party software to solve specific problems.
- Save as RGB B&W image.



LR and PS ACR



PS B&W Adjustment Layer

Local Adjustments

- What draws the eye
 - In focus
 - Bright
 - Colorful
 - High contrast
 - More detail
- Emphasize desirable features and downplay distracting elements
 - In focus – sharpen or blur
 - Bright – lighten or darken
 - Colorful – increase or decrease saturation
 - High contrast - increase or decrease contrast
 - More detail – sharpening and clarity
- Sculpt with light to balance tones and emphasize features
- Burn edges

Photoshop's Strengths

- Eliminating problems with clone stamp, healing brush, patch tool and content aware move. Correct on new layer(s).
- Perspective correction using transform.
- Adjustment layers and masking for precise local adjustments with curves, sharpening, vibrance/saturation...
- PS will accept HSL adjustments from LR for B&W conversion
- Compositing with multiple images.

Common Conversions

- In camera – JPEG capture (Not recommended)
 - LR – HSL/Black and White, presets
 - PS – Adobe Camera Raw, *B&W adjustment layer, desaturate, channel mixer...
 - *Third party standalone or plug-in. Most of these have creative presets that can provide starting points.
 - Nik – Silver Effects
 - On1 – Perfect B&W
 - Topaz – B&W Effects
- * LR and PS ACR are so powerful there is little reason to consider alternative B&W conversion techniques. If interested, read *The Photographer's Black and White Handbook*, Harold Davis

Two Ways to Print B&W

Print as Color Image

- If your printer does not have B&W mode, print as you would any color image.
- Use ICC color profile based management
 - Printer tries to print neutral image
 - Most color profiles are not optimized for neutral gray
 - May have color cast that may need to be removed
 - Color cast may be paper dependant

B&W Print Color Casts



Blue Tint 7% Sat



Yellow Tint 7% Sat



Neutral

Green Tint 5% Sat



Magenta Tint 5% Sat

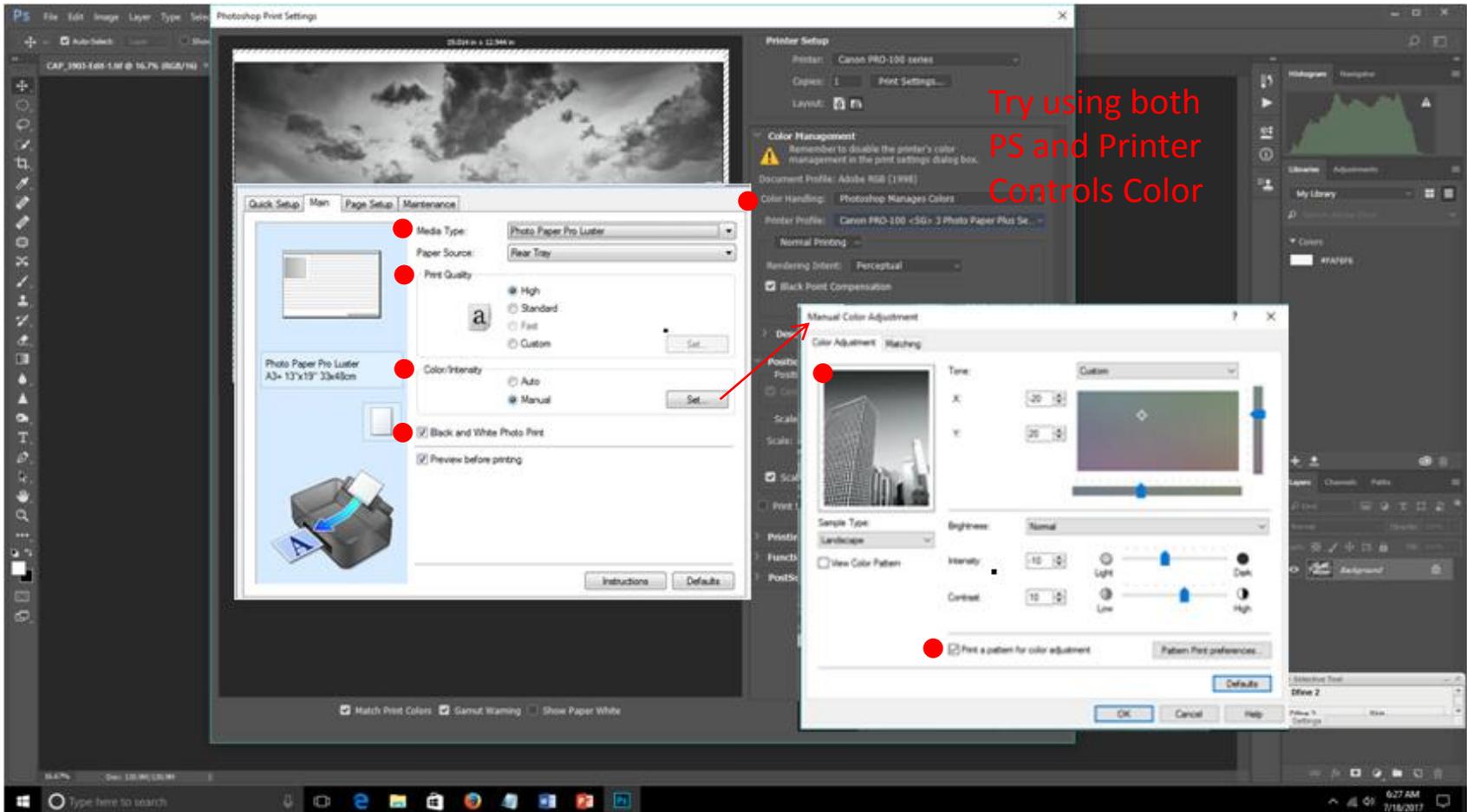


Two Ways to Print B&W

Print Using Special B&W Modes

- Special printer B&W mode should create neutral prints
 - Usually available in printers with 3 black inks
 - Forces black inks to be used. Smooths tonal variations and increases permanency.
 - May use color inks to create neutral black depending on paper
 - Monochrome images may be toned with a single color using color inks.
- If your printer has a B&W mode, try using it
 - Choose paper type, quality setting and appropriate ink.
 - For third party papers, try using settings the manufacturer provides with the color profile.
 - Choose B&W printing mode
 - Go to color controls to adjust tonality, tint, contrast and brightness
 - Choose either image processing software or printer to control color.

Canon Pro-100 Black and White Photo Print



Thanks to Christy and Steve for info

Epson R3000 Advanced Black and White

The screenshot displays the Adobe Photoshop Lightroom 6 interface. The main window shows the 'Epson Stylus Photo R3000 Properties' dialog box, which is open to the 'Color Controls' tab. A red arrow points to the 'Color Controls' tab header. The dialog box is divided into several sections:

- Media Settings:** Includes 'Ink (T)' set to 'Photo Black Ink', 'Media Type' set to 'Ultra Premium Photo Paper Luster', 'Color' set to 'Advanced B&W Photo', 'Print Quality' set to 'Quality Options', and 'Mode (J)' set to 'Current Settings'.
- Paper Settings:** Includes 'Source' set to 'Sheet' and 'Size' set to 'Letter (8 1/2 x 11 in)'. There is also a 'Borderless' checkbox.
- Ink Levels:** A bar chart showing ink levels for Y, V, L, M, C, LK, and MK.
- Color Controls:** This section is the focus of the image. It includes:
 - 'Color Toning' set to 'Current Settings' and 'Tone' set to 'Dark'.
 - 'Before' and 'After' image comparison windows showing a grayscale portrait.
 - A color wheel with 'Y' (Yellow) at the top, 'B' (Blue) at the bottom, 'G' (Green) on the left, and 'R' (Red) on the right. 'Horizontal' and 'Vertical' sliders are set to 0.
 - 'Brightness' slider set to +0.
 - 'Contrast' slider set to +0.
 - 'Shadow Tonality' slider set to +0.
 - 'Highlight Tonality' slider set to +0.
 - 'Max Optical Density' slider set to -0.
 - 'Highlight Point Shift' set to 'Off'.

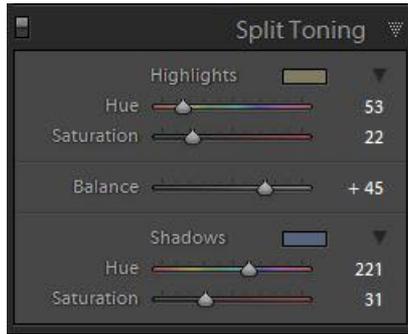
The background shows the Lightroom library grid with 19 photos, and the bottom status bar indicates 'Collection: Lucas Gallery Show' and '19 of 20 photos / 1 selected / main_0114.JPG'.

Split Toning

- Split toning applies several tints to an image.
- Duatone - shadows and highlights have different tint
 - Shadows often cooler
 - Highlights often warmer
- PS and LR support duatone images
- Not acceptable for DCC monochrome prints because it uses 2 tints.
- Steve Sutton – has mastered the technique and can provide help.



How do they do that?

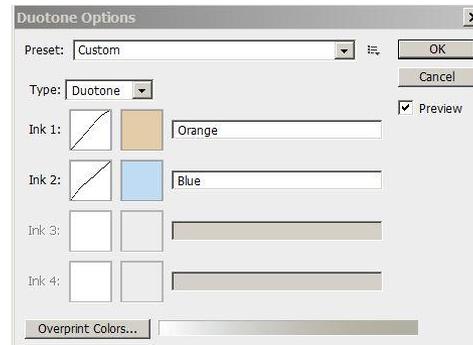


Lightroom Split Toning

Hue - Choose highlight and shadow tones

Saturation – Determines how intense to tone

Balance – Determines the luminosity where switch from highlight to shadow tone



Photoshop Split Toning



Steve Sutton - Neutral



Steve Sutton - Duatone

Next

- Sept 12 Processing Demo - Prepare an image to print – color temp, white and black points, mid-tone contrast, burning/dodging, sharpening, neutral/toned
- Sept 26 Group throw-down #3 B&W print

- Lots of examples of well executed B&W images

https://psa-photo.org/psa-international/pid/2017-PID-Gallery/sect_2.htm