

Running Water:

August 18th, 2004

by the Drop, or Silky Ribbons, filtered or unfiltered.

I. RESOURCES

1. www.waterfallsnorthwest.com/photography.php
Select "Regions" and then "Eastern Washington."
2. wwwca.kodak.com/
Then select, Guide to Better Pictures
Then select, Waterfall Photography
3. www.outdoorphotographer.com/content/pastissues/2001/apr/magic.html
The Magic of Falling Water (April 2001 issue) also, see:
Tame Lighting Extremes (March 2004 issue)

II. WATERFALLS BY THE DROP — Suspended Motion

1. Fast shutter speed 1/125, 1/250, 1/500
The required speed depends upon the size of the water falls, the water volume, and your distance from the water.
2. Fast film — 100 if bright light, 200 if shaded, or 400 film or ISO setting on digital cameras in order to get F8 and 1/125 second or faster.
3. If you go -.50 compensation you may get that last bit of speed that you need to stop motion.

III. WATERFALLS AS SILKY RIBBONS OR SHEETS

1. Slow, Slow shutter speeds
(speeds of 1/4 second to 1/60 second just don't seem blurred enough... Try 1/2 second or slower — 1 second, 2 seconds or more, depending upon the water volume, size of falls and your distance from them.
2. High F stop, i.e. F 22 or higher — requires longer shutter speeds than F8 or F11
3. Slow shutter speed "tools"
 - a. Tripod is essential
 - b. Slow film or digital settings, ISO 50 like Velvia Slide or 100 Gold Max Kodak Print, 100 Fuji Print, or 100 Sensia Slides, or Provia 100 (it can go over ten seconds without reciprocity failure. Velvia hits Reciprocity failure at ten seconds.
 - c. Filters to create slower speeds
 1. Polarizer — On and not cranked up will double your time needed, i.e. F 8 @ 1 second normally, will require 2 seconds to keep F8 with the polarizer on, just acting as an overall neutral density filter. Crank up the polarizer (assuming that you are at 90 degrees to the sun, to shoot the falls... your time would now be 4 seconds because the polarizing action cuts down light transmission another stop, i.e. again doubles the needed amount of light falling on the film to get an "equal" exposure. Two seconds at F 8 with your polarizer just on, becomes 4 seconds at F 8 with the polarizer cranked up. So the

“regular” exposure can be lengthened 4x with the addition of a fully cranked up polarizer. Additional benefits are: glare removal or glare reduction on wet rocks, reduction of glare off of the water, and color enrichment over-all. Some digital cameras have built in neutral density filters.

2. Warming Filters — Because waterfalls often are in shaded ravines, a warming filter is advantageous for blocking the Blue Shift in color tones that shadows cause. 81A or 81B is warmer yet. These are glass screw-on filters.
3. Graded Neutral Density Filters — a 2 stop soft edge is good as an all around one. (Singh-Ray & Cokin) If you must include sky in the image, a graded N.D. will help to keep your foreground from going too dark. Fill Flash can put additional light on foreground.
4. Colored Polarizers — to play with on long exposures... Sunset filters or other colors too.
5. Telephoto, or slower lenses — that require longer exposures when used on the same scene as a wider angle, faster lens.

IV. RAINBOWS AND WATERFALLS

1. Daylight rainbows can be seen and photographed in the spray or mist created at the impact pool. Get between the waterfall and the sun. The sun will be at your back. Rotate your polarizer for best intensity. When the sky is least blue is best... if the polarizer is cranked up and the sky is dark blue, the rainbow will disappear. Usually the afternoon sun angle will put the rainbow closer to the impact pool where spray is more likely
2. Lunar Rainbows.
See resource #3 above “The Magic of Falling Water”
www.outdoorphotographer.com (past issues, April 2001.)

- V. Backlit Spray — Shade lens extra in addition to lens hood because you are shooting into the sun. Overexpose print film 1 stop.
Set compensation to + 1.00 on slide film to keep detail in light areas.

VI. LIGHT EXTREMES

1. Dappled light will blow out detail in the highlights
2. White waterfalls and dark rocks or foliage create exposure problems.
 - a. Meter a neutral tone, medium green or gray from the scene then bracket by shooting -.50, 0, +.50 to give you aesthetic choices.
 - b. Meter for the darkest areas and the whitest highlight with your spot or smallest center meter on camera, then take an average between them to shoot, i.e. if at F16 the dark rocks are 4 seconds and at F16, and the water is 1/2 second, then shoot $4 \cdot \frac{1}{2} = 2$, $2 \div 2 = 1$, then $1 + .50 = 1.50$ seconds. Then shoot and set the compensation dial for -.50, 0, and +.50 from 1.50 seconds as the zero point.
3. Computer Fine Tuning of digital exposures can give the “best of both worlds” with layers that blend the best highlight or white water exposure with the best dark detail exposure.