Winter and Snow Photography

Protect Yourself

You must dress according to the weather, knowing you will be exposed for 4 or more hours. This means dressing in layers (waterproof or water resistant), wearing a hat, wearing waterproof and insulated footwear and wearing gloves. Be prepared for wind chill.
Since you will be walking, you will warm up getting to your subject area. Stopping to set up and photograph, you will quickly begin to chill. Layers will allow you to vent while moving and stay warm while photographing.
Waterproof and insulated footwear is essential. Add gaiters to more protection, especially if you will be in deep snow. Snowshoes, with gaiters, is ideal. Mittens that convert to fingerless gloves are best. If these are not available, when you remove your glove, grasp the wrist band and close the opening so little cold air car get into the glove or mitten.

Protect Your Camera

If you plan to shoot outdoors in the cold for an extended period of time, please consider the following precautions to ensure the safety and functionality of your camera equipment:

Cold batteries die faster, especially in temperatures below the freezing point, so keep your batteries warm. Keep the camera relatively warm, and when possible, resist the temptation to leave it or your camera bag in cold places like the trunk of a car or unheated areas of a building for long periods of time. Also, bring spare batteries, fully-charged, and keep those warm in your pockets until ready for use

Give your camera equipment time to acclimate when going from warm to cold temperatures (and vice versa). Otherwise, you risk condensation build-up, which can damage lenses as well as internal digital camera components. Gradually introduce it to colder or warmer temperatures. Carry your camera bag with you outside, allowing the camera to gradually cool down. One example would be to gently warm equipment using a car's heater — not too much, however! — after cold-weather shooting, prior to bringing the gear into a heated building.

Another trick to prevent condensation build-up when moving from cold to warm temperatures is to seal your camera in an airtight plastic bag (such as a Ziplock). Seal the camera completely inside of the bag BEFORE moving indoors, and condensation should form on the bag rather than the camera. Leave the camera inside the bag until it's had a chance to fully warm up to room temperature.

If you anticipate mild snow or rain while shooting, waterproof your camera with plastic bags. Bring lens cloths or lint-free tissues to wipe off any moisture that might build up on the lens from melting snowflakes.

Exposing for snow is counter-intuitive.
You need to OVEREXPOSE for snow. (How is that possible? It's so bright!) Light meters want to make everything medium gray and you want the snow in your pictures to be beautiful white. If you're on automatic exposure, you need to brighten up the exposure using your exposure compensation button. You probably want to increase the exposure – that's a plus on the scale – about 1/1/2 or two f-stops. (Don't worry, you are not alone —this makes no sense to many amateur photographers.)

- If any mid-tone objects (such as a gray rock or building) are visible in the scene, take a meter reading off these. Setting your camera to these settings will then help it to render the snow correctly. You may have to dial in a little negative compensation (such as -1/3 EV) to stop the highlights in the snow from being blown out.
- Alternatively, you can just use your camera's histogram to correct exposure. Take a test shot and check the histogram. If it is slightly "humped" in the middle, then just dial in a little positive compensation to add brightness. If the graph appears to fall off in the right hand edge, then just dial in a little negative compensation to stop blown out highlights.

Using a lens hood when shooting photographs in snow is vital. The flare caused by snow can make photos look very hazy.

Histograms, and Highlight Alert:

In addition to Highlight Tone Priority, you can also manage your highlights during playback: by checking image histograms, and using the optional Highlight Alert function.

A histogram is a chart that represents the distribution of pixel brightness in each image. It is visible on the rear LCD screen during Live View shooting, or during playback, and is a very useful way to evaluate exposure. Histograms are sort of mountain-shaped; the height of each peak indicates *how many* pixels were recorded at particular brightness levels. *The most important part, however, is how the display looks side-to-side*. The left side of the chart represents shadow tones in the image; the right side represents bright highlight areas, and the center represents mid-tones.

Reading a histogram properly helps photographers determine the appropriate exposure for the scene, and whether they are at risk of severe under- or overexposure. When photographing snow, two things to keep in mind as you look at a histogram when playing-back an image:

1. If the scene is mostly snow, but the histogram shows a big "mountain" in the middle area of the histogram, it usually means the camera has tried to make the snow middle-

gray. This is your warning to set Exposure Compensation in the "plus" direction, and take another picture… your goal is snow that appears white, not gray!

2. If snow has been properly-exposed and rendered a white tone in your image, you'll probably see a lot of information to the far right side of the histogram. As long as it's not being cut-off by the right side of the graph, this is a good sign… the histogram info is telling you your white subject is being reproduced as a white tone in your digital image.

But, if your histogram shows portions of the graph that appear to get cut off on the far right, that means portions of your scene are severely overexposing to the point that detail may be washed out. T*his is a warning that your exposure should be adjusted*. If you see this, try applying *minus* Exposure Compensation, until you see that no part of your histogram is cut off at the right edge.

Another way to check for overexposure during LCD monitor playback is with a feature called Highlight Alert. When active, this alert causes all portions of the frame on the verge of overexposing to blink on and off. This feature is available on MOST cameras.

White Balance:

White Balance settings adjust the camera for the overall color character of the light source you are shooting in, so images can have a neutral rendition that properly renders colors in the scene. Many Canon EOS photographers let the camera read light and adjust this automatically, with Auto White Balance (AWB). There are also fixed, pre-set white balance settings, such as Daylight, Cloudy, Shade, and Tungsten.

Many cameras also allow shooters to take a custom White Balance, or even dial in a specific color temperature (measured in degrees Kelvin) to better match your scene, particularly for unusual or mixed-lighting scenes that are not covered by any of the preset options seen here.

Photographing snow implies you will be outside. However, differences in time of day, geographic region, and weather conditions can make a huge difference in the color temperature of your light source — even though the 'light source' in this case is always the sun, which means that your White Balance may need to be adjusted, and the preset for 'Daylight' may not always look the best.

The preset White Balance options are pretty accurate, but you have to remember to use the one that most closely matches your light source, and weather conditions. On sunny days with clear blue skies, it's common to have snow seem to pick up a slight blue tint; experiment with the Cloudy or Shade WB settings to warm-up the overall color and neutralize that blue color cast. Doing this will also give an "unnatural" look to the photo because snow shadows on bright sunny days are blue. It becomes an artistic choice.

If you shoot RAW images, you can change your White Balance while editing, regardless of your camera settings at the time of shooting. But it still makes sense to deliberately set the proper white balance, or at least one that gets your color close, before you take the picture.

Think Creatively

- Stark white skies and snow covered objects can look very eerie, particularly if you shoot them in black and white, so be creative with your snow photography.
- Look for interesting contrasts in colors. Red objects photographed against white snow always look very strong, but frame your photos carefully in this situation.
- Less is often more, so don't try to cram everything into one shot. Look for interesting trees, buildings, and other objects -- then zoom in! Clean objects framed against a white background make for strong images.
- Use RAW format, so that you can easily make any tweaks needed in post-production.
- The low light of the winter months can cast long shadows on the ground, which are particularly stark in the snow. Use the shadows to lead the viewer into the image. (But make sure that your own shadow isn't visible in the final shot!)
- Shoot your broad scenes first, then walk closer. You don't want footprints in the snow, unless that is part of your story.
- When shooting with a group, make sure all members have their broad scenes completed before you walk closer to your particular subject.

Here are some tips to make your winter photo sessions more enjoyable:

1. Check on the weather ahead of time and know the forecast.

You don't want to travel for hours only to find out the weather is terrible for taking pictures or is too wet to be out in. The weather can dramatically change in a matter of hours during the winter months. Also, always let someone know where you are going and which route you're planning to take in case you get injured, lost, or caught in a storm.

2. Carry only the essentials.

Forget loading your camera bag with every bit of equipment you own. Travel as light as possible if you are going to be outdoors photographing all day long. Traveling light will also help you save your energy. When hiking, climbing, or crossing snow filled hills, a warm thermos and energy producing food will serve you much more than extra camera equipment.

"Untitled" captured by PictureSocial member Dhimitraq Ceco

3. Dress for success.

Proper clothing is essential. You need to be warm and comfortable when out in the weather. Winter weather can be brutal, so if you are planning a photography trip, always be prepared.

4. Keep an eye out for details.

Things like snow, icicles, ice covered objects, and frost accentuate texture and atmosphere in your subjects. An early snowy or frosty morning is a great time for macro or close-up photography. These frosty mornings can also reveal patterns in landscapes.

"Brrrrr" captured by PictureSocial member Kristen Bennett

Be sure to watch your camera placement carefully. If you are photographing early in the morning, experiment with photographing at different angles to the sun. This can give your images heavy shadows, adding extra mood to your landscape photographs. Also pay attention to the foreground in your photos, which will add depth to your image.

5. Pay careful attention to your exposure.

Snow and ice can fool your camera's exposure meter and are more difficult to expose properly than normal scenes. Light readings from snow will often see the scene as an underexposed image. Most cameras or hand-held meters will read the snow as a greytone, so it is a good idea to bracket your exposures. When bracketing exposures add 1 – 2 stops of light to compensate for your light meter reading. Using an 18% grey card should also give you a more accurate light reading.

Using these tips should help to make your photo trip a more enjoyable and worthwhile experience.

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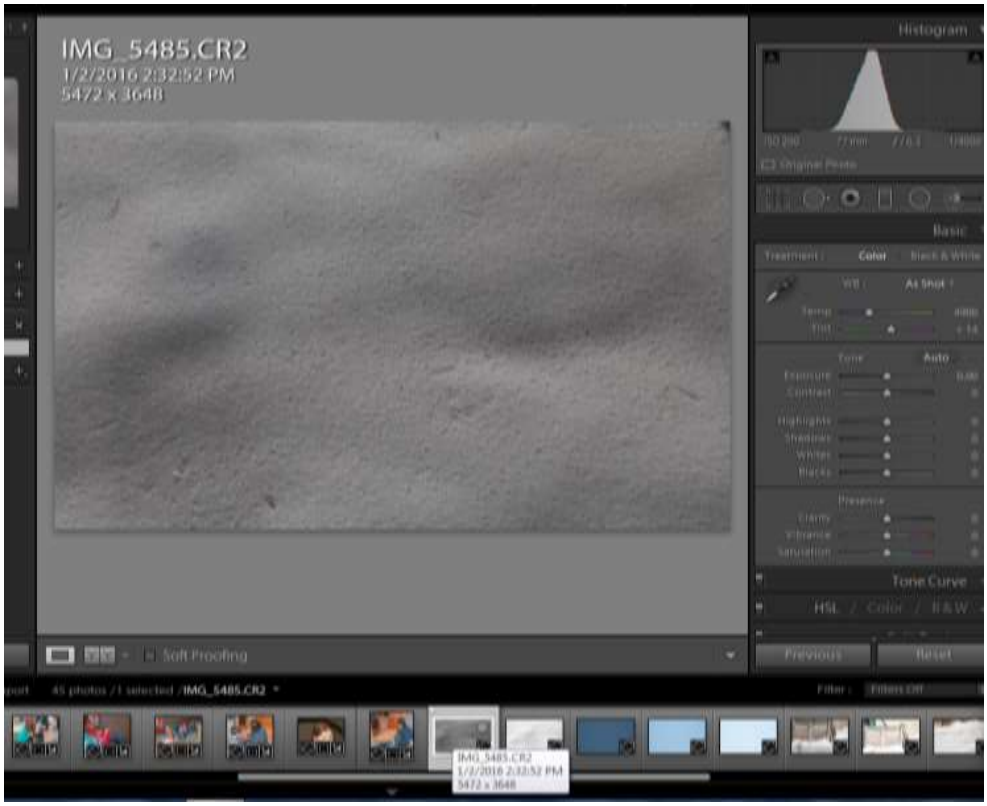
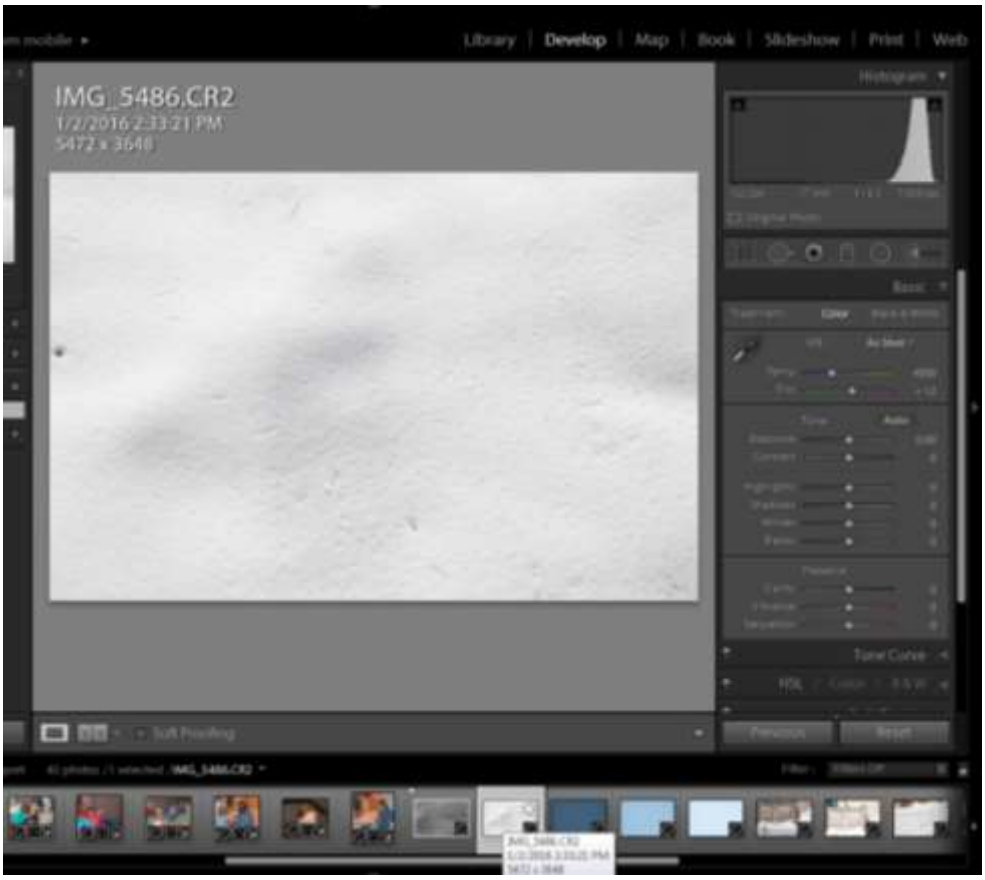
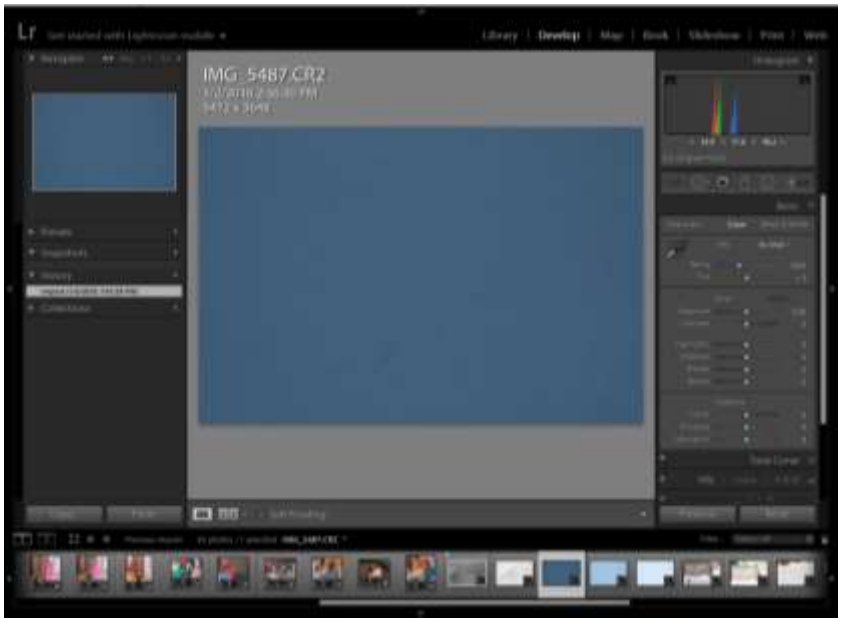


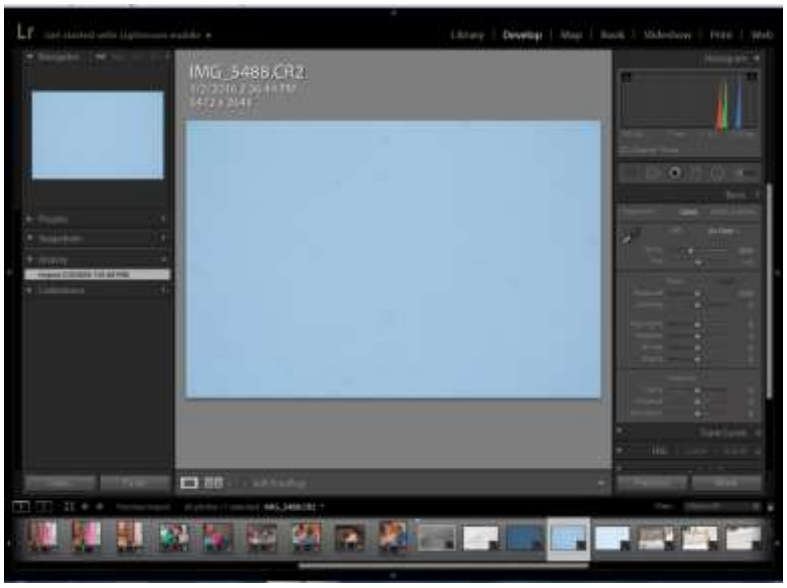
Exposure of snow in bright sunshine with no compensation. The snow is gray because the camera wants to render the average scene neutral gray. The histogram indicates everything is a mid tone. There is room on the right side of the histogram to increase exposure.



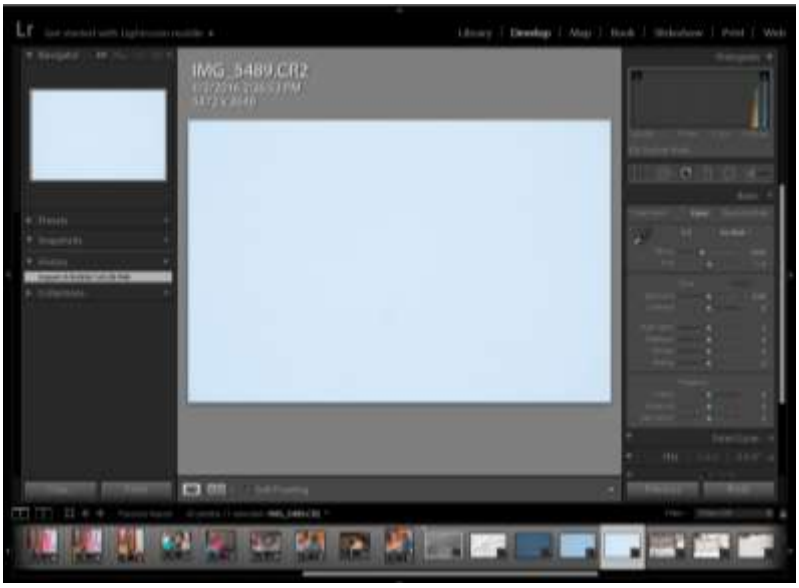
Same scene with +2 exposure compensation. Snow is now rendered as white. I have overridden the camera's attempt to render the overall scene as neutral gray. The histogram is now on the right (whites), but is not touching the right side (not overexposed).



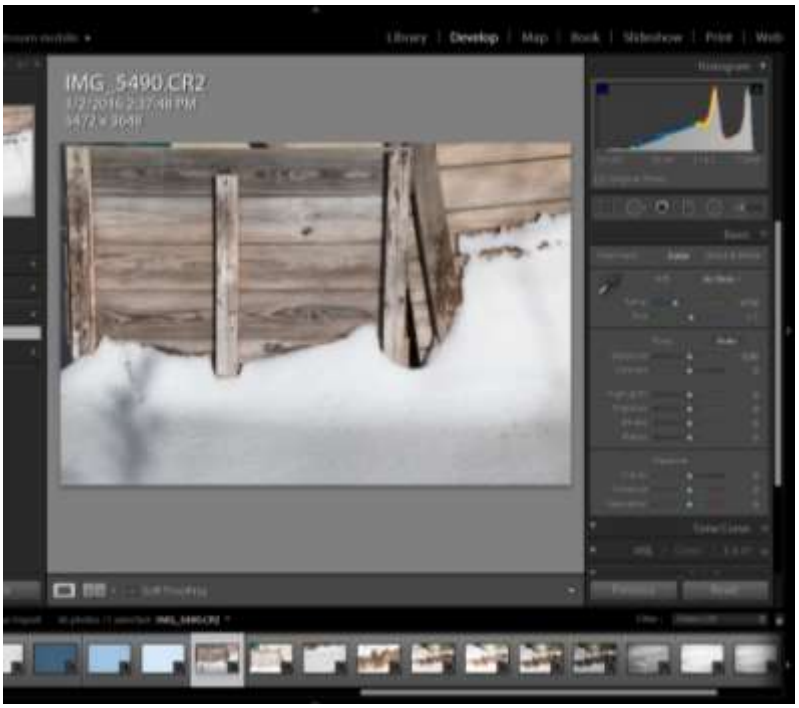
Exposure of snow in shade with no exposure compensation



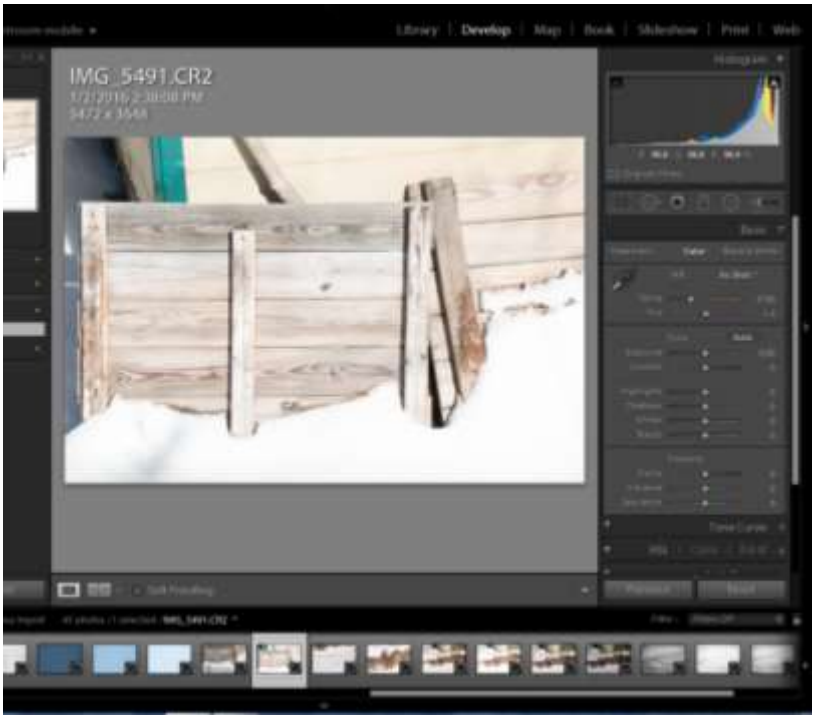
Same scene with +2 exposure compensation. There is still a blue tone. On the histogram, you can see there is still room to the right (whites) so I can overexpose more.



Same scene with +3 exposure compensation and the histogram is at the right (whites) side. Because this was in the shade, there is still a blue tone to the scene.



Sun with some shade, metered off the gray wood and no exposure compensation. The white snow is properly exposed. The histogram is toward the right, but not touching so there is no over exposure.



Same scene, but with +2 exposure compensation. The whole scene is overexposed because a neutral gray served as the meter source. The histogram is too far to the right, indicating overexposure.

Bright sun, no exposure compensation. The histogram shows there is room at the right so exposure can be increased.

Same scene with +1 ½ exposure compensation. Shadows and other objects in the snow reduce the exposure compensation. The histogram has shifted to the right, but does not indicate overexposure.

While you can post process in Photoshop Camera Raw or Lightroom, you will end up with a better image if you make the best in camera exposure.