



Photo by *George Bohannon*

*See more page 4*

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## President's Comments—January 2025

By Keith O'Leary

Happy New Year! I hope everyone had a safe and enjoyable holiday season. Thanks to David Hall for putting together our 2024 Christmas Slideshow. You submitted some really good photos again this year! FYI: The slideshow has been uploaded to our (private) YouTube channel so if you missed the party, you can view it via the link sent out to members via email.

It's hard to believe 2024 is over but looking forward to what lies ahead for us in 2025. As a reminder, this is membership renewal season and you can renew online at [www.alamancephoto.com](http://www.alamancephoto.com) or at our monthly meeting on Jan. 20<sup>th</sup>.

As you continue reading this first newsletter of 2025, take note of the various programs and Photo Shows we have planned for you. I hope you, like me, are looking forward to learning more from each other and getting out to take some great photos as we continue to share our common interest in photography.

Be safe, stay warm and happy shooting (if you decide to get out in the cold)! 😊

Best regards,

Keith O'Leary

## **APC ACTIVITIES - January 2025**

**Club Meeting**

**Jan. 20, 2025**

**7:00pm First Baptist Church**

**Program by Jeff Silkstone**

**"How to improve your photography w/o ever taking a picture"**

## APC Board with Contact Info



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## WEBMASTER NOTES

### Renew Membership Online!

For your convenience you can renew your membership online via a credit card:

Go to [www.alamancephoto.com](http://www.alamancephoto.com)

- Click on Join/Renew in the menu bar under the Membership Tab.
- Click on Renew button.
- Choose Membership Level.
- Follow the instructions to complete payment.
- You will receive a receipt in your inbox!

**Christie O'Leary—Webmaster**

### Cover Photo by George Bohannon



Here's a circular fisheye image I took in southern Virginia on November 2nd, 2024. I used a Fisheye-NIKKOR 8mm f/2.8 lens, a fully manual Nikon lens made in 1970. It gives a 180° field of view when used on a full-frame digital or 35mm film camera.

Since the field of view is 180°, you have to be careful about framing your shot. If you are hand-holding or using a tripod, it's easy to get your feet or tripod legs in the way.

To get this wide view of the sky (horizon to horizon), I set up a tripod on the back of my truck bed cover and pointed the camera and lens vertically. This got the equipment up high enough that I didn't have to worry about my truck or a nearby shed getting in the frame.

North is roughly at the top of the circle, West is to the right, East is to the left, and South is at the bottom. The orange glow on the right is from the setting sun, and the other light on the remaining horizon is from city lights and reflected sunlight from the atmosphere and clouds. You can even see the Milky Way stretching across the sky!

The exposure for this image was 40 seconds, f/4, and ISO 1600.

***Here is a preview of the 2025 Alamance Photography Club PhotoShows – David Hall***

The five PhotoShows we have planned for this year will start in April followed by shows in June, July, August and October. You may recall that in the December Newsletter I wrote that the overall concept for 2025 will be more creativity in our photography or getting out of our comfort zone(s). That creativity could either be behind the lens, in the editing/post processing --- OR both. If you prefer, neither --- it is all up to you.

The subject or theme for each PhotoShow month is:

- April - ***Smartphone photos***
  - Any subject taken by Smartphone
  - Photos will be judged by the club members
- June – ***Any photograph of the members choice***
  - This PhotoShow will have an outside judge
- July – ***Color***
  - Pick a single color and shoot anything of that color and/or photos of a subject framed by a solid block of that color
- August – ***The Same Subject***
  - Any subject, but all submissions must be of that same subject
  - Photos will be judged by the club members
- October – One ***Season***
  - Photographs representative all of one season
  - This PhotoShow will have an outside judge

The subjects for this year are ones that may present opportunities throughout the year, not necessarily during any set time period. Of course, deciding on a season to photograph would be the obvious exception. The timing of the shows should maximize those opportunities.

*Here is a preview of the 2025 Alamance Photography Club Programs—John Reich*

- January
  - Jeff Silkstone Photography: "How to improve your photography w/o ever taking a picture"
- February
  - Sean Leahy: "Photo Editing with Lightroom"
- March
  - Mio Winkle: "Birding in Costa Rica through my lens"
- May
  - Dick Schenck: "Afghanistan in the 70's"
- September
  - Dan Walker: "Trip down Route 66"
- November
  - TBD

## JEFF SILKSTONE



Jeff Silkstone is a professional photographer from North Carolina specializing in landscape, architecture and interior design photography. He taught photography at the Sawtooth School for Visual Arts in Winston-Salem, NC before moving back to the triangle. He is currently a workshop instructor with Jennifer King Photography Workshops providing hands on training in some of the most beautiful parts of the world. His images are regularly published in magazines and websites across North Carolina. His eBook "COMPOSE: Composition Elements for the Landscape and Nature Photographer" is available as a pdf download and covers the basics of landscape composition in an easy to follow format.

Follow Jeff @JSilkstonephotography on Facebook, Instagram and 500px.

[www.JSilkstonephotography.com](http://www.JSilkstonephotography.com)

## APC Membership Corner

January 2025

**Happy New Year!!! Hope you all had a wonderful Holiday.**

As we start the New Year with all our resolutions, remember that our 2025 membership drive is underway so please pay your annual dues by the end of March. Also, please invite family, friends and others from our community who may be interested in being part of our photo club. By becoming and remaining an active member, you will be among a group of like-minded individuals to learn from, as well as accessing activities and events to help fulfill your photography goals.

We have provided the following ways to assist you with paying your annual dues: \$42 for an individual, \$62 for a family (same household), and \$15 for a student. You can pay by credit card online at [www.alamancephoto.com](http://www.alamancephoto.com), by check made to: Alamance Photography Club or by cash to the Club's Treasurer - George Siple at a monthly meeting.

This year there will be a combination of workshops, photo shows by some of our very own members, and field trips. See our calendar of meetings and events in each Newsletter.

**Remember: As a potential member, you are free to attend up to 2 monthly meetings before deciding to join!**

**Resi Forrest – Membership Chair**

[Apcmembers2@gmail.com](mailto:Apcmembers2@gmail.com)

## Field Trips for 2025

This year, the field trip calendar is changing from a quarterly basis to a seasonal basis. For APC purposes, Winter will be January – February, Spring will be March – May, Summer will be June - August, and Fall will be September – November. December is left out because it is just too hectic a time for a field trip.

This year, all field trips will be **group** field trips. Tentative plans for 2025 are:

- Winter – No field trip
- Spring – Greensboro Science Center
- Summer – Saxapahaw
- Fall – Shallow Ford Natural Area

Dates will be set prior to the season.

**Hugh Comfort – Outings/Field Trips**

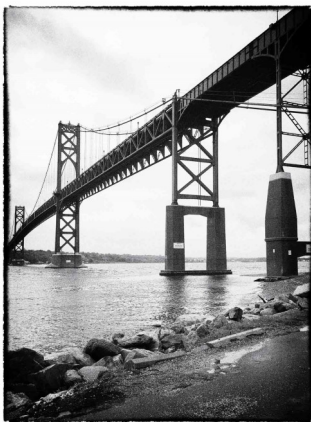
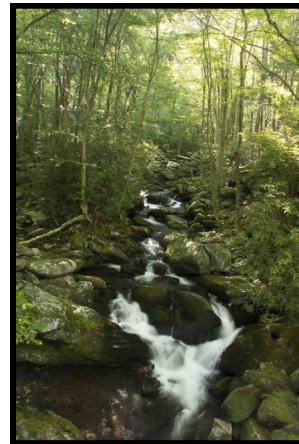
# Alamance Photography Club T-Shirts



APC T-shirts are available at our monthly meetings  
for only \$12 each

## In Memory of Nancy Jacobus

*Charter Member of APC*





# APC Trading Post

Submit brief descriptions of photography items you would like to sell, swap or purchase to Ray Munns ([raymunns@bellsouth.net](mailto:raymunns@bellsouth.net)) no later than the 20<sup>th</sup> of each month. Please include your name, contact info (phone and/or email) and if each item is for sale or something you are looking to purchase. Also notify Ray when items should be removed from the newsletter.

\*\*\*\*\*

**David Hall ([dlhallofnc@gmail.com](mailto:dlhallofnc@gmail.com) or 919-840-8198)**

## ***Cokin Filters – for “P” System***

ND Grad Kit --- \$26 / OBO

- Filter Holder
- Filters – Graduated Neutral Density
- ND Grad Soft [3 f.stops]
- ND Grad Med [2 f.stops]
- ND Grad Light [1 f.stop]

Adapter Rings with Caps --- \$7.50 each / OBO

- 52mm [extension ring]
- 55mm
- 62mm
- 67mm

## ***Domke Canvas Camera Bag***

This bag can hold two cameras and 6 lenses plus accessories. The four-compartment padded center insert is removable or adjustable. There are six pockets – two on the side and two on the front. The largest pocket runs the length of the bag. With all the pockets and compartments you can carry a lot of equipment and accessories. There is a removable shoulder strap and hand strap. There are O rings on the back for attaching to a backpack. The canvas is thick and rugged offering a good deal of protection.

The bag is in very good condition.

This bag currently sells for \$162.00 (B&H Photo) asking \$75



# Winter Photography Tips for Ice, Rain, and Snow

By John Maxymuik

In this article we'll cover photography tips for overcoming the winter photo doldrums with water as icy streams, freezing rain, icicles and snowflakes:

## 1. Icy Streams

A quietly running stream won't make "tenacious grace" but after it thinly freezes over, it may sculpt the underside of the ice with the gently running water and any air bubbles that get trapped there. The resulting patterns can be very photogenic.

*Photo by chocolatsombre; ISO 100, f/8.0, 1/160-second exposure.*



## 2. Freezing Rain

A special instance of ice is freezing rain. Look for interesting things—grasses, leaves, branches, and twigs, etc., encased in it. Exposure can be tricky with the reflected light, so bracket your exposures!



*"The Beauty of Mother Nature" captured by Imtiaz Ahmed*

## Winter Photography Tips for Ice, Rain, and Snow . . . Continued

### 3. Icicles

Spikes of ice formed when ice or snow is melted by sunlight or some other heat source, and the resulting melted water runs or drips into an area where the temperature is below the freezing point, causing the water to refreeze. Over time continued water runoff/dripping causes the icicle to grow. Icicles can be found under roof edges of buildings and on branches and twigs, etc. Whether solitary or in groups, they can be very photogenic when back or side lit or hanging against a dark background.



*Photo by Jennifer Boyer; ISO 400, f/25.0, 1/640-second exposure.*

### 4. Snowflakes

You take these pictures outside by catching the flakes on a towel, then transferring the flakes with a short plastic stick to a microscope slide, then placing the slide on a somewhat larger piece of glass which is suspended about 6 inches above a sheet of colored poster board, then shoot straight down with a macro-focusing lens. For more sophisticated tools and techniques, just do an online search using “snowflake photos.”



*Photo by Alexey Kljatov; ISO 80, f/8.0, 1/6-second exposure.*

## *Winter Photography Tips for Ice, Rain, and Snow . . . Continued*

### **Self-Assignments for Winter Photography**

Choose the projects that interest you most. Follow the photography tips conscientiously. Re-shoot when you aren't satisfied. Do it 'til you are satisfied. It'll take all your patience and passion. Your skills and eye will improve with the practice. Shoot especially in early and late light. Use a tripod as much as possible. Edit your results relentlessly. Pin small samples on the wall for a few days to study before making final prints for wall art.

**Icy Streams:** Locate a quietly running stream in freezing weather and it will probably form smooth ice on top. The underside of the ice will be etched by the running water and any air bubbles in it, creating lines and patterns. Shoot straight down on it for an overall sharp picture.

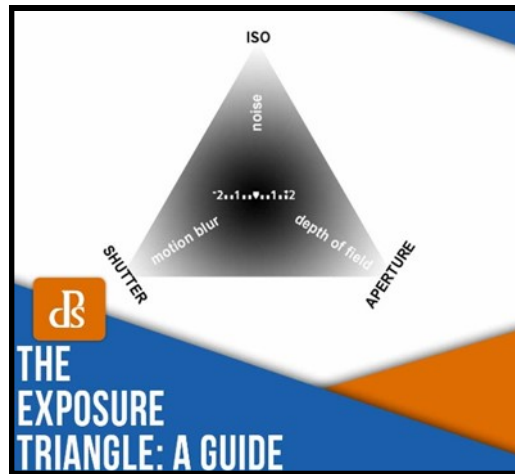
**Freezing Rain:** When a heavy freezing rain falls, the problem becomes one of too many interesting things to shoot! Take your time and look around to find something really outstanding, more or less by itself, with a dark or strongly colored background and shoot it.

**Icicles:** In freezing weather check out the eaves troughs around rooftops of houses and heated garages, looking for icicles. Try, if possible, to find them around eye level or slightly lower so you can keep the entire icicle(s) sharp top to bottom when you take your pictures.

**Snowflakes:** Set up your snowflake "studio" and proceed to get a couple of flakes together on your microscope slide. Place the slide above a piece of medium-dark blue poster board, and then shoot straight down on the flakes.

# Exposure Triangle: Everything You Need to Know

By Melinda Smith



What is the exposure triangle? And how can you use it to capture beautifully detailed photos? In this article, I'm going to share the ins and outs of the photographic triangle of exposure. I'll identify the three triangle corners, I'll discuss what they do, and I'll explain how you can use the triangle to instantly elevate your photos.

If you've never encountered the exposure triangle, or you're not sure how it works, then you're in for a treat. It genuinely is the most revolutionary concept in photography, and by the time you've finished reading, you'll feel like you've been struck by a bolt of lightning – I guarantee it.

Let's get started.

## What is the exposure triangle in photography?

The exposure triangle refers to three camera variables, or settings, that work together to determine image exposure.

In other words, these three settings determine whether your image is too dark, too light, or spot on. The settings I'm talking about are:

1. Aperture
2. Shutter speed
3. ISO

By adjusting each setting, you can make your image lighter or darker. And by adjusting all three settings together, you can achieve a beautifully detailed photo – that is, a well-exposed photo.

## Exposure Triangle: Everything You Need to Know . . . Continued

Note that perfect exposure is a fundamental goal of photography. An image that is too dark looks muddy and loses details in the shadows, while an image that is too bright looks blinding and loses details in the highlights.











But a well-exposed image looks just right. So if you can master the triangle of exposure, then you can start achieving just-right exposures, consistently.

### The triangle of exposure variables

In this section, I'd like to take an in-depth look at the three key exposure variables, starting with:

#### Aperture

*Graphic by Jackie Lamas*

f/1.4	f/2.8	f/5.6	f/11	f/22
Very Large Aperture	Large Aperture	Medium Aperture	Small Aperture	Very Small Aperture
				
Very Small Depth of Field	Small Depth of Field	Medium Depth of Field	Large Depth of Field	Very Large Depth of Field
Almost Nothing In Focus	Little In Focus	Some In Focus	Much In Focus	Almost All In Focus
				
Brightest	Bright	Medium	Dark	Darkest

The aperture refers to a hole, or diaphragm, in your lens. The way it works is pretty intuitive: the wider the aperture, the more light that hits the camera sensor, and the brighter the resulting image.

Aperture is referenced in terms of f-stops, which look like this: f/2.8, f/4, f/5.6, f/8, f/11, f/16, f/22.

This numbering system might seem confusing at first, but it's actually pretty easy to understand: the lower the number, the wider the aperture (and the brighter the image). So if you're shooting in ultra-dark conditions, you might use an f/2.8 aperture. But if you head out in direct sunlight, an f/11 aperture might make more sense.

The aperture doesn't just affect the image brightness, though. It also affects depth of field, which refers to how much of your photo is in sharp focus.

### **Exposure Triangle: Everything You Need to Know . . . Continued**

A wide aperture (small f-number) will render less of the image in focus, whereas a narrow aperture (large f-number) will render more of the image in focus. Here are a few photos demonstrating this concept:



With the aperture set to f/3.5 and f/5 (low numbers), the background is very blurry. But narrow the aperture to f/11, and you get less blur:



Narrow the aperture even farther, all the way to f/22, and the blur almost disappears entirely:



Do you see what I mean? As the aperture narrows, the depth of field deepens, and the background blur disappears. (This is handy if you want to shoot landscape images, where a narrow aperture lets you capture the entire scene – though a wide aperture, with a blurry background, is great for artistic portraits.)

By the way, in case you're wondering, you can generally change the aperture by setting your camera to Aperture Priority or Manual mode, then spinning a dial on your camera. If you're not sure how to do this, check your camera manual.

## Exposure Triangle: Everything You Need to Know . . . Continued

### Shutter speed

Shutter speed refers to the opening and closing of your camera's shutter. You press the shutter button, your camera moves the shutter, and you've taken a photo.

SHUTTER SPEED CHEAT SHEET	
LESS LIGHT ENTERS THE CAMERA ↑	1/4000 Really fast movement in bright sunny light.
	1/2000 Water splashing, bird in flight. Bright sunny light.
	1/1000 Bright light or shade on a sunny day, sports, fast moving cars.
	1/500 Kids jumping, lots of ambient light, running.
	1/250 General ever day photos in good but indirect sunlight.
MORE LIGHT ENTERS THE CAMERA ↓	1/125 Perfect for still portraits or still photos in indirect ambient light.
	1/60 Slowest handheld speed, low indoor lighting or low ambient light.
	1/30 Movement will show, good for low ambient light.
	1/4 Low to no ambient light available, perfect for still photography with tripod. Will show movement.
1 Second+	For long exposures, will show lots of movement, light trails, water flowing, ghosting. Tripod recommended.
Fast shutter speed for bright sunny days or to freeze fast movement like sports.	
Slow shutter speed for low ambient light and to show movement.	

If the shutter remains open for a long time, it lets in lots of light, which impacts the sensor and gives – you guessed it! – a brighter exposure.

If the shutter opens and closes in a fraction of a second, it lets in very little light, which gives a darker exposure.

Shutter speed is written in fractions of a second, just like this:

1s, 1/60s, 1/250s, 1/1000s, 1/4000s.

In the set of example shutter speeds here, 1s is the longest shutter speed, while 1/4000s is ridiculously short. The average shutter speed tends to hover in the 1/100s to 1/2000s range, though it depends on the specific type of photography.

*Graphic by Jackie Lamas*

Remember how I said that a longer shutter speed brightens the exposure? If you're shooting at night and you need a bright image, you could use a long shutter speed – whereas if you're shooting in bright sunlight and your images keep turning out bright, you could set a shorter shutter speed.

Now, shutter speed doesn't just affect exposure. It also affects image sharpness.

Specifically, the faster the shutter speed, the sharper the resulting image, especially if the scene contains moving subjects. So if you're photographing a basketball player slam-dunking the ball, you would need a fast shutter speed to freeze the player's movement. (If you're photographing a stationary basketball on the pavement, however, you could use a much lower shutter speed, because there's nothing you need to freeze.)



### Exposure Triangle: Everything You Need to Know . . . Continued

Check out the two images below. On the left, I used a fast (1/2000s) shutter speed to freeze a moving car. On the right, I used a slow (1/10s) shutter speed, and the truck going across the street was completely blurred.



It's important to note that the shutter speed works together with the aperture and ISO to achieve the final exposure. That's what the exposure triangle is all about; variables together achieving a result.

So if you use a fast shutter speed (darker exposure) but use a wide aperture (brighter exposure), they'll balance out and you'll often get a nice, middle-of-the-road exposure. Whereas if you use a fast shutter speed (darker exposure) and a narrow aperture (darker exposure), the overall effect will be magnified and you'll get an ultra-dark image.

To adjust your shutter speed, simply set your camera to Shutter Priority mode or Manual mode, then rotate the corresponding camera dial.

Now let's take a look at the final exposure variable, ISO:

### ISO

ISO refers to the sensitivity of your camera's sensor to light. (This is something of an oversimplification, but for our purposes, it works well.)

ISOs are written like this:

ISO 100, ISO 200, ISO 400, ISO 800.

And the higher the ISO, the brighter the exposure.

ISO CHEAT SHEET	
100	Bright full sunlight. No shade.
200	Bright sunlight, some shade, overcast day out in the open.
400	Neutral mid ISO for any situation. Perfect for sunny day in covered area.
640-800	Less light, sun is setting, or inside a darkened room/area.
800-1000	Little to no ambient light, indoors, darkened area.
1600 +	Not much ambient light, low light in scene/location, sun is no longer out.

Graphic by Jackie Lamas

### **Exposure Triangle: Everything You Need to Know . . . Continued**

So if you're photographing in the evening and your shots keep coming out dark, you might bump up your ISO from 100 to 1600. And if you're photographing in the daytime and your shots keep coming out bright, you might drop your ISO from 400 to 100.

Make sense?

Of course, as you already know, ISO, aperture, and shutter speed work together, so you won't always use the ISO to increase or decrease brightness. Instead, you might increase the ISO so you can increase the shutter speed (to freeze action). Or you might increase the ISO so you can narrow the aperture (for increased depth of field).

By the way, ISO comes with an annoying side effect:

The higher the ISO, the noisier (or grainier) your images will become. Noise decreases sharpness, so it's often a good idea to keep the ISO as low as you can get away with, assuming you have the exposure you want (and a nice aperture and shutter speed).

Here's an image taken at a very low ISO (ISO 100). Look carefully at the background, which is delightfully smooth:



And here's another shot, but with a much higher (3200) ISO:

Can you see the noise? It's particularly noticeable in the background, but it's also present on the clock face.

### **Exposure Triangle: Everything You Need to Know . . . Continued**

Anyway, choosing the ISO is a balancing act. You want to keep your images sharp and well-lit, but you don't want to produce too much grain, so it's generally a good idea to start low and boost the ISO as needed.

That said, certain photographers pretty much always shoot at low ISOs – landscape photographers, for instance – because they work with tripods and don't require a fast shutter speed in low light. And other photographers shoot exclusively at high ISOs, such as indoor sports photographers; they need fast shutter speeds, and even with a wide-open aperture, ISO 1600, 3200, and higher is absolutely, one-hundred percent necessary for a good exposure.

How do you adjust the ISO? You'll need to set your camera to Program mode, Aperture Priority mode, or Manual mode, then use the corresponding button, dial, or switch to make the necessary changes.

#### **The triangle of exposure: putting it all together**

Remember:

To brighten an image, you can widen the aperture, lower the shutter speed, or raise the ISO.

To darken an image, you can narrow the aperture, raise the shutter speed, or drop the ISO.

And if you adjust two variables in different directions – you lower the ISO plus you widen the aperture, for instance – the effects will (roughly) cancel each other out.

Therefore, the exposure triangle has two purposes in photography:

1. Adjusting the exposure so you get a detailed result
2. Allowing you to adjust the shutter speed, aperture, or ISO while keeping the exposure consistent

It's important to realize, by the way, that there is no perfect set of exposure variables for a particular situation. As the light changes, you'll need to adjust your aperture, shutter speed, and ISO accordingly. If you're photographing a portrait at midday, you might use a fast shutter speed to limit the bright light, but if you're photographing the same subject around sunset, you'll probably want to drop your shutter speed – otherwise, the image will end up far too dark.

## *Exposure Triangle: Everything You Need to Know . . . Continued*

### **How to use the exposure triangle when out shooting: a step-by-step approach**

Say that you're out with your camera and you want to capture a nice exposure. How do you use the exposure triangle to get the result you want?

First, you should switch your camera to Manual mode. In Manual mode, you can adjust the shutter speed, aperture, and ISO independently, so you can carefully observe the effects of each variable.

Next, I recommend setting your ISO to your camera's base option (often ISO 100).

Then dial in your aperture, thinking not in terms of exposure, but in terms of depth of field.

At this point, you'll need to look at your camera's exposure bar, which sits across the bottom of the viewfinder. If your camera indicates a Plus (+) value, then the image is overexposed; if your camera indicates a Minus (-) value, then the image is underexposed. Set your shutter speed so that the exposure bar gives a middle value.

Finally, look at your shutter speed and ask yourself: Is it too slow for a sharp image? If the answer is "No," then you're golden, and you can proceed with your shot. If the answer is "Yes," then you should boost the shutter speed, then either increase the ISO or widen the aperture – whichever seems less harmful to the overall image. (Generally, increasing the ISO is the way to go, but if you don't mind a shallower depth of field, widening the aperture might be the better course of action.)

Finally, once your camera indicates a well-exposed scene and you're satisfied with the aperture, shutter speed, and ISO, take your shot!

### **The exposure triangle: final words**

Well, that's the exposure triangle in a nutshell! Now that you've finished, you're well-equipped to capture beautiful, well-exposed photos



# From Warmth to Winter

## Pre-Cooling Tips for Your Camera

As photographers, we often find ourselves drawn to the stark beauty of cold weather environments. However, transitioning your camera from a warm indoor environment to the icy outdoors can be a challenge. The key to seamless cold weather photography lies in effectively pre-cooling your camera. Let's dive into how you can prepare your gear for the chill and capture those winter wonderland shots flawlessly.



*Photo captured by Jonas Allert*

### **The Risks of Rushing the Pre-Cooling Process:**

It's tempting to skip the gradual pre-cooling process, especially when you're eager to capture a fleeting winter moment. However, rushing it can occasionally lead to some issues. The most common problem is condensation – when warm, moist air from inside the camera condenses on the cold camera sensor and internal components. This can result in foggy images and, in worse cases, damage to the camera's electronics.

Additionally, rapid temperature changes can cause lens elements to contract unevenly, potentially affecting focus and optical quality. In extreme cases, it can even lead to cracking of the lens elements. Therefore, patience is more than a virtue in cold weather photography; it's a necessity for safeguarding your precious gear.

## *From Warmth to Winter Pre-Cooling Tips for Your Camera . . . Continued*

### **Understanding Condensation**

Condensation occurs when warm, moist air meets a cold surface, a common challenge in cold weather photography. Inside a warm environment, your camera and its internal components, including the sensor and electronic circuitry, are at a much higher temperature compared to the frigid outdoor air. When you take your camera from a warm room to a cold outdoor setting, the moisture in the air inside and around the camera quickly cools down.

Since cold air holds less moisture than warm air, this rapid cooling causes the moisture to condense into water droplets. These droplets can form on both the external and internal parts of your camera, including the lens and sensor. This not only affects image clarity but also risks damaging the sensitive electronics inside your camera. Understanding this phenomenon underscores the importance of gradually acclimating your camera to colder temperatures to prevent condensation and ensure optimal performance. Here are some tips to prevent it:

#### **1. Gradual Temperature Adjustment:**

Start by gradually exposing your camera to colder temperatures. Moving your camera directly from a warm room to freezing temperatures can cause condensation, which might damage your camera's internal components. An effective way to do this is by placing your camera in a cooler area of your house, like a garage or near a window, before taking it outside.

#### **2. Use a Ziploc Bag:**

Before stepping out, place your camera in a large Ziploc bag. This will trap the warmer air around the camera and prevent condensation when you move outdoors. Once outside, allow the camera to acclimate to the external temperature while still in the bag. This usually takes about 30 minutes.

#### **3. Pre-Cool Your Lenses:**

Lenses are just as susceptible to temperature shock as your camera body. Apply the same gradual temperature adjustment to your lenses. Remember, changing lenses in cold conditions can introduce moisture, so try to decide on a lens before heading out.

### *From Warmth to Winter Pre-Cooling Tips for Your Camera . . . Continued*

#### **4. Keep Spare Batteries Warm:**

Battery performance can drastically drop in cold conditions. Keep spare batteries in a warm pocket close to your body. This will ensure they retain their charge longer when you need to swap them out.

#### **5. Avoid Breathing on Your Equipment:**

It might be tempting to use your breath to clean the viewfinder or lens, but in cold weather, this can cause immediate frosting. Use a lens cloth or blower instead.

#### **6. Use Silica Gel Packets:**

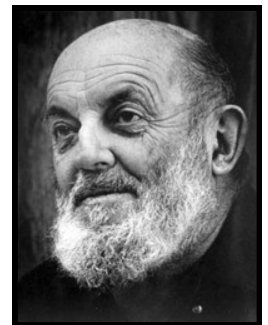
Placing silica gel packets in your camera bag can help absorb any moisture that might accumulate, offering an extra layer of protection against condensation.

By pre-cooling your camera properly, you can make the transition to cold environments much smoother and protect your equipment from ruined images or potential damage. Remember, the beauty of winter photography is unmatched, and with these tips, you're all set to capture it in all its glory.

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**“A great photograph is one that fully expresses what one feels, in the deepest sense, about what is being photographed.”**

**Ansel Adams**



*RM*