

EXTREME WEATHER

We explore some of the most extreme environments known to man and speak with their avid explorers to find out exactly what it takes to get the perfect shot

Far from the tame landscapes of the Lake District or Scottish Highlands, this issue we've gone in search of some of the most extreme environments on earth. You're not only challenged physically out there, but your camera kit and shooting skills are put to the ultimate test too, and every second counts.

Join us as we explore some of these incredible locations and unveil all the secrets behind shooting there. We'll first be exploring the extreme desert heat and then delve into the

dangers of shooting in a ferocious storm. To top things off, we'll also be taking a trip to the South Pole to find out what the challenges are when shooting in the plummeting temperatures of Antarctica. Along the way, we'll be speaking with top field professionals to uncover all the dangers that lie ahead and share not only their incredible experiences but also some expert shooting advice. Follow along over the next ten pages and discover what drives these photographers to risk their lives in search of the perfect shot. ▶▶

Extreme shooting tips

- Arid desert scapes
- Frame electric skies
- Moody storm shots
- Ice-cold captures

Sub-zero climates

▶▶ Photographing in the extreme cold is another intense challenge for photographic explorers. Up against severe minus temperatures, you can never be over prepared. Alexander Kumar (alexanderkumar.com) and Erick Bondoux (antarcticonline.org) are both keen photographers who are currently stationed at Concordia Station in Antarctica – the coldest place on earth. As temperatures can drop below -80°C in winter here, it's essential for any photographer to have planned for every eventuality prior to setting off. This is something both Alexander and Erick strongly advocate, remarking, "Planning is everything when working in extreme cold environments. You have to first ensure your own safety – be sure that the equipment and clothing you're using are suitable for the worst conditions you may expect." Alexander adds, "Frostbite can occur to any area of the skin that's left exposed. Adequate and appropriate clothing such as a Canada Goose parka is essential and will offer protection to your body as well as camera equipment and accessories."

Protecting your camera from the elements is essential. It's important to note that even the most durable models are still susceptible to breaking under these conditions. Alexander explains, "Autofocus mechanisms and diaphragms can freeze easily in extreme cold temperatures. If you force this mechanism once it's frozen, it can break. We recommend you use manual focus and avoid changing the AF/MF switch on your lens. You should also try to limit the use of the aperture diaphragm and optical stabilisation technology." Setting up your kit and selecting the best-possible camera settings prior to stepping outside is the best way to

The deep freeze

In cold temperatures your camera becomes more susceptible to accidental trauma, so take additional care when handling or placing your camera to rest on a surface. You will also need to be careful of sudden changes in humidity when bringing your camera inside from the cold. Don't attempt to forcibly reheat it on a radiator – instead let it warm up gently at room temperature.

In certain cold environments, humidity may be lower causing frequent build-up and discharge of static electricity around you. Take care to 'discharge' yourself by touching a metal surface before handling electronic equipment and especially memory cards as static discharge can cause data loss. Instead of carrying the card in your hands, try carrying it gripped gently in-between your teeth!

To protect your camera in cold conditions, common sense often prevails over expensive external underwater housing kits, which can fog up and may not provide additional internal room for body grips or heating kits.



© Sean McCormick

▶ **BRAVING THE FORCE OF NATURE**
DSLRs are tough, but rugged environments will push them to their limits – do some research to protect your kit!

reduce the risks of damaging your precious camera equipment. This includes changing your lenses as Alexander points out, "the snow and humidity changes can damage internal mechanisms."

Of course, when working outside in the cold there will still be things you'll need to watch out for, as Alexander and Erick explain, "Batteries are the greatest technical limitation when it comes to shooting in cold environments." Once a camera battery is exposed to colder temperatures it can lose its charge extremely quickly. Alexander suggests, "Any spare batteries should be kept inside your clothing and up against your body. Lithium-ion batteries generally provide longer life but only will last around 15-30 minutes or so when exposed to -50°C and below. Use a DSLR grip, this way you can use additional batteries simultaneously, increasing your shooting time, autonomy outdoors and provide greater control when handling the camera with large, cumbersome gloves."

Naturally, shooting in these conditions, you'll be challenged by the light and the landscape. Setting your exposure correctly is key to avoiding overexposed images that have burnt-out highlights. Alexander says, "Because of the high light intensity and reflection and refraction off the snow in the Antarctic winter, you'll need to continually measure the light when setting or changing your exposure. Polarising and UV filters can be useful to help reduce glare." ND filters like the Big Stopper are also great for preserving some of the highlight details in your image and give you a little more flexibility when it comes to setting just slightly longer exposures. It's important to remember however that this can still have a damaging effect on your kit as Alexander and Erick point out, "You should try to avoid using the mirror-up function as prolonged exposures in direct sunlight can damage your camera's sensor."

Between shooting, always ensure your camera is out of the elements and ideally within an insulated camera bag. Most importantly, always put yourself before the shot and regardless of what extreme conditions your shooting in, always have a safety plan in place. DP



© Alexander Kumar

GETTING CREATIVE

Barren, monotonous landscapes can sometimes be uninspiring. Mix up your shots by trying some tricks such as changing your camera lens to get some more creative results



© Alexander Kumar

CHANGING LIGHT

The time of day you opt to shoot at can completely transform your photographs. Early mornings or late afternoons provide a much more vibrant light to complement the landscape

FACING THE ELEMENTS

Always ensure you are suitably dressed to face the elements. Do your research first and layer up to stay warm. Always put your safety first when working in challenging environments

Extreme shooting tips
Safety is paramount so don't forget all of the essentials alongside your camera kit. Remember to tell others where you are headed and carry emergency supplies, communication and location tools. A torch is also a must-have!



© Alexander Kumar

“Batteries are the greatest limitation when it comes to shooting in cold environments”

Alexander Kumar & Erick Bondoux's top tips for ice-cold images

01 BODY GRIP

Use a grip on your DSLR to maximise the autonomy and length of time for shooting outside in extreme cold (preferably with lithium batteries).

02 USE SUPPORT

Tripods are extremely useful in cold conditions as you can keep your hands warm without having to hold the camera. Take care not to force your tripod's mechanisms when readjusting your position though. In extreme conditions, the materials will shrink and may become unmovable.

03 PROTECT YOUR KIT

If you're using accessories to shoot that have wires such as cable release, wrap them in Silicone (temperatures down to -45°C) or Teflon (below -45°C) to prevent them from freezing and snapping.

04 WARM CLOTHING IS A MUST

Invest in a large parka and use multilayered gloves with large insulated outer mitts which can be removed to leave five-finger gloves underneath. These are handy if you need to change settings (classic five-finger gloves alone are not efficient below zero).

05 Be selective

In extreme cold conditions, your camera's shutter life expectancy may be significantly reduced with wear and tear. Try to prolong your camera's use by only taking photographs when absolutely necessary

06 TIME IS LIMITED

It's important to make sure you understand your camera model's manual settings in order to get the most out of your camera before the batteries discharge in the extreme cold.

07 PREPARATION IS IMPORTANT

Do not change lenses outside or force frozen lens mechanisms. Select one lens to shoot with or take two cameras with you when you're out on location.

08 STAY IN THE WARMTH

Make all the necessary exposure and setting adjustments you can before going outside, this will help to protect you and your kit from the elements.

09 Consider temperatures

External flash accessories become fragile in extreme cold – don't use these under -35°C without adequate protection

10 Heating things up

If necessary use heating mechanisms for your camera and your gloves and clothing. Products like EXO2 or Blazewear heated clothing are perfect