Photzy

ESSENTIAL EQUIPMENT FOR LANDSCAPE PHOTOGRAPHY

Short Guide

Written by David Veldman

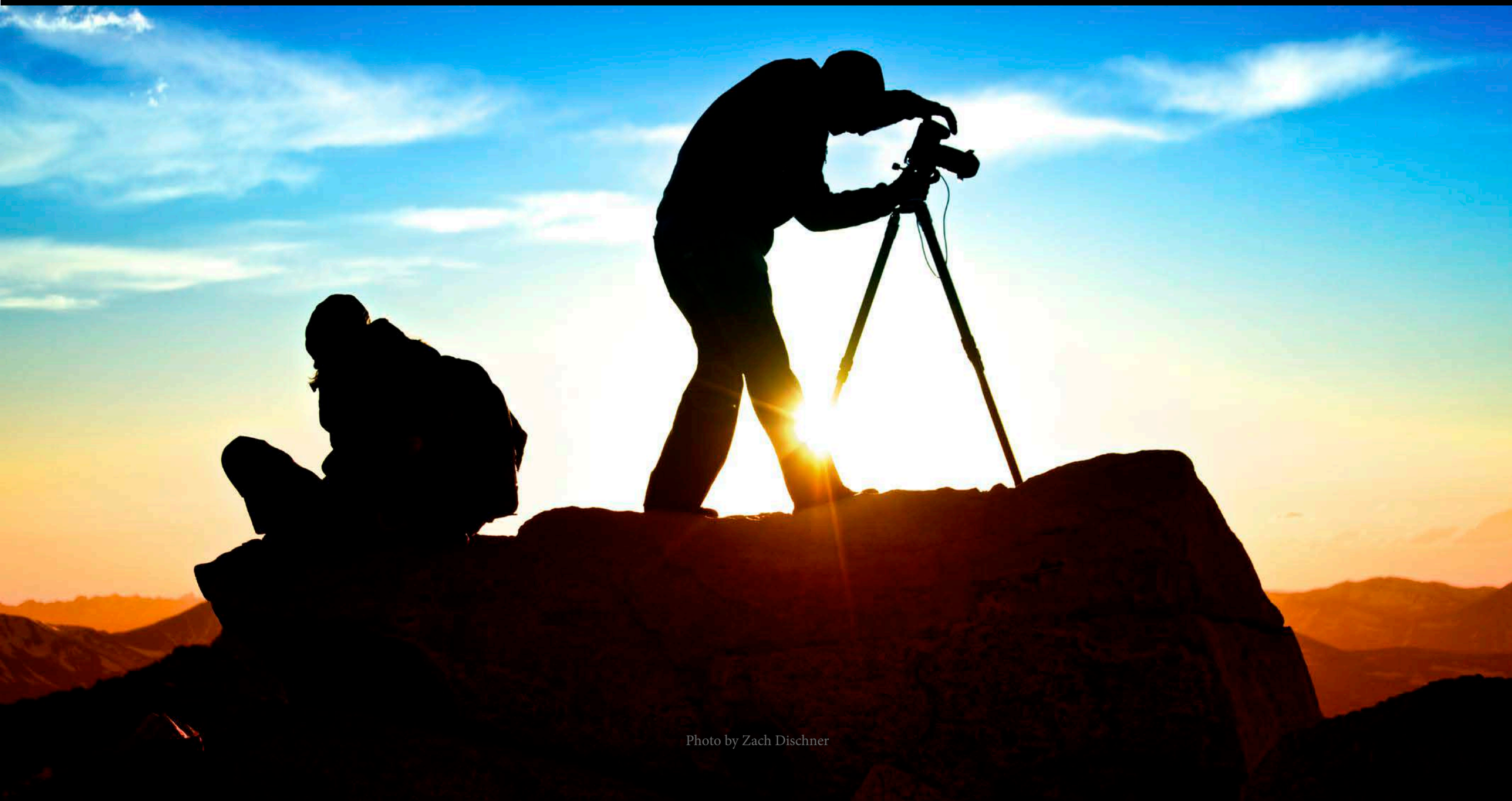


Photo by Zach Dischner

LANDSCAPE PHOTOGRAPHY

Landscapes may be the most popular form of photography. People around the world enjoy capturing and viewing them. We hang them on our walls, purchase magazines full of them, and display them as backgrounds on our computer monitors. Perhaps this is because landscapes are a little bit of an escape from day-to-day life. They can provide mystery, inspiration, or simply relaxation in an instant, but above all, they're simply pleasant to look at. Painters understood their universal appeal, and produced landscapes before photography even existed. Even non-photographers will usually take a landscape photo at some point in their life.

For the photographer, landscapes are an attractive subject, particularly to those just beginning to delve into the world of capturing images. There is a variety of reasons for this. Landscapes are, as mentioned above, a style that the vast majority of people enjoy, so you're practically guaranteed that someone will appreciate your work. Some other genres, such as still life, are slightly less popular and do not hold such broad appeal. In addition, the learning curve for taking a landscape photo is slow, but steady. Lastly, the equipment required to begin shooting landscapes is as minimal as can be: a camera.

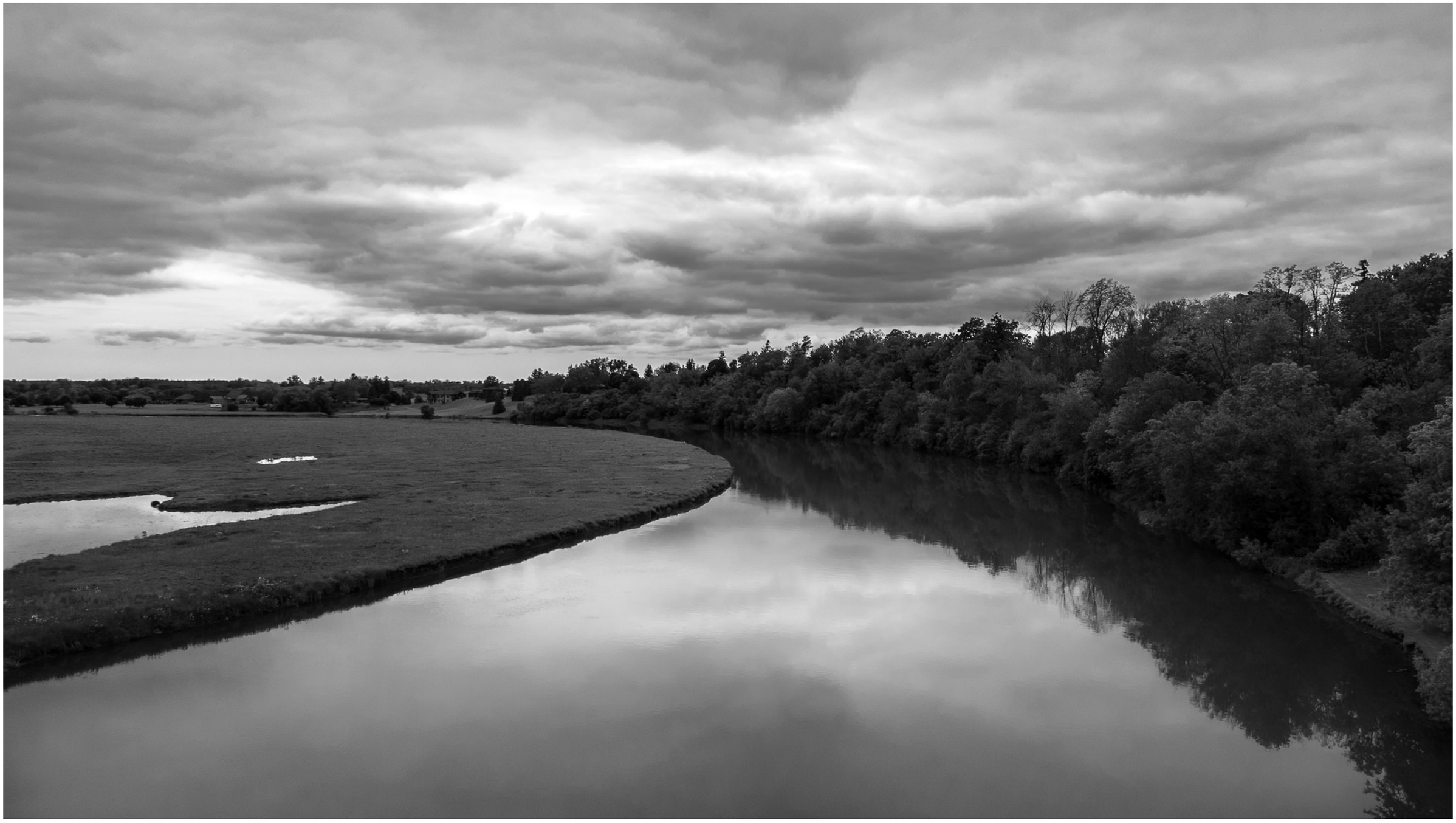
I personally began to shoot landscapes before I even owned a digital camera, and they were a large factor in my decision to buy one. Although a camera is literally the only thing that you need to take a landscape photo (and a lens if your camera is an interchangeable type), you may soon find yourself wondering, what else can help you take even more images that are stunning? You are no longer just satisfied with the obvious shot; you want to explore different possibilities. This is when you begin to move from the casual landscape snapper to the dedicated photographer that wakes up at 5am to capture the sun rising in the fog (yes, I've done that too).

In this tutorial, I'll guide you through the essential equipment required for landscape photography. Keep in mind while you read that gear alone will not produce a great image. You need vision, patience, and determination. Landscape photography is very much a hit and miss discipline. Some days will be a washout regardless of the gear you have with you, but at least you don't have to deal with demanding models!

Most importantly, keep learning while you shoot. Photzy has a Premium Guide on Landscape Photography (click this link for details) that will help you improve your composition and vision, as well as guide you through using some of the equipment that I'm going to mention.

As I'm what I call 'a budget photographer,' I'll also be including some tips on how to work without equipment and software, which can save you money.

We'll start with the most basic elements, the camera and lens.



David Veldman
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THE CAMERA AND LENS

I'm pleased to announce that you can use basically any camera to shoot landscapes. If you have a digital camera, chances are that you can shoot landscapes with it. However, perhaps you're looking to take the plunge and buy your first camera or upgrade from an old one; this section is for you.

While any camera can capture landscapes, there are certain features that can improve the technical quality of your shots. Again, note the word 'technical.' This means that while you can hustle to the store and buy a top-level camera, it won't guarantee you stunning shots. As such, I generally caution new buyers not to drop too much money on their first camera.

So, you don't need to buy top of the line, but what do you need?

To begin with, a camera capable of at least *medium grade image quality*. Image quality is unfortunately a very subjective term, so I'll tread carefully. While you probably won't be blowing your images up to billboard size, you do want them to be usable in a variety of ways. In the future, you may even want to print one. In addition, landscapes are a subject that people expect to see clearly and sharply. We'll take a quick look at three of the main factors that affect image quality: sensor size, megapixel count, and dynamic range.

The *sensor* is the electronic device inside the camera that captures your image—it's the digital equivalent of film. A larger sensor will generally equal better image quality. This is just physics—a larger sensor can capture more light. Sizes for sensors range from the tiny 0.4 of an inch in your cell phone to massive, large format professional cameras. Sensor size explains why your cell phone often won't look as good as a 'true' camera, even if it has two or three times the amount of megapixels. I have taken pictures that I am proud of with a sensor as small as half an inch, but I would recommend a beginner start with something between 1 inch and APSC/H (the size used in entry level DSLRs made by Canon and Nikon).

You'll also want your camera to have an *adequate megapixel count*. This is a touchy subject, particularly the use of the word 'adequate.' Suffice to say that overall, the majority of cameras produced today will have enough megapixels for your needs. Try to stay above 10, but don't worry about going over 25. The photo of a tree on the next page was shot with a 13-megapixel camera and stands up to scrutiny well enough.

David Veldman
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Camera manufacturers don't commonly mention dynamic range, but it's important for landscape photography. *Dynamic range* refers to the camera's ability to record the extremes of bright and dark in the picture. A higher dynamic range means that you can capture details on the ground without turning your skies into a featureless white. Some cameras fare better here than others, but again most are adequate, particularly if you pre-plan your shots. You can research a camera online to see how it scores with regards to dynamic range.

Try to buy a camera that shoots raw. *Raw* is the full sensor readout from the camera, and produces files that are larger than JPEG, with more room for dynamic range control and other adjustments. Many cameras shoot raw now, including some cell phones.

Ensure that the camera you choose is capable of *full manual control*. DSLRs, mirrorless cameras, and high-end compacts will offer this feature. Manual control is necessary to allow you to make the final decisions concerning exposure. This is particularly important when using techniques like long exposures.

If you're buying a camera that takes *interchangeable lenses*, like a mirrorless or a DSLR, you'll need a lens as well. Most of these cameras come with a kit lens that can produce great images in the right hands. These are usually *zoom lenses* between 15-50mm, which makes them wide enough to capture landscapes. Once you're ready to upgrade, consider something wider in the 10-20mm range for truly expansive vistas, or a medium telephoto zoom to isolate your subject.

Mizzy Pacheco
https://www.flickr.com/photos/pachecophotography/5121908753

The photographer used a lens that was wide enough to capture both ends of the rainbow within the frame. If the lens was not wide enough, the photographer would have to step back farther to be able to include the whole rainbow in the shot.

TRIPOD

This is, or should be, the piece of equipment that every photographer buys after a camera and a lens. They are used in almost every style of photography, but for landscapes, they are particularly important. You'll use a tripod in many situations, just two of which I've listed below.

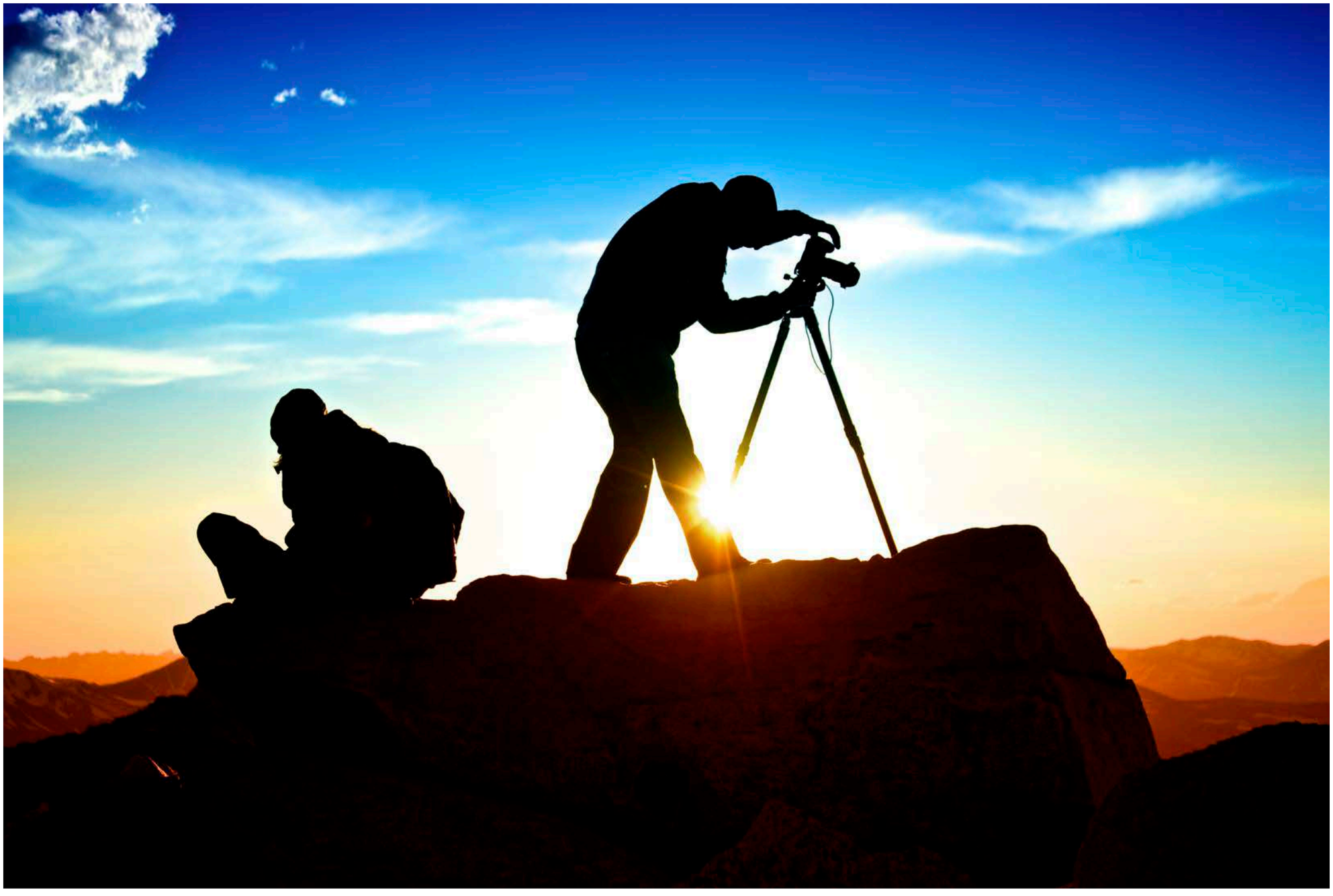
Long Exposures

You can add a lot of interest and impact to your images by slowing your shutter speed long enough to produce a visible effect. You see this most commonly used with water. A long exposure turns running water, or waves, into silky white ribbons and semi-opaque pools. Although less common, long exposures on a windy day can have a similar effect on your skies. Long exposures are a great way to get a better grasp of how exposure works. I had barely been shooting for a month when I began experimenting with them, and I was instantly wowed by the way they capture the feeling of time. Of course, to get this effect you need to shoot at a speed slower than ¼ of a second. Even with modern stabilization features, you won't get a sharp shot handheld. Your tripod will quickly become an indispensable part of your camera gear. I keep mine in my car in case I ever need it.

HDR

As I mentioned above, dynamic range is the ability of a camera to record the extremes of light and dark in an image. Despite amazing leaps in sensor technology, there will still be times when your sensor will be overwhelmed. In these situations, HDR is a great technique to capture a stunning shot. HDR involves combining multiple shots of varying brightness and creating a single image with detail in the darkest and lightest areas. Some cameras can even do this without any additional software. HDR can be done handheld in some cases, but it's tricky, as the shots must all be perfectly aligned, so once again a tripod is recommended.

When you buy a tripod, you get what you pay for. Resist the urge to buy the cheapest one you see. Extremely cheap tripods will wobble under a slight breeze, won't support as much weight, and often won't give you the height you may need. They'll also break on you. Landscape photography may be a literal walk in the park, but at times, it can be demanding or even hazardous. Keep in mind that you are resting your prized camera on that tripod. I went through two dirt-cheap tripods before deciding to upgrade, and they were a waste of money. You don't have to buy a top of the line model, but look for something solid and durable.



Zach Dischner
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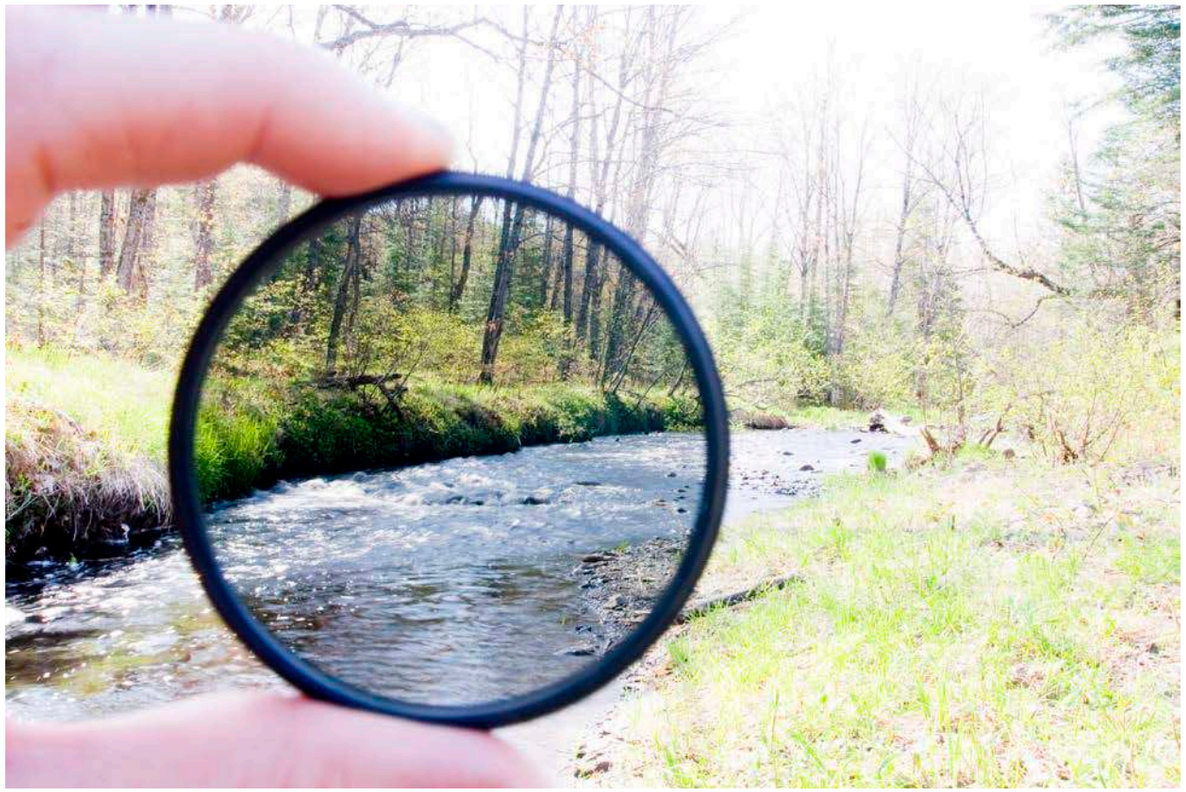
FILTERS



Robert Emperley
https://www.flickr.com/photos/emperley3/4705354106/

This is a screw-on ND filter. Once attached to the front of a lens, it will decrease the amount of light that will reach your camera sensor. This will also allow you to use longer shutter speeds during daytime.

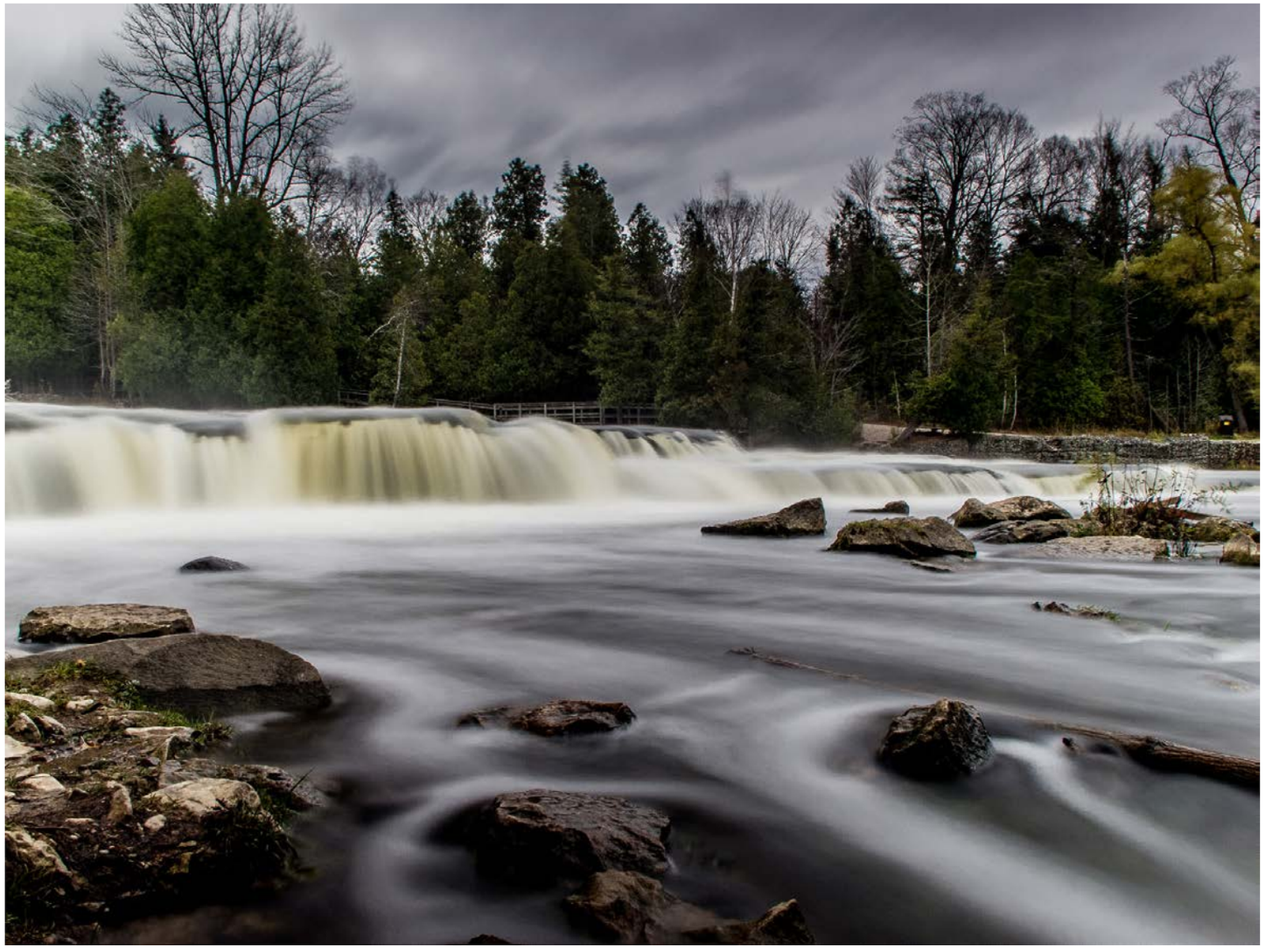
I could write an entire tutorial on filters alone. Filters all serve to somehow alter the light that we capture, but there are many different kinds, and they each produce a unique effect. Furthermore, the cost for a filter can stretch from 5 dollars to hundreds of dollars. I won't cover every type, but these are the essentials you're most likely to employ. Before you buy any filter, double check the filter size of your lens.

ND Filters

I mentioned earlier how long exposures can be used to create dramatic effects in our landscape photos. Along with a tripod, ND filters are the main instrument for creating long exposures. ND stands for *Neutral Density*, and all they do is decrease the amount of light that enters your camera. Without an ND filter, a 1-second image during daylight will almost always be critically over exposed. The filter decreases the light, allowing us to creatively manipulate the exposure.

ND filters come in an almost bewildering array of varieties. The biggest decision you will have to make is whether to purchase a *variable ND* filter or a *fixed* one. Variable ND filters allow you to adjust the darkness of the filter, but they are usually of a lower optical quality.

An ND filter was the first accessory I bought after a tripod, and I had so much fun using it. I strongly recommend purchasing one.



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Graduated ND Filters

A *graduated ND* filter, or just Grad ND, is the same as an ND filter but with a twist. Only half of the filter is dark. The filter fades from darkness at one end to clear at the other. The reason you may need this filter is simple: the sky is brighter than the ground.

While a seemingly obvious observation, this is often a challenge for landscape photographers. Exposing for the ground will result in a blown-out sky, but exposing for the sky will create a dark and featureless ground. There are ways to somewhat mitigate this problem, such as shooting raw, post-processing, or using HDR. However, a Grad ND is both simple and effective. It also is usually quite affordable.

Angus MacRae
https://www.flickr.com/photos/36176995@N05/4489206505/

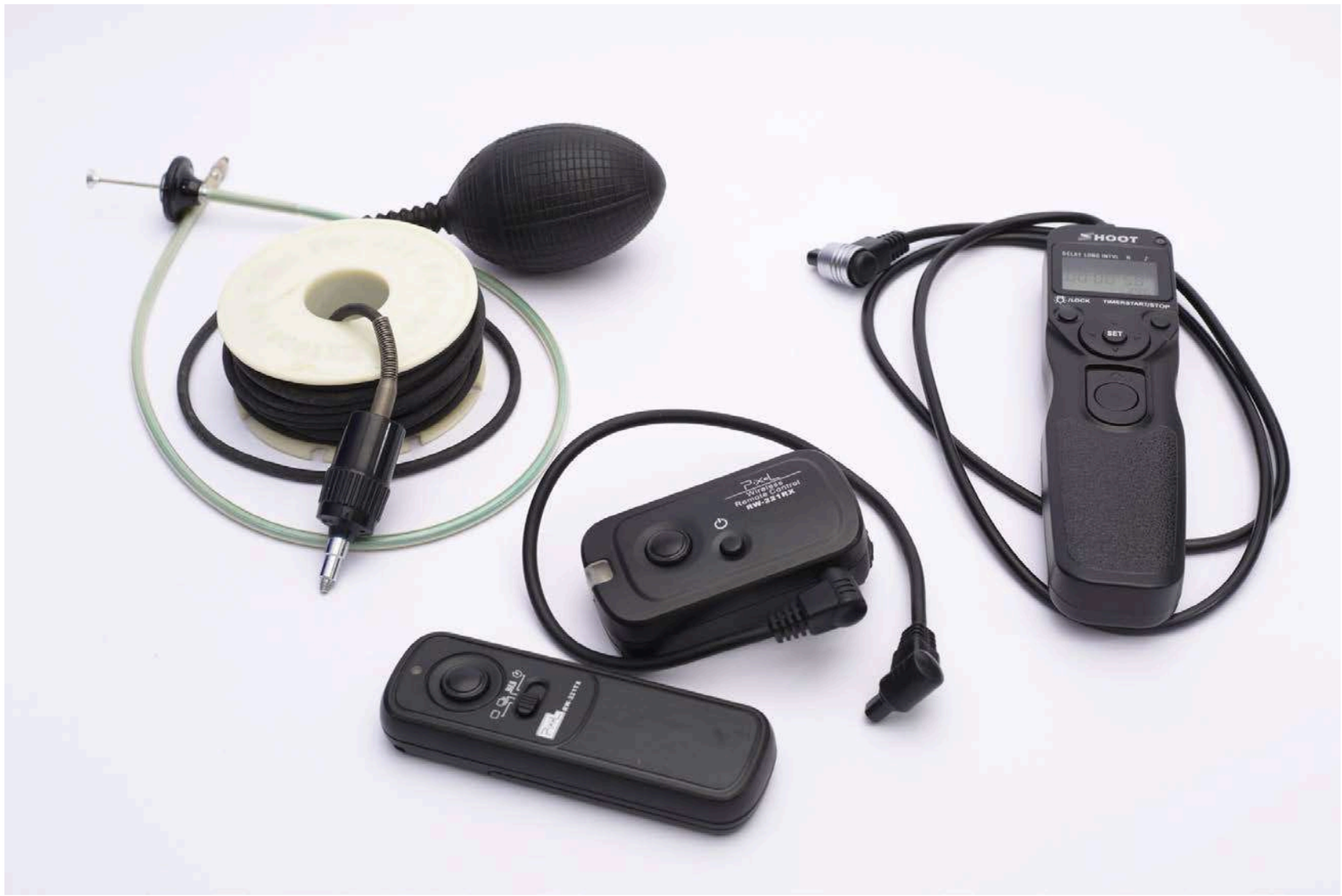
This image shows the difference between a scene where a circular polarizer was used properly (LEFT) and where it was not used properly (RIGHT).

Circular Polarizer

A *circular polarizer* is the second filter that I purchased. Although often over used, they are great for adding pop to your images. A polarizer decreases light entering the lens from certain angles. Because reflections and glare are light coming from a different angle, the polarizer will reject them and create a clearer image. Used properly, a polarizing filter will add contrast to the sky, and in some cases even let your camera see through water. Most photographers consider the polarizer an essential piece of equipment.

Other Filters

Colored filters (to achieve an artistic effect) are particularly useful when you want to shoot black white. A red filter will turn your blue sky dark and give increased contrast against the clouds. However, you can also simulate this effect easily with post processing.



Dennis van Zuijlekom
https://www.flickr.com/photos/dvanzuijlekom/20617089002/

Here are some examples of remote triggers. Not all cameras can use triggers so make sure to check which brands and models your camera can support before buying one.

REMOTE TRIGGER

A remote trigger or remote shutter release is a device that you use to control your camera without actually touching it. Self-explanatory, right? Remotes can be wired or wireless, and certain cameras even offer the ability to use your smartphone to control them. Why do you need a remote? When taking a picture with a long shutter speed, even the motion of pressing the shutter can create camera shake. A remote shutter release resolves this issue.

Remotes can usually be purchased affordably online, but if you can't afford one, or your camera isn't compatible, you can simply set your camera on a 2-10 second self-timer and allow it to trigger on its own.

THE PHOTOGRAPHER'S EPHEMERIS

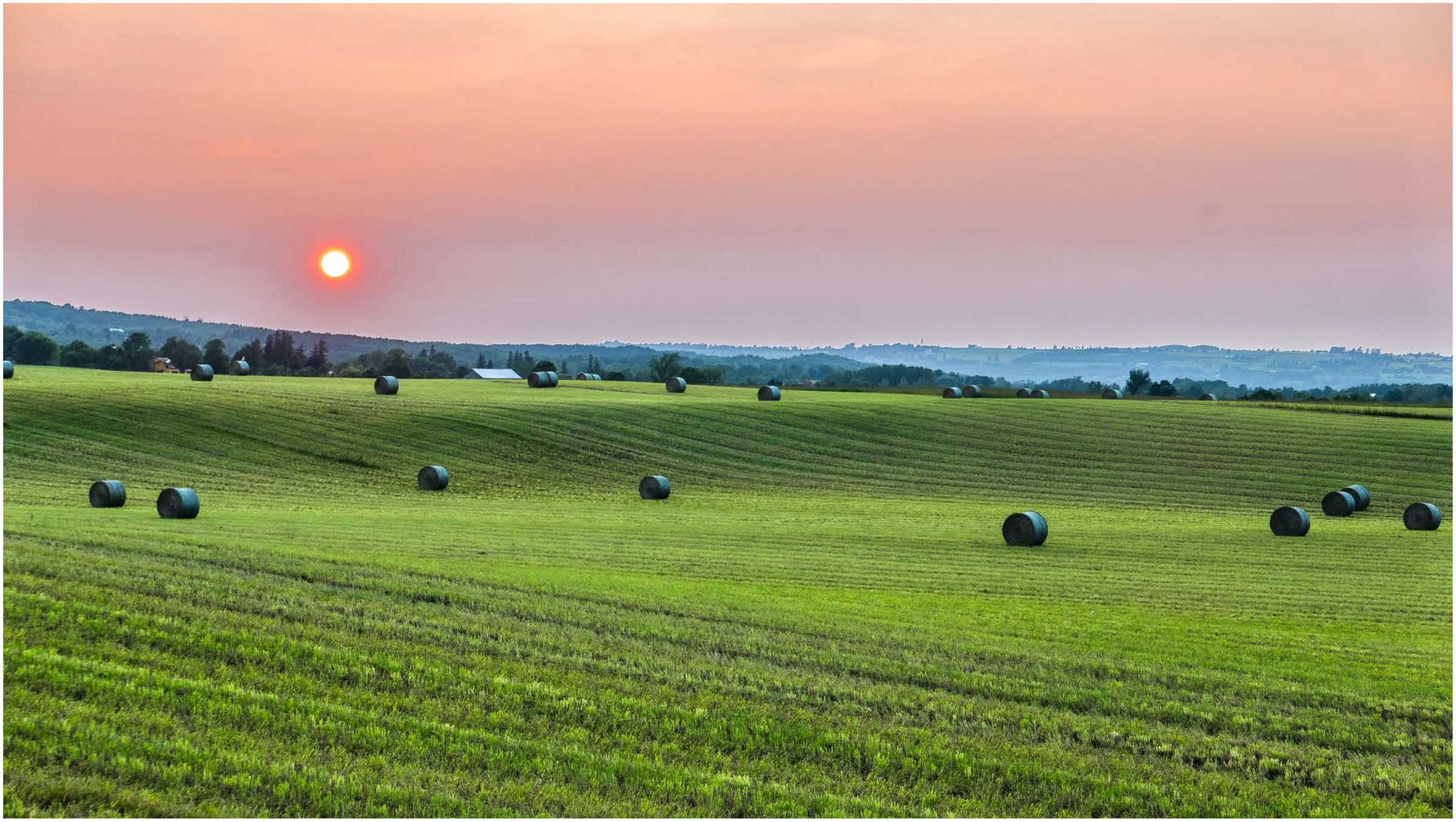
The Photographer's Ephemeris is not a piece of physical equipment that you keep in your bag. Despite that, it is a tremendously useful tool for landscape photographers. Incredibly enough, the web-based version of TPE is available for free.

Unlike a portrait or still life photographer, the landscape shooter is at the mercy of natural light. The practical implication is that at times, you simply will not succeed in capturing what you set out to.

When you first start shooting landscapes, you may simply look for pretty scenery or a nice view. However, a stunning landscape shot is more than just a beautiful scene. Light is the element that elevates a picture from a snapshot to an image. Once you recognize this fact, you will become a true 'light stalker.' Like me, you may end up rising at unusual hours to catch the sun striking a mountain, or you may linger in the woods at night to capture a moonscape. In addition, you'll begin to plan your shoots in advance.

One of the greatest tools for planning is The Photographer's Ephemeris. TPE is a map-based tool that displays your sunrise, sunset, moonrise, moonset, and a plethora of other information. It may seem a bit confusing at first, but tutorials explaining its many features can be found online. When using the interface, it can be as simple as finding yourself on the map, dragging the pin to your exact location and examining the path and time of the sun's movement. You no longer have to guess the best time of day to shoot.

TPE can be downloaded for Android or iPhone, and the free web-based version of it can be found at http://app.photoephemeris.com/.



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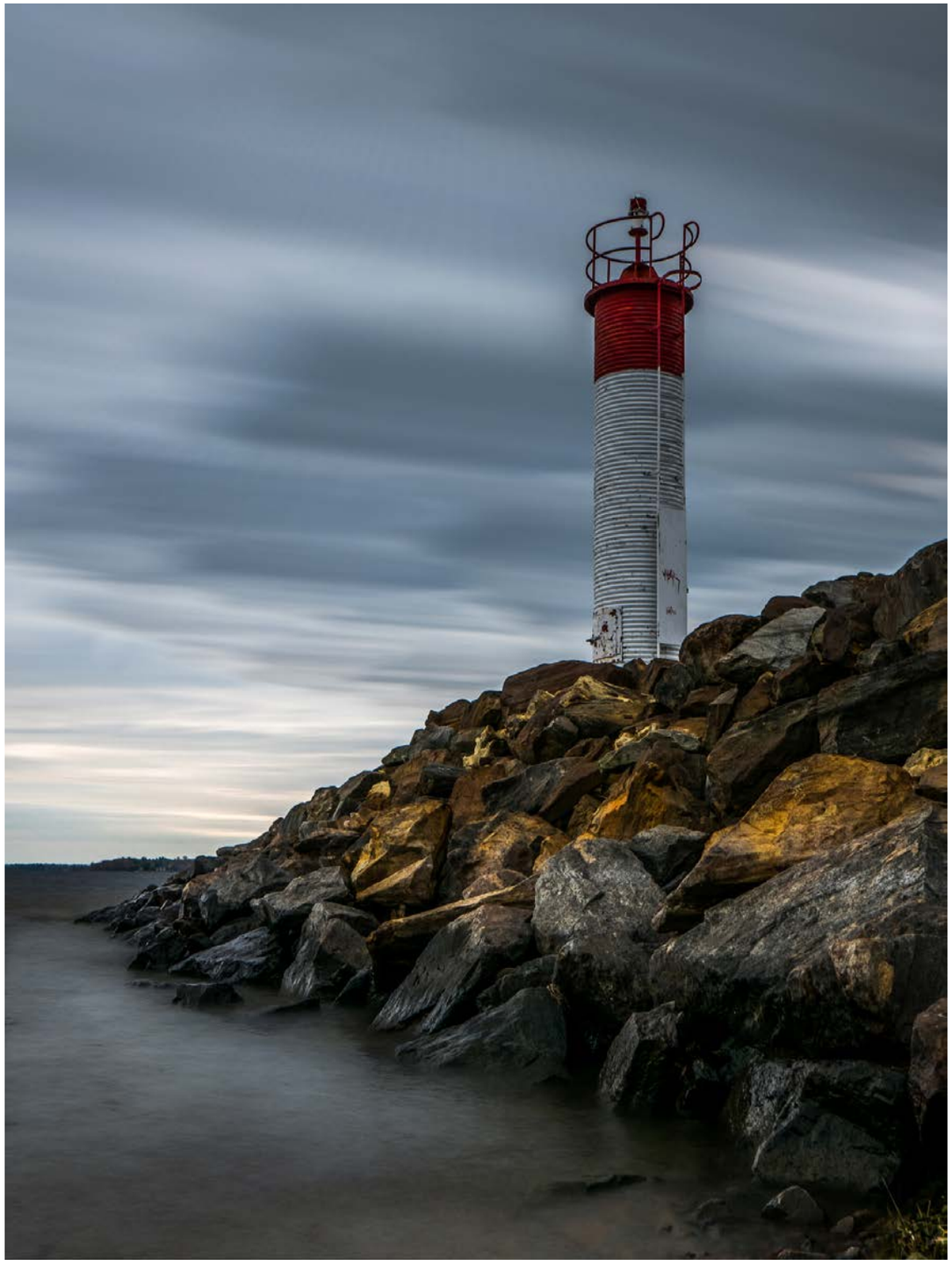

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POST-PROCESSING SOFTWARE

Once again, post-processing software may not seem to meet the definition of ‘equipment,’ but there is no doubt that it is essential. While some purists insist that images should not be altered in any way, you should shoot your landscape images in the raw format, and to get the most out of that format you need to use post-processing software. Post-processing software will allow you to adjust your white balance, contrast, exposure, highlights, shadows, and much more.

This doesn’t mean you have to embrace the fantastical, like adding or removing objects from the scene, but cameras very rarely capture a scene the way our eyes see it. Thus, it is up to you, the visionary, to edit your images to reflect what you see. Don’t be afraid to get creative with your edits, but remember that for some competitions only minimal edits are permitted.

There is a variety of programs for editing images. Lightroom and Photoshop are the most common and reliable.

If you’re shy on money, GIMP is a free editor with deep functionality but a steeper learning curve. Once again, you can find tutorials for it online.

CONCLUSION

All of the equipment listed above will assist you in your photographic journey. This doesn't mean that you need to hit the store and buy everything on the list. I accumulated my equipment gradually, and I'm still in that process to this day (as my wife allows).

My recommendation is to focus on the tripod and post-processing software first. If you don't want to pay for software, download GIMP, and learn to use it. Then prioritize based on what kind of images you want to capture. For example, if you find long exposures boring or clichéd, skip the ND filter and buy the circular polarizer.

Again, remember to grab a copy of Photzy's premium landscape book, The Complete Landscape Photography Guide. It covers comprehensive information on choosing the best equipment for landscapes and how to use them to your advantage. It also includes camera settings, composition, post-production, and other things that will help you develop your skills in creating stunning landscapes.

Landscape shooting isn't always easy and it can be very time consuming. However, it is immensely rewarding, and for some (myself included) it is an almost spiritual activity that connects you to the world around you.

Enjoy.

About the Author

David Veldman wants to be a better photographer, and he hopes you will join him on the journey of learning. Best of all, he's doing it on a budget! When not taking pictures David and his wife are hiking, snowshoeing, or discovering new culinary delights.

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