Stockton Camera Club

The Shutter Tripper   December 2024
November Prints of the Month

Under the Santa Monica Pier
Print of the Month - Dean Taylor

2nd Place - Print
Long Billed Dowitcher at Merced NWR
Ron Wetherell

3rd Place - Print
He's Been Rooting In The Grass
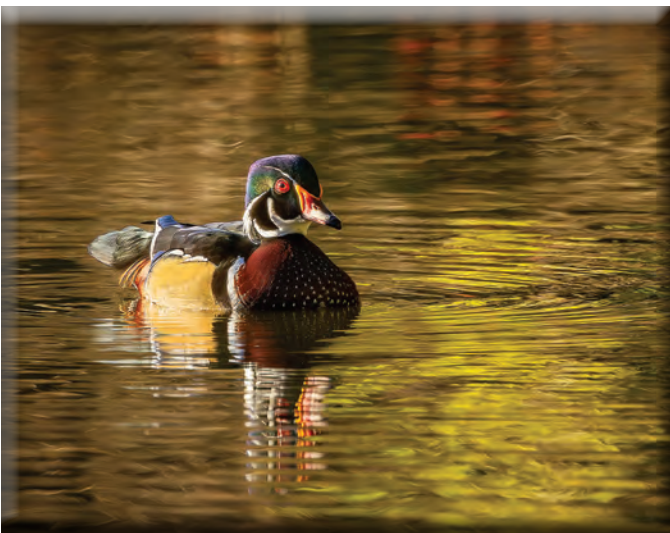**Ron Wetherell**

November 10's

Stacked Chairs
Dean Taylor

Bodie Kitchen
Sharon McLemore

Pea Hen Profile
Dean Taylor

Wood Duck on Golden Pond
Ron Wetherell

Water Lily Trio
Joanne Sogsti

Dalhia
Em McLaren

Into the Storm
Ken Cawley

Bodie Cabin at Night
Sharon McLemore

Puddin and Her Daughter, Butterscotch
Ron Wetherell

Sunsetting at the Bridge
Em McLaren

Pt Reyes Boat
Sharon McLemore

Bodie Wood Texture
Dean Taylor

Monthly Meeting
November, 2024

Heide opened the meeting and introduced our visitors, Lytune and Irene. This month the competition was Prints only. Doug is asking that all those who got a 10 on their prints to please send him the digital image of the print so he can put it in the Shutter Tripper. Doug's e-mail address is: *doug_flyfisher@yahoo.com*.

1. Dean announced that the Tracy Art League will be having a show. It is multimedia but if you would like to enter the date is from December 9th to January 10th and the show will be February 14th – 21st. Photo's must be framed. (See flyer below)

2. Wayne is asking that you bring the prints you want to enter for the year end competition to the Dec. meeting. He will send out further info on the competition soon. You can enter 4 prints from the past year of competition and 6 digital images.

3. The December meeting will be both prints and digital images. The Special Subject for December is: "ICM" (INTENTIONAL CAMERA MOVEMENT).

Dean introduced this month's judge, Susan Bovey. She is from Woodland and a long-time photographer. She has judged for us in the past and we have enjoyed her comments. She is an excellent photographer.

PRINT WINNERS FOR NOVEMBER

1st place – "Under the Santa Monica Pier" by Dean Taylor
2nd place – "Long Billed Dowitcher at Merced NWR" by Ron Wetherell
3rd place – "He's Been Rooting In The Grass" by Ron Wetherell

Congratulations to the winners!

Please let me know if there are any changes or additions to the notes.

Have a Happy Thanksgiving! Em

SCC Officers 2021

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Heide Stover
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Vice President Programs
Dean Taylor - 986-9848
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Vice President Competition
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Hospitality Chairperson
Open

Print Competition Chairperson
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Refreshments Chairperson
Open

Shutter Tripper/Educational
Doug Ridgway - 617-7050
Email: doug_flyfisher@yahoo.com

Web Master
Ken Cawley
Email: ken.cawley@comcast.net

President's Message
December, 2024
By Heide Stover

It was nice to have Susan Bovey judge for us. She always does a good job with comments we can learn from. It was a short night with prints only.

Remember to bring your prints that you want to enter in the end of year competition, 2 monochrome and 2 color.

I just want to clarify on the color sections:
1. In both prints and images, it must be color prints and color images that Open Color Digital - Can be any color digital image entered in the 2024 Open Competition
2. Open Color Print - Can be any color print entered in the 2024 Competition (Including prints entered in Special Subject since we do not have a special subject for prints.)

Do not enter black and white images in the color sections for either prints or digital.

Let Wayne know which images you are submitting for digital.

Look forward to seeing you for our last competition for the year.

Hope everyone had a great Thanksgiving.

Heide

A Big Thank You to Our Sponsors!

**182 West Adams Street
(On the Miracle Mile
Across From The Valley Brew)
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Phone: 209-464-2299/Fax: 209-464-9229
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2024 Calendar of Events

Every 3rd Thursday (Except April & Aug) 6:30 PM	West Lane Bowling Alley Stockton	Membership Meeting Contact Heide Stover h1stover@aol.com
Thursday December 19	West Lane Bowling Alley Stockton	December General Meeting Special Subject - ICM (Intentional Camera Movement Only).

2025 Calendar of Events

January	TBA	Annual Banquet/Awards Ceremony
Thursday February 20	West Lane Bowling Alley Stockton	February General Meeting Special Subject - Light
Thursday March 20	West Lane Bowling Alley Stockton	March General Meeting Special Subject - Texture
April	TBA	April Workshop/Photo Opportunity
Thursday May 15	West Lane Bowling Alley Stockton	May General Meeting Special Subject - Doors/Windows
Thursday June 19	West Lane Bowling Alley Stockton	June General Meeting Special Subject - Prints
Thursday July 17	West Lane Bowling Alley Stockton	July General Meeting Special Subject - Creativity (In Post Process)

Stockton Camera Club
September 2024 Competition Standings
Congratulations to the winner!!!

Our October competition meetings was held in person at the bowling alley.

PRINT COMPETITION WINNERS:

1st place – "Under the Santa Monica Pier" by Dean Taylor
2nd place – "Long Billed Dowitcher at Merced NWR" by Ron Wetherell
3rd place – "He's Been Rooting In The Grass" by Ron Wetherell

Please check out the website http://www.stockton-cameraclub.com/home.html"

Class AA Standing	TOTAL	OPEN	SS	FEB	MAR	MAY	JUN	JULY	SEPT	OCT	NOV	DEC
Dean Taylor	309	262	47	40	38	36	39	38	40	38	40	
Doug Ridgway	259	211	48	37	38	36	36	0	37	38	37	
Ken Cawley	241	207	34	33	29	35	34	0	35	39	36	
Christine Blue	221	167	54	35	37	35	0	36	39	39	0	
Joan Erreca	93	75	18	33	36	24	0	0	0	0	0	
Bob Harada	66	48	18	0	33	33	0	0	0	0	0	
Sharon Helms	38	28	10	0	0	0	0	0	0	38	0	
Craig Smith	37	37	0	0	0	0	0	0	0	0	37	
Heide Stover	36	27	9	36	0	0	0	0	0	0	0	
Trey Steinhart	0	0	0	0	0	0	0	0	0	0	0	
Elizabeth Parrish	0	0	0	0	0	0	0	0	0	0	0	
Karleen Gansberg	0	0	0	0	0	0	0	0	0	0	0	
Reginald Lee	0	0	0	0	0	0	0	0	0	0	0	
Class AAA Standing	TOTAL	OPEN	SS	FEB	MAR	MAY	JUN	JULY	SEPT	OCT	NOV	DEC
Em McLaren	304	246	58	40	36	36	36	39	40	39	38	
Sharon McLemore	299	243	56	38	38	37	36	39	33	39	39	
Joanne Sogsti	296	251	45	37	36	36	36	39	36	39	37	
Debra Goins	282	229	53	37	34	35	34	35	34	37	36	
Ron Wetherell	279	241	38	39	36	26	36	38	36	28	40	
Wayne Carlson	145	114	27	37	35	37	36	0	0	0	0	

2024 Competition Policy

A. GENERAL RULES

1. Only paid-up members may enter club competition.

2. Regular print and digital image competition period: Once each month except January. A competition year is February through December. Current regular meetings are February, March, May, July, September, October and December. The number of meetings may change from time to time at the discretion of the Board of Directors and approval of the general membership as facilities permit. The Annual Awards Dinner will be held in January.

3. A total of four (4) images (all prints, all digital or a combination of both) may be entered each competition month. A total of three (3) images may be entered in the Open Division and a total of one (1) in the Special Subject Division. The number of entries may change from time to time at the discretion of the Board of Directors and the approval of the general membership.

4. Each image will be scored from 6 to 10 points. All prints or digital images receiving 9 or 10 points will be classed as an honor image. The title of each print or digital image entered will be read before being evaluated. The name of the maker will be read for 9-point honor winners. Maker's names will be announced for the 10 point images after the Print & Digital Image-of-the-Month winners are chosen.

5. A print or digital image that does not receive an honor score, may be re-entered one more time in the same division.

6. A print or digital image may be entered in all divisions for which it qualifies; i.e., an honor image in Open may also be entered in the Special Subject Division at another competition. A print or digital image that receives an honor score may not be re-entered in the same division.

7. Any print or digital image that appears to be ineligible for competition or not qualified for a specific division could expect to be challenged. The Competition Vice-President shall decide whether or not the image is acceptable.

8. The exhibitor must have exposed each negative, slide or digital image entered. All images submitted for judging must be the work of the photographer/maker including the taking of the images and any digital enhancements and/or manipulation of the image. This does not apply to the processing of film or printing by a commercial processor.

9. The same image should not be entered both as a print and a projected digital image in the same competition.

10. In the event of absence or barring unforeseen circumstances, a member may submit make-up prints or digital images for one competition night per competition year; and whenever possible must submit all make-up prints or digital images at the meeting immediately following the month a member failed or was unable to submit the prints or digital images. Make-ups in the Special Subject Division must be the same subject as the month missed. Also, in case of absence a member may assign the responsibility of submitting his or her prints and/or digital images for competition to another member.

11. A club member who serves as judge cannot enter his or her own prints or digital images in the same competition. The judge's make-up prints or digital images can then be entered in another competition during that competition year. This is in addition to the once-a-year make-up provision already allowed.

12. Prints or digital images may be projected/viewed briefly before the judging of each division if the judge indicates he/she would like a preview.

B. PRINT ENTRY RULES

1. Each print entered must have a completed label attached to the back of the print including; name of maker, title, date entered and Division (Open or Special Subject). The writing or printing on the form must be legible. Labels must be attached on the back of the print in the upper left-hand corner for correct viewing of the print.

2. All prints must be matted or mounted with a total size (including mat board) of no larger than 18" X 24" and no smaller than 8" X 10". Exception: One side of a Panorama Print may be no larger than 36". Prints that are smaller than 5" X 7" will not be accepted. The maker's name must not appear on the viewing surface of the image. Framed prints shall not be entered.

3. Prints accompanied by entry forms should be submitted no later than 15 minutes prior to the start of the regular monthly meeting.

4. Prints receiving a score of 10 points, in each class, will be regrouped and judged for selection for the Print-of-the-Month honors. Print-of-the-Month honors will be given in Class A, AA & AAA.

C. DIGITAL IMAGE ENTRY RULES

1. Digital images must be submitted in a format and by the deadline specified by the Competition Vice-President. Digital images may be submitted by email, mailed (CD) or delivered (CD) to the Competition Vice-President. Definition of Digital Image: An image taken with a digital camera, a negative, slide or print scanned into the computer and processed digitally.

2. Images must be in a format compatible with the projector. The key thing to keep in mind when formatting photos for submission is that the projector we use in the competition has a (maximum) resolution of 1400 x 1050 pixels. This means that any photo that exceeds this size in either dimension, could end-up being cropped by the projector. In other words: the image width cannot be more than <u>1400 pixels</u> and the image height cannot be more than <u>1050 pixels</u>. If your image is horizontal, only change the <u>width to 1400,</u> if your image is vertical, only change the <u>height to 1050</u>. Do not change both. Down-sizing the image from the "native" resolution coming out of your camera also significantly reduces the file size. This helps when emailing the files and takes-up less space on our hard-drives.

3. The maker's name, title of image, date entered and division (Open or Special Subject) must be included as the title of the image. When you have finished re-sizing your image save your image with a new title. For example do a Save as: <u>Smith Sunrise Splendor 05-15 O.jpeg. (O-Open</u> or <u>SS-Special Subject)</u>. Specify whether you're Beginner, Advanced or Very Advanced.

4. Digital Images receiving a score of 10 points, in each class, will be regrouped and judged for selection for the Digital Image-of-the-Month honors. Digital Image-of-the-Month honors will be given in Class A, AA & AAA.
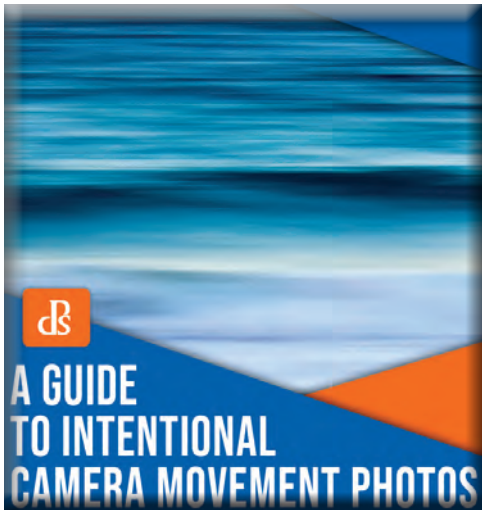
ICM Photography:
A Guide to Intentional Camera Movement
### A Post By: *Richard Beech*

This article was updated in August 2024 with contributions from Richard Beech and Jaymes Dempsey.

If you're tired of capturing the same old static images and are looking to re-energize yourself with a dash of creativity, then I highly recommend intentional camera movement photography.

This technique is all about breaking the rules and embracing the beauty of blur. By intentionally moving your camera while the shutter is open, you can create mesmerizing, dreamlike images that defy convention. The results are reminiscent of an Impressionist painting – except instead of a paintbrush, you use a camera!

Note that ICM photography isn't just about waving your camera around and hoping for the best; it requires real skill and relies on a combination of control and experimentation. Of course, fooling around with ICM techniques is part of the fun, but if you want to get good results right off the bat, I do have plenty of tips, tricks, and hints to help you out.

Bottom line: By mastering the right techniques and settings, you can capture breathtaking shots that leave you (and your viewers!) in awe. So if you're ready to start capturing abstract masterpieces, let's dive right in!
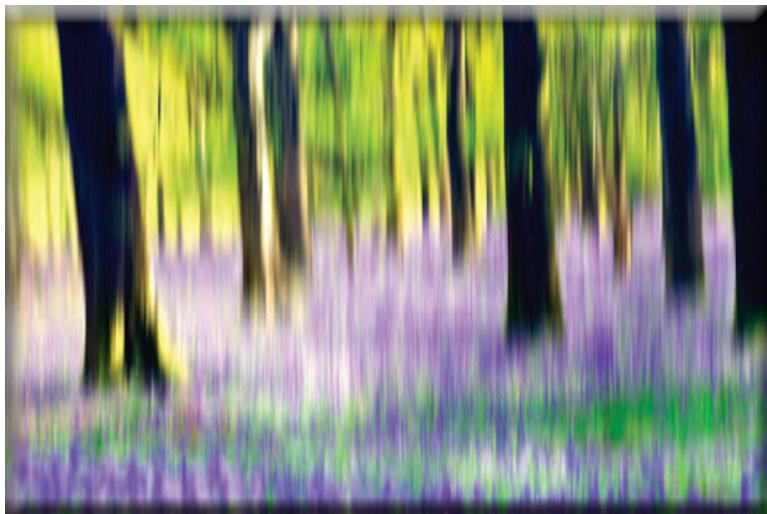
What is ICM photography?
Intentional camera movement photography (ICM) is a technique that lets you create stunning, abstract images by moving your camera while capturing the shot.
ICM photos are simple, but – when done carefully – they can be stunningly beautiful.

While not a difficult technique; in fact, the beauty of ICM photography lies in its simplicity. All you need to do is adjust your *camera settings* to keep the shutter open for longer than usual. Then, as you intentionally move your camera from one point to another, your camera captures the moving scene and transforms it into dreamy, blurry subjects while the world rushes past.

When is the intentional camera movement technique useful?

You can use the ICM technique to photograph a wide array of subjects. Here are a handful of scenarios where ICM can truly shine:

•	Landscapes: One of the best uses of ICM is in capturing breathtaking landscapes. By intentionally blurring the details, you can emphasize the lines, forms, and vibrant colors present in nature. Whether you're photographing a dense forest, a vast ocean, or an expansive prairie, ICM can help you create images that go beyond the basic "facts" of the scene.

•	Flower photography: If you're passionate about capturing the delicate beauty of flowers, ICM can add a touch of abstraction to your images. By intentionally blurring the scene, you can highlight the vibrant colors and elegant shapes of the flowers, creating a dreamy and artistic interpretation of nature. (This is an approach that I often use when I start to get tired of my conventional flower photos. It works especially well when photographing in the late evening since the light is soft but weak.)

•   Street photography: Surprisingly, ICM can even be incorporated into street photography. It offers a unique way to accentuate the architectural lines of buildings and convey the fast-paced energy of urban life. By intentionally moving your camera while capturing the scene, you can infuse your street photographs with a sense of motion and dynamism.

•   Moving subjects: ICM isn't just for stationary subjects. In fact, it can be particularly compelling when applied to moving subjects such as cars, sports players, or wildlife. By deliberately following the movement with your camera, you can create a captivating effect where the subject remains relatively sharp against a beautifully smooth and dynamic background. (This technique is also known as *panning*.)

Bottom line: ICM photography allows you to move past traditional photography and explore new dimensions of artistry. With the right subjects and a dash of experimentation, you can achieve remarkable results, even when you're faced with a subject that seems uninteresting on its face.

Essential equipment for ICM photography

The intentional camera movement approach is incredibly accessible. You don't need fancy or expensive gear to get started. Here's what I recommend:

•   Camera: Any camera that allows you to manually adjust the shutter speed will work. This includes DSLR and interchangeable-lens mirrorless cameras.

•   Lens: While you can use any lens for ICM photography, a slightly longer lens, like an 85mm or a 70-200mm, can make it easier to achieve strong blur effects. Longer lenses also help you focus on interesting patterns and colors. If possible, use a lens with manual focusing capabilities.

•   Filters: ICM photography requires long shutter speeds, which means you'll need to control the amount of light hitting the camera sensor. If you shoot during the early morning or evening, you shouldn't have a major problem. But if you want to try ICM during the day, consider using a *neutral density (ND) filter*. It acts like sunglasses for your lens, reducing the light and preventing overexposure. Another option is a *polarizing filter*, which cuts down on light and enhances colors. I personally prefer starting with a polarizing filter and adding a 2-stop or 4-stop ND filter if needed.

•   Tripod (optional): If you want ultra-smooth ICM images with flat horizons or vertical lines, a tripod can be helpful, though I do recommend investing in a pan-and-tilt head for the best results. However, in most cases, a tripod isn't necessary. You can achieve great ICM images with just your camera, lens, and creative movements. Remember, the gear doesn't make the photographer. It's your creativity and vision that truly matter in ICM photography. So don't worry if you don't have the latest equipment. Focus on exploring the technique and capturing unique images with what you have.

The best ICM photography settings

If you're ready to dive into the exciting world of intentional camera movement photography, it's crucial to set your camera up properly to achieve those captivating and dreamy effects. Here are the basic ICM settings I recommend:

•   Shutter Priority mode
•   1/2s shutter speed
•   ISO 100
•   Manual focus
•   Image stabilization off

But it really depends on the light, the lens, the subject, and your creative vision, so it's important to understand your settings on a deeper level.

You see, doing intentional camera movement photography is primarily about controlling the *shutter speed*. Longer shutter speeds allow you to move your camera for more time, hence increasing the blur effect – whereas shorter shutter speeds only let you move your camera for fractions of a second, decreasing the blur effect. Therefore, by manually changing the shutter speed value, you can change the intensity of the effect!

Shutter Priority mode, unlike Aperture Priority, Program, or Auto mode, offers complete control over your camera's shutter speed, making it an ideal choice for the ICM technique. You can set the desired shutter speed and ISO, while the camera automatically selects an appropriate aperture for a well-exposed image.

When it comes to selecting a specific shutter speed for ICM photography, there is no universal best choice. The desired effect depends on the look you want to achieve. For an ultra-abstract shot, you might opt for a longer exposure, such as 10 seconds. On the other hand, if you prefer a subtly blurry image, a faster shutter speed, like 1/30s, might be suitable.

Additionally, consider that the length of your lens can affect the level of blur, with longer lenses producing greater blur than wider lenses. However, as a starting point, I recommend trying out a shutter speed of 1/2s. If you're uncertain, experiment with different shutter speeds, review the results on your camera's screen, make adjustments, and continue refining your technique.

I highly recommend using your camera's base *ISO setting*. Not only does it prevent unsightly noise from compromising your images, but it also allows you to extend the shutter speed further, even in bright lighting conditions.

To ensure that your subject remains (relatively) sharp, *manually focus* your lens in advance. This way, you won't have to worry about the camera struggling to find focus, which can be a problem in low-light situations or when using a neutral-density filter.

Finally, if your lens includes image stabilization, remember to deactivate it. Image stabilization tries to compensate for motion, which can hinder the desired blur effect in ICM photography.

How to do ICM photography: My three-step approach. Now that you're familiar with the basic ICM settings and gear, it's time to have some fun!

Here's what you do to achieve amazing results:

Step 1: Choose a subject
The first step to creating amazing ICM shots is selecting the perfect subject to work with.

Now, you might be wondering, "What's the best subject for ICM photography?" Well, the fantastic thing about ICM is that you can get creative with just about anything! But as you're starting out, it's helpful to pick a subject with clear lines and interesting shapes.

For example, common ICM subjects are rows of trees in a forest or strong horizon lines at the beach. Even the edges of tall buildings can make for captivating ICM subjects. And the more color and texture you can find in your scene, the better – it adds some wonderful pizzazz and definition to your shots!

A quick tip: Shooting in low-light conditions is ideal for ICM, but you also want to make sure that the light is good (i.e., relatively soft). So if you can, try to plan your ICM adventures during the *magical golden hours* – just after sunrise and just before sunset – or during the blue hour. Working at night can also produce some stunning results.

Of course, you can experiment with ICM in bright light too – like on a sunny afternoon – but in that case, you'll often need to use a filter to prevent overexposure, and the harsher light can result in harsh contrasts. (Not that harsh contrast is always bad, but it's just something to keep in mind!)

Step 2: Select your settings and compose
Once you've got your subject in mind, let's dive into the nitty-gritty of setting up your shot. It's time to position your subject just right and get those settings dialed in. Here's how to do it:

First things first, take a moment to frame your shot. Remember, the end result won't resemble what you see through the viewfinder, but it's still important to consider the size and position of the main elements in your scene. Move closer or farther away, or adjust your zoom, until you're satisfied with the composition. Then switch your lens to manual focus and turn the lens focus ring until your subject is reasonably sharp.

Set your camera to Shutter Priority mode and immediately choose ISO 100. Think about how heavily you want your subject to blur and choose a shutter speed accordingly. As I said above, 1/2s is a good starting point, but you might potentially start at 1s or more if you want a lot of blur.

One important note: Keep an eye on *the aperture value* suggested by your camera. If it's blinking or showing "high," it means the light is too strong, and your image will be overexposed. In that case, you have two options. You can either increase the shutter speed until the blinking disappears, or you can use a filter to reduce the amount of light entering the camera. (If you do add a filter, make sure you check the aperture value one more time before proceeding!)

Step 3: Move your camera while pressing the shutter

At this point, you're ready to take a photo, so start moving your camera in a smooth and deliberate manner. It's up to you how you want to move it – you can experiment with circles, straight lines, zigzags, or even rotating the camera for a spiral effect. You can also play around with changing the focal length of your lens during the exposure to create *a zoom effect*, like this:

Once you've got your camera in motion, gently press the shutter button while keeping the camera moving. This simultaneous movement and shutter press is what will give your photo that eye-catching ICM look.

Remember, the final outcome of your images will depend on the speed, direction, and smoothness of your camera movements. I don't want to sound like a broken record, but don't be afraid to try out different techniques and experiment with various styles!

After capturing a shot, take a moment to review it on the LCD screen of your camera. Ask yourself some questions: Was the shutter speed too fast or too slow? Does the composition look pleasing to the eye? How did the camera movement you chose impact the overall image?

Based on your assessment, make any necessary adjustments to your settings and approach, and give it another go. Don't be discouraged if your first attempts don't turn out as expected. ICM photography is all about trial and error, so keep exploring and refining your technique.
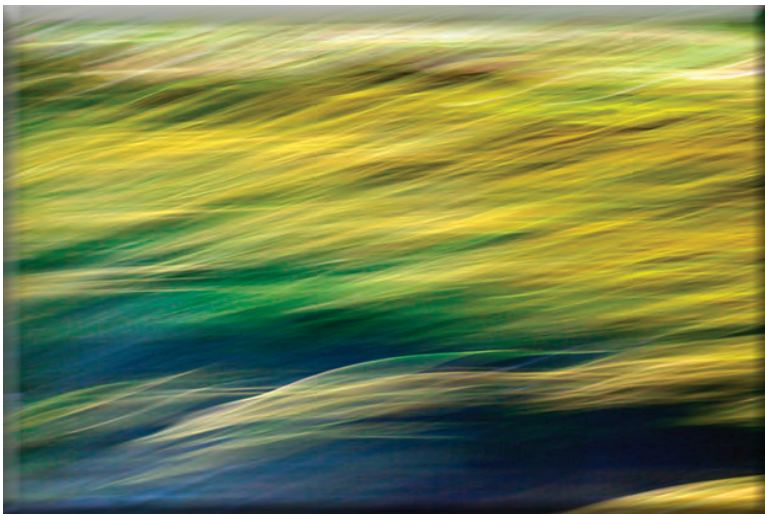
Intentional camera movement tips

Looking to quickly elevate your ICM photography? These tips and tricks can make a huge difference!

1. Take a lot of photos

ICM photography is unpredictable and can require a bit of trial and error to master. If you're only snapping a few shots, chances are you won't end up with anything extraordinary, and you'll miss out on valuable learning opportunities.

To truly excel at intentional camera movement, you need to dedicate ample time to shooting and exploring different possibilities. Don't be afraid to click that shutter button repeatedly! The more photos you take, the more you'll familiarize yourself with the nuances of ICM and understand what works and what doesn't.

Once you've captured a bunch of shots, set aside some quality time to review them. Take a close look at each image and consider what you like and dislike about it. Pay attention to the various elements, the movement, and the overall composition. This process of reflection and analysis will help you refine your technique and develop your own style.

Additionally, I want to reiterate: Don't be afraid to experiment with different focal lengths and subjects. By trying out various approaches, you'll gain a better sense of your preferences and discover the aspects of ICM photography that truly resonate with you.
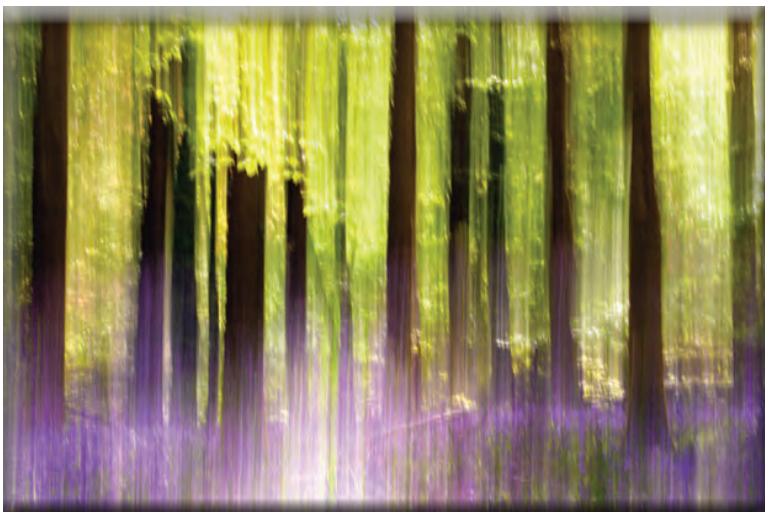
2. Consider including recognizable elements

Intentional camera movement photography is all about creating abstract images, but adding a touch of clarity or a recognizable element can enhance the overall impact of your final photo. Think of it as giving your viewer an anchor amidst the artistic chaos.

Basically, including at least one sharp or easily identifiable subject within your abstract composition can provide a point of reference for your audience. It gives them something to hold onto while they explore the rest of the blur.

For example, you might capture the graceful movement of trees in a forest, with leaves blending into a dreamy haze. But instead of creating a disorienting blur, by including recognizable tree trunks, the scene will have more structure, like this:

3. Shoot the same subject at different times

Here's one more fun approach that can really level up your intentional camera movement skills: shoot the same subject at different times of the day. Light and shadow play a significant role in ICM, and by capturing your subject during various lighting conditions, you'll discover how the atmosphere and mood can change dramatically.

Once you've found a subject that catches your eye, don't just snap a single shot and move on. Make a mental note of the subject and return to it repeatedly, capturing ICM shots at different times, such as during the golden hours (just after sunrise and just before sunset), the blue hour (the brief period before sunrise and after sunset), or even at night.

By exploring these different timeframes, you'll witness how the interplay of light and shadow transforms your subject, creating unique and captivating ICM images. Not only will this allow you to experiment with different effects, but it will also give you a chance to refine your skills and find your own personal style.

Intentional camera movement photography: final words

And there you have it! We've reached the end of our wild and wonderful journey through the world of ICM photography. You've learned the ins and outs of this mesmerizing technique, including what it is, how it works, and you can use it to capture amazing abstract images.

Remember, intentional camera movement is all about breaking free from the constraints of traditional photography and letting your imagination run wild!

So, grab your camera, go out into the world, and start practicing. Embrace the happy accidents, learn from the not-so-successful experiments, and keep pushing your boundaries. It may take a few shots (or a few hundred) to find your rhythm and discover your signature style, so whatever you do, don't give up!

Read more from our *Tips & Tutorials* category

Richard Beech
is a writer, photographer and nature lover based on the south coast of England. He enjoys all types of photography, particularly wildlife, macro, and landscapes. He has been a contributor of stock photography for Getty Images since 2009. Check out his portfolio at *Richard Beech Photography*.

Understanding and Using Color Temperature in Photography

By *ProGrade Digital* | **May 12, 2024**

Color is one of the most powerful tools in a photographer's arsenal, influencing the mood, atmosphere, and perception of any image. At the heart of color lies the concept of color temperature, a fundamental element that can dramatically shape the look and feel of your photographs.

Understanding color temperature is essential for professional photographers who aim to achieve color accuracy or create distinctive artistic effects. It plays a key role in portrait, landscape, and architectural photography, impacting everything from skin tones to the vibrancy of a sunset or the sterile feel of an office interior.

In this guide, we'll delve deeper into the concept of color temperature and its effects on photography. You will learn how to control it using the Kelvin scale and white balance settings, as well as discover practical tips for adjusting color temperature both in-camera and during post-processing. By the end of this guide, you'll be equipped to harness the power of color temperature to enhance the accuracy and mood of your photos. So, let's get started!

What is Color Temperature?

Color temperature is a way to describe the color of light emitted by a light source, measured in degrees Kelvin (K). It defines the warmth or coolness of light and directly influences the overall tone of an image.

The concept originates from physics, where the temperature of an "ideal" black-body radiator is used to predict the hue of light it emits. For photographers, understanding the Kelvin scale and how it correlates to different lighting conditions is vital for achieving accurate color balance in photos or intentionally creating specific visual effects.
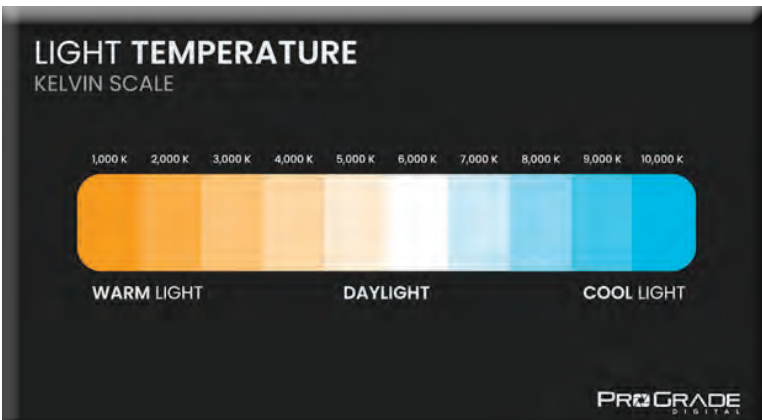
The Kelvin Scale

The Kelvin scale in photography classifies light sources by their temperature, ranging from warm orange hues to cool bluish tones. Here's how different Kelvin values affect the color of light:

- **1,800 K (Candlelight):** Warm, intimate, and cozy.
- **2,500 – 3,000 K (Sunset or Incandescent Bulbs):** Warm, inviting, and yellowish.
- **4,000 – 5,000 K (Fluorescent Bulbs):** Cool, bluish-white light.
- **5,500 – 6,000 K (Midday Sunlight):** Neutral and balanced, bright white.
- **7,000 – 9,000 K (Shade or Overcast Sky):** Cool and slightly bluish.
- **10,000 K (Clear Blue Sky):** Very cool, bluish tones.

Color Temperature and Mood

Different color temperatures evoke specific moods and feelings in photographs. By understanding and controlling the color temperature, you can create compelling and emotionally resonant images.

Warm Tones (1,000 – 3,500 K) – Evoke feelings of warmth, intimacy, and comfort. Ideal for cozy indoor scenes, sunsets, and candlelit portraits.

An example image of warm tones, an impala basking in the golden light of a sunset, creating a dreamy atmosphere.

Neutral Tones (4,000 – 6,500 K) – Convey realism and naturalness. Perfect for everyday scenes, midday landscapes, or documentary-style photography.

An example image of neutral tones, a group of children playing under the midday sun, creating a balanced and joyful image.

Cool Tones (6,500 – 10,000 K) – Suggest calmness, serenity, or even melancholy. Best suited for early morning or late afternoon landscapes, moody portraits, or architectural photos.

An example image of cool tones, an isolated misty lake at dusk, creating a tranquil and contemplative scene.

How to Measure Color Temperature?

To effectively use color temperature in photography, you need to measure it accurately. One of the most precise ways to do this is by using a color meter. These specialized devices measure the color temperature of a light source in degrees Kelvin.

By simply pointing the meter at your light source, you can obtain an accurate reading and adjust your camera settings or lighting setup accordingly. Modern color meters, like the _Sekonic C-800_, go beyond providing Kelvin values. They also offer measurements for green/magenta shifts, ensuring complete color accuracy.

However, professional color meters can be expensive. Luckily, there are budget-friendly alternatives, such as the _Lumu Light Meter_, which plugs into your smart phone, or apps like _Kelvin Meter_, which uses your phone's camera to estimate a scene's color temperature.

Understanding White Balance

White balance is a camera setting that adjusts the color balance in your images to compensate for the light source's color temperature.

Each type of light source has a different color temperature, which can cast a warm (orange/yellow) or cool (blue) tint over your photos.
White balance aims to neutralize these tints so that whites appear white and other colors are rendered accurately.

There are three main ways to set the white balance. Using auto white balance (AWB), camera presets, or manual adjustment. Manual adjustments vary significantly between camera models, with professional-grade cameras offering more precise fine-tuning.

Auto White Balance (AWB)

In this case, the camera acts like a built-in light meter, automatically analyzing the scene to identify the dominant light source and determine the appropriate white balance. While convenient, AWB can struggle in mixed lighting conditions or scenes with unusual color casts.

Preset White Balance Settings

Most cameras offer preset white balance settings tailored to common lighting situations. These settings are usually the following:
- **Incandescent/Tungsten (3,200 K): Corrects tungsten bulbs' warm, yellowish tones.**
- **Fluorescent (4,000 – 5,000 K): Adjusts the greenish hue of some fluorescent lights.**
- **Daylight (5,500 K): Suitable for bright sunlight.**
- **Shade (7,000 K): Neutralizes the cool tones in shaded outdoor areas.**
- **Cloudy (6,000 K): Adds warmth to counteract the blue tones of overcast skies.**

Custom White Balance

This feature allows you to set the white balance manually by photographing a neutral reference under the same lighting conditions. A gray card or white paper can be used as a reference, giving you a tailored white balance setting for accurate colors.

Kelvin Adjustment (K)

Some cameras offer direct Kelvin adjustment, letting you manually set a specific color temperature. Lower Kelvin values (e.g., 3,200 K) introduce warmer tones, while higher values (e.g., 7,000 K) add cooler tones.
White Balance Shift

This feature allows you to fine-tune white balance further by shifting the balance to correct for green/magenta tints. It is particularly useful in mixed lighting conditions.

Adjusting Color Temperature in Post-Processing

Even if you didn't get the color temperature perfect in-camera, you can fine-tune it during post-processing. The best way to adjust color temperature in any post-processing software (like Adobe Lightroom or Photoshop) is to use a gray card.

Using a Gray Card for White Balance Adjustment
A gray card is valuable for achieving accurate white balance in your photos. Here's how to use it effectively:

STEP 1 – Include the Gray Card in a Reference Shot:

- **Place the gray card in your scene, ensuring it is lit by the same light source as your subject.**
- **Take a reference shot with the gray card visible. Make sure it is large enough in the frame for accurate sampling later.**

STEP 2 – Adjust White Balance in Your Post-Processing Software:
Adobe Lightroom:

- **Import your photos into Lightroom.**
- **In the Develop module, locate the "White Balance" section.**
- **Click on the eyedropper tool next to the "Temp" slider.**
- **Move the eyedropper to the gray card in the reference shot and click on it.**
- **Lightroom will interpret this sample as neutral gray and adjust the white balance accordingly to neutralize color casts across the image.**
- **If necessary, fine-tune the "Temp" and "Tint" sliders to achieve the desired color balance.**

Adobe Photoshop:

- **Open your photo in Photoshop.**
- **Go to Filter > Camera Raw Filter.**
- **Click on the eyedropper tool next to the "White Balance" drop-down.**
- **Click on the gray card in the reference shot to set the white balance.**
- **You can further refine the color temperature using the "Temp" and "Tint" sliders.**

STEP 3 – Fine-Tune with Curves and Levels:

- **Both Lightroom and Photoshop offer Curves and Levels adjustments to further refine color temperature.**
- **Use the Red, Green, and Blue channels individually to balance out color casts and achieve the desired tone.**

3 Additional Tips for Getting The White Balance Right:

1. **Use a Consistent Gray Card – Always use the same gray card for accurate color consistency across your photos.**
2. **Review Light Source Temperature – Check the specs of your lighting equipment, as professional gear usually indicates exact Kelvin values. This allows you to set your white balance more precisely.**
3. **Check the Histogram – Review your camera's *histogram graph* to ensure the color balance is appropriate for the scene.**

Adjusting White Balance Without Gray Card

If you didn't include a gray card in your reference shot, you can still use the eyedropper tool to set a neutral white balance by selecting a neutral area within the image itself. Simply click on the neutral white or gray area to sample it, and both Lightroom and Photoshop will adjust the white balance accordingly.

Clouds, particularly in overcast conditions, can serve as a good neutral gray reference, while fresh, undisturbed snow under even lighting conditions can work as a neutral white point.

You can also rely on everyday objects like clothing and walls. Shirts, sweaters, or other garments in gray or white shades can work well, and light-colored walls, fences, or building exteriors often offer suitable neutral gray points. Books, printed pages, or posters with white or gray backgrounds can also be useful.

By identifying these neutral white or gray areas in your scene, you can use them for white balance adjustment with the eyedropper tool in Adobe Lightroom or Photoshop, even if you don't have a gray card available.

Practical Applications and Tips

1. Match Ambient Light:

When working with ambient light, it's critical to match the color temperature of your lighting conditions to avoid unwanted color casts. Consider using tungsten or fluorescent presets to match artificial lighting for indoor settings, while daylight, shade, or cloudy presets can help maintain natural color accuracy for outdoor scenes. A custom white balance or Kelvin adjustment in mixed lighting conditions can help neutralize color discrepancies.

The following image illustrates how a well-set white balance maintains accurate skin tones despite the challenging combination of warm interior lighting and cooler outdoor light coming through the windows. The neutral and natural color rendering showcases the importance of properly adjusting the white balance to achieve true-to-life colors in mixed lighting conditions.

2. Be Creative and Experiment:

Feel free to experiment with color temperature for creative effect. Deliberately shifting the white balance towards cooler (blue) or warmer (yellow/orange) tones can convey distinct moods or artistic styles. For example, setting a lower Kelvin value can evoke the cozy warmth of candlelight, while a higher value can emphasize the calm tranquility of a misty morning.

The image below showcases the creative use of color temperature to infuse a subtle purple tint into the landscape, adding an ethereal and dreamy atmosphere to the scene. The carefully adjusted white balance emphasizes the tranquil mood, demonstrating how shifting the color temperature can create a unique artistic effect that elevates the beauty of the natural environment.

3. Avoid Common Pitfalls:

• **Neglecting to Adjust White Balance in Mixed Lighting** – Mixed lighting conditions, like tungsten and daylight, can result in uneven color casts. Avoid this by using a custom white balance or manually adjusting the Kelvin setting.

• **Over-Reliance on Auto White Balance (AWB)** – AWB may struggle in scenes with unusual color casts. Instead, experiment with presets or custom settings to ensure accurate color reproduction.

• **Forgetting to Shoot in RAW** – Shooting in JPEG limits your ability to correct color temperature in post-processing. Always shoot in RAW to retain maximum flexibility.

Conclusion: Mastering Color Temperature for Impactful Photography

Mastering color temperature is the key to unlocking the full potential of your photography. Whether you're capturing the warm glow of a sunset or the cool tranquility of a misty morning, each image becomes an opportunity to evoke powerful emotions and create compelling stories.

With an understanding of white balance, creative adjustments, and the right tools, you can confidently embrace the challenge of controlling color temperature to elevate your work. Let your mastery of this subtle yet powerful element of light take your photography to new heights.

Discover New Perspectives with ProGrade Digital

As you master the art of controlling color temperature, ensure your creative vision is fully realized with reliable tools. *ProGrade Digital's high-performance memory cards* and *workflow readers* are designed to help photographers like you capture every subtle shift of light and color. Our range of innovative solutions ensures your gear keeps pace with your creative vision, giving you the confidence to explore new photographic horizons.