A Comprehensive Guide to Intentional Camera Movement (ICM) Photography

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The History of ICM

The genesis of intentional camera movement as an artistic device in itself isn't definitively clear, though the unique quality of past photographic movements like Pictorialism and Photodynamism have likely had a residual impact. The expressive paintings of J.M.W. Turner or the internally generated glowings of a Rothko may also have been an influence, reminding the viewer that the potential of an artwork may lie in its making - but not without a degree of chance.

One of the earliest advocates for ICM was Ernst Haas. From at least 1956, Haas embraced the potential of a slow shutter speed paired with physical intervention, his images charged with apparition-like ruptures of colour. Kōtarō Tanaka was another early ICM proponent, quickly moving the camera in time with fireworks over the course of an exposure to generate auras and grazes of coloured light.

Contemporary ICM photographers champion the advances of digital photography through a range of techniques and perspectives. Erik Malm compares the practice of ICM with the process of making music, and Charlotte Bellamy states that while some of her ICM images are created in a moment of spontaneity, others are carefully made to reflect a memory.

What Makes a Successful ICM Photograph?

The objective in making ICM photography is to cultivate unique impressionistic renderings of a subject or scene through the movements of the camera over an extended exposure by a photographer. Intentional camera movement is made up of unending variables - so like all forms of photography, an ICM image can be evaluated by a broad range of successes.

Ultimately, it's up to the individual photographer or viewer to evaluate the success of an ICM photograph for themselves.

But in general terms, ICM photographers seek out an acceptable exposure blended with the pronounced motion blur of a subject or environment, creating a new visual perspective.

Elements of colour and/or tone, texture, space, balance, form, abstraction, shape, detail, and uniqueness are all additional considerations that contribute to the success of an ICM image as a whole.

Equipment for ICM Photography

- Camera and lens
- A generous memory card
- A Polarizing or ND filter (optional)
- Tripod, monopod or gimbal (optional)
- Camera strap

ICM photography operates on two key factors, lengthy exposure and physical movement.

A digital camera used for ICM photography must have a Manual and/or Shutter Priority mode.

Manual mode grants the photographer complete control over exposure settings. Shutter Priority allows a user to select a specific shutter speed while the camera automatically assigns an aperture value to deliver an acceptable exposure.

Any lens can be used for ICM photography, although zoom lenses also accommodate a *zoom burst* effect.

Due to the trial-and-error nature of ICM photography, a generously sized memory card is advised to avoid precarious in-camera deletions.

Neutral Density (ND) filters 2-stop to 6-stop cut down on the intensity of light reaching a sensor, facilitating a longer exposure time while avoiding overexposure in bright conditions.

A tripod, gimbal or monopod can be used for more consistent movements of the camera during an exposure.

When To Make ICM Photography

The majority of ICM photography is made using ambient light. Ideal circumstances for ICM photography *without* a polarizing or ND filter are early in the morning, later in the afternoon, in overcast weather conditions or at night. The diffused light during these times permits a longer exposure due to reduced brightness. At night, a photographer relies on available light sources like car lights and street lights to create expressive ICM photography.

Subject Selection

ICM photographers work on a spectrum that spans from blurred figurative photography to the completely abstract. Many ICM photographers sculpt their work around a distinct subject, while others do away with figurative references as much as possible.

Generally speaking, the more popular ICM subjects to photograph include people, trees, water, moving cars, the ocean, flowers, landscapes, sports, wildlife and architecture. That said, ICM photography can be a fast-paced, split-second action, or a slower, more methodical process and almost anything can be spirited into the compelling de-materialization of the ICM photography process.

Camera Settings for ICM Photography

Shutter Speed & ISO

In ICM photography, a combination of shutter speed and physical movement are used to regulate abstraction in an image. This means that working in Shutter Priority is ideal.

For overcast daytime conditions, set the ISO value as low as possible and adjust the shutter speed to around 1/15 with no filter. The ISO value should be set as low as possible to minimise noise.

The test image below was taken at 1/13 at an aperture value of f/6.3 with the ISO set to 100 in moderately overcast conditions.

Make a few test shots at this setting and check the results on the playback screen. Adjust as needed - for more abstraction, select a slower shutter speed. To remedy overexposure, work in reduced light conditions, attach a polarizing or ND filter or increase the shutter speed.

Like most other forms of photography, aim for a balance of acceptably exposed highlights and shadows. Overly dark shadows are disruptive to the flow of an ICM photograph, as are blown-out highlights.

Focus and Image Stabilization

Using Manual focus or Autofocus is down to personal preference, but ICM images don't necessarily need to be sharp.

For a crisper rendering of a well-lit scene, Autofocus can be ideal.

For a softer effect, manually unfocusing can create an aura-like appearance. In low-light conditions, switching to Manual mode and focusing at infinity is ideal as Autofocus tends to struggle in the dark.

Most digital cameras support the choice of several focus modes for use in different photographic contexts - Continuous, Single, Automatic and Manual. Single is favoured for stationary subjects while Continuous mode is used for moving subjects. Any of the four modes can be used for ICM photography depending on shooting style, desired outcome and subject behaviour. In addition, turning Image Stabilization *off* can help enhance motion in an ICM photograph overall.

Metering Modes

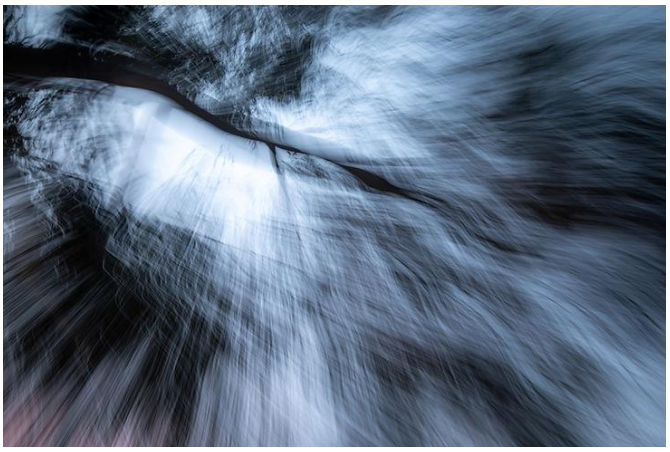
Metering modes refer to the mechanism a camera uses to determine exposure.

For ICM photography, Matrix mode (also known as multi-zone metering) is predominantly used because it works well for evenly lit scenes and for capturing shots quickly. Matrix mode evaluates the light intensity of several zones in a scenario and then averages the results to find the best settings for acceptable exposure.

White Balance

White balance is a function that allows a photographer to choose the most accurate colours for a scene in-camera.

Due to the abstract nature of ICM, white balance can be more flexible than in other fields of photography. Either set the colour temperature manually or rely on auto. The results can be adjusted further in post-processing if required.



File Format- RAW VS JPEG

A RAW image file contains minimally processed data expressed straight from the image sensor. Although larger in file size than a JPEG file, RAW files are encoded with much more visual information. This can be important during post-production, allowing for greater control over the manifestation of colours, shadows, highlights, mid-tones and detail in an ICM image overall.

Drive Mode

Although Single Shooting mode cuts down on shutter actuations, a burst of images made in rapid succession can help capture the actions made by an ICM photographer over a number of exposures, increasing the potential for successful shots.

Set the camera to either a Low or High Continuous Shooting mode to allow for multiple photographs to be made sequentially so long as the shutter button is depressed.

Keep in mind that Continuous Shooting mode is limited by the buffer system. When shooting a sequential suite of images, the camera can't load the wealth of data to the memory card all at once. Instead, the camera relies on an internal memory system. If the internal memory or buffer fills up, Burst mode inevitably slows down and must be emptied by halting shooting for a moment

An ICM image of a forest burned by recent bushfires in NSW Australia, photographed from a moving car

Making ICM Photography

From linear streaks to rolling troughs and sharp peaks, it is the kinetic motion of a photographer that defines the appearance of an ICM photograph.

Many ICM photographers will make images blind, that is, lifting the viewfinder to the eye for only a brief moment, if at all.

Some ICM photographers advocate for movements that reflect the predominant orientation of the scene (ie. horizontal sweeps for landscapes and vertical motions for upright subjects). That said, there are no hard and fast rules for ICM photography.

To make an ICM photograph, stand square to a subject or scene and secure the camera with the camera strap. In Shutter Priority, input an initial speed according to conditions, find focus (optional) and begin to move the camera while depressing the shutter button.

The faster the movement, the more abstract the result. Once an exposure is made, review the image, adjust camera settings and/or technique if needed and make another photograph. Sweeping, rotating, shaking, rocking, shifting and zooming the camera in various degrees and combinations over the length of an exposure will map the unique trajectory of the camera.

Sweeping the camera horizontally from the left or right cultivates a horizontal flow across the expanse of the image. In the same way, making a vertical sweep during an exposure creates dynamic vertical lines that span the reach of the subject. A zoom burst effect is cultivated by zooming a lens in or out during an exposure. For a more coiled effect, twist the camera during an exposure, creating a tangle of motion.

Likely the most familiar ICM technique, panning involves following a moving subject with the camera during a longer exposure, ideally blurring the foreground and background of an image while keeping the subject relatively sharp.

To pan in Shutter Priority mode, start at a shutter speed of around 1/15. Tracking the subject with the lens, make an exposure. For more blur, graduate down to 1/4. For less blur, increase the shutter speed to around 1/30s.

Multiple Exposure ICM Photography

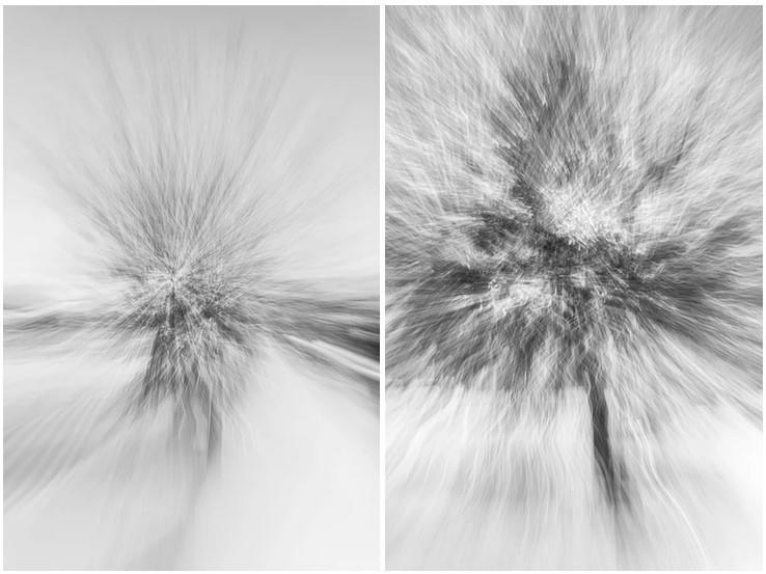
Multiple exposures are photographs with two or more images combined into a single frame, superimposed one over another. Multiple exposures can be carried out in-camera or simulated in post-production to complement the effect of ICM.

The basic method for making an in-camera ICM multiple exposure involves activating the Multiple Exposure function in-camera, setting the number of exposures and choosing a blending mode. Shoot the number of specified exposures and the camera will blend the suite of images together.

Another way to combine multiple layers of ICM imagery into one frame is through post-production. This is a matter of dragging one or more image layers onto another and adjusting the Blending Mode to blend the images in photo editing programs like Photoshop and GIMP. Similar to ICM photography in the field, double exposure effects are based on experimentation and trial-and-error.

Sorting and Editing

When reviewing a fresh swathe of ICM images, a photographer looks for several key factors. Adequate exposure free from blown-out highlights or inoperable shadows points to the useability of an ICM image. The interplay between colour, tone, contrast, texture, shape and form is carefully assessed for subsequent editing. Look for composition, but allow for instinctual response.



The workflow for editing ICM photography is like editing any other digital image. Although the abstract nature of ICM content affords more scope for experimentation (dramatic shifts in colour balance can be applied with less regard for convention for example), most editing is similar in goal - to enhance the unique characteristics of the image.

Exposure, Shadow, Contrast and Highlight adjustments may be carried out non-destructively in Camera RAW, Photoshop, Lightroom, GIMP or similar. Amendments to Vibrance and Saturation Levels and Color Balance can also be applied non-destructively to introduce, emphasize or minimize colour.

In Camera Raw and Lightroom, the Clarity, Texture and Dehaze sliders can alter the outcome of an ICM image considerably.

- Texture is similar to standard Sharpening, but it affects narrow areas spanning a limited number of pixels without excessively shifting colour or saturation.
- Clarity is stronger in effect than Texture on the midtones, but it doesn't work on the finer detail
- Dehaze is designed to remove haze from an image, increasing contrast and colour in broad areas of colour or tone.

Final Notes

Intentional Camera Movement evokes the impression of flux through colour, tone, texture, shape and form. Over the course of an exposure, an ICM photographer may shake, sweep, zoom, swing, rotate and/or twist the camera to generate blurred renderings of an environment or subject. The results of these actions can then be further enhanced with in-camera multiple exposure effects or through refinement in post-production.