

## A Photographer's Tale...by Larry Kilgore

### Capturing Snowflakes

When winter started and I saw the first snow, I thought: "I want a SNOWFLAKE shot!" I went out with my tripod and flash, and an umbrella, and tried to get my dream shot: a crystal clear flake floating there in front of my macro lens, with a beautiful snow fall backdrop. I quickly learned to just forget about it, it's IMPOSSIBLE! Well, at least for me. I'm just an excitable amateur and I don't know how to pull off such a shot. I'm sure there's a way with the right equipment and know how.

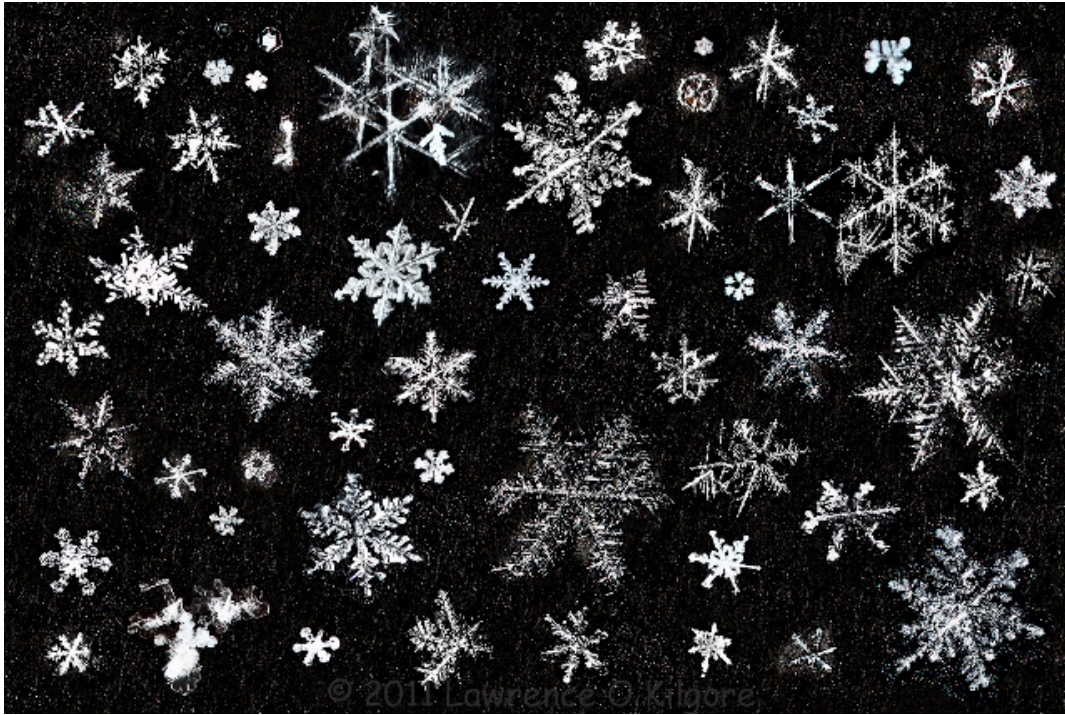
My results were miserable. I varied everything I could. One flash, two flashes, no flash, high speed, low speed, high f/stops, low f/stops, high ISO, I even held a flashlight up in front of my lens. I either had a total blur, some weird white confetti blobs, or so much depth of field, I'd get some dark tree about 30 feet away and the snow would look like fog! I was disappointed to say the least. My great snowflake picture adventure quickly became another of my hair brained photo experiments.

But it occurred to me...could I even TAKE a picture of a single snowflake? If I could, at least I'd know it was possible. A single beautiful snowflake would be quite a prize. I left some matte board out on my screened in porch overnight so if I did capture snow, it wouldn't melt. I setup my camera, with tripod and flash, and a wireless remote. I held the matte board out, collected a few snowflakes and laid it down, fiddling with some guesses on settings; I snapped a few well-focused shots. Sure enough I got a pretty good snowflake. It was a bit blurry, but the weirdest thing was the black matte board had lit up under the flash and was totally white! It also looked like leather or something. Very weird. But I got a pretty good snowflake!

I was pumped. I figured I'd keep going with different materials, so I started wandering around my basement and grabbing things, and leaving them out on the porch over night. I tried a manila folder, a Pyrex bowl, the red lid to the Pyrex bowl, a cheap picture frame with acrylic, card board, the glass table on the porch, a piece of metal, 2 different colors of matte board, and a small piece of glass from a 5x7 picture frame. (My wife came and took back her casserole bowl one night.) The results were all interesting.

I narrowed my most successful material down to a black matte board. But the results were inconsistent. I'd SEE these beautiful snowflakes with my eyes and through the lens, but they'd come out very translucent and globular. They weren't the snowflakes I had in mind. I wanted the ones they sell as stencils for Christmas. Then randomly, every 10th snowflake was magical looking. I finally realized the tungsten spotlight was making the snowflakes look magical, but my flash made them look ugly.

That's when I turned off the flash. I got some better shots that first night, shooting between 2-5 seconds and varying between f/16-f/40. Although beautiful, they were still not my ideal snowflake, but I kept at it. Over the next few weeks, I tried again and again. Here's my first menagerie. You can see the speckled surface of the matte board and how it kind of looks like snow.



Then one day it started to snow. It was beautiful. A light, delicate snow. There was very little wind. I continued on the porch, with cloudy skies but a lot of light reflecting off the snow all around. The snowflakes looked great that day. I setup my gear carefully:

1. I made sure my black matte board sat out over night.
2. I setup a small table below my camera where it nestled under the tripod legs and selected my very best macro lens and NO flash.
3. I held the matte board in the falling snow to get some samples and carefully laid it on my table.
4. I moved the camera down until I couldn't focus any more, and then backed off an inch (e.g. I got as close as possible).
5. I would then move the matte board around, center a snowflake on the crosshairs, back off and let things settle a few seconds, then use my wireless shutter release.
6. My best results were manually focused at f/16 between 2.5-4.0 seconds, using Aperture priority and carefully moving the focus slightly in and out across the snowflake.
7. I unloaded my images and quickly tossed the bad ones. Then I increased magnification by zooming in with Photoshop. At that point you can lasso out your snowflake or try to make the "white looking" matte look like a blizzard, while also making the snowflake look better. I did this in *Lightroom 3* but Photoshop has the same settings:
  - a. I slowly lowered the exposure until the snowflake just began to lose detail.
  - b. Increased recovery to max.
  - c. Increased Blacks until either the matte looked like a blizzard or the snowflake started to lose detail. I sometimes went to max on Blacks.
  - d. Increased Clarity to max.
  - e. I started increasing contrast if it seemed to improve the look.
  - f. Finally, I converted to B&W.

Here's a collection of my best snowflakes using above method. These were lassoed out and merged:



For the entire month of January I took over a thousand snowflake shots in 8 sessions and ended up with about 50 acceptable images. Out of those I really liked 10. Yes I am a bit flaky.

