



Crystal Lake Camera Club Newsletter

Serving Crystal Lake, IL and surrounding communities since 1980

December, 2016

Year 2016, Issue 12

CLCC Links

[Website](#)

[Facebook](#)

IN THIS ISSUE:

Presidents' Column	1,2
December Seasonal Image	1
Know Your Club Support Staff	2
Tom Snitzer Presentation	2
December Iconic Photograph	3
Tips & Links of the Month	3
Back to the Future	4
World's Largest Film Camera	5,6
Club Competition Results	7,8
November PhotoBug Breakfast	8
3,000 Year Old Sequoia Tree	8
Charts & Stats - Figure of Merit	9
Small Groups	10
Humor	10
Editor, Feedback & Club Info	11
Help Wanted & Opportunities	11
Calendars	12

2016 CLCC Officers

- Co-Presidents :**
[Al Popp](#)
[Chuck Rasmussen](#)
- Vice President :** [Peter Pelke II](#)
- Treasurer :** [Grace Moline](#)
- Secretary :** [Jim Petersen](#)
- Previous President :** [Lyle Anderson](#)

CLCC Support Staff

- Newsletter Editor:** [Rich Bickham](#)
Assistant: [Judy Jorgensen](#)
- Webmaster:** [Sandy Wittman](#)
- CACCA Delegate:** [Lyle Anderson](#)
- CACCA Delegate:** [Royal Pitchford](#)
- Education:** [Peter Pelke II](#)
- Advisor:** [David Jilek](#)
- Facebook Admin:** [Scott Migaldi](#)
Assistant: [Alexis Cooper](#)
Assistant: [Margie Paffrath](#)
- Membership:** [Mariela Ryan](#)
- Publicity:** [Roger Willingham](#)
- Competition:** [Jeff Chemelewski](#)
- Small Groups:** [Maureen Harris](#)
- Refreshments:** [Larry Swanson](#)
- Outings:** [Sandy Wittman](#)
- Librarian:** [Bob Cairone](#)

DECEMBER SEASONAL IMAGE

No one submitted an image conveying the 'holiday spirit' this month, so I found one in my archives instead. It was taken in Omaha, NE in December, 2014.

Nikon D5000
ISO 400
f/13 18 mm
4 sec



**Give
it a
shot !**



Your photograph can appear here next month. The submission procedure is in the "Opportunities" section on page 11. ◇



Riverfront Drive, Omaha NE

© 2014, Rich Bickham

PRESIDENTS' COLUMN

Well, Santa is right around the corner. You remember him, Mr. Claus?

Besides Christians celebrating the birth of Jesus, we exchange gifts, our families eagerly get together, abundant food is provided, individual reflection and hopes for the future consume our thoughts, and our children and grandchildren frolic and giggle endlessly. Oh, and we take tons of pictures of this jubilation.

Our individual freedoms as Americans, the ones that allow us to celebrate this wonderful time of year without fear and with endless freedom to pursue our minds' delights, comes with great dedication from those who serve our nation in the military. We ask that all of you take a moment to say, "Thank you" to our women and men serving our country in your own way this holiday season.

We were reflecting back over the last couple of years and looking at the development of our camera club and how it has really progressed into something special. Actually, we look at it as a gift to all the members.

Our club has so many gifts for those who consider joining, it is almost like year round Christmas. Ok, ok, maybe not year round, and maybe not like Christmas, but it sounded good and got your attention. The club does, however, deliver copious amounts of photography information. Realize that none of this would be possible without the generous contributions of so many charitable members; charitable with their time, their ideas, their smiles, their hearts and their passion for photography. Our club is truly blessed to have all these brilliant folks willingly give of themselves for the benefit of our club. Thanks to every single one of them.

During this time of Christmas spirit and giving, plop yourself into a comfortable chair, sit back, relax

See **President**, page 2

President, from page 1

and have a look around. Then reflect a bit and internalize all we enjoy - and please remember those families and children less fortunate than us. Relish the fun of the season, consume yourself with the sound of the children, take pictures of every aspect of the celebration and worship in your own way.

We convey our feeling of enormous gratitude to you for making this club so much fun. To you and your families we wish you the most wonderful holiday season possible.

Merry Christmas, everyone, and God bless...

Chuck & Al ◇

KNOW YOUR CLUB SUPPORT STAFF

I'm **Scott Migaldi**, your club's Facebook page administrator! Currently I'm a senior researcher and scientist in the telecommunications and information services field where I work for a large telecommunication operator. Prior to this job I have been with Motorola, the U.S. Air Force and other agencies in the U.S. government. I travel the world for my job and that is why I seem to always be online.

I've been interested in photography since I was a boy. My father had a camera that he had taken from a German soldier in the war and I became obsessed with it. The medium format camera, with manual everything, is what I learned on until high school when I got my first SLR. Even back in the film days I liked doing interesting stuff, like infrared, long exposure, etc. I think the science behind photography was always of interest to me. I did learn how to work in a dark room and processed some color prints when I had access to a full-color dark room. I did a lot of slide work because it was easier to process.

As soon as I was 18 and no longer needed the parental permission of my mother anymore, I learned how to scuba dive! Living in Florida, this was a great hobby, one that I still do. Once underwater I took my other hobby with me. I've done a lot of underwater photography. Progressing from point and shoot disposables to a full 35mm film set-up with dual strobes and macro capability. It is the underwater work that got me interested in macro. Sadly, with the advent of digital, I do almost no underwater photography anymore. I never upgraded my film gear to digital. Instead, I use all of my digital gear above water.

As I mentioned, I do travel a lot. I occasionally have time to do some tourist things so I bring some of my camera gear with me to take pictures. My prime interests are nature, macro, and architecture. But I have been trying to stretch and take better pictures of people. I think the thing I like best about photography is that it gives my artistic side an outlet. My creativity tends for the more technical and mathematical but with photography I have an artistic output!

Something I recently came to recognize that has changed my photography and given me something new to learn is that it is ok to use Photoshop to manipulate a print. I always had reservations about using PS too much. Something always told me that it was unfair to manufacture an image instead of capturing it. But I was reading some writings from the early photographer Alfred Stieglitz. He said that every print was a new version of the image, that size, exposure, dodging, burning are all part of the process. He even went on to comment that the new "Kodak" photographers, were not really creating art with their point & shoot photography. He taught me that post processing was just as important to the artistic process as capturing the image. ◇



Hawthorn Berry Snow Cones

© 2013, Rich Bickham

TOM SNITZER PRESENTATION

Rich Bickham

Photographer **Tom Snitzer** spoke to a group of about 45 members and guests at the November meeting of the Crystal Lake Camera Club. The title of his



November 1 CLCC Meeting Attendees

Paul Litke

presentation was "Have Camera, Will Travel", during which he discussed some of his many photo shoots, both in U.S. National Parks (such as Arches, Glacier Lake, Yosemite, Bryce Canyon and Big Bend) and elsewhere (such as Peru and coastal towns of Italy). He showed many beautiful slides from his travels.

His talk touched on many site-specific aspects of planning photo vacations, some of which are:

- **Planning ahead** to ensure both time alone and time with the family. You may want to get up well before dawn to shoot, but the spouse and kids won't want to, so include other times to spend with them where and when you can also shoot while the family is with you as you all share other fun activities together.
- **Equipment and clothing** to take.
- **Think about the message** you want your photographs to convey. Tom related how, on a trip to Peru with other photographers, he had thought he wanted to convey the majesty and beauty of the Andes. But instead he found himself fascinated with the lives and culture of the citizens. He shot most of his photos with that theme in mind. Later, in retrospect, several of the other photographers on the trip looked at his photos and wished they had done the same thing.
- **Location specific recommendations**, with a focus on National Parks - when and where to go, and difficulty to get to good spots. Some parks are easy to negotiate for most people, while others are physically demanding - he reviewed about half a dozen parks in detail with specific recommendations for each.



Tom Snitzer Presenting at 11/1/16 CLCC Meeting

Rich Bickham

Tom has made numerous presentations to our club in the past and he has never disappointed us - this one was no exception. Thank you, Tom! ◇

ICONIC PHOTO OF A DECEMBER DAY IN HISTORY

Rich Bickham

In April, 1978 communist elements in Afghanistan staged a coup and took power, ousting then-President Mohammed Daoud Khan and installing a new president, Nur Mohammad Taraki. Unpopular with much of the population, by mid-1979 many parts of the country rebelled openly against the new regime. President Taraki was assassinated, and subsequently replaced with Hafizullah Amin. Concerned about the instability of the Afghan pro-communist government, on December 24, 1979 the Soviet Union invaded the country and staged a coup in the capital city of Kabul, killing Amin and installing their own leader, Babrak Karmal, the fourth leader within a twenty month interval. Over the next nine years war between the Soviets and insurgency groups (known as the "Mujahideen") raged, as between 850,000 and two million civilians were killed and millions of others fled, most to Pakistan, and became refugees.

The invasion was the latest in a series of post-World War II Soviet takeovers of Eastern European countries, specifically Hungary in 1956, and Czechoslovakia in 1968. The Cold War got even colder, as then-U.S. President Jimmy Carter announced a U.S. boycott of the 1980 Summer Olympic Games scheduled to be held in Moscow.

Shortly before the 1979 Soviet invasion, photographer Steve McCurry was in Pakistan, and was able to cross the border with a group of Mujahideen into rebel controlled areas of Afghanistan. Dressed in Arab clothing, he shot several rolls of film and re-crossed the border back into Pakistan with the film rolls sewn into his clothing. Many of his photographs were published by the New York Times, Time magazine and the French weekly news magazine Paris Match; thus he became known as a photojournalist. As such, his work earned him the Robert Capa Gold Medal, for the "Best published photographic reporting from abroad requiring



Afghan Girl

Steve McCurry

exceptional courage and enterprise".

In December, 1984 he was again in Pakistan, in the Nasir Bagh refugee camp near Peshawar. While in the camp he took the above haunting photograph of a twelve year old orphan girl. McCurry had never recorded the girl's name and the photo became widely known as simply "Afghan Girl". National Geographic magazine used it on the cover of their June, 1985 issue. The photo has been named as "the most recognized photograph" in the magazine's history.

Because of the notoriety gained by the image, National Geographic set out to identify the girl and determine her fate. In 2002 they were successful - her name was Sharbat Gula (also known as Sharbat Bibi) and she was alive and had been living in a remote region of Afghanistan, since 1992.

McCurry used a Nikon FM2 camera with a Nikon 105mm Ai-S f/2.5 lens, with Kodachrome 64 color slide film to take the photograph. Editing of the photo was done by Graphic Art Service of Marietta, Georgia.

McCurry later covered conflicts in places such as Iran, Iraq, Cambodia, Lebanon and the Philippines, but he has since become a subject of controversy for alleged manipulation (photo editing) of some of his work. Examples can be found at

<http://petapixel.com/2016/05/06/botched-steve-mccurry-print-leads-photoshop-scandal/>

While he does not deny some manipulation had taken place, which of the photos in his extensive portfolio have been significantly edited is unknown. He no longer claims to be a photojournalist, but rather terms himself a "visual storyteller". ♦



Jim did not receive a question this month. ☹️ ♦

ASK A PRO

Jim Pierce

Send your questions to:

downtownphoto@sbcglobal.net

Please do not submit model-specific questions about cameras.

TIP OF THE MONTH

Submitted by Rich Bickham

Here are some tips for portrait photography camera settings that I got from "Light Stalking" at <http://www.lightstalking.com/>.

- **SHOOTING MODE** - If you are an experienced photographer, we highly recommend *Manual* mode. If you're working with light that isn't changing, this shouldn't be a problem. However, if you're outdoors and the light is changing, you may wish to use *auto-exposure* mode. Here are some suggestions regarding *auto-exposure* modes:
 - ♦ Do not use *Program* mode or *Full Auto* mode. Using this mode removes your decision making process from your portrait. You want to have control over the aperture and shutter speed.
 - ♦ If you have plenty of light, go with an *Aperture Priority* mode. This way you have control over the depth-of-field.
 - ♦ When working in low light use *Shutter Priority* mode so you can control your shutter speed to avoid camera shake.
- **ISO SETTING** - Manually set your ISO. Don't let the camera do it automatically unless you have a fairly new, high-end camera which has excellent noise control. We recommend using an ISO of 400 or less. When working in low light, try to use a tripod, monopod, or a wider aperture before raising your ISO setting.
- **METERING MODE** - We recommend setting your metering mode to *spot* or *center-weight*. You want to get your meter reading from your subject's face.
- **WHITE BALANCE** - Most modern cameras do a pretty good job with *auto white balance*. An exception to this is when working outdoors in shade or on an overcast day. In this situation you should manually set your white balance. ♦

LINKS OF THE MONTH

Submitted by Grace Moline

Here's an article about a Canadian sports photographer, David Sanford who has captured unbelievable photographs of Lake Erie during its most turbulent period from mid-October to mid-November.

<https://www.washingtonpost.com/news/in-sight/wp/2015/12/28/surreal-photos-of-crashing-waves-caught-in-motion-on-lake-erie/>

Submitted by Jim Petersen

I thought you might enjoy these pictures and tips.

<http://www.lightstalking.com/beautiful-autumn-pictures/>

Submitted by Roger Willingham

This site has good information about your camera's automatic shooting modes:

<http://www.howtogeek.com/277375/get-out-of-auto-how-to-use-your-cameras-shooting-modes-for-better-photos/> ♦

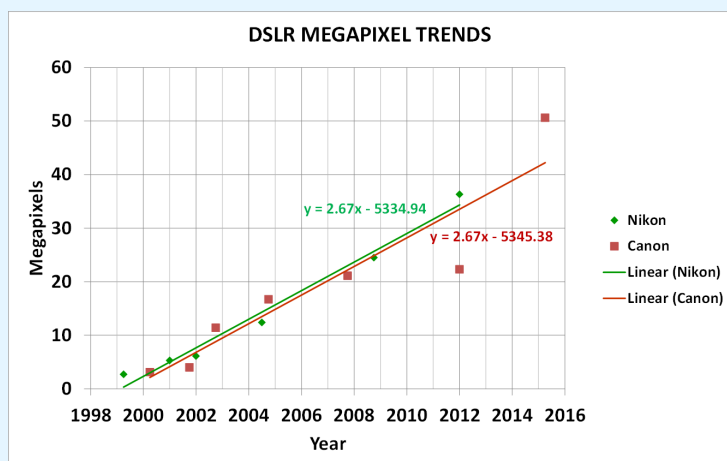
BACK TO THE FUTURE OF PHOTOGRAPHY *

Rich Bickham

As discussed in last month's column, by the end of 2004 Kodak and Apple (among others) had introduced consumer level digital cameras. Apple got out of stand-alone camera production after a few years but Kodak continued production during this period. By the end of 2004 digital camera pixel count was over 12 megapixels and increasing at a rate of about 2.6 megapixels per year. The Advanced Photo System (APS) with a 24mm film format was introduced by several manufacturers, but it became obsolete relatively quickly as digital camera technology popularity soared. Cellphone manufacturers began selling models with built-in cameras.

State of the Art: 2005 - Present

The pixel count of CMOS (Complementary Metal Oxide Silicon) image sensors used in consumer and professional level DSLRs continued its upward climb over this period, maintaining a relatively constant growth rate of 2.7 %, as shown in the below graph.



In 2005 Canadian-based Teledyne DALSA introduced a 111 megapixel CCD (Charge Coupled Device) for use on spacecraft missions such as the series of Mars rovers. CMOS image sensors would remain as the mainstay of consumer cameras.

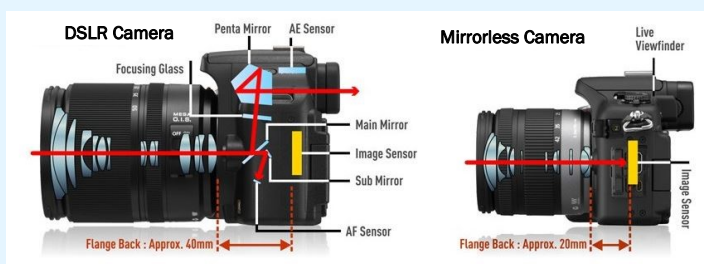
Canon announced the successful development of a 122 megapixel APS-H image sensor (1.3 crop factor) in 2010, but has yet to announce a DSLR that uses it.

As digital imaging technology came to dominate the photography market over this period, several key manufacturers were forced to change their business models. Polaroid ceased production of all of its instant film camera products. Kodak began to trim its line of roll film (formerly its cash cow), but was unable to effectively compete in the digital camera market, and filed for bankruptcy in 2011.



The first of what have recently become known as "mirrorless" cameras (mirrorless in quotes since all cameras were mirrorless prior to the introduction of reflex cameras in the late 1800's). It was introduced in 2004 - the Epson R-D1. Shown on the left, it was co-developed by Seiko Epson and Cosina. Other manufacturers have since gotten into the business including Leica, Panasonic, Olympus, Samsung, Fujifilm,

Sony, Canon and Nikon. Mirrorless camera popularity has since grown significantly at the expense of DSLR sales.



These new generation mirrorless cameras have interchangeable lenses and through

several different techniques (translucent screens or electronic viewfinders as shown at the bottom of the left column) which allow through-the-lens viewing without the need for a reflex mirror (thus having an advantage over DSLRs in size, weight, complexity and cost).

Within the last ten years cameras became available with GPS (Global Positioning System) receivers, so the metadata stored with each image includes the location where the photo was taken (if outdoors) to within several yards anywhere on the earth's surface. Wi-Fi-enabled cameras also became available for the wireless download of image files from your camera to elsewhere for storage.

The introduction of the iPhone in 2007 with an integral 2 megapixel camera began a revolution in cellphone camera technology. Over the next nine years, other cellphone manufacturers (Motorola, Samsung, LG, et al) introduced their own models with ever higher quality cameras. Smartphones are available today with 23 megapixel cameras and many features found on DSLRs. Photo-editing apps are also available for download onto the phone so in-phone editing is possible. By the end of 2012 over 80% of the installed base of cellphones (5.5 billion units) had integral cameras.

Predictions for Photography's Future: 2005 - Today

In 2009 MIT Associate Professor Ramesh Raskar had this vision for photography 50 years into the future:

"It is Sunday, July 18, 2060 - Old-Timers' Day, Yankee Stadium. You're here with your old photoglove, getting some action shots from your seat in the upper deck without even putting down the \$40 beer in your left hand. What would look to us like normal sunglasses are in fact camera-equipped goggles with a heads-up display on the inside of the right lens. Pointing the index finger of the photoglove, which is impregnated with tiny pyramid-shaped crystal microlenses surrounding nano-sized image sensors, you draw a frame around each bit of action so that a window appears to float in front of your goggles. Blink: You bat your right eye to capture pictures of 86-year-old Derek Jeter throwing out the first pitch from deep center field, demonstrating his newly regenerated shoulder muscle. Blink: A suicide squeeze. Blink: A diving catch. Back home, you begin to edit your pictures using a surround-vision display. The merging of computer and camera has brought computational photography to fruition, so it doesn't much matter that batters were distant and sometimes had their backs to you, because, using your glove, you captured a complete three-dimensional image of the players via thousands of tiny, wireless, GPS-enabled microcams that have been spread like glitter all over the field. Choose an image from a 2D desktop display and it appears before you in 3D, life-size, projected into an invisible fog from at least six laser projectors mounted in the walls. A joystick with a trigger and thumb buttons lets you change focal plane and depth of field, zoom in for close-ups, even alter the angle of view. Each picture is actually a few seconds of 3D video, since when you blinked the recording of that scene began five seconds before the blink and continued five seconds after. At 1,000 frames per second, each "capture" gives you the choice of separately viewing and walking completely around 10,000 stills, or replaying the action as if you were positioned on the field ..."

In 2013, British-born professional photographer Jason Row predicted 3D cameras and the capability to view the images on a 3D screen without the use of special glasses.

"In my opinion the one big thing holding 3D back is the way we view it, for the most part sitting at a fixed distance from a screen wearing oddly unfashionable glasses. I also believe it may not be too long before we get devices like an iPad with a 3D screen that does not require any glasses to view."

Also in 2013, New Jersey professional Photographer Gail Mooney (among many others) predicted the transition of still photography to be a subset of video, with high quality still images being taken from individual video frames.

"... with motion cameras able to shoot 96 frames a second, and each frame being good enough to pull out and use as a still image, the changes for still photographers will be profound."

Forward into the future:

So how WILL those predictions fare? Only time will tell.

* This is the twelfth and final in a series of columns which look back in time (starting from 1810) at the state-of-the-art of photography and the predictions of where photography was going made by people in the field at the time span in history being considered. It also summarizes the accuracy of those predictions. ♦

DENNIS MANARCHY - DOCUMENTING AMERICAN CULTURE WITH THE WORLD'S LARGEST FILM CAMERA

Rich Bickham

Photographer *Dennis Manarchy* (shown below sitting on his Harley-Davidson motorcycle) grew up in Rockford, IL and became interested in photography at an early age. He still has the first camera he owned, a 1950's era Roy Rogers and Trigger 620 Snap Shot Camera. While in high school he helped his uncle who was a medical photographer at the Rockford Memorial Hospital, where he was able to improve his photography skills. He applied for and was granted a Kodak Masters of Photography scholarship which



allowed him to study at the Rochester Technical Institute in upstate New York. Upon graduation he got an apprenticeship to work with noted American portrait photographer *Irving Penn* (1917 – 2009), who was a mentor to him, and whom he considers "... the greatest photographer of all time." While he learned much from Penn, over time he found it difficult to break away from his influence so he could develop his own individual style, something he has since accomplished.

Always a student of photography, he has traveled to the same sites other notable photographers have been, in search of the exact locations from which they shot their most famous photographs. Some were planned in advance, like the boulder field in *Ansel Adams'* (1902 – 1984) "Mount Williamson, The Sierra Nevada", where he planned to use the site as a backdrop for a Harley-Davidson shoot. Others were serendipitous, such as when he stopped at a service station along a lonely stretch of a New Mexico highway where he was asked by the station attendant if he knew where he was – it was the site of one of Adams' most famous photos, "Moonrise, Hernandez, New Mexico". He was fascinated by Photographer *Edward Curtis* (1868 – 1952), whose images of Native Americans were stunning in their facial detail, a quality he was unable to duplicate in his own work until, as a result of some research, he discovered that Curtis used a wet plate process for taking and developing photographs - a nineteenth century process with which he began to experiment.

In 1968, Manarchy was drafted into the U.S. Army and subsequently served in Vietnam. He returned as a very distressed individual (as did so many others) – in his own words, "f---ed-up". Still interested in photography, but not knowing what path to take in his life, he found himself in a North Carolina bookstore one day where he met Chief *Lew Barton* of the Native American Lumbee tribe (also of North Carolina), who recognized his distress and talked to him about it. The chief invited him to live with him and his family on the Lumbee reservation, and he accepted the offer. He stayed for six months, living among the Lumbee people, and participating in their daily activities including hunting and fishing. He described this time as a "healing experience" during which he gained an appreciation of a segment of American culture that was totally foreign to him, as he guessed it was to nearly all Americans. Largely because of this experience, he set a personal goal to document other "vanishing" cultures of America with his photographs ("vanishing" is in quotes because some of his subjects took exception to the term, as they felt their culture was still alive and well – it is vanishing only in the sense that it is ceasing to exist in the minds of most Americans).

With a vision of creating high quality photographs of exquisite detail on a grand scale, he decided he needed a much larger camera – nothing was available that even came close to what he wanted. Therefore, he designed, oversaw and actively participated in the construction of an enormous camera to fit his needs. It was a twelve year project in which three prototypes were built, the third being the final version he currently uses. The camera is shown at the top of the column on the right, with Manarchy beside the lens. Also in the picture is an integral chrome plated subject chair (with a head rest) which is electronically controlled to move along the lens axis for focusing. The lens is mounted on a hinged door, which opens to the interior of the camera, which houses another moving platform where the film is mounted (held in place by a vacuum applied through small holes on a mounting board). The interior can comfortably hold about half a dozen people. Here are some of the camera's specifications:

Size:	35' (L) x 8' (W) x 12' (H)	Weight:	7,000 pounds
Lens:	250 pounds	Focal Length:	1,200 mm
Aperture:	f/32	Shutter:	Strobe

Negative Size: 4' (W) x 6' (H)



Dennis Manarchy and Camera - 11/9/16

Rich Bickham

Manarchy processes the negatives himself in the basement of his studio. It takes about one day per negative to process. The large size of the negatives allows high quality prints up to 24 feet tall to be made. The image below portrays an exhibit



Exhibit Concept (Dewey & April)

© Dennis Manarchy

concept for his large prints. The quality of the images allows individual skin pores, facial hairs and iris flecks in the eye to be clearly seen. A negative from the camera was evaluated by a physicist, who estimated its resolution would be equivalent to a hypothetical 100,000 megapixel image sensor.

He has started touring the country with the camera (which he tows around on a custom-made trailer) to capture images representative of the underappreciated cultures of America, some of which are rapidly disappearing. His longest trek thus far was to Louisiana (and back) where he photographed "swamp people". Other cultures he has documented include Native Americans, carnival people, cowboys and farm families. The cost of each processed black and white negative is about \$5,000 (excluding travel expenses), so he is always seeking funding to support his dream of visiting each of the 50 states. Several of his images are shown on the next page, but of course what you see in this article can not begin to show the true detail in his giant prints.

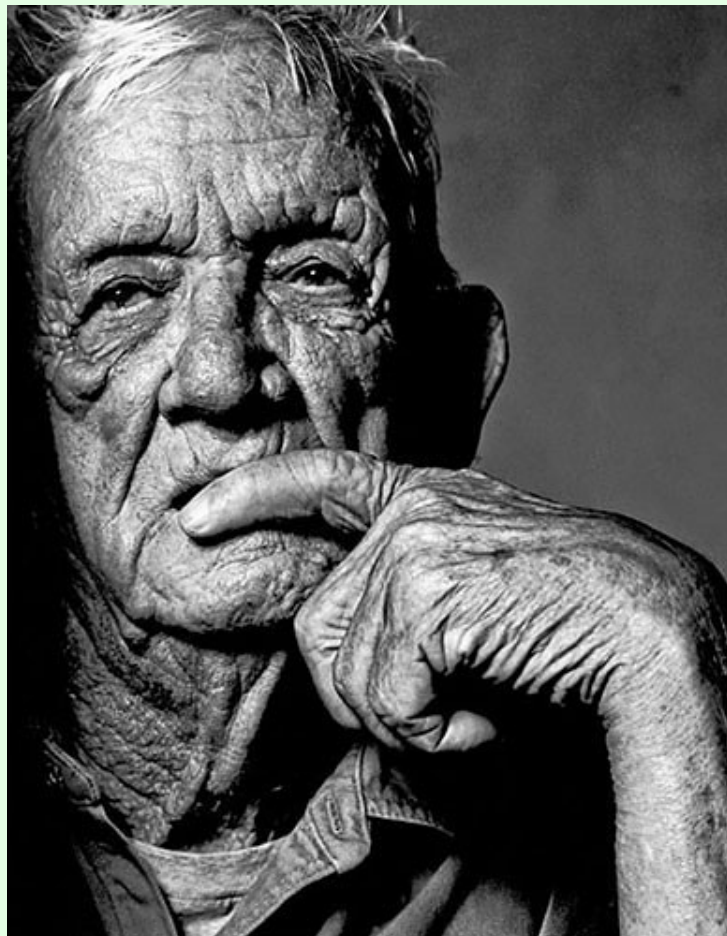
See **Manarchy**, page 6

From **Manarchy**, page 5



Wapihi with Prairie Chicken Feathers

© Dennis Manarchy



Blanc

© Dennis Manarchy



Elephant Man

© Dennis Manarchy



American Buffalo

© Dennis Manarchy

Many more of Manarchy's photographs and information about him can be found on several websites including

<http://butterfliesandbuffalo.com/> .

His Chicago studio, located at 656 W. Hubbard Street, is also available for special events. For details see

<http://studiomanarchy.com/about-space/> . ◇

CACCA COMPETITION WINNERS

Congratulations to the following club members who won at the October or November, 2016 CACCA competitions:

Lyle Anderson:

"Woodward Millhouse" - Large Color - **CACCA Award**



Woodward Millhouse

© 2016, Lyle Anderson

Bob Popelka:

"Water, Water Everywhere" - Large Color - **CACCA Honorable Mention**
Photo not available for publication

Sandra Wittman:

"These Boots are Made for Walkin'" - DPI - **CACCA Honorable Mention**



These Boots are Made for Walkin'

© 2016, Sandra Wittman

All winning photos shown are uncropped, and sized such that each has the same printed area while retaining its original aspect ratio.

The next CLCC member competition is at the December 6 club meeting.

Judging Divisions:

- Large Color – Any print mounted on a 16" x 20" mat board.
- Small Color – Any print mounted on an 11" x 14" mat board.
- Large Monochrome – Any print mounted on a 16" x 20" mat board.
- Small Monochrome – Any print mounted on an 11" x 14" mat board.
- Digital Projected Image (DPI) – Any image viewed via a projection device. 1024 pixels x 768 pixels maximum (portrait or landscape orientation).

More details can be found on the club website. ➡

CLCC Website: <http://www.crystallakecameraclub.org> CLCC on Facebook: <https://www.facebook.com/crystallakecameraclub101>

PAST CLCC COMPETITION WINNERS

Here are some winners in the CLCC October, 2016 competition that were not shown in last month's newsletter

Honorable Mention - DPI - October, 2016



Railway

© 2015, Debra Blaha

Honorable Mention - Small Color - October, 2016



Lake Geneva Tour Boats

© 2016, Rich Bickham

Award - DPI - October, 2016



Cabbage Flower

© 2016, Theresa Hart

See **Winners**, page 8

Winners, from page 7

Here are several more of the club's October, 2016 competition winning photographs that were not previously published in the newsletter.

Honorable Mention - Small Monochrome - October, 2016

Astoria Bridge

© 2016, Sandra Wittman

Award - Small Color - October, 2016

Rose

© 2016, James Petersen

Honorable Mention - Small Monochrome - October, 2016

Mirror Image

© 2016, Sandra Wittman

NOVEMBER CLCC PHOTOBUG BREAKFAST

As usual, a group of club members met on the second Saturday morning of the month at the Colonial Restaurant in Crystal Lake to have a breakfast and talk about photography. Shown seated below (clockwise from lower left) are Rich Bickham, Herb Rangl, Karl Gabbey, Lyle Anderson, Jim Petersen, Al Popp and Bob Popelka.



November PhotoBug Breakfast

© 2016, Paul Litke

The PhotoBug breakfast is a monthly event, and club members and guests are always welcome. See the calendar section on page 12 for further details. Feel free to join us. ♦

3,000 YEAR OLD SEQUOIA TREE

Paul Litke & Rich Bickham

Not every tree has a nickname, but "The President", a giant sequoia in the Giant Forest of Sequoia National Park, has earned it. It is 247 feet tall, has a 23 foot diameter trunk, an estimated 2 billion needles and is thought to be over 3,000 years old. Its enormous size had prevented it from being photographed in its entirety until 2012.

Using pulleys, ropes and levers, scientists and National Geographic photographer *Michael Nichols* worked together to compile a mosaic image from 126 individual photographs (selected from over a thousand taken during the project). Featured in a five page fold-out in the December, 2012 issue of National Geographic magazine, it is shown on the right. Note the two people in red jackets (one in the snow at the base of the trunk, and the second high up on a branch near the top - see blue arrows).

More information can be found at the following websites:

<http://www.dailymail.co.uk/news/article-2568138/Extraordinary-length-shot-President-one-largest-trees-Earth.html>

<http://petapixel.com/2012/12/19/capturing-the-second-largest-tree-in-the-world-in-a-single-image/> ♦



The President

Michael Nichols

NATIONAL GEOGRAPHIC

CHARTS AND STATISTICS

FIGURE OF MERIT - BETTER RESOLUTION FOR TELEPHOTO LENS USERS (Part 1 of 2)

Rich Bickham

If you like taking pictures of a distant subject with a telephoto lens, you no doubt get as close to your subject as is practical, zoom in and focus on it until you are satisfied with the framing, set the ISO, aperture & speed, then press the shutter. That being done, the number of pixels in the resulting image is determined by your camera's image sensor specification (Megapixels). How completely your desired subject fills the frame depends on the focal length of your lens (with teleconverter if you use one), the crop factor of your image sensor, and of course your distance from the subject. If your lens focal length is not long enough to completely fill the frame with your subject, you will have to crop the image which results in fewer Megapixels (lower resolution) in the intended subject.

So how do you improve the resolution of your subject without getting closer to it (which I assume you have already done)? Three choices are to buy a new camera body with an image sensor having a greater number of pixels, buy a teleconverter for your lens, or buy a new lens with a longer focal length to 'get closer' to your subject. Of course you can choose some combination of all three. What is not obvious is the relationship between these options, and how to pick an optimum solution (usually based on cost and/or size of the new equipment).

There is a figure of merit metric (**F**) that can be easily calculated to help you pick the best solution. It was developed in 2003 by Wake Forest University physicist Rich Matthews and depends on the following attributes of your equipment set (all four of the below specs are readily available from your camera and lens manuals – consult the technical specification sections):

- M** is number of Megapixels in the camera's image sensor,
- C** is crop factor associated with the image sensor,
- L** is lens focal length (mm) – for zoom lens, use the maximum value,
- T** is the teleconverter magnification factor - if no teleconverter, **T** = 1.

The larger the figure of merit is, the more resolution your equipment will give you. For a given equipment set the value of **F** by itself is (for all practical purposes) meaningless. Its usefulness comes when it is compared to the figure of merit for a different equipment set. Simply put, if you calculate **F1** (for equipment set **1**) and **F2** (for equipment set **2**) then the ratio **F2/F1** will tell you the resolution increase (or decrease) you will get with set **2** versus set **1**. For example if **F1=3** and **F2=9** then equipment set **2** will have **9/3=3** times the resolution as equipment set **1** (three times the number of pixels in your subject area).

For those interested in the theory behind the calculation, go to the reference website* shown at the end of the article. You don't need to concern yourself with that though, since I have written an Excel spreadsheet that will do the job for you, which is shown below.

EQUIPMENT SET FIGURE OF MERIT CALCULATIONS - SIMPLE
Version 1.1 - 11/25/16 - Rich Bickham
Reference: Crystal Lake Camera Club Newsletter - December, 2016 - Page 9

FIGURE OF MERIT CALCULATION	MEGAPIXELS CALCULATION	FOCAL LENGTH CALCULATION	CROP FACTOR CALCULATION	TELECONVERTER CALCULATION
IMAGE SENSOR Megapixels: 12.2 Crop Factor: 1.50	IMAGE SENSOR MEGAPIXELS: 180.2 Crop Factor: 1.50	IMAGE SENSOR Megapixels: 12.2 Crop Factor: 1.50	IMAGE SENSOR Megapixels: 12.2 CROP FACTOR: 5.77	IMAGE SENSOR Megapixels: 12.2 Crop Factor: 1.50
LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00	LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00	MAX FOCAL LENGTH (mm): 772 Teleconverter Mag: 1.00	LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00	LENS Max Focal Length (mm): 200 TELECONVERTER MAG: 3.84
Figure of Merit: 1.10	Figure of Merit: 16.22	Figure of Merit: 16.22	Figure of Merit: 16.22	Figure of Merit: 16.22

There are five sections, each of which can be used independently. We will discuss the left-most section first which calculates the figure of merit. Using the spreadsheet is quite simple. Just fill in the four green shaded cells, and the figure of merit will appear in the red shaded cell. The example on the left is for my current equipment set: Nikon DN5000 with 12.2 megapixel (**M** = 12.2) APS-C image sensor (**C** = 1.5), Nikor 55-200 mm zoom lens (**L** = 200) and no teleconverter (so **T** = 1). The figure of merit is 1.10 as shown in the red cell.

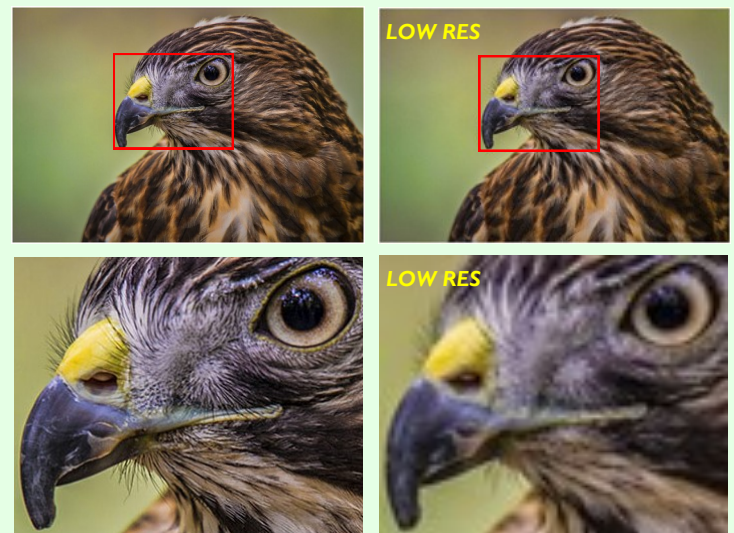
FIGURE OF MERIT CALCULATION
IMAGE SENSOR Megapixels: 12.2 Crop Factor: 1.50
LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00
Figure of Merit: 1.10

The other four sections of the spreadsheet each calculate a different attribute of the equipment set given the other four variables. The I/O format is the same for all of the sections - input data into the green cells and the output appears in the red cell.

Here is another example. As many of you know, club member Norm Kopp takes a lot of beautiful bird photographs. His equipment set is a Canon 7D Mark II 20.2 megapixel (**M** = 20.2) APS-C image sensor with a 1.6 crop factor (**C** = 1.6), a 100-400 mm lens (**L**=400) and a 1.4x teleconverter (**T** = 1.4), for a calculated 16.22 figure of merit.

So taking the ratio of Norm's equipment set figure of merit (16.22) to my figure of merit (1.1) we get $16.22 / 1.1 = 14.7$, meaning Norm is getting nearly 15 times as many pixels in his subject than I can (with the same framing).

Shown below (top left) is one of Norm's photos "Broad-winged Hawk" that won an award in the December, 2014 club competition. As shown, it is 1024 x 686 pixels (702,464 pixels). Directly below it



(bottom left) is a blow-up of the area within the red box above it. For comparison I've resampled the top left image down to 267 x 179 pixels (47,793 pixels), roughly consistent with a resolution reduction factor of 14.7, which is shown above on the top right, with the same blow-up shown on the bottom right. The degradation in detail can be clearly seen.

By using the other four sections of the spreadsheet we can see how I can match Norm's 16.22 figure of merit by changing only a single component of my equipment

MEGAPIXELS CALCULATION	FOCAL LENGTH CALCULATION
IMAGE SENSOR MEGAPIXELS: 180.2 Crop Factor: 1.50	IMAGE SENSOR Megapixels: 12.1 Crop Factor: 1.50
LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00	LENS MAX FOCAL LENGTH (mm): 772 Teleconverter Mag: 1.00
Figure of Merit: 16.22	Figure of Merit: 16.22
CROP FACTOR CALCULATION	TELECONVERTER CALCULATION
IMAGE SENSOR Megapixels: 12.2 CROP FACTOR: 5.77	IMAGE SENSOR Megapixels: 12.2 Crop Factor: 1.50
LENS Max Focal Length (mm): 200 Teleconverter Mag: 1.00	LENS Max Focal Length (mm): 200 TELECONVERTER MAG: 3.84
Figure of Merit: 16.22	Figure of Merit: 16.22

set. Inspecting the red shaded squares, it seems these four solutions are either impractical or out of my price range. I can look for other combinations varying two or more attributes of my equipment set, but this trial and error method would be time consuming so next month in part 2, I will append the spreadsheet to streamline the optimization process. I will however, send the current spreadsheet with embedded instructions to anyone who requests it - just email me at richbickham@comcast.net.

I make no claims as to the accuracy of Matthew's derivation, however it seems reasonable to me. Use the spreadsheet only as a tool to guide your purchases.

* Reference - <http://www.digicamhistory.com/Figure%20of%20Merit.html>

SMALL GROUPS

Advanced Post Processing - Maureen Harris - parcon129@gmail.com
Learning various aspects of post processing with topics suggested by the group.

Architecture - Grace Moline - jgeagle01@gmail.com
Taking field trips to different sites, then discussing photos and techniques.

Macro - Bob Cairone - robertcairone@gmail.com
Exploring methods and techniques of extreme close up photography, where the subject is shown near or larger than life size.

Nature & Landscape - Chuck Rasmussen - chuckr@camira.com
Enjoying the blended camaraderie of likeminded friends who desire to learn all the many facets involved in taking beautiful photographs of anything in nature.

NIK Software - Maureen Harris - parcon129@gmail.com
Studying the Google plug-in NIK which contains many specialized modules.

Photo 101 - Chuck Rasmussen - chuckr@camira.com
Understanding the basics of photography including, but not limited to, aperture, shutter speed and ISO and the coordinated interaction of those three elements.

Photoshop Elements - Al Popp - skip3917@sbcglobal.net
Having fun exploring the many tools Elements offers for creating great images.

Lightroom - John Delware - indelware@comcast.net
Learning to use Adobe Lightroom software starting from the basics.

Street Photography - Chuck Rasmussen - chuckr@camira.com
Examining techniques, laws and equipment for developing photographs taken in public places.

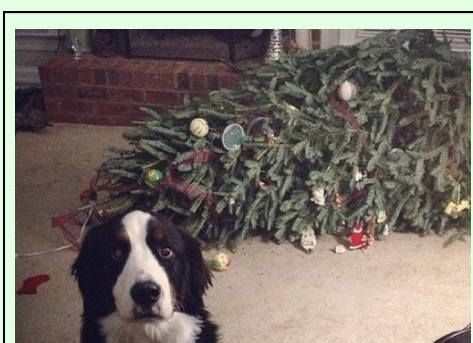
Anyone interested in joining one or more groups should contact the group host listed above for meeting dates, times, locations and new member openings. ◇

HO HO HO - DECEMBER HOLIDAY HUMOR - HO HO HO

Rich Bickham



HEY, I THINK I'LL KEEP
THIS GIFT FOR MYSELF!



THE CAT DID IT!



I HATE THE HOLIDAYS!



I'LL GET THEM FOR THIS!



HAPPY
HOLIDAYS
TO ALL OF
OUR
READERS ◇



CLCC IS A MEMBER OF THESE ORGANIZATIONS



Click Icons to Link

FROM THE EDITOR

Rich Bickham

Last October my wife Elaine and I spent a day in the downtown Chicago area visiting various buildings featured in the Open House Chicago, 2016 event. Of the many sites we visited, the most interesting was Studio Manarchy on west Hubbard Street, a former maple syrup factory that American photographer *Dennis Manarchy* converted into a spacious studio and home in 1980, and where he and his wife Marybeth currently reside. The main reason Elaine and I chose to include this on our list of sites to visit was that it was promoted as the home to what was termed the "world's largest analog camera". However, there was much more to see than the camera, including a collection of Manarchy's photographic work, and various interesting artifacts and artistic constructs that he has collected or made himself over the years. Thinking this site would be of interest to our club members, I inquired about sitting down with him for an interview about his life, his work and the camera. He kindly agreed, and we met in his studio for about two hours on November 9. Prior to the interview, I emailed him our November newsletter to introduce him to the Crystal Lake Camera Club. He said he had looked through it before we met and was impressed with the club (which he suggested was not a typical 'run of the mill' sort). He very much liked the quality of several of the winning photos from the October competition, read some of the articles which he termed "interesting", and overall enjoyed reading the "magazine". My interview article is on pages 5 & 6 of this issue.

This issue contains the final "Back to the Future of Photography" column on page 4 - the column has been running throughout this year. We covered the history of photography starting last January in the year 1810, and moved forward into the future in each successive column, ending in 2016 with this December issue. In each column we covered a span of time (10 to 15 years) and discussed milestones in photography that occurred therein. We discussed predictions for photography's future made by those associated with, and knowledgeable within the field. We then reviewed the accuracy of those predictions that were made (hence the name of the column, going back to the predictions and then looking to the future to see how well they fared). I hope you have enjoyed reading the column as much as I have enjoyed writing it. Of course twelve single page columns are able to only scratch the surface of photography's history, so they only cover a small fraction of the significant developments (no pun intended) of the times. But, I thoroughly enjoyed researching and writing them. It was an educational experience for me, as I consulted over 160 references along the way. It was relatively easy to research the history, and review the accuracy of the predictions, but the hardest part was trying to find those predictions of the future made during the time frame covered in each issue. I probably spent more of my time on that aspect of the column than on any other. ◇

OPPORTUNITIES

Get your photography questions answered or your problems solved with our "Ask a Pro" program. Submit queries to downtownprophoto@sbcglobal.net, and Jim Pierce will provide an answer or solution to your inquiry personally, and in the next newsletter.

The front page picture (Seasonal Image of the Month) of the newsletter will be chosen from entries received from club members. Your entry must be received by the newsletter input deadline. Email a jpg image to richbickham@comcast.net with the subject line "Front Page Image Entry - Month" where Month is the intended newsletter issue month. The picture should have a seasonal theme.

Member photos are on display at several venues throughout the area. There are spots available for additional photos. The photographs need not be competition winners. All entries must be mounted on either 11x14 or 16x20 inch black mats, and have a business-card-size white label mounted in the lower right corner of the mat with the photograph's title, photographer's name, and the location at which the photograph was taken. Contact Chuck Rasmussen at chuckr@camira.com if you have questions or wish to participate. ◇



2015 PSA Newsletter Contest - Small Clubs Category

Third Place overall
Best Variety of Material

READER FEEDBACK

October Issue:

Thank you for your information, and sharing those beautiful images in your newsletter.

Adam Yopp

Wow, great newsletter. Packed with information. How often does it come out?

Linda Miller - Cary, IL

The newsletter is published on the last Tuesday of every month. - Ed

Reader feedback should be sent to richbickham@comcast.net . ◇

DECEMBER MEETING SHOW & TELL CHALLENGE

There will be no December club meeting Show and Tell Challenge since it is a competition night. ◇

JOIN US AT OUR MEETINGS

The Crystal Lake Camera Club meets at 7:00 p.m. on the first Tuesday of every month at

Home State Bank
611 S. Main St., CL
Community Room (lower level)

Guests are always welcome at our monthly meetings.

Our competition year starts in October of each year, and is comprised of four competitions, specifically in October, December, February and April, followed by a May or June competition between all winning entries from the previous four competitions to determine the club's photograph of the year. The club fiscal year runs from January 1 through December 31. Club dues are \$25 per person per fiscal year.

We currently have about a hundred members whose level of photography expertise runs the range from novice to professional. The benefits of membership include (but are not limited to) classes on basic to advanced methods, mentoring from accomplished photographers, small groups who meet monthly on specific focus topics, opportunities to enter club competitions, and presentations from other photographers on special topics during non-competition meeting months. ◇

HELP WANTED

CLCC is in need of a volunteer to become assistant editor of the newsletter. Beginning responsibilities may include some of the following:

- Pre-publication review of newsletter drafts for typos and other errors,
- Solicit inputs from members for future newsletters,
- Check and vet websites used in the newsletter,
- Contribute and/or create material for the newsletter.

The position may lead to editor responsibilities should the then-current editor be unable to perform duties in any given month(s). Rich Bickham will provide training and guidance. Interested individuals should contact Rich at

richbickham@comcast.net

We are always looking for good photography tips for the "Tip of the Month" and interesting links for the "Link of the Month" sections of the newsletter. If you have something helpful or interesting to share with club members (which includes both novices and professionals so both basic and advanced topics are welcome), send them to richbickham@comcast.net before the newsletter input deadline. ◇

CALENDAR OF COMING CLUB EVENTS - December, 2016 & January, 2017

DATE	TIME	LOCATION	DESCRIPTION	NOTES
December 6, 2016	6:15 - 7:00 p.m.	Home State Bank 611 S. Main St., CL Community Room	"Drop in Early" mentoring	1
December 6, 2016	7:00 - 9:00 p.m.	Home State Bank 611 S. Main St., CL Community Room	CLCC December meeting - Election of 2017 CLCC Officers - Competition night	1
December 10, 2016	8:30 a.m.	Colonial Café 5689 Northwest Hwy., CL	Saturday morning PhotoBug breakfast meeting	2
December 10, 2016	12:30 p.m.	Christian Church of Arlington Hts. 333 W. Thomas St., AH	CACCA December Meeting, Competition & Seminar Weston Maggio - "Wacom Tablet Talk"	4
December 20, 2016			Deadline for January newsletter inputs	3
December 27, 2016			Target date for January newsletter distribution	
January 3, 2017	7:00 - 9:00 p.m.	Home State Bank	CLCC January meeting: Speaker TBA	1
January 14, 2017	8:30 a.m.	Colonial Café	Saturday morning PhotoBug breakfast meeting	2
January 14, 2017	12:30 p.m.	Christian Church of Arlington Hts. 333 W. Thomas St., AH	CACCA January Meeting, competition & Seminar Al Alvis - "The Mechanics & Art of Bird Photography"	4

Notes:

- 1) CLCC meetings are held the first Tuesday of every month. Home State Bank is located in Crystal Lake. It's the large building behind the drive-up just southeast of the intersection of Route 14 and Main Street. The Community Room is on the lower level - take the elevator just inside the south entrance.
- 2) The PhotoBug Breakfast provides an opportunity for open photography conversation plus good food and fun. You may take home some great tips and ideas that help you capture better pictures. It's a great way to get to club members on a more personal level. Come at 8:30 a.m. on the second Saturday of each month.
- 3) Email to richbickham@comcast.net.
- 4) The monthly CACCA delegates meeting and interclub competitions are held on the second Saturday of each month. Those interested in attending should contact Lyle Anderson at lyleandr@sbcglobal.net or Royal Pitchford at rpitchford@live.com - you may be able to catch a ride with one of them. ♦

UPCOMING NON-CLUB PHOTO-OPS OF POTENTIAL INTEREST



ILLUMINATION: TREE LIGHTS AT THE MORTON ARBORETUM

One Mile Paved Path Through the Winter Woods of Colorful Tree Lights
Through Monday, January 2 (closed December 5, 12, 24 & 25)
5:00 p.m. to 8:30 p.m. - Lights out at 9:30 p.m.
Morton Arboretum
4100 IL Route 53
Lisle, IL



WONDERLAND EXPRESS

Miniature Trains Wind Past Replicas of Chicago Landmarks
Through Monday, January 2
8:00 a.m. to 5:00 p.m. (2:00 p.m. close December 2, 9 & 24 - closed December 25)
Chicago Botanical Garden
1000 Lake Cook Road
Glencoe, IL



WINTER FLOWER & TRAIN SHOW

Model Trains, Garden Scale Homes, Lighted Trees & More
Through Sunday, January 8
Seven days a week - 9:00 a.m. to 5:00 p.m.
Lincoln Park Conservatory
2391 N. Stockton Drive
Chicago, IL



ICE SCULPTING

Outdoors, Blocks of Ice, Chainsaws, and Carving Tools
Sunday, December 11 - 11:00 a.m. and 2:00 p.m.
Regenstein Center Courtyard
Chicago Botanical Garden
1000 Lake Cook Road
Glencoe, IL ♦

