

In Camera

The Newsletter of the Hawkesbury Camera Club Inc.

FROM THE CHAIR

Greetings Members

We have a very exciting year ahead of us. The program is full of exciting presentations some of which you may be familiar and some you won't. As usual the competitions have set subjects plus we have added an extra open comp in the middle of the year to give us 3 opens this year instead of two. HAG'S will continue on the 2nd Wednesday of the month for those who wish to expand their photo shop knowledge.

The AV challenge is early in the year (March to be exact) so any member who would like to submit an entry should get cracking. This is an inter club competition and is being run by Blacktown Club this year. Check with Kim Duproy for images that are to be used for this comp.

The other inter club competition (for prints and projected images) is being held in August, we are the host this year so we are hoping for a good result. Last year we finished second, this year we need to go one better.

I am hoping for a big effort this year on the history of the Hawkesbury Camera Club. Already several members have teamed up and completed their images and accompanying storey. This is a very worthwhile project as the history of the club is going to be valued more and more as each year passes. Geoff Higgins was at the reformation of the club in mid 1960's and as a 16 year old at the time he still has vivid memory of that meeting. Most of those who attended that meeting have either passed away or are in the twilight of their life and not in possession of good memory. We are extremely lucky that someone as young as Geoff was there and we have been able to interview him for our book. In forty years time members of the Hawkesbury Camera Club will be just as interested in what was going on in 2011. Let's get on with it.



OFFICE BEARERS

President:	Geoff Pfister 9626 7537
Vice President:	Kim Duproy
Secretary:	Charles Sutton 4577 2284
Treasurer:	Ian Cambourne 4577 5148
Comp Manager:	Kim Duproy & Alan Sadleir
Publicity:	David Duproy
Activities Coordinator	Denise Newton
Newsletter Editor	Alan Aldrich 9627 4225

THIS MONTH

Feb 2 Guest Speaker "Black & White techniques in a digital age." Mike Smythe

MARCH 10 Digital Group

MARCH 17 Comp – Open

Denise Newton is our outings coordinator this year and I know she will have lot's interesting outings planned for us. I am a strong believer in the social aspect of camera club so

along with the outings the 15-minute coffee break on comp nights will be in place again this year as well as on the longer presentation nights.

Looking forward to seeing you all on the first Wednesday in February for our Black and White presentation with Mike and Maiva Smyth.

Cheers Geoff

Briefs for 2011 Competitions.

Open Comps.

Subject matter is open & can be of anything.

Monochrome.

Subject of images is open to anything but must be black & white. Black to grey tones may be replaced by toning such as sepia toning, blue toning or selenium toning, but must be over the whole image. Colour prints will not be allowed. Minimum print size is 8 x 10 inches with a maximum mount size of 16 x 20 inches. Hint convert your colour image to a monochrome before it is toned.

Candelight.

Images may include, but are to be lit only by candles.

Make Me Laugh.

Images can be subjective or objective. Can be taken & portray a humorous event, or cause the viewer to laugh.

Night Photography.

Subject matter for images is open, but must be taken between dusk & dawn.

Blood Sweat or Tears.

The subject of this competition is open to the individual photographer's creative interpretation.

Portraiture.

Images may be formal, informal or environmental studies.

Office Bearers 2011

President	Geoff Pfister
Vice President	Dale Irving (to be confirmed)
Treasurer	Ian Cambourne
Secretary	Charles Sutton
Publicity Officer	David Duproy
Competition Officer	Kim Duproy
Exhibition Officer	Alan Sadlier
Activities Officer	Denise Newton
Committee	
Newsletter Editor	Alan Aldrich
Librarian	Paul Hulbert
Garden Comp Co-Ordinator	John Hughes
Website Co-Ordinator	Stephen Leeder
Member	Josephine Blue
Member	Marian Paap

Intrepid Photographic Safari

On Saturday 22nd January 2011, two game club members went on a hunting expedition. Alan & Ian set off in search of big & small game, as well as any birds (feathered) that dared enter their field of view. Their destination was

Sydney's Taronga Park Zoo.

After a journey that included car, train, ferry & gondola, we descended upon the unsuspecting array of zoo residents. The zoo was well patronised that day with many photographers jostling for the best position & angle to get that elusive "the" photograph of the day. We consulted our map and planned our stalking routes that would cause the least damage to both ourselves and our environs.

After a few short hours, we had bagged koala, snakes & other reptiles, a komodo dragon and giraffe. Then as per usual camera club protocol, we sought the whereabouts of somewhere suitable to settle the hunger pangs. After a short lunch break, we both had to comply with family requests, "Bring us home some photos of the baby elephant".

It appeared that the majority of photographers present that day were under the same instructions. Unusually the three baby elephants performed like professionals, parading and playing as if to please the paparazzi. Mission completed we ventured into zone of danger. We braved life and limb to tackle the big cats, then on to the gorillas and finally some birds. The day ended just after mid afternoon & the return journey began. But alas, as is somehow usual on outings such as this, Ian found himself in a dilemma.

While leaving the zoo, after packing his camera away, he stood alone for a few moments in front of a large 8 foot (2.4384 metres for the pedants) or so glass wall facing some sort of large empty tank. He glanced down at his

fully packed bag as well as Alan's camera, as he guarded it with his life, glancing back he noticed, the tank was no longer empty.

There calmly & patiently floating in front of him were two seals. Their expressions plainly said "Well human, what are you waiting for?"

Ian's mind whirled into overdrive;

"My camera is packed away";

"Oh Alan, I hope you won't mind (while reaching for his camera)";

"Oh please don't let the card be full (while switching the camera on)";

"Please seals, just 2 more seconds (while lifting the trusty Nikon to his eye)";

"Oh bugga, breathe, compose, and now don't breathe, which one? (As the seals began to separate);

"That one", click click click click. And they were gone, just as quickly as they had arrived.

One final thought, "Do I tell Alan & hope he doesn't mind? Or just put his camera back down and leave him to scratch his head when he downloads his card?"

A short stop at our usual City Extra at the Quay for a large iced coffee and we were off back home after a great day.

Both Alan & Ian are happy to advise that no animals or humans were harmed or injured, physically or emotionally during their expedition. (I.C.)

Comment; Ian is a great guy to accompany you on a day taking photographs. As well he is an excellent spare power assist. (AA)



Ian's photo of a seal blowing bubbles

WHAT'S ON IN MARCH

March 2	Aerial Photography	Peter Harrison
March 9	HAGS	
March 16	Comp Monochrome	
March 30	Members' Presentation	

Recent Exhibitions

My frequent companion and I visited two photographic exhibitions during a recent trip to the big smoke. After the regulation coffee break at the VIP lounge in Park Street to discuss the day's agenda we chose Jeff Carter's Beach Bush and Battlers as our first.

'The Jeff Carter photographs in Beach, Bush + Battlers have been selected from his remarkable, historically significant archive of over 50,000 works celebrating the lives of everyday Australians in rural, outback, urban and coastal communities dating from the late 1940s through to today.

Curator Sandra Byron, the leading expert on Carter's work, says about the exhibition: 'Carter's iconic images are a testament to his respect for ordinary people and his commitment to the Australian landscape and environment.'

Carter (also an acclaimed author and award-winning film-maker), continued to travel and photograph into his eighties. When not on the road he lived on his 45 hectare property, Glenrock Farm Wildlife Refuge, Foxground, which he had gazetted into a Wildlife Refuge in 1962.

Sadly, Jeff Carter died in October 2010.' (State Library Website)

To anyone who grew up during the period depicted this exhibition this is a trip in pure nostalgia beautifully photographed in black and white. Jeff Carter described himself in 2006 *'I'm not really a photographer I regard*

myself as a writer who takes pictures.' Carter really underrates himself with this statement. His photography needs no additional words to tell the story.



My favourite is this family study of a drover and his young wife and baby. The wife has an enigmatic Mona Lisa smile. The wording accompanying the image tells us the *'Portrait is of drover Ronald Kerr, wife Mavis and baby Johnny*

Daughter of a North Bourke drover, Mavis Kerr married a shepherd and became a mother at seventeen. While on the road with a mob of 3,700 Merino ewes between Tibooburra and Coonamble, she helped cook for the family driving team.' You can almost read that in her face.

The whole exhibition is image after image of well-handled environmental portraits. From his early days using a not so portable typewriter and folding Kodak camera where he developed his style of taking true documents of unposed portraits of people living in the rural areas of Australia. In later life he traded in the Kodak camera and switched to Nikon in the late 50s. His style remained true to his original ideal until he died in 2010. He continued to follow his commitment photographing the life on the land and in the 60s tried his hand with subjects featuring inner Sydney life. His love of the country; enhanced his environmentalist ideals culminating in 1962 when he moved his family to a large rural Illawarra property that he turned into a wildlife refuge and park.



The photograph above is called Roadside Portrait Cobb Stock Route 1955.

In the late 60s he documented the new

surfing traditions and rebellious youth from Sydney Beaches. He photographed the birth of the bikini, Surfing Champion Midget Farelly to the Sand Hills of Wanda. His work in the rural areas continued unabated with photographs from The Hawkesbury oyster farmer to the timber cutters around Herons Creek.

The exhibition features 100 photographs in a well presented celebration of one photographer's life and work from the NSW State Library's Jeff Carter Collection of over 50,000 images, now our taste has been wetted we can hope for more of the same.

Charles and I lunched at our favourite Circular Quay venue then moved onto the MCA to see the Annie Leibovitz exhibition. Annie Leibovitz started her career as a staff photographer for Rolling Stone magazine in the early 1970s. She worked for that magazine until she moved to Vanity Fair in the 1980s during her time with Rolling Stone magazine she covered the Rolling Stones tour of the US in 1975. If you are expecting examples of her work during this period you will be disappointed. This exhibition is *A Photographer's Life, 1990–2005* it contains some of her famous images of the Demi Moore, the Queen, Bill Clinton and Nicole Kidman. Most of the photographs are of a personal nature of her family, her companion Susan Sontag and of her coverage of conflict in Sarajevo. The obviously commissioned work such as the portraits are professional but the majority of the images are small, about 10 x 150 small monochrome prints.

My reaction to the exhibition was to say disappointment, as a comment to my Facebook posting that in my opinion the \$10 entry fee is about \$9.50 over valued. Des Crawley posted *'Well said. The Leibovitz show is a disgrace. Totally underwhelming. Off to see Jeff Carter this week and looking forward to it after your comment and reviewing it too via the book that is based on this show.'* (AA)

The Exhibition continues 20 Feb 2011 in the Exhibition Galleries, at the Mitchell Library in Macquarie Street.

Coming up at The Hawkesbury Regional Gallery

Remote & Wild: Richard Green, photographer

Official opening and artist's talk 1 - 4 pm Sunday 20 February

Helicopter pilot and photographer Richard Green has spent 20 years exploring Australia's 'wildest places' to capture the untouched, majestic beauty of nature. Hawkesbury Regional Gallery is proud to present, for the first time, his exquisite images in this dynamic new exhibition titled REMOTE & WILD.

The exhibition comprises over 30 large scale photographs, some over four metres long. It includes imagery from the wide open skies of the Central Deserts to the heat-scorched Top End and the wind-stripped Tasmanian Wilderness.

Richard's images are a powerful testament to the timelessness of the environment. Together, they create a very humbling reminder of the raw, majestic splendour of nature. Many images depict places rarely seen and never photographed for public display.

Since his first exhibition in 2007, Richard has quickly built a reputation as one of Australia's most sought-after landscape photographers. His works have gone on display at The Australian Museum in Sydney where his images have been chosen as large-scale backdrops for parts of a new major permanent display. In 2008, Richard's solo photographic exhibition *Wild Places* at the National Library in Canberra attracted more than 30,000 people. This exhibition unveiled his lyrical collection of panoramic landscapes to the Australian public on a large scale for the first time, and viewers were captivated.

About Richard Green



Born and educated in England, Richard Green graduated from Brunel University with a degree in applied physics. He returned to University to begin research work for a PhD on the then novel concept of interactive computer graphics. Recognising an opportunity when he saw one, Richard formed Online Conferences Ltd - a company which specialised in staging major international events in the field of computers and communications.

Richard decided to sell his business in the late 1980s. Already passionate about helicopters, he signed up at a flying school and had his helicopter licence in three

months. In 1988 he migrated to Australia, where he was able to take advantage of the vast wilderness and wide open skies to simultaneously pursue his two passions, helicopter flying and landscape photography.

Richard and his wife, Carolyn, make one to three helicopter trips to the outback a year. Richard's talk, to be held at 1pm prior to the official opening, promises an insight into the heli-camping lifestyle that they have perfected to allow the photographs to be taken, as well as several 'hair raising' experiences they have encountered on the way.

- RAW FILE FORMAT -

The RAW file format is digital photography's equivalent of a negative in film photography: it contains untouched, "raw" pixel information straight from the digital camera's sensor. The RAW file format has yet to undergo demosaicing, and so it contains just one red, green, or blue value at each pixel location. Digital cameras normally "develop" this RAW file by converting it into a full colour JPEG or TIFF image file, and then store the converted file in your memory card. Digital cameras have to make several interpretive decisions when they develop a RAW file, and so the RAW file format offers you more control over how the final JPEG or TIFF image is generated. This section aims to illustrate the technical advantages of RAW files, and makes suggestions about when to use the RAW file format.

Overview

A RAW file is developed into a final JPEG or TIFF image in several steps, each of which may contain several irreversible image adjustments. One key advantage of RAW is that it allows the photographer to postpone applying these adjustments-- giving more flexibility to the photographer to later apply these themselves, in a way which best suits each image. The following diagram illustrates the sequence of adjustments:

Demosaicing and white balance involve interpreting and converting the bayer array into an image with all three colours at each pixel, and occur in the same step. The bayer array is what makes the first image appear more pixelated than the other two, and gives the image a greenish tint.

Our eyes perceive differences in lightness logarithmically, and so when light intensity quadruples we only perceive this as roughly a doubling in the amount of light. A digital camera, on the other hand, records differences in lightness linearly-- twice the light intensity produces twice the response in the

camera sensor. This is why the first and second images above look so much darker than the third. In order for the numbers recorded within a digital camera to be shown as we perceive them, tone curves need to be applied (see the tutorial on gamma correction for more on this topic).

Colour saturation and contrast may also be adjusted, depending on the setting within your camera. The image is then sharpened to offset the softening caused by demosaicing, which is visible in the second image.

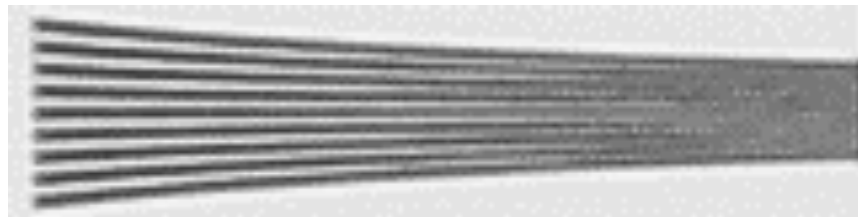
The high bit depth RAW image is then converted into 8-bits per channel, and compressed into a JPEG based on the compression setting within your camera. Up until this step, RAW image information most likely resided within the digital camera's memory buffer.

There are several advantages to performing any of the above RAW conversion steps afterwards on a personal computer, as opposed to within a digital camera.

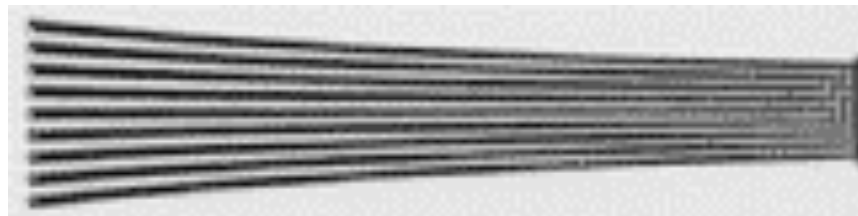
Demosaicing

Demosaicing is a very processor-intensive step, and so the best demosaicing algorithms require more processing power than is practical within today's digital cameras. Most digital cameras therefore take quality-compromising shortcuts to convert a RAW file into a TIFF or JPEG in a reasonable amount of time. Performing the demosaicing step on a personal computer allows for the best algorithms since a PC has many times more processing power than a typical digital camera. Better algorithms can squeeze a little more out of your camera sensor by producing more resolution, less noise, better small-scale colour accuracy and reduced moiré. Note the resolution advantage shown below:

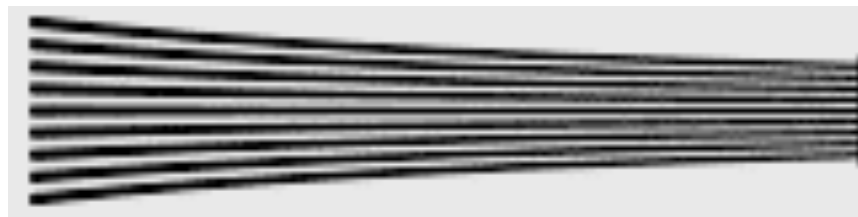
JPEG
(in-camera)



RAW



Ideal



Images from actual camera tests with a Canon EOS 20D using an ISO 12233 resolution test chart.

Differential between RAW and JPEG resolution may vary with camera model and conversion software. The in-camera JPEG image is not able to resolve lines as closely spaced as those in the RAW image. Even so, a RAW file cannot achieve the ideal lines shown, because the process of demosaicing always introduces some softening to the image. Only sensors which, capture all three colours at each pixel location could achieve the ideal image shown at the bottom (such as Foveon-type sensors).

WHITE BALANCE

White balance is the process of removing unrealistic colour casts, so that objects, which appear white in person, are rendered white in your photo. Colour casts within JPEG images can often be removed in post-processing, but at the cost of bit depth and colour gamut. This is because the white balance has effectively been set twice: once in RAW conversion and then again in post-processing. RAW files give you the ability to set the white balance of a photo *after* the picture has been taken-- without unnecessarily destroying bits.

HIGH BIT DEPTH

Digital cameras actually record each colour channel with more precision than the 8-bits (256 levels) per channel used for JPEG images. Most current cameras capture each colour with 12-bits of precision (2^{12} = 4096 levels) per colour channel, providing several times more levels than could be achieved by using

an in-camera JPEG. Higher bit depth decreases the susceptibility to posterisation, and increases your flexibility when choosing a colour space and in post-processing.

DYNAMIC RANGE & EXPOSURE COMPENSATION

The RAW file format usually provides considerably more "dynamic range" than a JPEG file, depending on how the camera creates its JPEG. Dynamic range refers to the range of light to dark, which can be captured by a camera before becoming completely white or black, respectively. Since the raw colour data has not been converted into logarithmic values using curves, the exposure of a RAW file can be adjusted slightly -- after the photo has been taken. (Just as the final image presentation was determined in the darkroom in previous days.) Exposure compensation can correct for metering errors, or can help bring out lost shadow or highlight detail. The following example was taken directly into the setting sun, and shows the same RAW file with -1 stop, 0 (no change), and +1 stop exposure compensation.

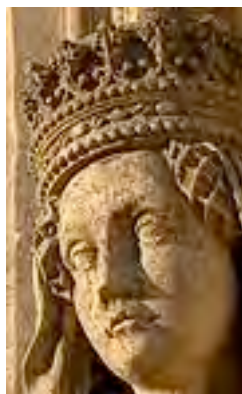


Note the broad range of shadow and highlight detail across the three images. Merely brightening or darkening a JPEG file-- both in dynamic range and in the smoothness of tones, could not achieve similar results. A graduated neutral density filter could then be used to better utilise this broad dynamic range.



ENHANCED SHARPENING

Since a RAW file is untouched, sharpening has not been applied within the camera. Much like demosaicing, better sharpening algorithms are often far more processor intensive. Sharpening performed on a personal computer can thus create fewer halo artefacts for an equivalent amount of sharpening (excessive sharpening can produce artefacts).



Since sharpness depends on the intended viewing distance of your image, the RAW file format also provides more control over what type and how much sharpening is applied (given your purpose). Sharpening is usually the last post-processing step since it cannot be undone, so having a pre-sharpened JPEG is not optimal.

LOSSLESS COMPRESSION

The RAW file format uses a lossless compression, and so it does not suffer from the compression artefacts visible with "lossy" JPEG compression. RAW files contain more information and achieve better compression than TIFF, but without the compression artefacts of JPEG.

Note: Kodak and Nikon employ a slightly lossy RAW compression algorithm, although any artefacts are much lower than would be perceived with a similar JPEG image. The efficiency of RAW compression also varies with digital camera manufacturer.

DISADVANTAGES

- RAW files are much larger than similar JPEG files, and so fewer photos can fit within the same memory card.
- RAW files are more time consuming since they may require manually applying each conversion step.

- RAW files often take longer to be written to a memory card since they are larger, therefore most digital cameras may not achieve the same frame rate as with JPEG.
- RAW files cannot be given to others immediately since they require specific software to load them, therefore it may be necessary to first convert them into JPEG.
- RAW files require a more powerful computer with more temporary memory (RAM).

OTHER CONSIDERATIONS

One problem with the RAW file format is that it is not very standardized. Each camera has their own proprietary RAW file format, and so one program may not be able to read all formats. Fortunately, Adobe has announced a digital negative (DNG) specification, which aims to standardize the RAW file format. In addition, any camera that has the ability to save RAW files should come with its own software to read them.

Good RAW conversion software can perform batch processes and often automates all conversion steps except those, which you choose to modify. This can mitigate or even eliminate the ease of use advantage of JPEG files.

Many newer cameras can save both RAW and JPEG images simultaneously. This provides you with an immediate final image, but retains the RAW "negative" just in case more flexibility is desired later.

SUMMARY

So which is better: RAW or JPEG? There is no single answer, as this depends on the type of photography you are doing. In most cases, RAW files will provide the best solution due to their technical advantages and the decreasing cost of large memory cards. A RAW file gives the photographer far more control, but with this comes the trade-off of speed, storage space and ease of use. The RAW trade-off is sometimes not worth it for sports and press photographers, although landscape and most fine art photographers often choose RAW in order to maximize the image quality potential of their digital camera.