



In Camera

The Newsletter of the Hawkesbury Camera Club Inc.

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WHAT'S ON THIS MONTH

FEB 6	Welcome back dinner
FEB 13	Digital Night – Know your camera
FEB 20	COMP - OPEN - Judge: Nic Peters

WHAT'S ON NEXT MONTH

MAR 6	PRESENTATION – The Power of Light - John Swainston (TBC)
MAR 13	PRESENTATION – Nature Photography – Geoff Higgins
MAR 20	COMP – CLOSE UP Judge: Judge: Jeff Akers (TBC)

FROM THE PRESIDENT

Happy New Year and welcome to 2013. I trust you all had great times away over the break and stayed well.

Our programme is in place, but as in previous years, it is proving to have a life of its own. Our year has not yet started and already we have had 3 judges “regretfully cancel”, but we have also been able to get 3 replacements. So the comps will run as scheduled, albeit, advertised judges may differ.

Photographically, I personally didn't take all those photos I had planned, but the ones I did take I am pleased with. The ones I wanted to take but didn't, are still waiting for me & I will get to them in coming months.

One thing though that did impress me, was a movie Jenny & I saw while we had a short trip to Forster. We went & saw the movie version of Les Mis. Yes, the acting & singing was brilliant, but I kept finding myself looking at it from a cinema “photography” point of view. The use of all the things we use with our own cameras blew my mind. Composition, framing, use of colour, eye contact (or not), subject interaction, rule of thirds (or rather, offsetting from the centre), depth of field, selective focusing etc. To see all those supposed rules used in that way was really inspiring and got my gray cells working. They will definitely stay in place & be put to good use this coming year.

I hope you all have a good month and keep producing great images.

Ian Cambourne

Crop Factor Explained - by [Darren Rowse](#)

One term that you're certain to come across when researching your next DSLR purchase is 'Crop Factor'.

This is a slightly complex topic and many long article have been written explaining it – but to keep it simple let me attempt a short explanation.

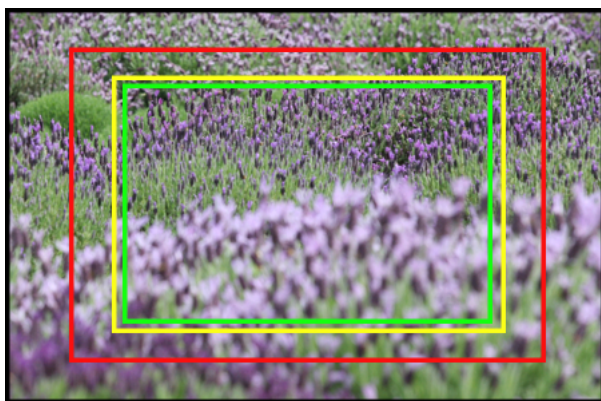
While normal film cameras take 35mm film (it is a standard for the industry) there is much variety between manufacturers on image sensor sizes. The main reference point that people therefore use is the 35mm one which is considered 'full frame' size.

If you compare the size of the film in a normal SLR (film is 35mm) to the image sensor in most DSLRs you'll find that the size of the DSLRs sensor is generally smaller (unless you get what's called a 'full frame' DSLR).

Until recently 'full frame' cameras were largely in the realm of professional DSLRs and all lower end cameras had smaller sensors.

If you take a photo with a smaller sensor and the same lens it will only show a smaller area of the scene.

To illustrate this I've show how different cameras with different image sizes will see an image.



Black – Full Frame
Red – 1.3x Crop Factor
Yellow – 1.5x Crop Factor
Green – 1.6x Crop Factor

When you enlarge images to the same size from different sensors the ones with the smaller sensors will be enlarged more – making it seem bigger.

As a result – when you fit a lens to a camera with a smaller sensor the lens is often said to have a larger equivalent lens size.

I've included a table below that shows the equivalent lens sizes for different crop factors. The column on the left is the lens focal length on a full frame camera.

	1.3x	1.5x	1.6x	2.0x
10mm	13mm	15mm	16mm	20mm
17mm	22.1mm	25.5mm	27.2mm	34mm
28mm	36.4mm	42mm	44.8mm	56mm
35mm	45.5mm	52.5mm	56mm	70mm
50mm	65mm	75mm	80mm	100mm
105mm	136.5mm	157.5mm	168mm	210mm
135mm	175.5mm	202.5mm	216mm	270mm
200mm	260mm	300mm	320mm	400mm
400mm	520mm	600mm	640mm	800mm
600mm	780mm	900mm	960mm	1200mm

So what crop factor does your DSLR have? Here's some of the most popular ones.

1.3x – Canon EOS 1D/1D MkII

1.5x – Nikon D40/D50/D70/D70s/D80/D200/D2XD2Hs
 Minolta 7D/Fuji S3 Pro Pentax *istDS/K100D/K110D/K10D

1.6x – Canon EOS 300D/400D/20D/30D

2.0x – Olympus E-400/E-500/E-300/E-1

This post was submitted by DPS reader – Shane.

Read more: <http://digital-photography-school.com/crop-factor-explained#ixzz2JV8jfdQ1>

A deeper look into Depth of Field

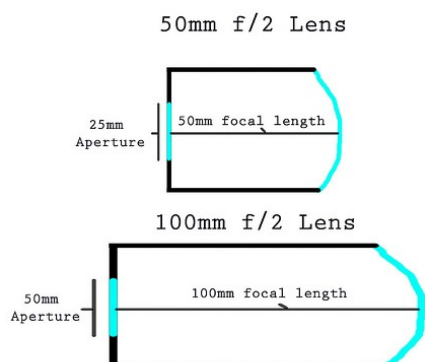
by [Guest Contributor](#)- A Guest post by Reader Josh Wells

A shallow depth of field is highly sought after due to it's ability to separate the subject from it's background and is found in many professional photographs. By now your probably know that larger apertures (f/2.8 and below) correlate to a shallower depth of field whereas small apertures (f/16 and above) will render almost the entire frame in focus. In this tutorial I will explain further factors into controlling depth of field, how much is too much and why different sensor and film sizes give different depths of field.

F/ Stops

F/ Stops are generally the hardest of the three elements contributing to exposure to grasp. Both because of their inverse relationship with brightness and because it's often

hard to understand what is actually happening when you change apertures. To understand this fully it is important to understand what an F/ Stop really means. An F/ Stop meaning Focal stop, is the fraction of a lens's focal length as measured (Widthwise) passing through the lens, in order to keep the same amount of light. Still confused? Here are some diagrams of how an aperture of F/2 is measured for a 50mm lens and a 100mm lens.



Whilst scoring no points for artistic merit, I hope these help explain how F/ Stops are measured and how each of these lenses will give the same exposure at each aperture setting. More advanced lenses such as those used in cinematography use T/ Stops or Transmission stops, which factor in the amount of light a lens loses through the elements to give the true amount of light input from the lens. However since this tutorial is about depth of field we do not need to worry about T/ Stops so much.

This aperture as it gets wider effectively baffles the light, so eventually it can only be focused to one small point, bringing the rest out of focus. As it becomes smaller (For example a 20mm lens will have only a 10mm aperture at f/2, meaning a deep depth of field) the light will be less baffled and the lens will have better control focusing it in and around the required focal point.

So how do we get depth of field?

Depth of field is ultimately effected by two things: The aperture of the lens as we have just covered and the distance between subject and background. If you have a lens with the focus distances marked on it have a look at it now, you'll notice that the distance the focus ring needs to be pushed to go from 7 to 15 feet (Or at 2 to 5 metres for us using the metric system) is about the same as from 2.5 to 3 feet (Or at 0.8 to 1 metres). And then there is hardly any distance from 25 feet to infinity (Try with 15 metres too). So at f/4 on a 50mm lens I could have from 25 feet and everything behind that in focus, or I could have almost the distance between 6 and 4.5 feet.

To utilize this for the shallowest possible depth of field, try to bring as much separation as possible between the

subject in focus and the background, for example a headshot will render a distant background out of focus at almost any aperture. If the lens you grabbed also has marks for the depth of field at each given aperture you'll be able to see how this distance effects each F/ Stop.

Crop Sensors

This can get a bit confusing when you account for different sensor sizes such as APS-C as used by many consumer DSLRs, Four Thirds, and Medium format from some film cameras and some very expensive digital ones. Many people make the correlation between focal length and depth of field and assume that a cropped or four thirds sensor will equal a longer focal length and therefore shallower depth of field. This is not the case due to a cropped sensor working more as the name entails, and literally shooting from an equivalent crop of what would appear on a full frame sensor. Let's explain this with math.

We'll use a 50mm f/1.8 lens.

So this lens currently has a maximum aperture of $50/1.8 = 27.7\text{mm}$ Aperture

Now let's put this on an APS-C cropped sensor with a crop of 1.6x – $50\text{mm} * 1.6 = 80\text{mm}$ Equivalent Focal length

However the maximum aperture is still 27.7mm. – 80mm Equivalent focal Length / 27.7 Aperture = ~ 2.8 New equivalent aperture.

We can now think of the lens rather than as an 80mm F/1.8 but more accurately as an 80mm F/2.8.

This also works the other way with larger sensors, which have reversed crop factors and can thus have for example a 90mm F/2.8 lens which will give a crop factor around 0.6. $90 * 0.6 = 54$.

Meaning with a medium format sensor of film one can have the depth of field of a 90mm F/2.8 lens however with the angle of view of a near 50mm lens.

Too much Bokeh?!

Whilst in many cases when we want to throw a background out of focus we want as shallow a depth of field as we can afford, there are several cases in which one must find ways to deepen depth of field.

One of the reasons one may have too shallow a depth of field is in Wildlife photography where focal lengths in excess of 300mm are required in order not to disturb the animals, especially when shooting birds. Avian photography can sometimes have so shallow a depth of

field that it becomes impossible to accurately focus, or difficult to keep the entire bird in focus due to excessive depth of field. This is avoided through stopping down to smaller apertures and sometimes a flash extender is required to sufficiently light the subject. Such as this [Visual Echoes FX3 Better Beamer Flash Extender for Use FX3 B&H](#) or more simple DIY ones.

Another is in Macro photography in which our other variable; Distance, is pushed to an extreme. In macro photography it is not uncommon to require stopping down to f/ 32 in order to gain the necessary depth of field. The light loss from this is aided again with flashes specifically for Macro, often ring flashes.

Read more: <http://digital-photography-school.com/a-deeper-look-into-depth-of-field#ixzz2JV9Ewcmk>

Kim Nemetz

FROM THE LIBRARIAN

Book Review

How to take great family photos, by Cathy Joseph and Angela Hampton, Rotovision 2003, ISBN 2-88046-746-2

It seems that there is a path taken by many competent and talented photographers to establish a business, accumulate a library of great images, then write and publish a book of their work to share, often as a How To book. This is one of them. The authors' mission is to teach other photographers the finer details of how they compose great images of families and individuals. It involves technical knowledge, people skills, how to see photographically, and composition considerations.

With a mission to teach, the chapter headings usually run along the lines of something like –

- 1) Getting started
- 2) Composition
- 3) Lighting
- 4) Family Subjects
- 5) Special Occasions
- 6) After the picture is taken

Sub headings that follow include subjects about how a camera works, choosing a camera, posing, flash, weddings, family groups etc

2003 may not seem like that long ago to most of us, but in the world of photography a lot has changed in 10 years: this book devotes only 2 pages to Digital Imaging. Also the

front cover of the book has the unmistakable iconic look of the edge of a film as the frame of the featured image – but maybe not everyone now recognizes that. It's quite decorative, really.

But some things never change in the world of photography: the information presented applies as much to digital photography as it does to film. The book is essentially a photography course and has a lot to teach the reader who takes the time to absorb and apply the knowledge being shared. It's not a matter of following steps 1) 2) and 3), but is teaching the reader to be equipped with independent creativity within the technically competent skills that eventually become intuitive.

It does this by break out text boxes entitled "ASK YOURSELF" and "IDEAS TO TRY", and also has examples of "good" and "bad" images pointing out why and how for each. The book is brimming with lovely images to learn from, and one can learn plenty from the images and the text that accompanies them.

Reviewed by Josephine Blue

AVAILABLE FOR LOAN FROM HAWKESBURY CAMERA CLUB LIBRARY

EXHIBITIONS

Australian Centre for Photography – Exhibitions and courses: <http://www.acp.org.au/>

Maintenance of a Lady's Work

Most people like to look at photographs that have memories associated or invoked by them. For about the last forty years a lady by the name of Daphne Kingston has been travelling around Sydney photographing the changes she sees about her. Daphne lived at Penshurst but travelled widely, the Hawkesbury being one of her prime photographic locations. Her collection documents the last days traing of Horden Borthers in Windsor, the archaeological excavation of the Old Tannery in George Street Windsor, for those not familiar with the area that's now the site of Lachlan Court with it's featured waterwheel.

Horden Brothers Windsor



Other interesting photographs from her collection include:

Allan's Baker's Cart



Old Tannery Excavation Windsor



Chinese Marker Gardener's Cottage on South Creek



Daphne has donated her Hawkesbury Collection to the Hawkesbury Library where facilities exist for the archiving and preservation of the collection. The work will be available to the general public for research and exhibition purposes. The rest of her work has been donated to the Mitchell Library. Daphne was also an artist of some repute. She has held exhibitions at various venues around Sydney the most recent was her very successful exhibition at the Old Mint in Macquarie Street Sydney. This collection must now grow by other photographers taking up the mantle now vacated by Daphne. With this purpose in mind would interested members contact Alan a timetable and subject list can be compiled? Daphne has given her blessing to the continuation of her work.

Newsletter Contributions

If you have any articles that may interest our members in:

Photographic tips/hints/up coming events/competitions/web links/

Please email the Newsletter Editor-Marian Paap – marian@secureaz.net

<http://www.hawkesburycameraclub.com.au/>

HAWKESBURY CAMERA CLUB INC.

2013 PROGRAMME

FEB 6	WELCOME BACK DINNER
FEB 13	DIGITAL NIGHT – KNOW YOUR CAMERA
FEB 20	COMP - OPEN JUDGE: NIC PETERS
MAR 6	PRESENTATION – THE POWER OF LIGHT – JOHN SWAINSTON (TBC)
MAR 13	PRESENTATION – NATURE PHOTOGRAPHY – GEOFF HIGGINS
MAR 20	COMP – CLOSE UP JUDGE: JEFF AKERS TBC
APR 3	DIGITAL NIGHT - KNOW YOUR CAMERA
APR 10	DIGITAL NIGHT - KNOW YOUR CAMERA
APR 17	COMP – THINKING OUTSIDE THE BOX JUDGE: RUSSELL FIELD
MAY 1	NIGHT SHOOT - WINDSOR
MAY 8	DIGITAL NIGHT - LIGHTROOM
MAY 15	COMP – NIGHT PHOTOGRAPHS JUDGE: NEIL HARGREAVES
MAY 29	MYSTERY BAG – MEMBERS PRESENTATION
JUN 5	PRESENTATION – MONOCHROME IMAGES
JUN 12	DIGITAL NIGHT - LIGHTROOM
JUN 19	COMP – NATURE JUDGE: JIM CREW
JUL 3	PRESENTATION – STUDENT PHOTOGRAPHY – JACKIE DEAN
JUL 10	DIGITAL NIGHT - LIGHTROOM
JUL 17	COMP – MONOCHROME JUDGE: MIKE & MAIVA SMYTH)
JUL 31	MYSTERY BAG – MEMBERS PRESENTATION
AUG 7	PRESENTATION – PORTRAITURE – JOHN HUGHES
AUG 14	PRESENTATION – MAKING THE INVISIBLE VISIBLE – DES CRAWLEY
AUG 21	COMP – PHOTOGRAPH A SONG JUDGE: SHAYNE COCKS
SEP 4	INTERCLUB COMP – BLACKTOWN – THE HILLS - HAWKESBURY
SEP 11	DIGITAL NIGHT - PHOTOSHOP
SEP 18	COMP – GEOFF PFISTER PORTRAIT AWARD JUDGE: PHIL RAMSDEN
OCT 2	PRESENTATION – POLICE FORENSIC PHOTOGRAPHY
OCT 9	DIGITAL NIGHT - PHOTOSHOP
OCT 16	COMP – DIGITAL – MANIPULATE TO YOUR HEARTS CONTENT JUDGE: JANIE NEWS
OCT 30	MYSTERY BAG – MEMBERS PRESENTATION
NOV 6	CHILDREN’S WARD COMP – MEMBERS PRESENTATION
NOV 13	DIGITAL NIGHT - PHOTOSHOP
NOV 20	AGM – END OF YEAR COMP JUDGE: RAY FINNERAN
DEC 6/7	CHRISTMAS FUNCTION

BRIEFS FOR 2013 COMPS

OPEN COMP – POINT SCORING

Subject matter is open to any photographic subject.

CLOSE UP COMP - POINTSCORING

Subject matter is open to any photographic subject but show only a portion of the whole subject rather than it in its entirety.

OUT OF THE BOX COMP – POINT SCORING

Subject matter is open but image must contain a regular shaped box intended for containing. Egg cartons are not considered a box.

NIGHT PHOTOGRAPHS COMP – POINT SCORING

Subject matter is open but image must have been captured after sunset and before the following sunrise.

NATURE COMP – POINT SCORING

Rules as per Australian Photographic Society will apply. Details are found on their website www.a-p-s.org.au go to member services, then divisions, then nature. Printouts are also available.

MONOCHROME COMP – POINT SCORING

No colour image will be accepted. Images to be only black & white. If toning such as sepia or selenium toning is used, it must be applied to the whole image.

PHOTOGRAPH A SONG COMP – POINT SCORING

Will be explained in full on May 29. 1 Presentation per member.

GEOFF PFISTER PORTRAIT COMP – NON POINT SCORING

4 prints maximum entry. Print comp only. No projected images. May be colour or monochrome. Images to be of living human beings only. May be full length portraits or close ups.

DIGITAL MANIPULATION COMP – POINT SCORING

Subject matter is open. Members must also supply an original image that was taken before any manipulation. If using composite images, at least 1 original image must be supplied.

HAWKESBURY HOSPITAL CHILDREN'S WARD COMP – NON POINT SCORING

Non point scoring comp. 4 prints maximum entry. Subject matter is open. Prints only. Minimum print size A4 (8x12). Maximum size A3 (12x16).

MYSTERY BAGS – POINT SCORING

As provided by Tim.

END OF YEAR COMP

Subject matter is open, but only entries previously submitted in previous 2013 comps are eligible.

Financial members are allowed a maximum of 7 entries per point scoring comp, with a maximum of 2 entries in any 1 category. This is subject to review throughout the year. Projected colour & projected black & white are 2 separate categories. 1 entry per member in the Photograph A Song Comp.