Camera Club News

Letter From The Vice President

Welcome to the new newsletter, I hope you all like the new layout, it was partly by choice and partly due to conflicts with Microsoft Word.

We have a busy time ahead with the new workshops scheduled throughout the year. The workshops have been planned to be as flexible as possible so I have tried to keep them informal and we can shape them to our requirements on the day rather than have a fixed, detailed agenda. There are two workshops at the end of the year that we have kept free so we can cover subjects that are raised during the year by club members.

Don't forget to bring any Masterton photos with you to the March competition evening. I will collate them and we can present them to the Wairarapa Archives. (I can copy them from CD/DVD's or USB sticks during the evening)

Good luck with your competition entries and I look forward to seeing you all at our meetings.

My website pick of the month is:

http://www.gregoryheisler.com

Regards *Nik*

Club Information

To learn more about photography, to share your skills and experience or simply to enjoy photographic time with like-minded people, come to a meeting or contact us at

info@wairarapacameraclub.org

Meetings start at 7:30 pm on the first Tuesday of every month from February to November, at the Education Centre next to Parkview Motors in Dixon Street, Masterton.

WCC, PO BOX 502, Masterton

www.wairarapacameraclub.org

All questions, submissions and general information regarding this newsletter should be made to the Editor, Nik Player.

nikplayer@me.com

Editors Monthly Image

WINNING PRINT

" Finger Food" By Carolyn Smith

WINNING PROJECTED IMAGE

"Kiwi Fruit" By Kevin Morgan

Competition Results

Prints

Les Wong	Chicken Dinner	M
Les Wong	Stir Fry	M
Nik Player	The Asian Influence	M
Nik Player	Duck With Pinot Noir Cherries	M
Karen McCosh	Nifty Nectarines	M
Karen McCosh	Wonderful Watties	A
Alan Portman	Drive - Aways	M
Sid Hayes	Kiwi Caviar	C
Sid Hayes	Prime Angus Beef	C
Carolyn Smith	Jaffa's	HC
Carolyn Smith	Finger Food	HC Winner

Projected Images

Kevin Morgan	Kiwifruit	H Winner
Kevin Morgan	Three Fruits	M
Bruce Levy	Breakfast Barbie	M
Bruce Levy	Family Favourite	A
Nik Player	Parsley Soup & Scallops	M
Nik Player	Simple Food	M
Alison Meier	Little Foodie	M
Alison Meier	Still Life	HC
Janette Falleni	Cup Cake	M
Janette Falleni	Canon Tea Party	C
Joshua Player	Hot Meatballs	M
Joshua Player	Rhubarb	C
Charmaine Reay	Hot & Mixed Spices	M
Alan Portman	Melting Moments	HC
Alan Portman	Yes Please	HC
Miles Reay	Fruits De Mur	C

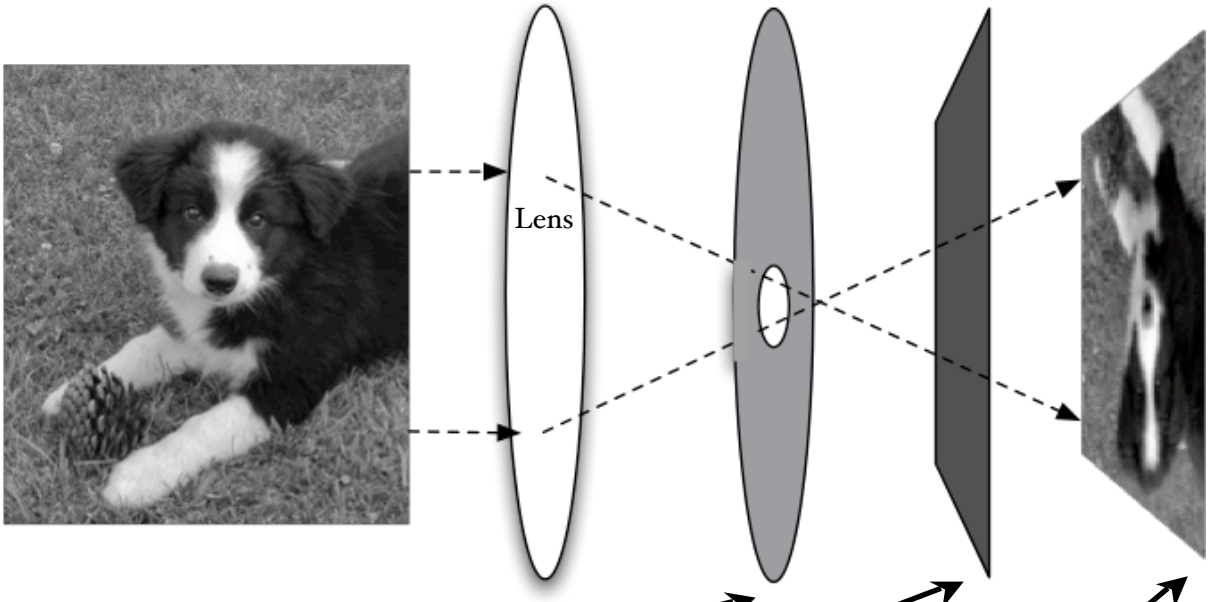
A Accepted 1 Point | C Commended 2 Points | M Merit 3 Points | HC Highly Commended 4 Points | H Honours 5 Points

Have You Ever Wondered About ?

A little series of articles by Tim McMahon that go a little behind some of the ideas and rules we learn as photographers, to explain why or how those rules came to be.

If there is anything about making digital photographs that you've wondered about, email me at tim.mcmahon@me.com and if I can find the explanation I'll try to include it in a future newsletter.

A Basic Camera:



Aperture:
A hole that can be made bigger or smaller to let more or less light through.

- **Bigger hole = more light**
- **Smaller hole = less light**

Shutter:
Like a curtain that can be opened for a longer or shorter time to let more or less light through.

- **Curtain open for a long time = more light**
- **Curtain open for a short time = less light**

Sensor:
records how much light falls on it:

- **a lot of light = light tone,**
- **not much light = dark tone**
- **no light = black**

A properly exposed photograph distinguishes all the tones in the image. Enough light falls on the sensor to record every tone that isn't truly black, but not so much as to 'burn out' the light tones that are not quite white.

An over-exposed photo has too much light falling on the sensor. Many of the lighter tones have all registered as 'white' because too much light got through. The lighter tones have 'burned out'.

The lens aperture was too wide, or the shutter was open too long.

An under-exposed photo has too little light falling on the sensor. Many of the dark colours merge to black. Detail in the darker tones is lost.

The lens aperture was too small, or the shutter was not open for long enough.

Exposure 'stops'

Photographers often talk about altering exposure in "stops": for example, increasing the exposure by "1 stop", or underexposing "by 2 stops".

Increasing exposure by 1 stop means doubling the amount of light that is allowed to fall on the film or sensor.

Increasing exposure by 3 stops means doubling the amount of light, doubling it again, and doubling it yet again. Increasing exposure by 3 stops means letting 8 times more light fall on the sensor (2 X 2 X 2).

Decreasing exposure by 1 stop means halving the amount of light that is allowed to fall on the film or sensor.

Decreasing exposure by 2 stops means halving the amount of light, then halving it again, reducing the light to ¼ its original value.

How do you change exposure in "stop" steps on your camera?

To increase exposure by 1 stop, you could either:

open the shutter for twice as long,

or

make the area of aperture hole twice as big

To decrease exposure by 1 stop you could either:

open the shutter for half as long,

or

make the area of aperture hole half as big.

So what are the numbers you see on the camera?

eg: Aperture: ...1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22 ...

eg: Shutter: .. 30, 60, 125, 250, ...

At first this can seem confusing. Bigger numbers mean less light!

Aperture value

The aperture is a hole that controls how much light passes through the lens. The aperture value (Av) is a measure of the diameter of that hole.

An Av of 1 would mean that the diameter of the lens aperture is the biggest it could be (which is theoretically the same as the focal length of the lens.) A lens allowing an Av of 1 would be very big and costly. To all intents and purposes, an Av of 1 is theoretical only.

To halve the amount of light passing through the lens aperture, you need to halve its area.

To ½ the area of the aperture you have to reduce its diameter by 1/√2. (Remember that the area of circle = π r2. The area of the hole is proportional to the square of its diameter.)

An Av of 1.4 means

- the diameter of the lens aperture is 1/1.4 of its (theoretical) maximum diameter, and the area of the lens aperture is ½ its maximum area. (√2 = approximately 1.4)
- half the (theoretical) maximum amount of light could pass through in a given time.

An Av of 2 means

- the diameter of the lens aperture is ½ its maximum value. The area of the lens aperture is ¼ as big as the theoretical maximum value.
- ¼ of the maximum amount of light could pass through in a given time, or half the light that passed at Av = 1.4

Bigger Av number = smaller aperture = less light!

Each increase of Av : 1 → 1.4 → 2 → 2.8 → 4 → 5.6 → 8 → 11 → 16 → 22 halves the amount of light.
(The picture may help)

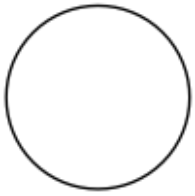
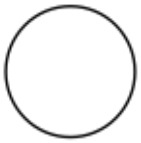
Shutter speed

Shutter speeds (Tv) are measured in fractions of a second.
A Tv of 125 means the shutter is open for 1/125th of a second – a short time.
However, a Tv of 250 means the shutter is open for 1/250th of a second – half as long. Less light can get through.

Bigger Tv number = shorter time = less light = less exposure

All other things being equal, if you halve the shutter speed you halve the amount of light. Halving the amount of light is sometimes called reducing the exposure by one 'stop'.
Equally, increasing the exposure by one 'stop' means doubling the amount of light, or keeping the shutter open for twice as long: e.g. 1/60th → 1/30th.

Key Idea: Bigger numbers mean less light, smaller numbers mean more light.

Exposure	Av , or f number	Aperture diameter	Aperture Area		Amount of Light getting to film or sensor
0	1	f	Maximum area (theoretical only)		Maximum light passes through
-1 stop	1.4	$f/1.4$	½ Maximum area		½ maximum light passes through
-1 another stop	2	$f/2$	¼ Maximum area		¼ maximum light passes through
-1 another stop	2.8	$f/2.8$	$^1/_8$ Maximum area		$^1/_8$ maximum light passes through
-1 another stop	4	$f/4$	$^1/_{16}$ Maximum area		$^1/_{16}$ maximum light passes through
-1 another stop	5.6	$f/5.6$	$^1/_{32}$ Maximum area		$^1/_{32}$ maximum light passes through
-1 another stop	8	$f/8$	$^1/_{64}$ Maximum area		$^1/_{64}$ maximum light passes through
-1 another stop	11	$f/11$	$^1/_{128}$ Maximum area		$^1/_{128}$ maximum light passes through
-1 another stop	16	$f/16$	$^1/_{256}$ Maximum area		$^1/_{256}$ maximum light passes through
-1 another stop	22	$f/22$	$^1/_{512}$ Maximum area		$^1/_{512}$ maximum light passes through