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Camera Lens Filters

by

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www.cambridgeincolour.com

Camera lens filters still have many uses in digital photography, and should be an important part of any photographer's camera bag. These can include polarizing filters to reduce glare and improve saturation, or simple UV/haze filters to provide extra protection for the front of your lens. This article aims to familiarize one with these and other filter options that cannot be reproduced using digital editing techniques. Common problems/disadvantages and filter sizes are discussed towards the end.

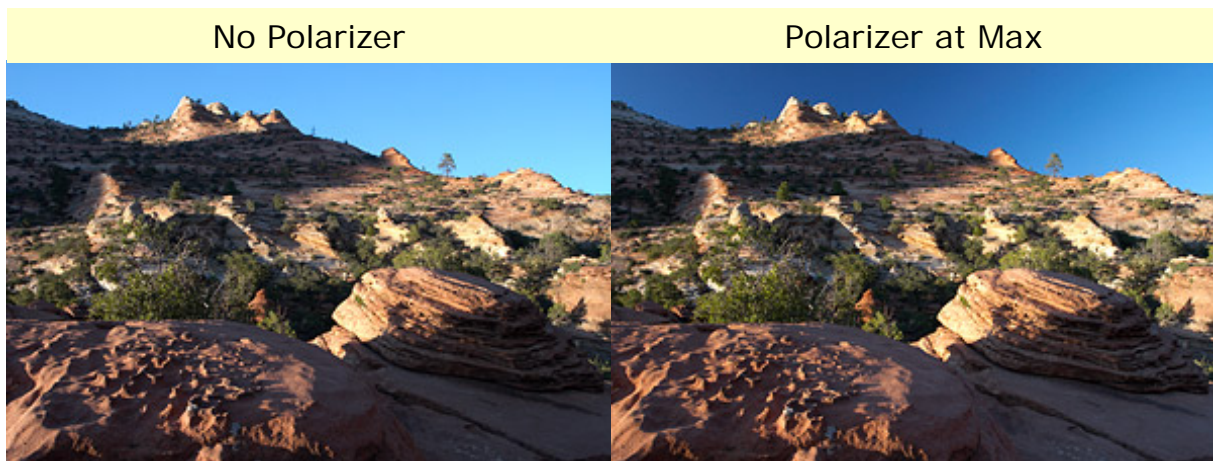
Overview: Lens Filter types

The most commonly used filters for digital photography include polarizing (linear/circular), UV/haze, neutral density, graduated neutral density and warming/cooling or color filters. Example uses for each are listed below:

Filter Type	Primary Use	Common Subject Matter
Linear & Circular Polarizers	Reduce Glare Improve Saturation	Sky / Water / Foliage in Landscape Photography
Neutral Density (ND)	Extend Exposure Time	Waterfalls, Rivers under bright light
Graduated Neutral Density (GND)	Control Strong Light Gradients Reduce Vignetting	Dramatically Lit Landscapes
UV / Haze	Improve Clarity with Film Provide Lens Protection	Any
Warming / Cooling	Change White Balance	Landscapes, Underwater, Special Lighting

Linear & Circular Polarising Filters

Polarizing filters (aka "polarizers") are perhaps the most important of any filter for landscape photography. They work by reducing the amount of reflected light that passes to your camera's sensor. Similar to polarizing sunglasses, polarizers will make skies appear deeper blue, will reduce glare and reflections off of water and other surfaces, and will reduce the contrast between land and sky.



Note how the sky becomes a much darker blue, and how the foliage/rocks acquire slightly more color saturation. The intensity of the polarizing effect can be varied by slowly rotating your polarizing filter, although no more than 180° of rotation is needed, since beyond this the possible intensities repeat. Use your camera's viewfinder (or rear LCD screen) to view the effect as you rotate the polarizing filter.



The polarizing effect may also increase or decrease substantially depending on the direction your camera is pointed and the position of the sun in the sky. **The effect is strongest when your camera is aimed in a direction which is perpendicular to the direction of the sun's incoming light.** This means that if the sun is directly overhead, the polarizing effect will be greatest near the horizon in all directions. However, polarizing filters should be used with caution because they may adversely affect the photo. **Polarizers dramatically reduce the amount of light** reaching the camera's sensor—often by 2-3 f-stops (1/4 to 1/8 the amount of light). This means that the risk of a blurred handheld image goes up dramatically, and may make some action shots prohibitive.

Additionally, using a polarizer on a [wide angle lens](#) can produce an uneven or unrealistic looking sky which visibly darkens. In the example to the left, the sky could be considered unusually uneven and too dark at the top.

Linear vs. Circular Polarizing Filters: The circular polarizing variety is designed so that the [camera's metering](#) and [autofocus](#) systems can still function. Linear polarizers are much less expensive, but cannot be used with cameras that have through-the-lens (TTL) metering and autofocus—meaning nearly all digital SLR cameras. One could of course forego metering and autofocus, but that is rarely desirable.

Neutral Density Filters

Neutral density (ND) filters uniformly reduce the amount of light reaching the camera's sensor. This is useful when a sufficiently long exposure time is not otherwise attainable within a given range of possible apertures (at the lowest ISO setting).

Situations where ND filters are particularly useful include:

- Smoothing water movement in waterfalls, rivers, oceans, etc.
- Achieving a shallower depth of field in very bright light
- Reducing diffraction (which reduces sharpness) by enabling a larger aperture
- Making moving objects less apparent or not visible (such as people or cars)
- Introducing blur to convey motion with moving subjects



Photo with a smoothed water effect from a long exposure

However, only use ND filters when absolutely necessary because they effectively discard light—which could otherwise be used to enable a shorter shutter speed (to freeze action), a smaller aperture (for [depth of field](#)) or a lower ISO setting (to reduce [image noise](#)). Additionally, some ND filters can add a very slight color cast to the image. Understanding how much light a given ND filter blocks can sometimes be difficult since manufacturers list this in many different forms:

Amount of Light Reduction		Hoya, B+W and Cokin	Lee, Tiffen	Leica
f-stops	Fraction			
1	1/2	ND2, ND2X	0.3 ND	1X
2	1/4	ND4, ND4X	0.6 ND	4X
3	1/8	ND8, ND8X	0.9 ND	8X
4	1/16	ND16, ND16X	1.2 ND	16X
5	1/32	ND32, ND32X	1.5 ND	32X
6	1/64	ND64, ND64X	1.8 ND	64X

Generally no more than a few f-stops is need for most waterfall scenarios, so most photographers just keep one or two different ND filter amounts on hand. Extreme light reduction can enable very long exposures even during broad daylight.

Graduated Neutral Density Filters

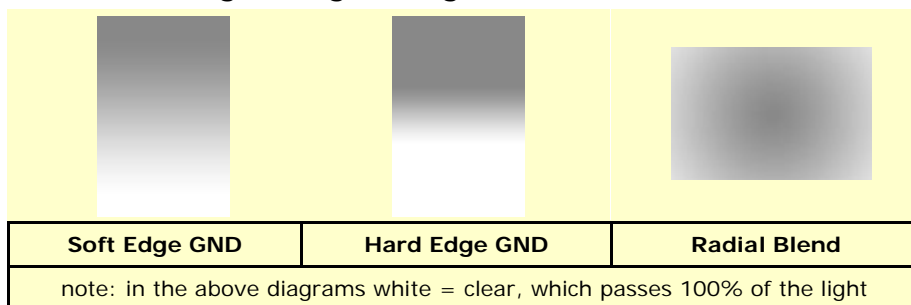
Graduated neutral density (GND) filters restrict the amount of light across an image in a smooth geometric pattern. These are sometimes also called "split filters". Scenes which are ideally suited for GND filters are those with simple lighting geometries, such as the linear blend from dark to light encountered commonly in landscape photography (below).



Prior to digital cameras, GND filters were absolutely essential for capturing dramatically-lit landscapes. With digital cameras one can instead often take two separate exposures and blend these using a linear gradient in Photoshop. On the other hand, this technique is not possible for fast moving subject matter or changing light (unless it is a single exposure developed twice from the [RAW file format](#), but this increases image noise). Many also prefer using

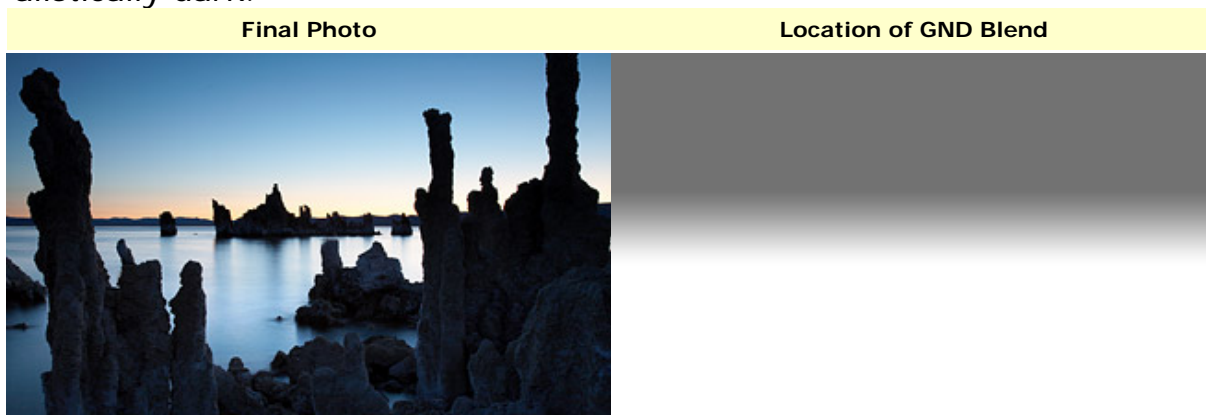
a GND to see how the final image will look immediately through the viewfinder or rear LCD.

GND filters come in many varieties. **The first important setting is how quickly the filter blends from light to dark**, which is usually termed "soft edge" or "hard edge" for gradual and more abrupt blends, respectively. These are chosen based on how quickly the light changes across the scene, where a sharp division between dark land and bright sky would necessitate a harder edge GND filter, for example. Alternatively, the blend can instead be radial to either add or remove light fall-off at the lens's edges (vignetting).



Placing the blend should be performed very carefully and usually requires a tripod. The soft edge is generally more flexible

and less forgiving of misplacement. On the other hand, a soft edge may produce excessive darkening or brightening near where the blend occurs if the scene's light transitions faster than the filter. One should also be aware that vertical objects extending across the blend may appear unrealistically dark.



Note how the rock columns become nearly black at their top compared to below the blend; this effect is often unavoidable when using GND filters.

A problem with the soft and hard edge terminology is that it is not standardized from one brand to another. One company's "soft edge" can sometimes be nearly as abrupt a blend as another company's so called "hard edge". It is therefore best to take these on a case by case basis and actually look at the filter itself to judge the blend type. Most manufacturers will show an example of the blend on their own websites.

The second important setting is the differential between how much light is let in at one side of the blend versus the other (the top versus bottom in the examples directly above). This differential is expressed using the same terminology as used for ND filters in the previous section. A "0.6 ND grad" therefore refers to a graduated neutral density filter which lets in 2 f-stops less light (1/4th) at one side of the blend versus the other. Similarly, a 0.9 ND grad lets in 3 f-stops less light (1/8th) at one side. Most landscape photos need no more than a 1-3 f-stop blend.

Haze & UV Filters

Nowadays UV filters are primarily used to protect the front element of a camera lens since they are clear and do not noticeably affect the image. With film cameras, UV filters reduce haze and improve contrast by minimizing the amount of ultraviolet (UV) light that reaches the film. The problem with UV light is that it is not visible to the human eye, but is often uniformly distributed on a hazy day; UV therefore adversely affects the camera's exposure by reducing contrast. Fortunately, [digital camera sensors](#) are nowhere near as sensitive to UV light as film, therefore UV filtration is no longer necessary.



77 mm UV filter

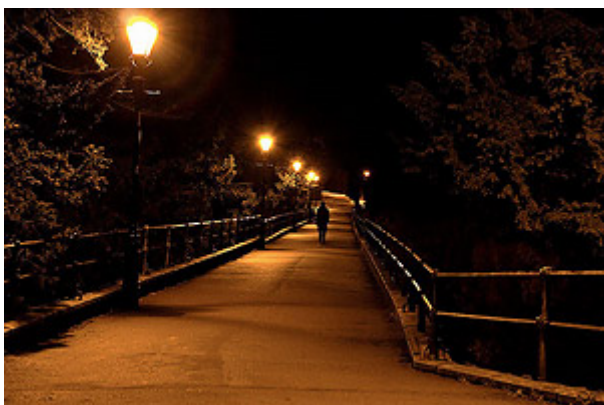
However, UV filters have the potential to decrease image quality by increasing lens flare, adding a slight color tint or reducing contrast. Multicoated UV filters can dramatically reduce the chance of flare, and keeping your filter very clean minimizes any reduction in image quality (although even invisible micro abrasions will affect sharpness/contrast). High quality UV filters will not introduce any visible color cast.

For digital cameras, it is often debated whether the advantage of a UV filter (protection) outweighs the potential reduction in image quality. For very expensive SLR lenses, the increased protection is often the determining factor, since it is much easier to replace a filter than to replace or repair a lens. However, for less expensive SLR lenses or compact digital cameras protection is much less of a factor—the choice therefore becomes more a matter of personal preference.

Another consideration is that UV filters may increase the resale value of the lens by keeping the front lens element in mint condition. In that sense, a UV filter could also even be deemed to increase image quality (relative to an unfiltered lens) since it can be routinely replaced whenever it is perceived to adversely affect the image.

Cool & Warm Filters

Cooling or warming filters change the [white balance](#) of light reaching the camera's sensor. This can be used to either correct an unrealistic color cast, or to instead add one, such as adding warmth to a cloudy day to make it appear more like during sunset.



Above image's orange color cast is from the monochromatic sodium streetlamps; with this type of light source virtually no amount of white balance correction can restore full color. A cooling filter or special streetlight filter could be used to restore color based on other light sources.

These filters have become much less important with digital cameras since most automatically adjust for white balance, and this can be adjusted afterwards when [taking photos with the RAW file format](#). On the other hand, some situations may still necessitate color filters, such as situations with unusual lighting (above example) or underwater photography. This is because there may be such an overwhelming amount of monochromatic light that no amount of white balance can restore full color—or at least not without introducing huge amounts of

image noise in some color channels.

Problems with Lens Filters

Filters should only be used when necessary because they can also adversely affect the image. Since they effectively introduce an additional piece of glass between your camera's sensor and the subject, they have the potential to reduce image quality. This usually comes in the form of either a slight color tint, a reduction in local or overall image contrast, or ghosting and increased [lens flare](#) caused by light inadvertently reflecting off the inside of the filter.

Filters may also introduce physical vignetting (light fall-off or blackening at the edges of the image) if their opaque edge gets in the way of light entering the lens (right example). This was created by stacking a polarizing filter on top of a UV filter while also using a wide angle lens—causing the edges of the outermost filter to get in the way of the image. Stacking filters therefore has the potential to make all of the above problems much worse.



visible filter vignetting

Notes on Choosing a Filter for a Camera Lens

Lens filters generally come in two varieties: screw-on and front filters. Front filters are more flexible because they can be used on virtually any lens diameter, however these may also be more cumbersome to use since they may need to be held in front of the lens.

On the other hand, filter holder kits are available that can improve this process. Screw-on filters can provide an air-tight seal when needed for protection, and cannot accidentally move relative to the lens during composition. The main disadvantage is that a given screw-on filter will only work with a specific lens size.



The size of a screw-on filter is expressed in terms of its diameter, which corresponds to the diameter usually listed on the top or front of your camera lens.

This diameter is listed in millimetres and usually ranges from about 46 to 82 mm for digital SLR cameras. Step-up or step-down adapters can enable a given filter size to be used on a lens with a larger or smaller diameter, respectively. However, step-up filter adapters may introduce substantial vignetting (since the filter may block light at the edges of the lens), whereas step-down adapters mean that your filter is much larger (and potentially more cumbersome) than is required.

The height of the filter edges may also be important. Ultra-thin and other special filters are designed so that they can be used on wide angle lenses without vignetting. On the other hand, these may also be much more expensive and often do not have threads on the outside to accept another filter (or sometimes even the lens cap).

Membership Fees 2010

Your membership will be up for renewal on 1st Jan 2010

Fees for 2010 are:	Single -	\$50
	Family -	\$65
	Pensioner Concession -	\$40

Fees have gone up primarily because the rental for the club room has been increased.

You can pay your fees at any meeting or by direct deposit to the club's bank account.

BSB: 063-108

Acct No: 10093089

Acct Name: Knox Photographic Society

Please put your name in the Reference field.

KPS Membership Card

Send a head and shoulders photo of yourself to [Samantha Bell](#) and you will receive a new laminated KPS Membership card for 2010. Why do you want a card? So far we have two shops that will give discounts to members.

Competitions/expeditions etc

Antarctica 2010: A Photo Odyssey

In November 2010, nature photographers David Burren AAPS and Martin Bailey are leading a 3-week photographic expedition to South Georgia and Antarctica with Aurora Expeditions.

Along with taking photographers to these stunning locations, David and Martin will be providing photography tuition through seminars and hands-on instruction throughout the voyage. Details of the voyage can be found online at <http://antarctica2010.com>

Places are limited and are filling fast, so book now!

About the instructors:

David lives in Melbourne, and has been a member of the Australian Photographic Society since 2001 and of Knox Photographic Society since 2002. He is known to many camera clubs as a judge, a speaker, and as a photographer. Some of his Antarctic photography is featured in the 2009 ANZANG Nature Photography exhibition, currently touring WA.

<http://davidburren.com>

Martin lives in Japan, and is known to many Australian photographers through his blog and podcast.

<http://martinbaileyphotography.com>

Amateur and professional photographers from around the world are invited to enter *Trainspotting: the Powerhouse Museum Photo Competition 2010* for a chance to win \$5,000 (Australian dollars) and be exhibited in the Powerhouse!

<http://www.powerhousemuseum.com/photocompetition/>

The EPSON International Pano Awards

www.thepanoawards.com

Special Interest Groups Wed 17th March

- Photoshop led by Ray and Sam
Will include image sizing and B&W conversions
- AV's led by Julie
- Basic Photography led by Rob
- Photography Q & A led by Alfred

Please let the committee know if there are other topics that may interest you and we start them off.

Special Interest Groups

I have been (as we all do) privately assisting K.P.S, U3A members either at my home or theirs with hands on instruction to get started with their steep learning curve using computer Software i.e.: Photoshop and Proshow 4 etc.

By showing what is possible with software and/or specialised photo equipment, I try to encourage to learn and incorporate these added skills into the enjoyment of the photographic journey or perhaps overcoming a problem that may have taken to long to find on the net.!!

Under the banner of Special interest groups, I would like to create a members who have the mid week time to participate in a range of organised activities. This could be a get-together at one of the many photographic sites in Knox that we know or did not know about, in home demonstration of software that you feel confident enough to instruct on, arranged small group tours of Companies /Factories i.e. Cadburys, or as simple as 1 on 1 help as with the mentor feature of K.P.S.

To start it off I would like interested members to email me with details of their interests in either sharing knowledge or learning, thoughts on activities format and days available etc.

I will put a few activities and dates together over the Christmas break And forward to the interested members via a Special Interest Group mailing list.

I have most days available but preferably Tuesdays and will be away in February.

Ray Goldsmith

9887 1117

nevillegoldsmith@bigpond.com

Knox Photographic Society (KPS) Windcheaters

- Long sleeve - full zip (sizes: S, M, L, XL, 2XL, 3XL) \$40
- Long sleeve - 1/2 zip (sizes: S, M, L, XL, 2XL, 3XL) \$40
- Sleeveless with full zip (sizes; 12, 14, 16, 18, 20, XL, 2XL) \$35
- Colours available are: Navy or Red (with KPS logo in gold)

These are generous sizes and if for example you normally take a Large (L) I would instead order a Medium (M)

Mentoring

Contact any committee member about getting someone to help you with any aspect of photography. There are many members willing to help.

PHOTOGRAPHIC EXHIBITION

70 YEARS (OVER) EXPOSURE

to

PHOTOGRAPHY

Bert Hoveling Ph.D.

AFIAP FAPS SSAPS SSVAPS

To celebrate his 70th birthday on the 4th April 2010, Bert is holding a photographic exhibition, together with some presentations to the members and visitors to the Melbourne Camera Club.

Bert is the current Vice-President of Camberwell Camera Club, and is Immediate Past President of the Australian Photographic Society, Immediate Past President of VIGEX International Salon of Photography, and a Past President of the VAPS. He is also a member of the Photographic Society of America, the Photographic Society of New Zealand, and the Victorian Nature Photography Group. Bert has also been on the Melbourne Committee of the recent "Ballarat International Foto Biennale". Bert retired from his professional career as a Senior Lecturer in Applied Chemistry at RMIT University in December 1999.

His photographic judging invitations have been at VAPS Club Level, National and International levels, including the "2007 International Colour Awards" and the "2008 SONY World Photography Awards"

Bert's photographic exhibition and presentations will include some personal reflections with family and personal historical photos in addition to a selection of his acceptances in National and International salons, and images from his other photographic exhibitions from 1995 to 2010.

LOCATION: Melbourne Camera Club, corner of Ferrars and Dorcas Streets, South Melbourne.

DATES AND TIMES:

Thursday 1st April – 8.00 pm – 9.30 pm: Lecture and AV Presentations to the Melbourne Camera Club members – visitors welcome.

Saturday 3rd April – 10.00 am – 5.00 pm: Exhibition open to the public – with "floor talk/AVs" from 2.00 pm – 2.45 pm – followed by tea/coffee

Sunday 4th April – 10.00 am – 5.00 pm: Exhibition open to the public – with "floor talk/AVs" from 2.00 pm – 2.45 pm – followed by tea/coffee

After more than 20 years with KPS, Eric Dickenson is retiring from competitive photography. Eric wants to sell his top quality equipment in one bundle. \$4450 will get you a Canon 5D Mk11 (full frame digital camera), a vertical grip to suit, a 24-105 L-Series lens, 70-200 IS L-Series lens (L series are Canon's premium lens), 50mm f1.4 lens, and a Benbo/Manfrotto ball head tripod. All perfect condition. Call Eric on 9756 6979 or email on edic8981@bigpond.net.au

Picture & Photo Framing

Kastor Art Pty Ltd
145-147 Glenlyon Road
Brunswick East
VIC 3057
Ph: 03 9380 1344

Framing at very low prices. I recently had a large oil painting (1020 x 770mm) framed for \$55.

Discounts

[Croydon Camera House](#)

Main St Croydon

All KPS members receive a 10% discount on all items in the store.

All KPS members receive free VIP membership valued at \$20 which amongst other discounts entitles you to discounted printing. Take a copy of this newsletter to the shop or your new membership card.

Membership

Membership of KPS runs from 1 Jan to 31 Dec. You must be financial by March 31st each year to be entitled to attend meetings/outings/excursions, enter competitions or use club equipment. So far we have 78 paid up members

For Sale

Nikon F5 body \$700 Ex Cond

Lenses

AF 24-120mm f3.5-5.6 ED IF AFS VR \$500
AF 20mm F2.8D rarely used ex cond \$500
35-105 1 : 3.5-4.5 AIS \$75 (macro lens)

Make me an offer for the following items

Nikon F – D focusing screen
Nikon F3 – E focusing screen
Various lens hoods
Also LOTS of 52mm filters
i.e. Close up, FL day & night, ND, 81 series,
82 series, 85 series, polarizer, Duto, Diffuser,
Centre Spot, Variocross, Fog, Softener
Also Sun Auto teleconverter 2x to suit Nikon

CLUB LOAN EQUIPMENT

Flat and circle Mat Cutters
Spyder—Computer Monitor Calibrator
Scanner
Contact Doug Bird 9754 6796

Studio lights
Backdrop and stands

The studio lights and backdrop are currently setup at Alfred's place so that any club member can come and do some portrait photography. He is home most of the time (he is retired) so give him a call on 9879 9917 or 0414 336 234. If you have never used the clubs studio lights then he will assist you.

Newsletter & website images

Competition images are on the website instead of in the newsletter.

Please send copies of Print/Slide images (Highly Commended & Commended) to Alfred each month after each competition. Please follow the EDPI rules i.e. no more than 768 pixels high and 1024 pixels wide with a file size close to but NO larger than 500Kb. Also provide some information on how the photo was taken including shutter speed, aperture, lens length etc.

PHOTO FLAIR

Shop 3 Stud Park Shopping Centre, Stud Rd, Rowville Vic 3178

Free Club Flair membership. Club Flair is our store Loyalty Club and provides member only discounts throughout the year.

One 10x15" print for FREE (must be redeemed on the first visit to the store).

50% off the standard price of all enlargements between the sizes of 5x7" and 10x15" (inclusive).

10% off all in-house produced Photo Creative ware items such as mugs, stubby holders and T-shirts.

5% off all custom framing. 10% off all complete photo restoration jobs. 10% off pre-cut photo mounting mats.

February Competition Results

Novice Print Set Subject		
Image Title	Merit Award	Member Name
Long Way Up	Commended	Rhonda Lincoln
Novice Print Unrestricted Subject		
Stranding of George Bass	Commended	Dianne Davy
Open Print Set Subject		
Miniature Fungi	HC	Dick Wallace
Kittens View	Commended	Les Finch
Open Print Unrestricted Subject		
Golitha Forest Walk	Commended	Val Rees
Open EDPI Set Subject		
Which is Way Up	Commended	Frank Domantay
An Ants World	Commended	Louise Wolfers
What a Climb	Commended	Peter Collens
Looking Up	HC	Louise Wolfers
Giant Man	HC	Peter Collens
Tall Poppies	Commended	Julie Bird
Open EDPI Unrestricted Subject		
Wind Beneath My Wings	Commended	Frank Domantay
Ship Watching	Commended	Ray Goldsmith
Hairy	Commended	Peter Knight
Smile	Commended	Louise Wolfers
Volcanic Eruption	HC	Julie Bird

Novice EDPI's

As from Feb 2010 Novices are able to put in EDPI's separate to the Open category. If you are not sure of the sizing and naming conventions/rules then please check on the website.

www.kps.org.au/html/competition_rules.html

2010 Camera courses

The first beginners camera course for 2010 will start on the 17th April. Details on the website. Cost for non members is \$150 and the cost for members is \$50.

www.kps.org.au/html/courses_and_workshops.html

2010 Syllabus

Meetings are held at Boronia West Primary School, Tormore Road, Boronia (Melway 64 J8) on the second, fourth and fifth Wednesdays of the month. Meetings start at 8:00

March		
Set Subject - Urban Capture an image that represents urban life in your local town or on your travels		
3	Committee Meeting	
10	Speaker/Demo etc	Adrian Donaghue, Street & Urban Theme
17	Special Interest Groups	
19-21	Outing	Phillip Island weekend away with Phillip Island Camera Club
24	Judging	KPS - Val Moss - Closing for VAPS Interclub 28/3/2010
31		No Prac Night
April		
Set Subject - Triptych A series of 3 photos that tell a story		
7	Committee Meeting	
14	Speaker/Demo etc	Robert Groom - Digital Asset Management
21	Special Interest Groups	
25	Outing	Geelong - Meet at the Geelong waterfront in front of the Carousel
28	AGM - Judging	bring a plate A-K savoury, L-Z sweet
May		
Set Subject - Corners & Edges of the Frame The main subject should touch, intersect or emanate from an edge or corner. No extra borders or frames		
5	Committee Meeting	
12	Speaker/Demo etc	David Burran - Polar Landscapes
19	Special Interest Groups	
22&23	Outing	VAPS Muster - Apollo Bay
26	Judging	
June		
Set Subject - Photojournalism A newsworthy photograph telling a story. A photo you would find in a newspaper.		
2	Committee Meeting	
9	Speaker/Demo etc	Special Interest Groups will show us what they have been up to.
16	Special Interest Groups	
23	Judging	
27	Outing	Laneways, Melbourne
30	Prac Night	How to photograph a drip of water/ puff of smoke, some funky stuff with Lou - painting with light.

July		
Set Subject - Annual Interclub - Black and White Subject Open - Images must be black and white or tinted monochrome		
7	Committee Meeting	
14	Speaker/Demo etc	Ian Rolfe - Creative Landscape/ Outdoor Photography presentation
21	Special Interest Groups	
25	Outing	Annual KPS Dinner - Fully catered at Alfred's home
28	Judging	Bring a plate A-K savoury, L-Z sweet
August		
Set Subject - Generations Portrait/people in pictures depicting 2 or 3 generations of family members etc.		
4	Committee Meeting	
11	Speaker/Demo etc	Glynn Lavender from Creative Photographic Workshops on Portraits
18	Special Interest Groups	
25	Judging	
29	Outing	To be confirmed - Como house/ Werrabee Mansion or Riponlea
September		
Set Subject - Eggs The recipe for a great photo is and egg and your imagination. All images must have an egg in the image but not necessarily the only object.		
1	Committee Meeting	
8	Speaker/Demo etc	Richard Serong on Sports Photography
15	Special Interest Groups	
22	Judging	
25 or 26	Outing	Tesselaar Tulip Farm
29	Prac Night	Bokeh night
October		
Set Subject - Bokeh This is a term used for a photograph using a small depth of field which blurs the background out		
Interclub Photo competition with Melton Modray in the UK		
6	Committee Meeting	
13	Speaker/Demo etc	Mark Jones on Landscapes, Waterfalls & Lightning
20	Special Interest Groups	
23&24	Outing	Castelmaine weekend away
27	Judging	KPS in house judges

VAPS MUSTER

Will be held at Apollo Bay on the weekend 22nd and 23rd May. There will be workshops, speakers, field trips, AVs, and print and projected image exhibitions. It is very important that this event is successful for all the Clubs. Apollo Bay is a beautiful spot with plenty of accommodation at that time of year. Registration forms and accommodation contacts will soon be available. The Muster makes a great Club weekend away. Please contact me if you are interested in sharing accommodation.

November		
Set Subject - Club Outings & Events Photos taken on a club event or outing in the last 12 months		
3	Committee Meeting	
10	Speaker/Demo etc	Member's night
17	Special Interest Groups	
24	Judging	to be confirmed
28	Outing	End of year picnic - Lilydale Lake - Meet at 12pm. Car park near children's playground, BYO everything including folding chairs.
December		
Image of the Year		
1	Judging	Last Meeting - Judge for image of the year - Graham Anderson, Pakenham CC. Everyone brings a plate. A-K savoury, L-Z sweet.
COMMITTEE		
President	Alfred Zommers	alfredz@internode.on.net 9879 9917
Vice President		
Secretary	Elaine Craig	elaineconmurra@rocketmail.com 9754 6894
Ass. Sec & Treas	Julie Bird	julie_bird@optushome.com.au 9725 7406
Treasurer	Suzanne Walsh	walsh_ns@bigpond.com 9762 6420
Ass. Treasurer	Lyn Sloane	lynandrob@optusnet.com.au 9761 2107
Newsletter Editor	Alfred Zommers	alfredz@internode.on.net 9879 9917
Competition Steward	Gary Dawson	gary@thedawsons.com.au 9801 8705
Camera Course Coord	Ian Paterson	ian@tinnitus.org.au 9755 2238
Master Class Coord	Rob Sloane	msec@optusnet.com.au 9761 2107
Webmaster	Ron Cork	roncork@optusnet.com.au 9763 6497
Syllabus Coordinator	Samantha Bell	samantha@hearn.com.au 9790 0383
Librarian	Paul Burke	9762 1507
Committee	Doug Bird	condor45@bigpond.com 9754 6796
	David Burren	david@burren.cx 9898 6291
	Wayne Devenish	wayne.devenish@rch.org.au 9729 6329
		wayne.fi@bigpond.net.au 9729 6329
	Sheryle Griffiths	sherrickblu@optusnet.com.au 9728 6621
	Peter Smyth	peter.smyth@ap.cspic.com 9778 8991
		petersmyth1@optusnet.com.au
	Louise Wolfers	lou.wolfers@bigpond.com 9720 5585
	Ray Goldsmith	nevillegoldsmith@bigpond.com 9887 1117

FACEBOOK

KPS is now on Facebook. Last look we had 66 "fans"

You can find us doing a Google search or:

<http://en-gb.facebook.com/pages/Knox-Photographic-Society/176577411014>

Moderated by Samantha Bell, Karen Lewis and Louise Wolfers