

# Camera Club News

# **Letter From The Vice President**

Hi everyone hope your all having a wonderful winter! The club is planning a trip in the summer to Whangamomona on weekend of 12th 13th November. We should be thawed out by then.

Trip itinerary - Go up to Tokaanu on Friday night. (hot pools) Travel on up to Taumaranui and down to Whangamomona on Saturday. Stay at the pub at Whangamomona Saturday night. Looking at as many sights as we can getting there.

Sunday travel down to Stratford and home later in day.

Costs are about \$65 per night each at Whangamomona and I think that includes breakfast. I think that Tokaanu is about \$35 each. Price would depend on how many go.

Please let Kevin Morgan <a href="hawkeye54@xtra.co.nz">hawkeye54@xtra.co.nz</a> know if you are going so he can book the rooms.

Regards Hik

# **Editors Monthly Photo**

Not all photos are pretty. I like the small hole in the eye socket of this old sheep skull, it stares at you.



# **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

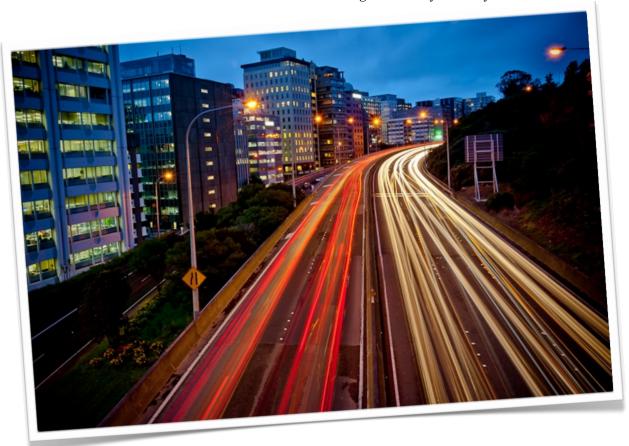




# **Competition: Long Exposure**

# WINNING PRINT

"Night Flow" By Nik Player



# WINNING PROJECTED IMAGE

"Heat Of The Night" By Nik Player



# **Competition Results**

# **Prints**

Chris Kilford	Classic	НС
Kay Halligan	Striped People	С
Nik Player	Pierced	M
Nik Player	Night Flow	HC Winner
Barry Baxter	Evening Boulevard	M
Barry Baxter	Harbour City Lights	С
Richard Lambert	Midnight Light	С
Sid Hayes	Time Waits For Nobody	С
Sid Hayes	Velvet Falls	С
Tim McMahon	Silk and Stone	НС
Tim McMahon	Dam Abstract	M
Martin Connelly	Spirogram	M
Martin Connelly	5 Sec at f11	M

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

# **Competition Results**

# **Projected Images**

Kevin Morgan	Fireworks	С
Kevin Morgan	Petone	С
Kay Halligan	Lines	M
Kay Halligan	Long Exposure	M
Nik Player	Southern Glow	С
Nik Player	The Heat Of The Night	HC Winner
Lorraine Garrity	Sense The Movement	M
Lorraine Garrity	Sense The Music	A
Richard Lambert	The Long Road Home	С
Richard Lambert	Tranquility	M
Tim McMahon	Butchers Dam	M
Tim McMahon	The Brook	С
Barry Baxter	Beckoning Dawn – Chilean Ash	A
Barry Baxter	Detour Ahead	С

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### **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 <a href="mailto:tim.mcmahon@me.com">tim.mcmahon@me.com</a> and if I can find the explanation I'll try to include it in a future newsletter.

### Have you ever wondered about ...

### lenses and sharpness and depth of focus?

In first article of this series we saw why the size of a lens aperture affects exposure.

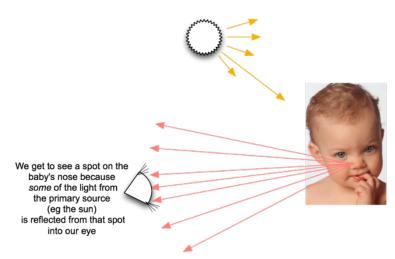
In this, and the next, newsletter we'll have a simplified look at how lenses work, leading to the point where we can easily see how focal length and aperture size affect angle of view and depth of focus in a photograph.

To understand how a lens works in a camera, it's first necessary to recall how we see a subject.

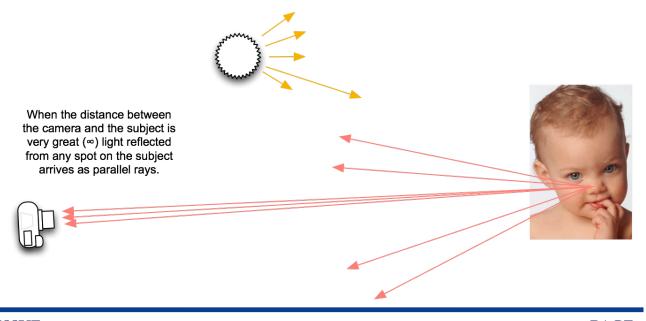
Most of the light that reflects from the subject is scattered far and wide. But some of it comes direct to our eye.

We see whole scenes because every tiny point in the scene reflects its own little bundle of light rays into our eye.

We can intercept the light rays with a camera lens instead of our eye. The same thing applies. *Some* of the light reflected from *each* spot on the subject, comes into the lens.



If the distance between the subject and the lens is sufficiently great (indicated by  $\infty$  on your lens) the only reflected light that will get into the lens will have travelled a nearly parallel path from the spot to the lens.





We're going to look at an ideal simple lens made from a single piece of glass. Real lenses in real cameras are constructed of many pieces of glass. However, they're only made complicated so that they will behave like an ideal simple lens!

Light travels more slowly in glass than in air so it undergoes refraction (it 'bends') when passing from air into glass, and from glass into air

The amount by which the light rays 'bend' is related to the shape and quality of the glass in the lens

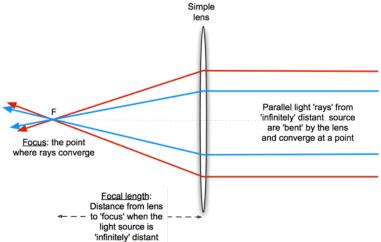
Lenses work because of the phenomenon of *refraction*. Light, which normally travels in straight lines when passing through air or passing through glass, changes direction when going from air into glass, and when going from glass into air.

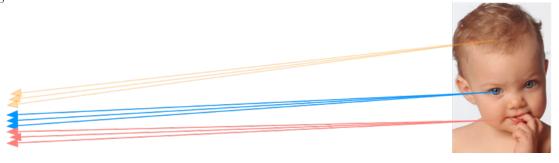
A simple lens is thinner at the edges than in the middle, so that a bundle of light rays hitting different parts of the lens are all refracted towards the centre. The rays all meet at the focus.

If we place a film or digital sensor at the place where the light rays meet we will see an image of the *point* where the light rays originated.

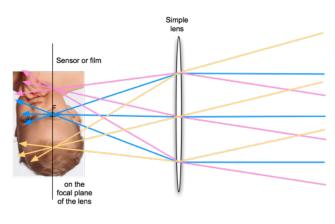
Of course, an image of a *point* is not very interesting!!

However, *every* point on the subject reflects some light towards the lens.





The light from *each point* is refracted as it passes through the edges of the lens and converges at its own point on the sensor or film.



When the subject is an 'infinite' distance away, all of the light rays converge onto a plane the same distance from the lens as the focus. It's called the the 'focal plane' of the lens.

The sensor or film occupies this plane. In this way an image of the whole scene is created on the sensor.

Fortunately when we 'focus at infinity', on an object that is a long way off, its not *really* infinitely distant, or our subject would be pretty hard to see!

In photography, an object is at  $\infty$  as long as the light rays reflected from each point on it to the



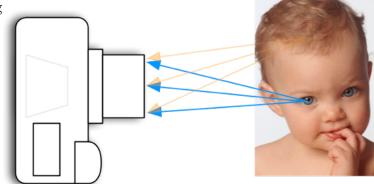
lens effectively travel on parallel paths so they'll converge at the focal plane.

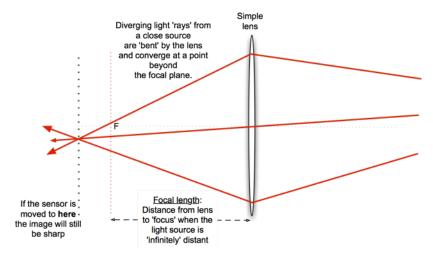
However, most of what we photograph is quite close. And the closer the

subject, the more the light reaching the lens is still 'spreading out'. This changes the rules of the game!

Light which is still spreading when it hits the lens can't bend enough to converge at the focal plane.

As long as the subject is not too close the light rays still converge, although at a greater distance from the lens than the focal plane.





Because the rays have not converged when they pass the focal plane, any image there will be 'out of focus'.

The only way to get a sharp image is to move the film or sensor further from the lens, back to the plane where the rays *now* converge. In practice we don't move the sensor back, but the lens forward. The effect is the same.

This is how focusing works. It's about getting the distance between the lens and the sensor just right so that light coming from points on the subject that we want sharp, converge precisely on the sensor.