

**CANNOCK PHOTOGRAPHIC SOCIETY**



**SNAPSHOT**

**SUMMER 2020**

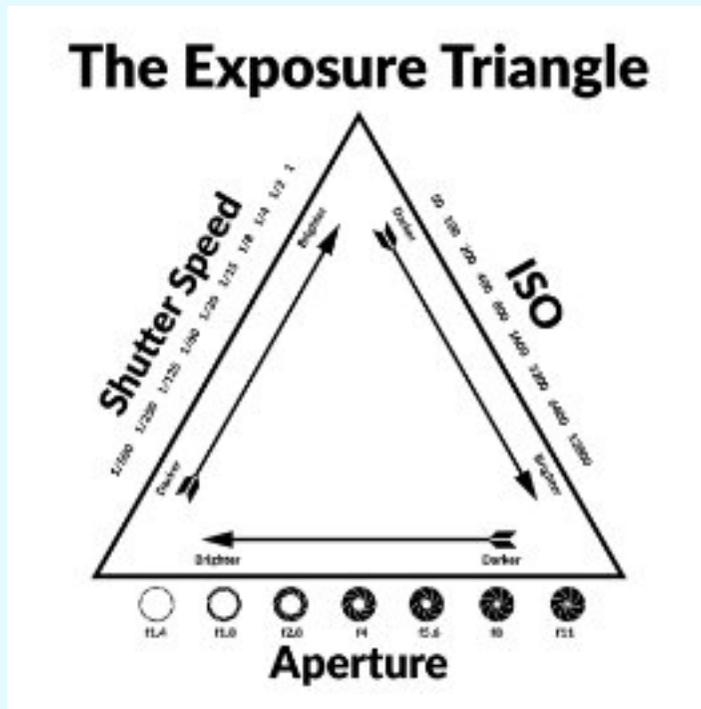


# Dial 'M' for Manual Mode

Why Shoot in Manual Mode? Two words: total control. There are no real surprises once you've truly mastered manual mode, as you'll have full control of the three major points of the exposure triangle aperture, shutter speed and ISO. We'll go into detail on each of these points later in this article, but for now here's a brief list of the situations where knowing manual mode is a big plus:

- Bokeh – Those artistic photos with blurred backgrounds filled with circles of light.
- To avoid unexpected flash when shooting in low light conditions.
- Silhouettes
- Incorporating motion blur for artistic reasons.
- Anything that requires a creative angle, focal point or shot.

While you have total control over your images, it does take longer to prepare a shot with manual mode, as you have to specify each setting. The best photographers know when and where to rely on autofocus, pre-programmed settings, or preset modes. As a general rule, if you have time to take the shot, shoot in manual, if you have a need for speed, another mode may have the settings you need ready at the press of a button.



The general process of shooting in manual mode uses the three aspects of the exposure triangle—aperture, shutter speed and ISO

Check the exposure of your shot with the light meter visible through your viewfinder.

1. Pick an aperture.
2. Adjust the shutter speed.
3. Pick an ISO setting.
4. If the light meter "ticker" is lined up with 0 you have a "properly" exposed picture.
5. Take the Shot.



## Light Meter

You've probably noticed the little number line at the bottom of your field of view when you look through the viewfinder that looks something like this: -2...1...0...1...2+ (Canon) or +2...1...0...1...2- (Nikon). This is the light meter, and when aligned with 0 you know that your photo will come out properly exposed. Of course if you are going for a certain effect, it may be necessary to be a little over or under exposed and you can use the light meter to help you achieve the desired effect.

## The Aperture

The aperture is the hole at the centre of your camera's shutter or iris. If you're aiming for professional blurred background or the artistic Bokeh, it helps to set your aperture (also known as f-stop) and can basically be thought of as a means of adjusting the amount of your picture that is in focus. The lower the f number, the more light reaches your sensor, and the more of your background is blurred. The higher the f number, the greater the field of focus and the more of your picture will be in focus. In other words, low f-number gives more light with a blurrier background; high f-number gives less light and a sharper background.

## Shutter Speed

Your shutter speed can be thought of as the amount of time your camera's shutter is open allowing light to hit your camera's light sensor. Typically denoted as a fraction of a second (e.g. 1/125), your shutter speed will have an effect on the sharpness of your subject. Lower shutter speeds let in more light, but make your image susceptible to blur and requires a steady hand or tripod. Faster shutter speeds let in less light, but can give you a sharper subject and an image less susceptible to unsteady hands.

## ISO

ISO can be thought of as your camera's sensitivity to light, with typical ranges on DSLR's today being 200-1600. The lower the ISO number, the more light is required to get a good exposure on your photographs and the less noise you will see in your resulting images. Higher ISO numbers allow you to shoot better quality photos in lower light conditions, but the more noise you may see in the background of your images. DSLR's can produce better quality images at higher ISOs because of the larger size of the pixels in their image sensors. They also often feature noise reduction to further assist in maintaining quality at higher ISO numbers. As a general guideline, shooting outside under the sun, ISO 100-200 is a safe bet, but if you're shooting indoors under low lighting you want to be in the ISO 800-1600 range.

## The Best Way to Learn—Just Do It!

When you're starting out, developing an intuitive understanding of how the different points of the exposure triangle play off one another may seem overwhelming at first, but shooting in manual gets easier over time. Since you have to consciously select your settings, you'll develop a feel for how much exposure you need and what combination of ISO, aperture and shutter speed is required to achieve a desired

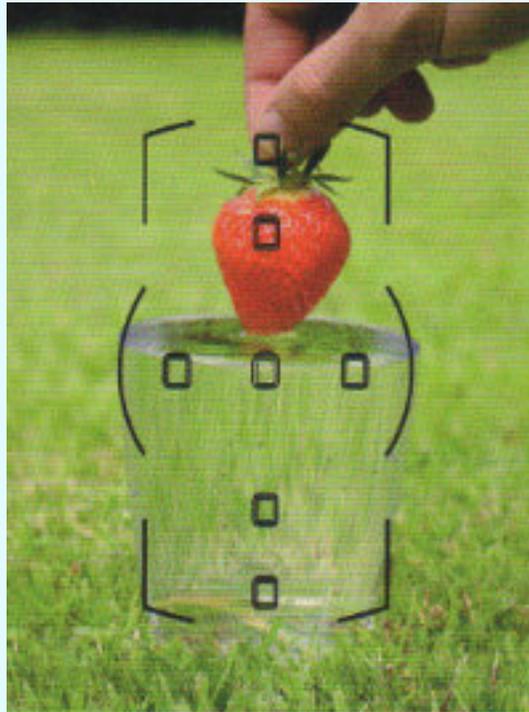
# Splash out on a summer's day!

The trick to getting this shot is quite simple. Using a faster speed allows your camera to 'freeze' the water motion. The less time your sensor has to record the splash, the less movement will show up on the image. Most images of this sort tend to be taken in a studio using a flash gun to freeze the action. Shooting outside in bright sunlight should enable you to push your shutter speed to 1/1000 sec or higher, which should be quick enough to freeze the water droplets in mid air. If you were to use a slow shutter speed, say 1/60 sec, the splash would come out blurred.

Place your glass, or container, on a level spot outdoors and ensure it is level, then fill to the brim.



Select shutter priority on your camera and set the speed to 1/1000 sec. Start with a low ISO, say 100 - 200. If the aperture value is showing LO then up the ISO until it stops. Set your camera on a tripod or support so that your lens is in line with the glass and not at an angle. Choose your 'Bomb' and holding it just above the splash point check and organise your focus. Depress the shutter so that the camera can focus on the Strawberry, then switch to manual mode so that the camera won't refocus on the wrong part of the image when you start shooting.



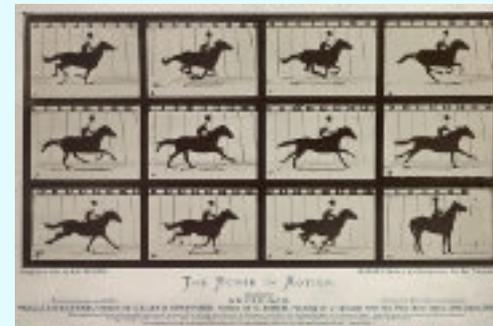
Dropping from a higher point rather than a lower one should give a better splash. Practice the timing until you get some images that you are pleased with. Think about changing the aperture to adjust the depth of field. Change the background using some white or coloured card or even the back of some old wallpaper



## A Father of Moving Pictures ?

Edward James Muybridge, was born 1830, Surrey, England. He was an English photographer who was important for his pioneering work studying motion using photography and also motion-picture projection. He adopted the name Eadweard Muybridge, believing it to be the original Anglo-Saxon form of his name. He emigrated to the United States as a young man and then became famous for his large photographs of Yosemite Valley in 1868.

His experiments in photographing motion began in 1872, when the railroad magnate and former state governor, Leland Stanford hired him to prove that during a particular moment in a trotting horse's gait, all four legs were off the ground simultaneously.



His first efforts were unsuccessful because his camera lacked a fast shutter. The project was then interrupted while Muybridge was being tried for the murder of his wife's lover. Although he was acquitted, he found it expedient to travel for a number of years in Mexico and Central America, making publicity photographs for the Union Pacific Railroad. In 1877 he returned to California and resumed his

experiments in motion photography, using a battery of 12 to 24 cameras and a special shutter he developed that gave an exposure of  $\frac{2}{1000}$  of a second. This arrangement gave satisfactory results and proved Stanford's contention.

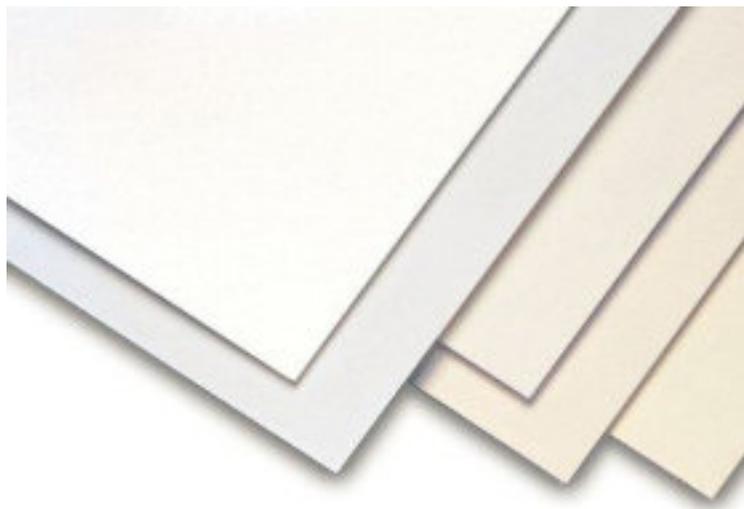
The results of Muybridge's work were widely published, often in the form of line drawings taken from his photographs. They were criticised, however, by those who thought that horse's legs could never assume such unlikely positions. To counter this criticism, he gave lectures on animal locomotion throughout the United States and Europe. These lectures were illustrated using a 'zoopraxiscope', a lantern he developed that projected images in rapid succession onto a screen from photographs printed on a rotating glass disc, producing the illusion of moving pictures. The zoopraxiscope display, was an important predecessor of the modern cinema projector.



A simple Zoopraxiscope

## PREPARING YOUR PRINTS FOR ENTRY INTO THE CPS MONTHLY – Carl Mason

Presentation of your prints is almost as important as the print itself. This guide is intended to provide information that may help you mount prints successfully.



### MOUNTBOARD

The thickness of the board is up to you, however, most board that is suitable is around the 1.4mm mark, anything thicker than this will probably be too heavy.

Surface colour is your own choice also, but the preferred norm. is white in its various shades, from pure white to bordering upon cream. Black may be suitable for some prints but other colours will often clash with the colours in the print and may be quite unsuitable for a black and white print.

The preferred maximum cut size is 50x40cm, this is just a bit smaller than the old norm 20x16 inches. At Cannock we will still accept 20x16 but beyond Cannock it is usually 50x40 (although there are some outside competitions that specify smaller size maximums) At Cannock, you can use smaller sizes if you wish but the maximums are better and have the advantage of not sliding about in the pile. Small boards could scratch other peoples prints as well as your own. You can purchase ready cut 50x40 boards but if you cut the boards to size yourself please make sure they are cut square i.e. 50 cm on 2 sides and 40 cm on the other 2, with straight edges.

The size of your actual print can be anything you choose up to the maximum board size.

### DECIDE HOW YOU WANT TO FIX YOUR PRINT

It is generally accepted that at club level there are 3 ways to fix your print to the mountboard, these are: -

- Cut a middle section out of the board and attach your print to the back or to a backing card. This is currently the most often used method.
- Use an aerosol spray adhesive on the back of your print and fix it to the front of the mountboard. There is a danger of getting glue on the face of your print.
- Use Archival Dot Adhesive, either from sheets or a roll dispenser. This is probably the easiest and safest method. There are 2 types, permanent and re-positional (beware of the re-positional, sometimes the print falls off when you least expect it).

### PREPARE A BACKING CARD

This is an optional requirement if you use mounting method a). above. It gives rigidity to the mount and helps to protect the print. Use thin but stiff card from about 600microns up to the 1.4mm of a 2nd mountboard. Cut/prepare the card so that it is bigger than the print paper but smaller than the mountboard. It is sensible to save the cut out middles from the mountboard then join 2 together with tape and cut to a suitable size to make backing boards. If you do not use a backing card, you run the risk of your mounted print buckling and not lying flat, this is due to the expansion/contraction of papers at different room temperatures.

### MOUNTING YOUR PRINT

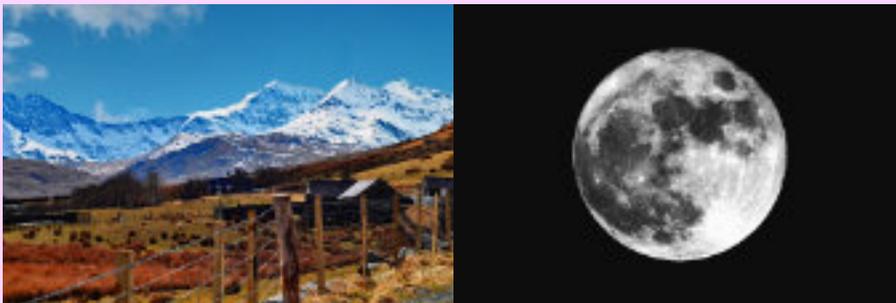
With the spray glue/dot adhesives, apply to the back of the print, keeping the adhesive well away from the printed side and fix the print to the front of the mountboard making sure you position it correctly. If cutting out the middle of the board to form a window, measure and cut carefully. You can use a steel ruler with a thin bladed craft or mat knife; do not use a Stanley type knife, as the blade is usually too thick. A custom-built bevel mount cutting tool is by far the best option, but is more expensive. Always use a very sharp thin blade; anything else and the cut will drag giving rough, untidy edges. Be especially careful with corners and leave all of your fingers attached to your hands.





I note that it is raining again and I can't get out into the garden. So I thought that I might share one of my explorations into photoshop, via you tube.

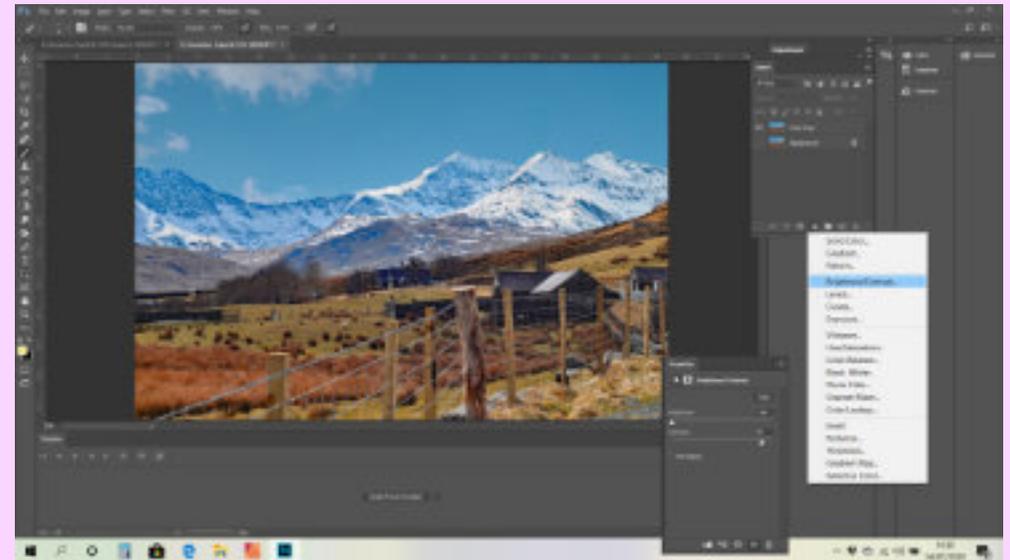
The idea is to take a day time image and make it look like it was taken at night. First of all I placed a couple of images in a folder and tweaked the mountain scene. The shot of the moon had a lot of contrast which I reduced slightly to give a smoother image.



From the shot of the moon I selected it from the background and saved it as a .png, which allows it to be used with a transparent background.

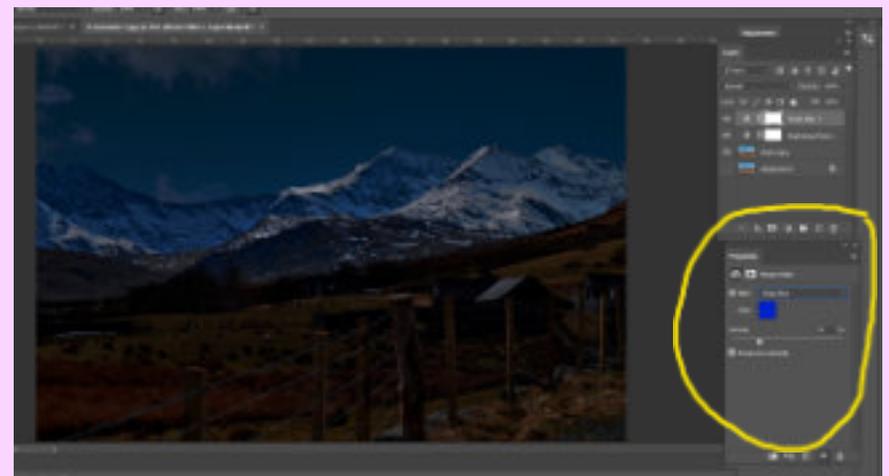
(If you haven't any moon shots there are many online)

I opened the image in PS and made a working copy (Ctrl + J). In a night scene the 'darkness' and contrast is high so I needed to enhance that. Create an Adjustment Layer and from the drop-down menu select Brightness and Contrast and move the sliders to the left



and right ( -150 for brightness and 80 for contrast.)

To give the deeper blue feel to the night we now need to add a filter. So create another Adjustment layer and this time select Photo Filter. Change the filter setting to Deep Blue from the menu and slide the density slider to suit your needs.



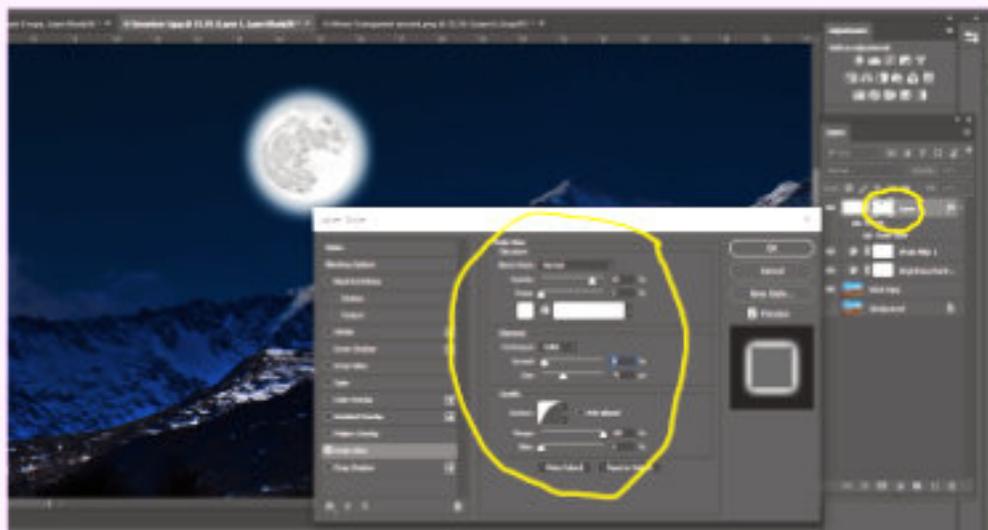


We now need to add the moon, which as I said before, I had saved as a .png so that I could have a transparent background when it was placed in my main image. Open the Moon image and again create your working copy (Ctrl +J). From this layer, select all. Select copy then go to your 'Landscape' image and paste. Resize and move it as you wish.

We need to give the moon a bit of glow . With the moon layer selected add a layer mask, onto which, using a brush set to black ,paint a ring around the moon. Now with the mask selected , go to

Layer > Layer Style > Blending Options > Outer Glow

Play with the sliders until you get the effect that you like.



If you have any buildings with windows on your original, they may need lighting. To do this switch of the layers above your working copy and add a layer above the working copy. Onto this layer you can paint white or yellow light over the the windows such that when you switch all the layers on you will have buildings with lights on.

Try it a few times on different images to get used to the way in which layers, masks and blends work...



Before and After



# Installation and Use of Adobe DNG Raw file Converter in Photoshop, etc.

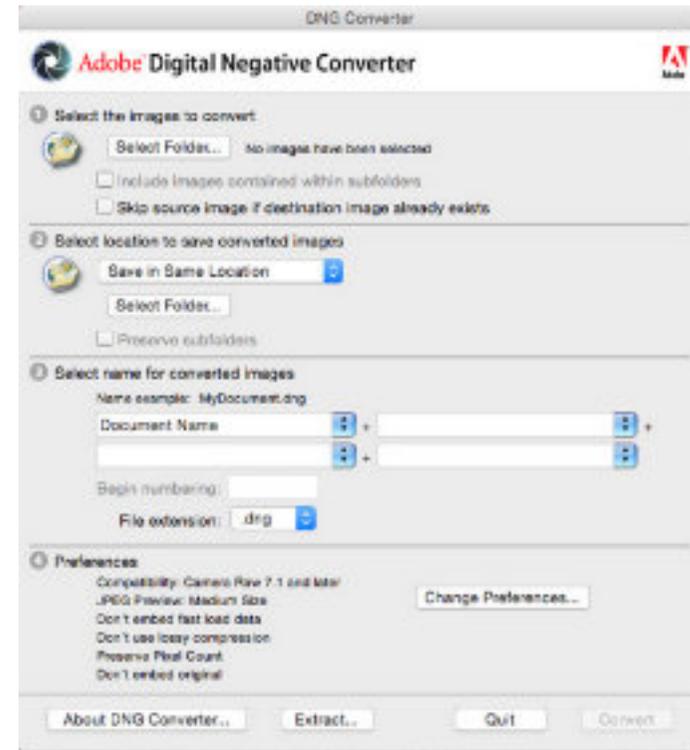
In order to open a Raw file from a digital camera in Photoshop, Bridge, Lightroom or Elements the specific file format must be supported by Camera Raw. As new cameras are introduced the format of the Raw files inevitably changes even though the file suffix remains the same and Camera Raw needs to be updated to read the new file formats. The camera manufacturers do not supply Adobe with the file format details and the format has to be reverse engineered by Adobe so that it is recognised in Camera Raw. From time to time Camera Raw is updated to read the new file formats, but only for the current version of the imaging software. In practice this means that Camera Raw in older versions of the imaging software cannot read file formats newer than the latest update for that version. For example Photoshop CS6 includes the last compatible update for Camera Raw – version 9.1.1; in practise this means that whereas Raw files from an Olympus OM-D E-M1 can be opened in Camera Raw those from the newer Mark II version cannot. Likewise Raw files from a Panasonic GX8 can be opened, but those from a GX9 cannot. Fortunately Adobe recognised this issue a long time ago and introduced the Adobe DNG Converter which, in their own words ‘enables you to easily convert camera-specific Raw files from supported cameras to a more universal DNG Raw file. Another benefit of using the DNG Converter is backward compatibility.’

## Download and Install

Log onto

<https://helpx.adobe.com/uk/photoshop/using/adobe-dng-converter.html>

and follow the instructions to download the installation file for Windows or Mac. By default the file will be downloaded (in Windows) to the Downloads folder – open this folder and double click on **DNGConverter\_12\_3.exe** to install. By default the converter will be installed as **Adobe DNG Converter.exe** in C:\Program Files\Adobe\Adobe DNG Converter. Navigate to this location and, for convenience, right click on the file and select Send to > Desktop (create shortcut) – this will save ferreting through the file system when you want to use the converter – just double click on the Desktop shortcut to initiate.



Select the folder of images to convert

Select location to save converted images – Save in same location probably the most handy or select another folder if you wish.

Select name for converted images – the default of Document Name will retain the image file identification with a .dng suffix.

Specify compatibility preferences – leave as set as shown in the screenshot, but if you are using a very old version of Photoshop it may be necessary to change the compatibility from Camera Raw 7.1 (Photoshop CS6, Lightroom 4.1 and later) to an earlier version by clicking on the Change Preferences button.

When satisfied that your settings are correct click on the Convert button. A secondary window will open showing progress.

Following conversion double clicking on a .dng file in Bridge or File Explorer will open it in Camera Raw.

## Message in a bottle ... or glass bulb.

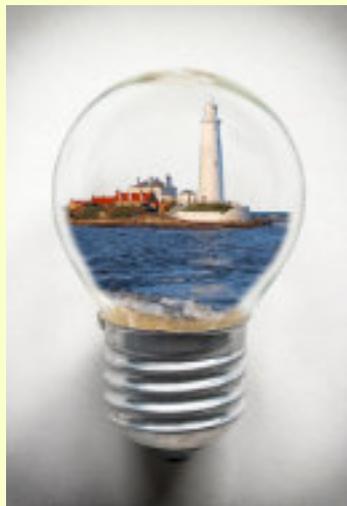
During these times I have found a little more time to explore new techniques and ideas. I am informed that some members at the club use Affinity Photo by Serif as their processing software. This is a great programme for a great price and it does almost everything that Photoshop does, albeit in a slightly different way at times.



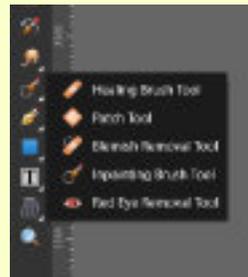
However, here is a little something that I have tried using Affinity and Photoshop, that you can have a go at.

From these two images I wanted to place the lighthouse inside the lightbulb. To do this I thought I would use Affinity Photo first of all and then Photoshop.

The principle for each piece of software is the same ..... Empty the bulb of the rubbish, remove the sky from the lighthouse (it looks better) then paste the lighthouse, or part of that image inside the bulb. -- Easy Peasy!



First of all open Affinity and load the two images, Lightbulb and Lighthouse or whatever scene you wish to place inside. The lighthouse was taken at Whitely Bay and the bulb outside in my garden on white card. (If you can't get a clear bulb to use let me know and I'll send you a copy. Clear bulbs are hard to find these days.) Make your 'working' copies (Ctrl + J) and switch off the background layers.



Now select the *inpainting brush* and use it to remove the filaments in the bulb by painting over them. You may wish to vary the size of the brush to get a smooth finish. You may wish to clean around the area or do a bit of cloning etc, to get the desired effect.



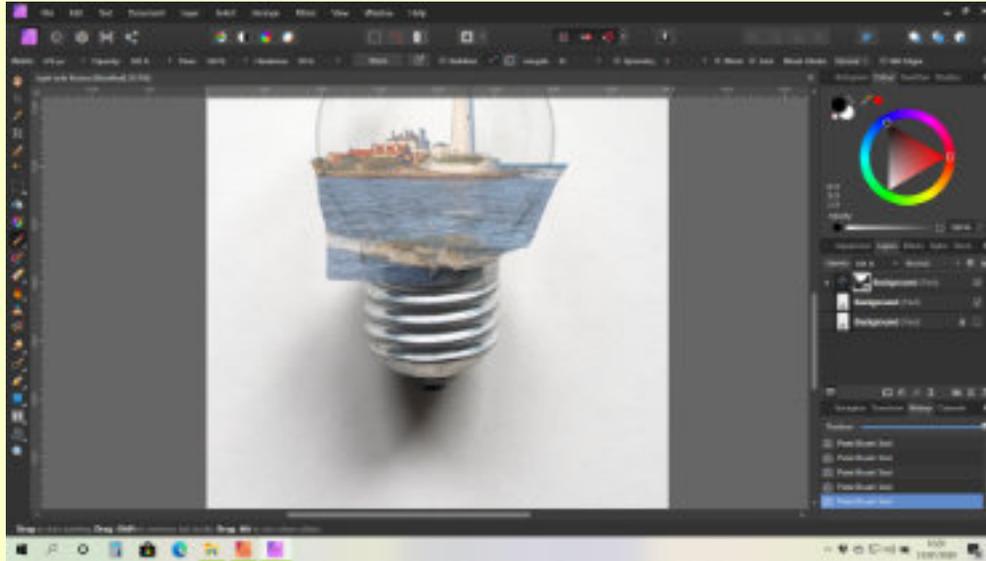
In photoshop I used the *Healing Brush*.

Now we need to sort the lighthouse. In all the articles I have read the 'insert' components have usually been extracted from their backgrounds. In this case we will remove the sky.



I have used the 'flood select' tool and 'Add' which will remove a range of blues from the sky area depending on the tolerance set ( I did 25%). But play with this figure until you are satisfied. If you are not happy then use the usual selection tool and then the refine brush, which I find works well in most situations where there is fine detail. Delete the sky and then --- Edit > Copy, open Bulb image and Paste selection onto the image. Lower the opacity of the insert and resize and locate it to the position that want inside the bulb.

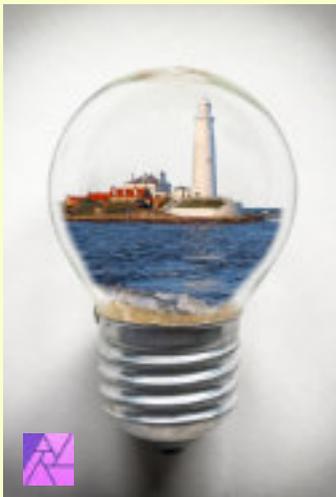
On the lighthouse layer and select a Black Brush. ON the mask paint black over the areas that want to conceal, until you have the area that you want within the bulb. If you make an error or go to far change your brush to white and repaint on the mask ( Remember that black conceals - white reveals). My initial brush settings were Opacity 100%, Flow 100%, Hardness 100%, and a largish brush to remove most of the unwanted background. I then changed the Hardness to zero to get a soft brush effect and smoothed the edges inside the bulb. You can vary the size of brush or play with the flow and hardness settings to find the best effect for your insert.



Now select the 'Insert' image on this layer (Lighthouse) and bring the opacity back to 100%. Have a look at the blending modes some images work better with Linear Light, but try the other styles to see what sort of effects you get.

In Photoshop, once you have your Insrt layer postioned over the bulb create you mask and pant black / white accordingly using the chosen brush and finish in the same way. You could try this using a glass bottle or a clear Christmas globe. You could add a vignette to accentuate the bulb.

Try it and have fun.



## Down to Earth



Yann Arthus-Bertrand has been an actor, film director and wildlife park manager. While in Kenya photographing lions , he took a trip in a hot air balloon. This proved to be a turning point in his life. On returning to his native Paris; in 1991 he founded the Altitude Aerial Photographic Agency which was the world's first press agency specialising in aerial photography. (500,000 pictures were taken in more than 100 countries by more than 100 photographers

In 1994 Arthus-Bertrand started a thorough study on the state of the Earth sponsored by UNESCO. As part of the study, he made a picture inventory of the world's most beautiful landscapes, taken from helicopters and hot-air balloons. The pictures are mostly shot from helicopters from 2000 metres down to 20 metres. The book from this project, *Earth from Above* sold over 3 million copies and was translated into 24 languages. The keynote image in the book is a heart-shaped clearing in a mangrove swampon the South Pacific island of New Caledonia. The caption speaks of the swamp's probable disappearance in the face of development and pollution. In 2000 his free "Earth from Above" exhibition was set up in Paris and then travelled to 110 cities around the world and visted by over 120 million people to raise awareness of climate change and pollution.



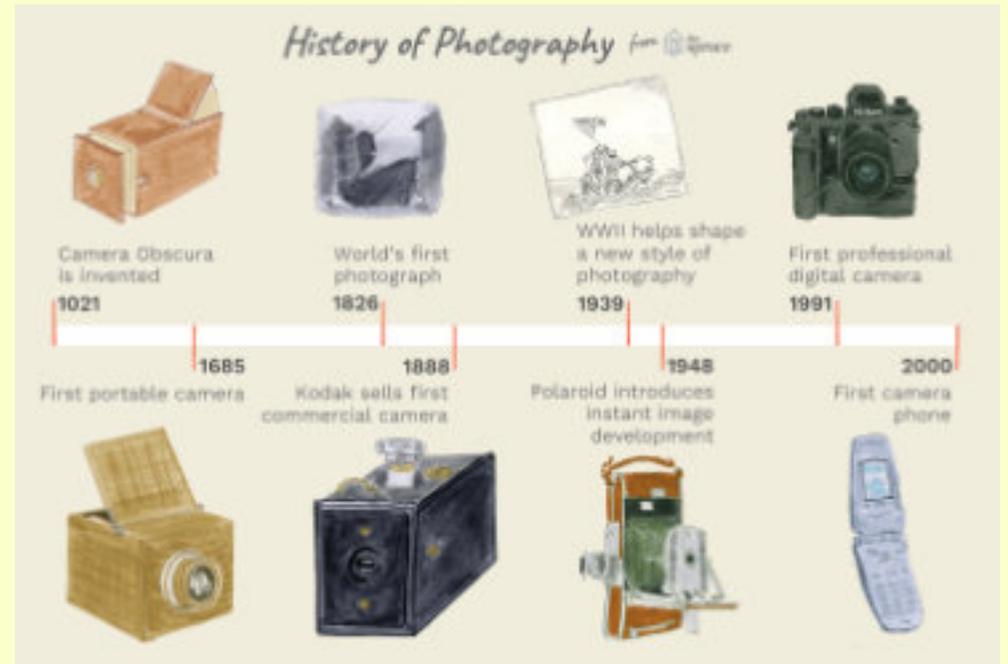


From the top....

- A slaughterhouse in India, Bora Bora in French Polynesia
- Autumn in Canada A refuse dump in Mexico City
- Overlooking Rio de Janiro Brazil

The pictures in this collection show many of the beauties of this planet and also some of the eyesores created by our activities.

Visit [www.yannarthusbertrand.org](http://www.yannarthusbertrand.org)



I hope you have enjoyed this issue of Snapshot and the others that I have enjoyed producing. Please let me know your thoughts and I am happy to receive suggestions for articles that I can research and put in. If you would like to share any of your experiences all I need is about 500 words ( One side of A4 and some pictures that I can use.)

I hope some of the newer members have found the lock-down activities that I have presented fun to do. I have tried them all myself and enjoyed doing them and finding out new techniques with processing software. Send me some of your trials or tribulations. I need to know if this is all worthwhile.

Contact me via email [robalbutt@hotmail.co.uk](mailto:robalbutt@hotmail.co.uk)

If anyone needs a lightbulb image for practice... Drop me a line and I'll send a copy