

Panning, zooming and rear curtain sync

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These are special in camera photographic techniques that have long been used for many years by both professional and amateur land photographers to add creativity to an otherwise boring shot. A stationary car can be made to look like it is travelling at 100 mph and people can be given movement whilst they are really standing still.

As underwater photographers we have a whole world ready made for these techniques. Like it or not a picture can be given movement and exaggerated colour, turning it from an otherwise boring subject to something that is both vibrant and can truly be called ART. So let us look at these three techniques and how we can apply them underwater.

Panning

In its simplest form panning is either when the photographer is stationary and the subject moving, or both photographer and subject are moving at the same speed. Let's take the first one first.

Using a diver as a subject getting him to swim past you at a set distance is the easiest way to test and perfect this technique. The key to success is a fluid panning action, usually from right to left and the correct shutter speed for the job. Using a F90X in a Sea and Sea housing with a 20mm lense set at f16 1/4th sec exposure, which makes the best use of available light allowing the diver to swim parallel in front of you. then start moving the camera to match the speed of the swimming diver. Before he is directly in front of you when the panning speed of the camera and swimming diver match gently press the shutter. It is important that the panning action starts before and carries on after the shutter has been pressed to create fluidity in



Leather Coral Zooming and rear curtain sync sea and sea housing F90X camera 17 to 35mm Nikon zoom lens YS300 and 120 on half power Fuji Provia 1/2 sec exposure f22 (static subject no tripod hand held flash has given hint of colour in foreground)



Lionfish, rear curtain sync sea and sea housing F90X camera 17-35 nikon zoom lens at 35 end YS300 and 120 flashguns on half power Fuji Provia 1/2 sec exposure f22 (slower shutter speed produces more exaggerated movement in subject and background)

movement and needs practise to achieve. It is also important to bracket the exposure to see which shutter speed f stop combination gives the most artistic result. In this instance I would also use f11 at 1/

8th sec and f22 at 1/2 sec. What you will end up with is a photograph of a diver, his torso frozen limbs moving and a blurred background giving exaggerated motion to the subject. This can easily be practised



Diver in wreck doorway Zooming sea and sea housing F90X camera 17 to 35mm Nikon zoom lense available light Fuji Provia 1/2 sec exposure f22 (subject static housing on tripod for stability shows speed lines focusing on divers head in centre of frame)



Lionfish, rear curtain sync sea and sea housing F90X camera 17-35 nikon zoom lens at 35 end YS300 and 120 flashguns on half power Fuji Provia 1/15th sec exposure f22 (faster shutter speed produces less movement in subject and background)

in your local swimming pool.

The second technique is when the photographer and subject are moving at the same speed can be applied simply when swimming down a reef knowing that you have a good chance that you will come across certain subjects. The important thing to remember in this situation is that the intent is there and your camera set up must be ready if the opportunity arises. There is a reef in Indonesia where I come across hawksbill turtles frequently. My F90X is set at around f16 at 1/2 sec exposure (dependent on the ambient light reading), so when the turtle swims off the reef into the blue, I am ready matching my speed, hopefully to that of the turtle. I position myself over the top of him and press the

shutter which freezes his image but allows the background to blur again giving this impression of great speed. The key to success in this situation is matching your finning speed to that of the subject, when these match the chance of success greatly increases.

Rear Curtain Sync

When we take a photograph with flash in its normal mode, the flash fires as soon as the shutter is activated. In other words at the very start of the exposure. When we put the flash mode to rear curtain sync the opposite happens. The flash fires at the end of the exposure, so if we had an exposure of 1/2 second the flash will not go off until the

very end of the 1/2 second.

So once again we are going to use rear curtain sync in conjunction with long exposures to create an exaggerated sense of movement and when the flash goes off at the end of the exposure it will freeze and add colour to the picture. The reason for using rear curtain sync is that the long exposure will record lines of movement which can be very haphazard and jumbled. But when the flash fires, it records the final image on top of all the movement giving a sharp picture of the subject. If for instance we did exactly the same thing but using normal flash mode instead of rear curtain sync then we would have a final picture of the subject covered with movement from the rest of the exposure which would make it very



Hawksbill Turtle Panning with rear curtain sync sea and sea housing F90x camera 20mm Nikon lens YS300 and 120 flashgun on full power Fuji Provia 1/2 sec exposure f22 (because panning action not in line with turtle stretched moving image has occurred important to have camera and subject in line and both moving at same speed)

Note:

When the two techniques above have been practiced, for the more adventurous, try combining them both in the same shot. The panning will give lateral speed lines and the rear curtain sync will give a sharper more colour saturated final picture, again practice achieves results.

Zooming

This is exactly what the heading says. Using a zoom lense we can use a technique to make static subjects look like they are travelling at very high speed. I liken it to watching the Starship Enterprise on Star trek just as it is going into light speed. Because those flowing lines around the spaceship are the exact results you will get when you use this way of taking a photograph. Typical subjects are wrecks, highly coloured soft corals, and divers in a stationery position. This may sound complicated but it

isn't. You will get the best results by using a lightweight tripod weighted down with some lead, but if this is too much then excellent results can be achieved by anchoring yourself in a steady position before shooting. Again practice this technique in the pool before shooting in open water. Fluidity of movement again is a key to success. So in open water using a F90X with a Nikon 17 to 35mm zoom lense in a Sea and Sea housing attached to a lightweight tripod, Choose a likely subject, perhaps a diver in the doorway of a wreck. Set-up the tripod at a distance far enough away so that when you zoom on the focal point it stays within the picture area. Take an ambient light reading again with emphasis on a long shutter speed I find between 1 and 1/2 a second gives good results. Starting at the 17mm end of the lense practice zooming through to the 35mm end. This is where the fluidity comes in again, the zooming must be a constant speed. When you are ready to take your shot start zooming first then fire the shutter and continue zooming after the exposure has been taken. This will give a constant image with no jerkiness to be seen. Again bracket the exposure. In this case I would bracket around 1/4 second using 1/8th and

indistinct. Again practice this in the pool. I have using wooden coloured fish, which are always on the move and give a good representation of the final image you could achieve in open water. Using a F90X in a Sea and Sea housing with twin strobes set to manual full power main light YS300 fill light YS120, in open water pick a subject not too small which is not likely to dart around too much. Lionfish have worked well for me in the past as a starting point. Take an ambient light reading with emphasis on a long shutter speed. I recommend bracketing around a 1/2 of a second. Set the flash mode to rear curtain sync, compose your photograph and fire. Head shots sometimes give an indistinct end result whereas a side view, I feel gives a recognisable sense of the animal. With distinct lines of movement it can enhance the colour of the background so choose one with saturated colours. Obviously the shutter speed is key to the final image 1/2 a second and longer will give an image with very distorted movement and not so sharp an end result, whereas a shorter shutter speed of say 1/15th a second will give slight movement around the fin areas and a very sharp final image. It's all a case of what you like, but again this technique adds impact and drama to many photographs.