

I was speaking to a club member today (24 Feb 24) and told them that I had been taking pictures of the rising moon. I decided to do this because I had checked and found that the setting sun and the rising moon were going to be pretty much coincident which meant that the moon would be rising in what is known as the blue hour. As a result of this conversation I was asked would share my planning and camera set up for such a shot, so here goes:

### Photographing the moon as it rises.

All of the information that you require to plan this shot is contained in the Photopills app that I have spoken about before <https://www.photopills.com/>

Checking the moon data

On 24<sup>th</sup> Feb 2024 the moon was due to be full (99.99%) at 12.32 pm

Moon rise was set to be at 17.23pm

As the moon was breaking the horizon it would be at an azimuth angle of 72.3° or roughly ENE on the compass.

I had done some research and in order to get the moon as large as possible in the frame I would need to use as long a lens as I could muster (I didn't want to use a converter). My longest lens is 400mm

At 400mm on a half frame sensor such as the OM systems OM1 the horizontal angle of view is 2.49°. You might think that this is getting all too difficult however, Photopills does make life easier.

Looking at google maps I drew a line from the ruined church at Wighenhall St Peter at 180° from the moons expected azimuth angle and looked to see roughly where it crossed the road between Magdalen and St Germans. This is where I would need to be to take my picture.

Next question was is my lens suitable? Measuring the distance from the church to where my line intersected the road was 500 metres. Selecting my camera in the Photopills app, the lens focal length and the distance told me that I would get 21.7 metres of the horizontal view of the church in my viewfinder – perfect.

I planned to be at the site about 15 minutes before sunset.

This is the picture I had of the church from a distance of 500m during the golden hour.



1/25<sup>th</sup> Sec f6.3 ISO 200

Perfect to catch the rising moon

Now all I had to do was wait until the sun set and the moon started to rise -hopefully I would be in the right place!

A few minutes later and the moon broke the horizon, I wasn't in exactly the right place I needed to be about 400 metres to my left. I had a few minutes to move!

Its quite tricky to get the right focus and the right exposure because you need to react quickly the moon rises at 15°/hour which is quite fast. Fortunately, because the moon is not so bright because you are still in the blue hour you can just about get away with the same exposure but this is a good time to get your camera to do some automatic bracketed exposures. Focus is probably the most tricky because you will need to take a shot focused on the church and one on the moon, they are significantly different.

This was my first image



1/13<sup>th</sup> sec f6.3 ISO200

As the moon started to rise further the ambient light reduced and the moon got progressively brighter making life that little bit more tricky.

Here are the next two shots.



1/13<sup>th</sup> sec f6.3 ISO200



1/8<sup>th</sup> sec f6.3 ISO200

So what did I learn?

The planning on the whole went well

I should have used a higher ISO and suffered the noise to give me a faster shutter speed the speed of movement of the moon is significant when you get down to 1/8<sup>th</sup> sec!

Would I do it again – absolutely – you know you all want to give it a try.

The next opportunity if the weather plays ball for a full moon is on 25<sup>th</sup> March. Whilst the conditions are not quite as good you should be able to get a result.

Sunset is 18.21, Moonrise is 18.46, Blue hour ends 18.56 azimuth angle 96°

If using an APS C sensor and a 400mm lens you would need to be about 400m away from your focal point

If using a full frame sensor and a 400mm lens you would need to be about 250m away from your focal point

If the weather looks favourable and you want any info from Photopills please contact me.

Brian Sadler