How are your photos shown?

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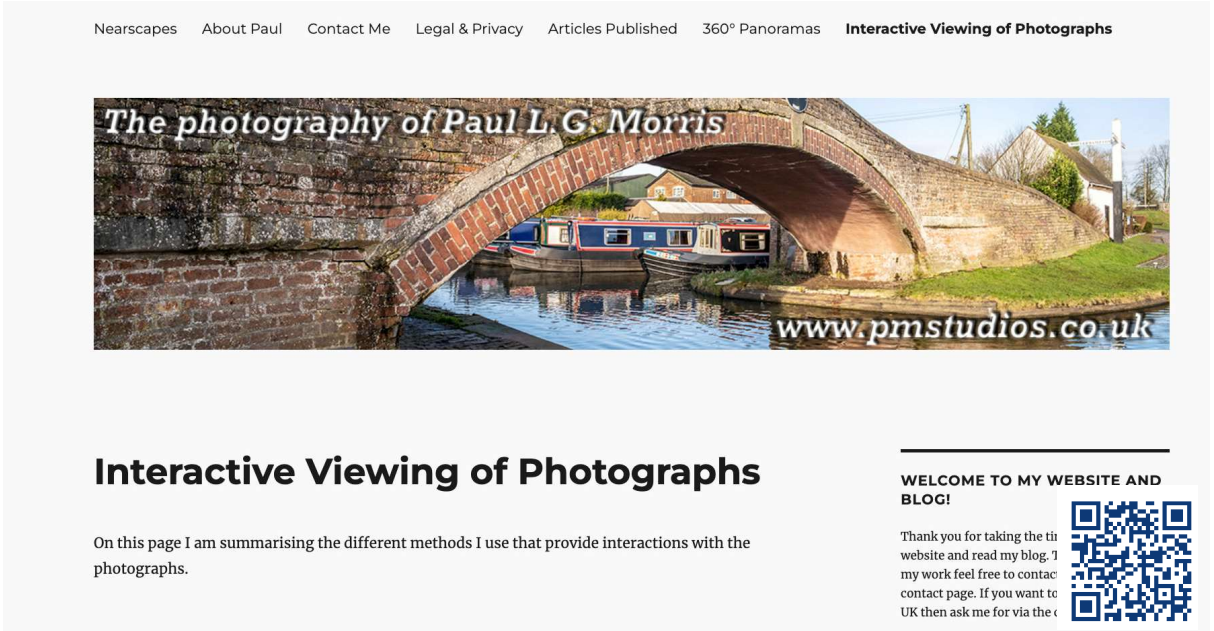
Traditionally, there have been three methods of showing photographs: photo albums, books or slide shows. These have their digital equivalents but modern computer technology gives us more options. Most of methods I am going to discuss and show are delivered via a web browser and, in some cases, need a web server (i.e. a website or software running on your PC) to provide the functionality that the browser interacts with. Sounds complicated doesn't it? But it is better to show what I mean by screen image shots and links to my website where I have these examples running. I have consolidated the examples to a single page on my website where you can try them out.

Note that I will detail some of the technical aspects towards the end of this article.



Comparisons

So, let me start with 'Comparison Sliders' that enable Before/After or Then-And-Now comparisons of two images side-by-side. This screenshot shows the Rugeley Power Station in Staffordshire before and after the cooling towers were demolished in 2021.

Example 1: Rugeley slider screenshot

On the website, the vertical line in the middle with the 2 arrows can be dragged using a mouse (PC) or finger (mobile device) from side to side. For the keen eyed, you may discern slight alignment errors – it is often easier to align distant objects than nearby ones where the slightest change of position becomes more obvious.

Example 2: Then and now view of Stokesay Castle

One aspect of this technique that I enjoy is getting old views and creating modern versions. I like to try and reproduce views taken in 1930s-40s or earlier. To this end I have several old travel guides that I use when I am visiting different parts of the country. Because of their age, I believe the photos are out of copyright. The screenshot above (Example 2) is a view of Stokesay Castle (near Craven Arms in Shropshire).

Even with a copy of the old view in my hand I wasn't in quite the right place. The comparison slider is good at revealing deficiencies. Therefore, I need to visit again using a different right of way further to the right. Ordnance Survey maps are invaluable for this sort of photography.

One thing I have noticed in trying to replicate some of these old views is that often they do not appear to be straight 'out of the camera' images. I am sure some darkroom techniques with enlarger bellows have been used, equivalent to today's Photoshop 'Transform' tools. I am also beginning to suspect lens distortions are coming into play.

I do not limit myself to buildings for this technique. From a corner of my back garden I have this wonderful view of a tree across a farmer's field (soon to be a housing estate!). If you have the patience to take the same view at different times of the year you can create this type of comparison (Example 3).

With this type of subject you are never going to get perfect registration. This is a growing, living organism, but with a bit of care you can get a decent alignment of the two images.

The two images below are part of a set shot over the course of a year. Yes, you can make a time-lapse video of the view. But the traditional time-lapse of hundreds of shots pulled together doesn't work for me. I prefer a different approach using virtual tour techniques:

Example 3: Tree-slider screenshot

Virtual tours through time using virtual tour software

Virtual Tours started off for places such as high-end hotels, golf clubs and tourist sites as a way of interactively showing their venues. But as the techniques have become more widespread you may come across these for many tourist oriented sites and even estate agents selling more modest properties.

This technology was developed mainly for 360° x 180° panoramic photos and videos – that is all the way round and up and down. Although I have taken 360° photos, I also use this software for regular photos.

Using a full set of images taken over a period of time (example 3 is just 2 of them), these have been pulled together with virtual tour software. The software has many options for configuring the look of the tour and options within it. The difference is with the level of interactivity (Example 4a).

Example 4a: Tree through the four seasons.

In this configuration I show thumbnails that can be made visible or not. This means you can click on any thumbnail of your choice – you choose your way through the tour. Other options include the double arrow head symbols for progressing through the images in sequence. The single arrow plays the tour as a slide show. But a difference with this technique compared with slide shows are the + and - buttons for zooming in or out. When zoomed in you can pan around the photo as shown below (using the 10th image from the sequence - Example 4b)

Example 4b: Zoomed in view of the 10th image in the sequence.

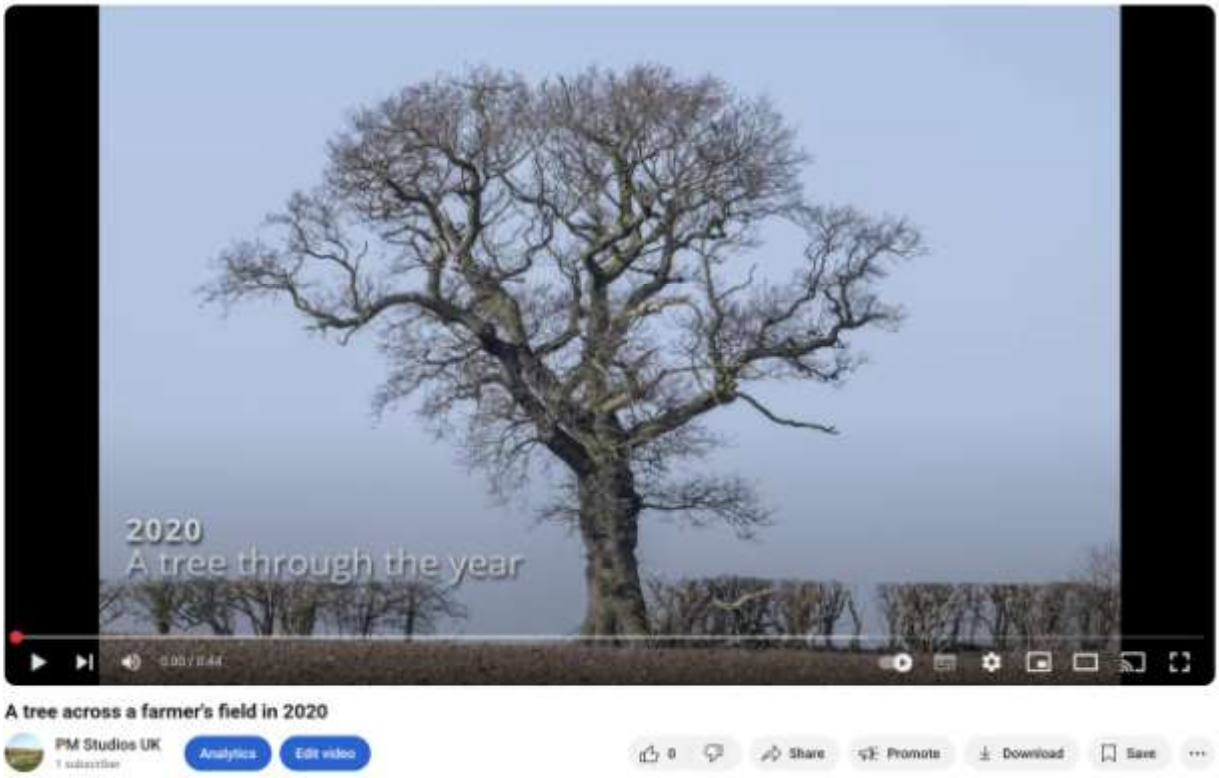
Normally you would not have spotted the pigeons in the tree. I am sure that this was not an intended use for this type of software.

This tour has no sound but soundtracks can be added if you prefer. I also prepared video versions of these sequences.

‘Transition Time Lapse’

I have processed the same set of images into a video sequence (Example 5). A traditional time lapse uses many (hundreds) of individual images to create a video which gives a speeded up version of reality. Although many of these are fine, you do not get time to examine the individual photos in the stream.

I like to use fewer images but keep them on screen for longer – a few seconds at least. This gives time to view and examine each photo. Yes, this is a bit like a slide show, but the subject doesn’t change, just the environment it sits in.



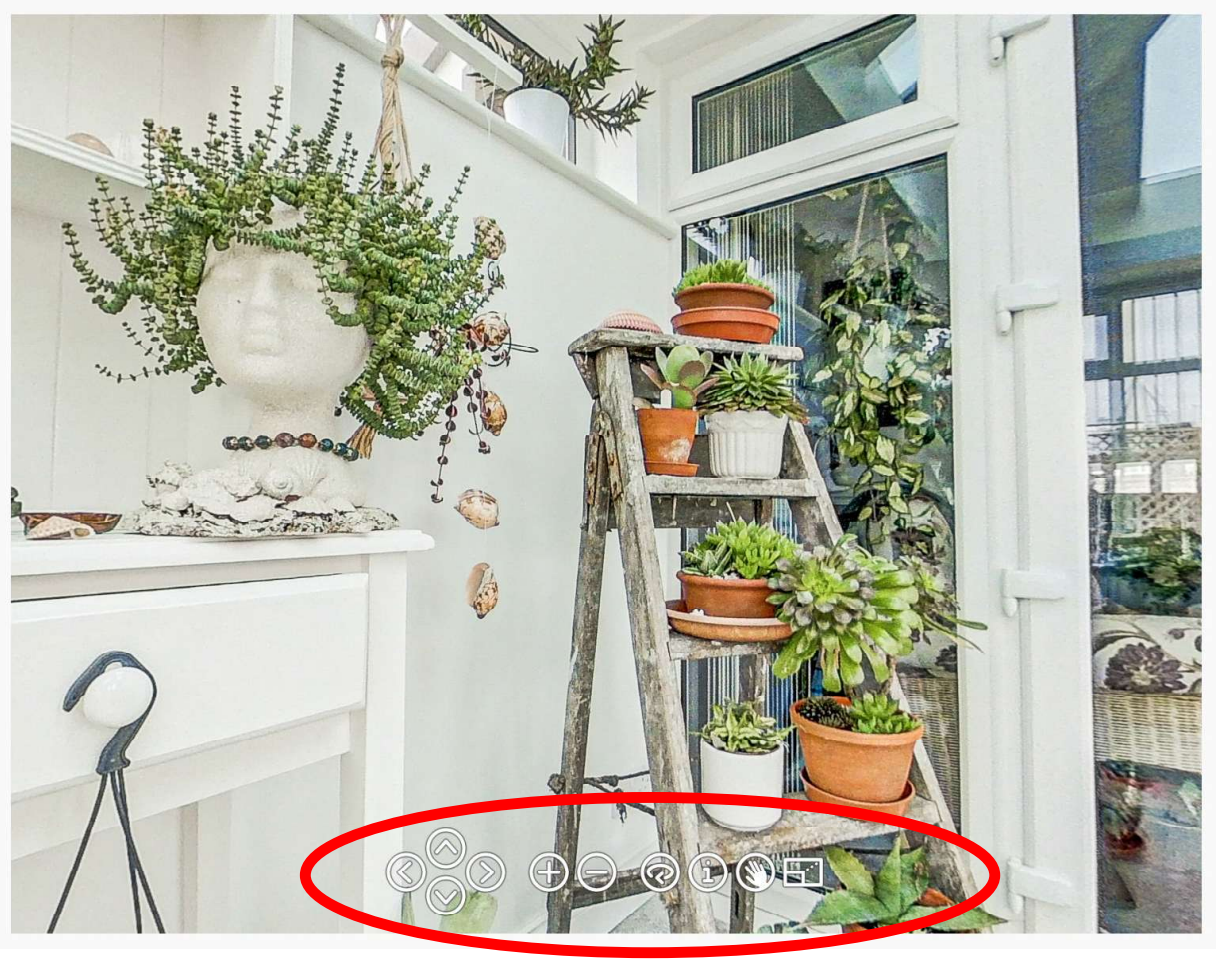
Example 5: https://www.youtube.com/watch?v=HBTTI5RzoCc

Showing Panoramic Views using Virtual Tour Software

I mentioned earlier that the virtual tour software was built mainly for 360°x180° panoramas. But there is nothing stopping it being used for a single image, be it a full 'sphere' panorama, a 'regular' 360° panorama (i.e. all the way round but not up or down), a partial panorama (i.e. an ultra wide 'letterbox' view) or, as shown above, photographs with normal aspect ratios.

Because I am using the virtual tour software, the interactive facilities of zooming in and out and panning around the view is still available. The first example is a full sphere (360° x 180°) panorama. This was taken using a bottom end 'sphere' or '360' camera (Example 6).

The control panel is at the bottom. The setting for this example is to start panning automatically. But you can stop and start manually pan (even to the extent of viewing the floor or ceiling), zoom in.



Example 6: Full 360° panorama

Zooming in

Zooming out

This next example is a 360° panorama but not full sphere. In fact it used 14 image segments that were taken with a compact camera on a home-made panoramic head, then stitched together with a software package.

Example 7: 360° panorama in conservatory

Note the right hand icon of the control panel at the bottom middle of the screen image. It sets the viewing to full screen mode which was used for these 2 screen shots. This enables a decent level of detail by zooming in.

Zoomed in

As this panorama wasn't a full 'sphere' image, the actual height of the panorama was used for the standard view, so zooming right out cannot be done.

If you are amazed at the number of houseplants in this view, I cheated! I carefully moved the plants around as I took each image segment just keeping those at the start and end in place.

Virtual tours

So far, I have shown the use of virtual tour software for anything but a tour. For this segment I will show some examples of using virtual tour software for virtual tours. But, again, my use doesn't seem to be a mainstream one.

Most of my use with virtual tours has been the result of my work as a volunteer photographer for Staffordshire Wildlife Trust for their 'Trent Valley' projects. The best place to see these tours is on their website:

https://www.thetrentvalley.org.uk/

with the tours being on this page:

https://www.thetrentvalley.org.uk/explore-the-area/virtual-tours/

This page shows both the interactive virtual tour and the video virtual walk

versions. These tours are not intended to be fantastic wildlife or landscape photographs but are produced with with three reasons in mind:

1. To show that the different reserves and landscapes have paths that may be followed. This could be to encourage people to visit these places full of nature.

2. To show the supporters of the Trust, some of whom are unable to get out, how it uses their support

3. To encourage people to take an active part in supporting or visiting their local natural areas.

To quote from their website:

"Explore the Transforming the Trent Valley scheme area through our virtual, self-guided walks. Each walk allows you to move around the landscape, explore 360° views, photo galleries, video, and sound. You can view our virtual walks on your smartphone, tablet, or smart TV. All you need is access to the internet and a digital device to view the walk."

So, let's take an example tour – Branston Leas (Example 8) which is a small reserve near Burton-on-Trent, sandwiched between the River Trent and a railway line. It is a circular walk and the tour comprises of a number of static images (videos can also be used within the tours) linked together via 'hotspots' – clickable links. This is a shot of the opening page.

Example 8: Home page of the Branston Leas virtual tour

This introductory screen has a lot on it so let's go through it one item at a time:

1. At the bottom is the control panel controlling the route through the tour. The bottom one on the left switches the map (6) on or off.
2. An information box specific to each page. The 'i' button in (1) switches this on or off.
3. An object specific information box is revealed. There can be several on a page.
4. A web link. This can be associated with an object.
5. This is a set of photo galleries created with the virtual tour software. On this tour images from other volunteer photographers are included.
6. The map of the location. The route is a red line. Along the line are some small black circles. Click on one of these and you jump to that spot.
7. This is a 'hotspot' for another photo – click on it to view.
8. This is a hotspot for the next view on the walk.

There is a lot more sophistication available. For example, not only can you have sound specific to a page but, as you rotate a panoramic view around the sound of an object can get louder as it comes into view then fade as it moves out. This article is only scratching the surface of the capabilities.

If you click on a gallery (G). You may get something like this (Example 9).

Example 9: View when clicking on G.

This is an image from a picture gallery. Notice it has similar controls to the main tour which lies darkened behind this photo.

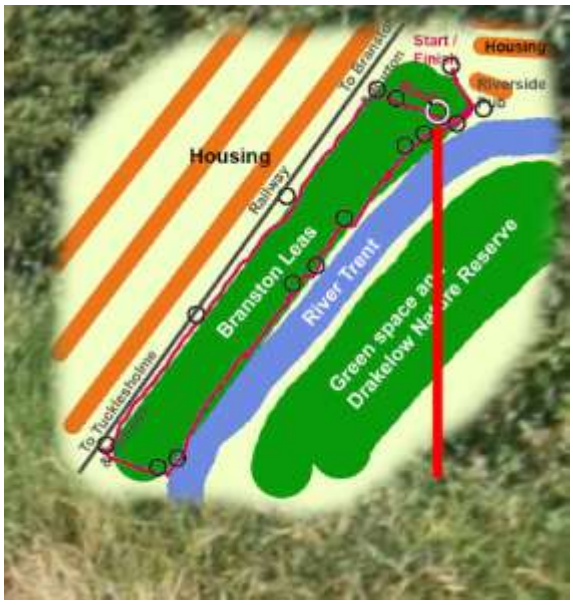
Back on the main page, if you hover the mouse pointer over the hotspot (8) you get a preview. Clicking on it moves to the first part of the walk (Example 10).

Example 10: Preview of the hotspot 8

On this page the thumbnails are enabled and by clicking on the i on the information board, further information pops up. This darkens the view to display the information.

This particular image is a full 360° x 180° view so I can pan around the full scene (Example 11).

In this view I have panned down bit so you can now see the hotspot to the next place, but the map is of particular interest.



The black circles can be clicked to jump to a particular place. This allows you to take your own route through the tour. But notice the thick red vertical line I have drawn leading you a white circle. This is the place where we are currently located.

I said earlier that there is a lot of sophistication available. Look carefully at the circle and it is broken by a small black segment: this shows the direction we are pointing. If I pan the image around to view the river, the black segment will move to that side of the circle. I admit this may be a bit too subtle for most viewers.

I will leave you to explore more at your leisure. I don't pretend to be an expert at using this software, but I can do what I want and I need to do. Just as with Photoshop, I don't use every facility there is and there is always more to learn, and help to learn it.

What else is there?

I make extensive use of photo albums to manage the photographs on my PC. These are viewed via a web browser. The software I use has a huge range of 'skins' (for the look of the album)and configuration options. One feature I do like is a search function. I have a small example on my website – this sits outside of the Wordpress environment. See:

https://www.pmstudios.co.uk/main-website-gallery/

The photos shown on the home page are a random selection from this gallery.

The virtual tour software that I use, Pano2VR, also has a version that looks at single objects (Object2VR). You may encounter this on shopping sites to view a product by spinning it around as if it were on a turntable. I have played with the trial version but I intend to try it out for something more adventurous.

Finally, there is one more system that I want to try (a winter project) – Photogrammetry – I don't know enough to be able to explain it well, but I have seen it on TV where it is used to build 3D models of archaeological sites.

If you know of other photography based interactive systems then feel free to contact me:

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Some technical notes

Comparison Sliders:

As with a lot of software, there are different options and techniques available. My choice was guided by the CMS (Content Management System) that I use for my website – Wordpress. I found a free plugin called 'Modern Comparison Slider' which makes the creation of the slider easy (assuming you have the two aligned images). All you do is to have a paragraph with [compare] in it. You then load the two images as you normally would in Wordpress, and finish with a paragraph using [/compare]. Note that square brackets [] are required. This plugin does have options to make some limited changes to the slider.

For testing on my PC I sometimes use some software called twentytwenty but this entails some web coding in HTML

Virtual Tour in Wordpress:

I hard code the tour into Wordpress (using the code editor). There is a Wordpress plugin called 'Garden Gnome Package' that I need to revisit, my first attempt failed! But this is typical of the code I currently use:

<iframe src="/vr/example-tours/F20B1494-2020-tree-thru-year/index.html" data-mce-fragment="1" width="800px" height="530px" frameborder="0"></iframe>

Full 360 panoramas:

For reference, this is the native 360° x 180° image that I used for Example 6 – technically it is an 'Equilateral' projection (similar to the Mercator maps of the world you saw at school) with an aspect ration of 2:1. Because of the stretching towards the top and bottom it makes the room look huge.

Standard 360° panoramas

The conservatory houseplant panorama for Example 7 was created using a DIY panorama head made for a compact camera, and by moving a small selection of plants around for each image segment. This is the full panorama.

Virtual tour software

There are several programs that are available, and a lot of resources to both choose and help you. I use Pano2VR which satisfies my needs. It is a European made package with the main support from a UK guy, so that is a bonus in my book!

https://ggnome.com/pano2vr/