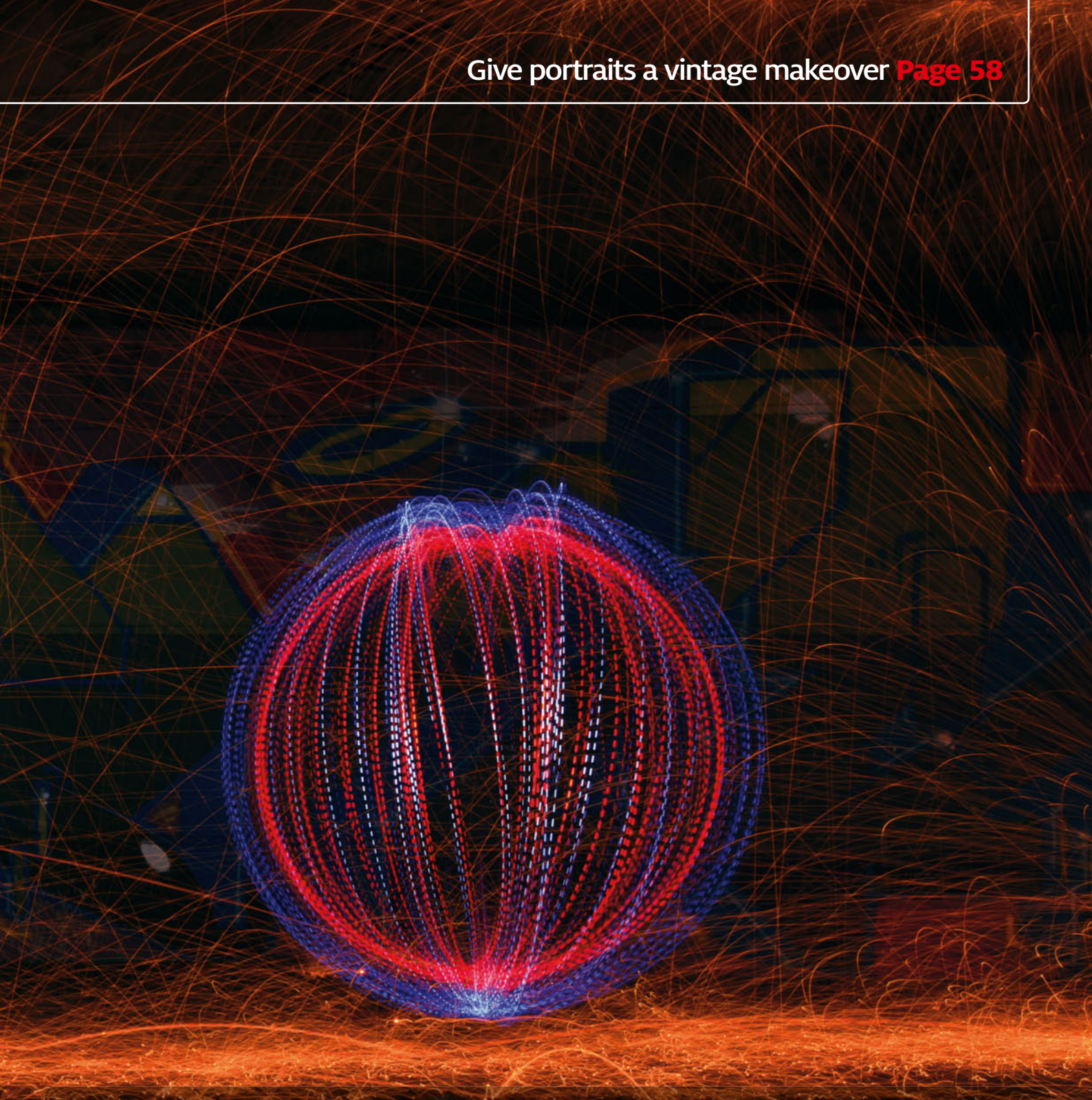
ON YOUR PhotoPlus VIDEO DISC

Your guide
Jeff Morgan

Discover the *PhotoPlus* method for...

Imaginative light painting

As evenings darken and nights get longer, kit yourself out with DIY gadgets and let your creativity run wild with long exposures and painting with light



The nights are drawing in, but that's good news for photographers like us – as there are lots of ways to capture great images after the sun has set. We'll help you get started in the creative, inventive sport of light painting – photographing moving light to build up an image on your sensor. It can range from simple hand-drawing with an LED torch, to creating sophisticated geometric patterns using a variety of homemade tools. In this area of photography you're limited only by your imagination! And one of the great things about light painting is that you don't need a fancy location, a spectacular sunset, or a long commute; just darkness. You could shoot in a garden, a back alley or a derelict building, but the further away from streetlights the better.

The 'tools' of this trade are fun too. You can use something as basic as an LED torch. But if you like a bit of DIY, you'll enjoy adapting implements for the job. Light painting is all about sharing ideas, working with friends, building and improvising, and modifying gadgets. The pound shop may even become your favourite haunt!

You can produce a light painting using just your Canon's self-timer. Or you could enlist the help of friends, relatives, or even pets – like the man who outfitted his dog with an LED overcoat and had him chase a ball, with spectacular results! There are thousands of images you can view online that will get your creative juices flowing – and half the fun is trying to figure out how an image was constructed in the first place so you can recreate it yourself!

I meet up with a couple of Flickr users (see page 80) who were happy to assist me for this Masterclass shoot. Here's how we all got on...

PhotoPlus Checklist

What you'll need
- Photoshop Elements 6 or above
- A selection of simple homemade light tools

How long it'll take
One dark evening

The skills you'll learn
- ✔ How to use a camera to record light trails
- ✔ How to convert simple lights into tools
- ✔ How to paint with light
- ✔ How to spin an orb
- ✔ How to make wire wool sparks
- ✔ How to create a dome
- ✔ How to process and combine these images

STEP BY STEP

Creating and capturing a light painting image

Mess with time by leaving trails of light on your sensor

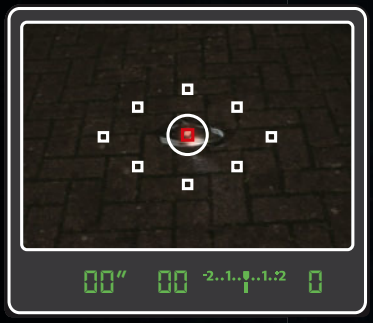
Kit and camera settings

1 Any D-SLR will do, and a standard kit lens is perfect for the job, but a tripod is essential. A remote release and hotshoe bubble level are helpful, too. Shoot in RAW and set ISO100 for best quality, and turn the exposure dial to Manual mode. An exposure of 30 secs should be sufficient for most light paintings, but for more complex creations, set the camera to Bulb and lock it open using the remote release. Aperture controls light brightness, so really bright LEDs or wire wool spinning work well at f/11, and normal LEDs at f/8 or f/5.6. Single Shot and Daylight White Balance round off the settings.

Ben – Conjures a wicked dome

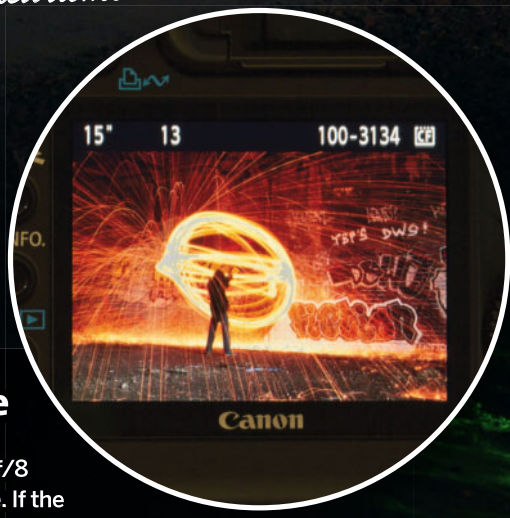
How to set up

2 Switch your torch or headlight on and place it on the ground where the action will take place – it's also a good idea to mark this position using chalk or a light-coloured stone. Zoom to the desired focal length to compose your image and autofocus on the torch using your camera's central sensor. Then switch the lens to MF (manual focus), being careful not to move the zoom or focus rings. Recompose the image and level your camera.



How to capture

3 Shoot a trial exposure at, say, f/8 and examine the image. If the light lines are overexposed and burnt out (use the Highlight Alert to check), close down the aperture and try again. If underexposed, open it up a bit. It's worth remembering that the brighter you record the light trails, the whiter they become. If you want a strong blue or red LED line, underexpose the image a little. If you're 'performing' yourself or don't have a remote release, set the self-timer.



Tools of the trade

5 One inventive aspect of light painting is making helpful gadgets out of everyday items. Torches, lamps, laser pointers, Christmas lights and decorations all provide good sources of light. Space blankets or water can be used for reflections. Dog leads, chain, ropes, bird feeders and plastic plumbing parts can be used to make spinners and light movers. Balls, bicycle wheels, roller skates and hula hoops have all been pressed into service. If it moves and you can attach a light to it, it's fair game.

Tony – Makes more sparks than Beelzebub

Myk – Spins fantastic orbs

Dress up time!

4 Wear dark clothes because any light objects may show up in the images. A dark hoodie works well and also protects from sparks – but be careful you don't scare the neighbours or local dog walkers! As long as you keep moving, you're less likely to show up in the final image. Just don't stand in front of the LED lights or in front of a light background. You can paint light on things with an LED torch, or shine it directly at the camera to draw lines. Tracing around an object or person works well, and strapping the light to an object that moves around can produce great trails or patterns. You can even hang it on a string. Lots of creativity here!

SOOC

6 An very important acronym within the light painting community is SOOC – Straight Out Of Camera – in other words, no Photoshop! Some purists even insist that only JPEG images count, since a RAW image can be modified extensively during processing. But while learning the ropes, some very creative images can be built up in layers, which is especially useful when making more complex images – and that's what we'll show you over the page. However, we managed to create the image, below, in true SOOC style! ▶

Green laser pen diffracted through crystal drinking glass

PhotoPlus Phrase Book

Light painting

Technically speaking, light painting is as simple as shining a torch over something that's dark. It doesn't have to be a torch though – any source of light will do. Some photographers simply walk around during a long exposure and manually pop off a flash gun. For example, you can light the inside and outside of an old shelter by firing a flash through different coloured filters. The green light you can see in the foreground of our main images was created by shining a green laser pen/pointer through a moulded plastic glass, ensuring the light kept moving throughout the exposure.

PhotoPlus Super Tip!

"For the dome, start with the wheel facing away from the camera, put the lights on and begin your exposure. Rotate the wheel one turn around the axle on the ground, taking care not to move it, then switch off the lights again when it is facing away from the camera. Now walk away, taking the wheel with you, and close the shutter. It's best if you wear dark clothes and keep moving. Done!"

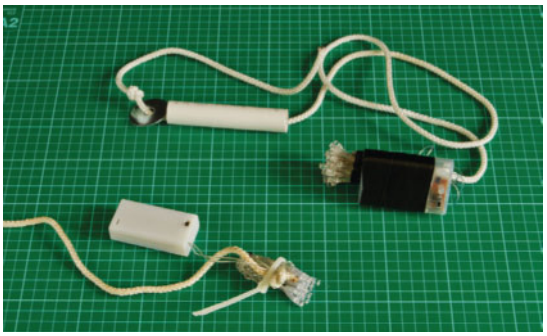
STEP BY STEP Build your own light painting kit

The tools of the trade!

1 To create amazing lighting effects, a little DIY is required. For the orb, you'll need a set of battery-powered LED fairy lights, electrical tape and cable ties, nylon rope, an off-cut plumbing tube to use as a handle, and a large washer. To create sparks, get a chain dog lead, a wire whisk, a handle (such as a cut-down paint roller handle) and some wire wool. The dome requires an old wheel, an elongated axle, and some more LEDs.

Make some sparks!

3 Creating an awesome shower of sparks is also a relatively simple procedure. Cut the dog lead chain in the centre with a hacksaw. Clip the kitchen whisk to the end of the dog lead, and cable tie or tape the other end of the lead to the handle – securely and strongly! Stuff the whisk with super-fine 0000 grade steel wool. See Video Disc and Super Tip! for more information on this technique.



Create a floating orb

2 The set-up for an orb is straightforward. Cable tie the LEDs into a bundle with the knotted rope in the centre. Insert batteries and test. Cable tie and/or tape the battery pack to the bundle, but don't cover the switch. Measure a comfortable rope length, about one metre, and thread this through the pipe and washer. Then tie a knot in the rope so its length is adjustable. Alternatively, tape the rope to a wooden dowel. See the Video Disc and Super Tip! for more on this technique.

Build a dome of light

4 Domes require a little more DIY construction, but results can be spectacular! You need a wheel – an old bicycle wheel is ideal as the slender spokes help with the illusion – set on an axle the same length as the wheel's radius (so when resting on it the wheel slants at 45 degrees, with the top rim directly over the axle). Use a string of 10 or 20 LED fairy lights equally spaced around the circumference of the wheel, facing up and out. Secure them with cable ties or electrical tape.

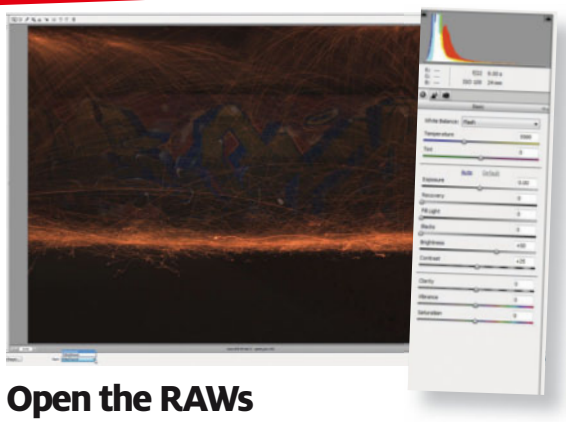
See the light and join a group

Getting together with others makes for great light painting

For this Masterclass, we enlisted the help of the Bristol Light Painters Flickr group, founded by Myk Garton and aided father-and-son team Tony Cullen and 17-year-old A-level photography student Ben. Light painters love to collaborate and encourage others in the pursuit of a perfect image, and the group is very active, so if you see strange goings-on in Bristol's darkest corners, you'll know who to blame! Take a look at these stunning light paintings produced by the members of the group that helped with our Masterclass.

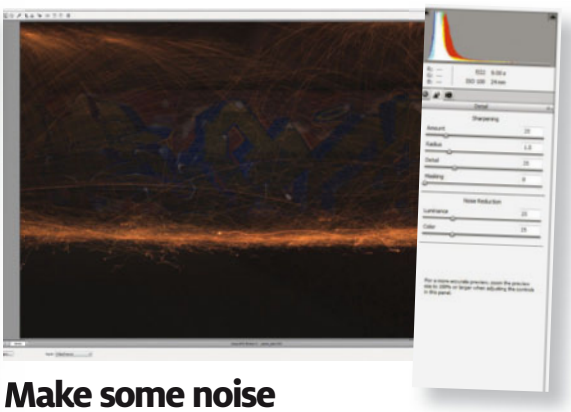
Download start images at: http://downloads.photoplusmag.com/54_10.zip

STEP BY STEP Blend light painting techniques



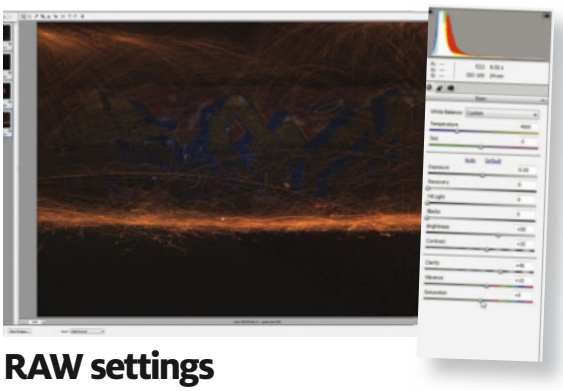
Open the RAWs

1 Go to File>Open and navigate to the start files. Click on the first one, then hold the Ctrl key and click in turn on the other three to select them all. Click Open, and all four files will open in Adobe Camera Raw. On the left of the screen, click on Paint4_start.CR2 and then click Select All. Now, at the bottom of the screen, set Depth to 8 Bits/Channel.



Make some noise

3 Select the second tab, Detail. Next, set the Luminance and Colour Noise Reduction both to 25, as we were making quite long exposures and want to avoid a build-up of noise when we stack them. Now click Open Images. We're going to drag all the images into one image on top of paint1_start, with paint4_start on the top of the stack.



RAW settings

2 Set Temperature to 4500 and Tint to -5, in order to prevent the images from being too warm now that the sun has gone down. Next, set Exposure, Recovery, Fill Light and Blacks all to 0. Because we're going to combine the highlights from each of these images, we don't wish to brighten up the midtones or shadows. Ensure that Brightness is at +50 and Contrast at +35. Now set Clarity to +40, Vibrance to +15 and Saturation to +5 as we want the finished result to be sharp and colourful.

Layer the stack

4 Click on the tab of image two with the Move tool, then click and hold it in the image. Drag it up to tab one and hover. When the image changes to image one, drag it back down into the image and, holding the Shift key, drop image two. Repeat with images three and four. Image four should now be on the top layer. Set the Blending Mode to Lighten and the Opacity to 80%. Click on layer two and set the Blending Mode to Lighten, then repeat this step for layer one. Go to Layer>Flatten Image, save the image and you're done. ■

Tony Cullen

Myk Garton

PhotoPlus Super Tip!

To spin an orb, first mark a spot on the ground; the aim is to spin lights while keeping them directly over that spot as you rotate around it. Stand a comfortable distance away from it with your shoulder at 90 degrees to the camera. Now walk around the spot in a circle keeping the lights spinning over the centre. In fact, you only rotate 180 degrees – half the circle – so you end up with your other shoulder facing the camera. Move slowly as the aim is to take about 30 seconds to complete a half circle. If a friend is helping, use Bulb mode to adjust the exposure time to match your rotation.

PhotoPlus Super Tip!

For the spinner, pack wire wool lightly into a whisk. It'll send sparks all over the place, so wear a hood and old clothes. Choose a location with a low fire risk – outside over wet grass is good. You can ignite steel wool by stroking it with a 9 volt battery, but it's faster to give it a squirt of WD40 near your camera, then leave the spray can there. Now move into position, light the wool and spin quickly!