

1 Taking Good Photographs in a Church – solving photography problems

LIGHTING

Use daylight (and different times of day) to your advantage. Flash is rarely best (see below) as you will generally get much better results using ambient light and a long exposure. Usually, long exposures of 30 seconds or more are satisfactory. Digital sensors are remarkable in absorbing light and producing good results in situations which to the eye appear poorly lit.

Using Daylight

- On digital cameras, keep the ISO setting low (no higher than 200, unless using a semi-professional camera)
- Use a tripod
- If you don't have a cable or electronic shutter release, use the camera's self-timer to avoid camera shake.

Artificial lighting

Where needed, continuous lighting (additional light onto the subject, is usually more satisfactory. The objectives are true colour with minimum shadow and moderate contrast. The lights in churches are usually tungsten filament (yellow cast), fluorescent (varies, but often a pink/mauve cast) or metal halide (pinkish cast) and are usually inadequate. A camera with white balance set correctly will mitigate the colour cast to some extent.

Mixed types of lighting confuse the camera's colour balance facility.

500–1000w halogen lights (sold as builders' or house outside lights, sometimes with a stand included) are cheap and have been used successfully, especially if used with a reflector (e.g. a large sheet of white polystyrene or sheet stretched over a home made frame). The colour cast is slightly yellow. But, filament lights (including halogen) are being phased out from 2016. LED lights will replace them. They can be too cold (blue). Basic lamps are often 2,700 Kelvin. About 5,600 Kelvin is the best temperature for routine photography. Roughly, a 65w LED is equivalent to 600w filament lamp.

Diffusion by sheeting or bouncing the light reduces shadows and softens the contrast.

Flash

The problems with flash are bright reflection hotspots and too much shadow. On-camera flash is usually the least satisfactory type. Off-camera flash is better, but it is not, unless of advanced TTL type, easy to use without a flash exposure meter. To avoid excessive reflection, light needs to strike the object you are photographing at an oblique angle rather than head-on. Using oblique or even raking light will give objects more depth and help to bring out relief in stonework and lettering on worn memorials. Here are some ideas:

- you can use a reflector (e.g. creased kitchen foil stuck on a piece of cardboard) to bounce light into dark places;
- you can take your flashgun off your camera and fire it manually from a more helpful angle while the shutter is open for a long exposure. (To get a long enough exposure, close down the aperture and use the lowest ISO setting. You can increase the exposure still more if your camera has a neutral density filter option);
- If you haven't got a separate flashgun, then use the built-in flash on any other camera and fire it from the angle you want while the shutter on your own camera is open;
- If no external flash or reflector is available, you can simply paint in light with a torch while the shutter is open – an LED torch is best for this as the light is closer in colour to daylight than the yellow/orange light from a tungsten bulb.

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SILVER

- Basic light tents and cubes can be bought for £10-£30. For reflecting silver a tent or cube is essential.
- Light from both sides outside the tent/cube. Diffused light is best.
- The object is placed on a seamless white background. If the object is placed on a support, run the seamless material over the support and up behind the object. Velcro stickers (obtainable from stationers) can be useful.
- Even when pushing the lens through a slit in the front sheet of a tent, there is a tendency to catch a black reflection of the lens. To minimise camera/photographer reflection difficulties use through the lens viewing and take the picture slightly upwards or downwards to avoid being square onto the reflective surface. Sometimes a camera with a small lens causes less reflection.
- Photographs of silver in a Record may be greyscale (black and white) or colour. Do not mix greyscale and colour pictures of silver in a Record – they should be all greyscale or all colour. Greyscale is often better.

EXPOSURE

If using automatic exposure metering when photographing silver or anything else against a white background, set your camera to overexpose by up to two stops to ensure a clean white background. The converse is true if using a dark background (e.g. when photographing brass): set to underexpose by up to two stops, to obtain a deep background.

WINDOWS should be photographed on an overcast day to accommodate the amount of contrast in the clear and deep colour areas. There are two ways to optimise the exposure.

- if you have a spot meter option on your camera, set the light metering to spot and meter a mid tone area of the glass (e.g. greys, mid blues and greens).
- if you have an exposure lock, compose the shot of the whole window using a tripod. Take the camera off the tripod and move nearer to the glass. Without changing the zoom setting, fill the frame with a mid tone area and lock the exposure. Then return the camera to the tripod and take the photo, having checked that the window is still in focus.

It is important to show the tracery in the stonework as well as the detail and colour in the glass. For this you will usually need supplementary lighting.

- With tungsten or halogen lighting, try your camera colour balance settings, but if this doesn't work the light will require a blue filter to preserve reasonable colour balance between daylight and artificial light. Lee Filters sheets of a blue gel (165 Daylight Blue) (5,700kelvin) which, if hung by some method far enough in front of the lamp not to melt, create a reasonable simulation of daylight and avoid the stonework appearing with a strong yellow colour cast in the photograph.
- Sometimes it is necessary to take two photographs, one exposed to show the glass and the other, normally with the use of artificial lighting, exposed for the stonework.

CONVERGING VERTICALS:

Many church items present a problem with straight lines and right angles. Architectural photographers can use expensive 'tilt and shift' lenses to overcome converging verticals, and some software can apply perspective corrections in digital images (keystone distortion). However, the human eye accepts this perspective as quite natural when tall objects are photographed from a natural viewpoint e.g. below a high window. Go back as far as your lens will comfortably allow, and keep square to the centre line of the window. Ensure the bottom line of the window is parallel to the bottom of your viewfinder. Unless you have specialised equipment or software, there is no need to do anything further about it.

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However, in the case of **SQUARE OR RECTANGULAR OBJECTS** (e.g. pictures in frames) normally seen at about eye-level, the eye is less tolerant of such distortions, especially when the edge of the object lies close to the border of a photograph. To reduce such distortions and visual distractions to the minimum when photographing rectangular objects, check that you have aligned your camera as nearly as possible in the centre (vertically and horizontally) of the object and make sure that your camera is level (not tilting to left or right). In the case of floor tiles, find a way to mount your camera vertically above the tiles. If your tripod will not do this, perhaps the tripod can be laid horizontally on a table or a stepladder.

VIEWPOINT:

When photographing furniture, especially tables, chairs, desks etc, it is usually better to avoid a dead-square viewpoint of one side or end. Photographing from an angle and somewhat above will show important features of the carvings, mouldings, stretchers, feet etc. Check with the relevant member of your team if there are key features to be brought out.

WORKING AT HEIGHT:

If it is necessary to stand on something or to use a stepladder to gain a better view, you must have someone with you to help and to hold things steady. Balancing a camera support or tripod on a stepladder can be precarious. Don't take risks and use 2 stepladders if it would be safer. Camera clamps for fastening cameras to ladders can be bought for £20.

PROBLEM SOLVING:

Much of the enjoyment in church recording photography comes from solving practical problems, of lighting, of access and angle. The solutions often require lateral thinking and ingenuity in the use of accessible aids and unconventional materials – but rarely the use of expensive equipment. So we hope you derive pleasure and satisfaction from finding your own solutions to the challenges presented by the churches you are working on.

IN BRIEF:

1. Set picture size to 5MP (megapixels) or higher
2. Set ISO to 100 to 200
3. Turn off Image stabilisation (camera shake)
4. Do not use on-camera flash
5. Use a tripod