Photography for sculptors

Photography is an overlooked area for the artist, especially sculptors. It is important to have good quality images for social media, your website and for making submissions to exhibitions, galleries or magazines. Some artists use mobiles to record their work, but if time is taken to achieve a good photograph it can better showcase your work. A poor image may be laid aside, whereas a good image can sell your sculpture. Once a sculpture leaves your possession the opportunity to capture a good image for future use is gone.

I am not a professional photographer so cannot give you highly technical knowledge or the science of photography but here are some things I have learned that I can share with you to achieve semi-professional images.

One of the biggest issues I experienced as a curator was receiving poor quality photographs from artist's submissions. The submitted images were often over exposed, out of focus, badly lit, the wrong size or too harshly cropped. Exhibitions need to be sent good quality high-resolution images not only to be assessed for acceptance, but also to be posted online or printed in their catalogues.

Defining the resolution of an image

A basic understanding of resolution will help you make decisions, including the type of camera to use, through to the editing and the emailing of the final images.

There are two different types of resolution; *online* resolution which is measured in PPI (pixels per inch) and *print* resolution which is measured in DPI (dots per inch), but the two units are used interchangeably.

- Online screen resolution
    - Made from Pixels or small squares of colour.
    - Measured in Pixels per inch or PPI
    - The optimal resolution for images on screen is 72 PPI
    - Higher PPI won't improve the image, but it will grow in size.
    - For example, no matter what the size of the image online it is always 72 PPI

- Print resolution
    - Made from dots of ink on a page
    - Measured in dots per inch or DPI

- The best resolution for a high-resolution image is 300dpi (the image will be 300dpi(width) x 300dpi (length) or 9000dots)

- For example, to achieve an 8'' x 10'' printed image at 300dpi it would need to be 8 x 300dpi x 10 x 300dpi = 2400 x 3000 DPI which is 7,200,000 DPI or 7.2MP

Using a camera that is at least 12MP and using your camera on a high-resolution setting should give you a high-quality image which can be saved. This can be then resized on your computer to email to exhibitions. The resizing facility on a computer is found by clicking on the three dots at the top of your image which will normally give you four options. The best option is the second which will say *best for emails and messages 2MB*. Ideally around 1MB is ideal but sending images which are a little larger is probably wise as every time a JPEG format image is re- saved, information is lost, and the image degrades. If an image is resized to the smaller *thumbnail* option there will be insufficient data to have a good image for any kind of publicity. For a poster or article in a magazine, the resolution will need to be much higher, but the graphic designer will let you know the required resolution and probably ask you to send the image via something like Wetransfer.

Setting up a photo booth

In my pursuit of a better photographic image, I have been on a journey involving a great deal of trial and error. This is particularly the case with the equipment I use. Here are my recommendations but it is by no means prescriptive or exhaustive as I am still learning new things.

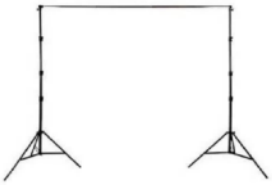
Photographic equipment

- Camera
- Camera tripod
- A backdrop
- Support system (to suspend the backdrop)
- Table
- Lights – Flat LED Light, Spiral Florescent Bulb
- White reflective boards

Camera 

Tripod 

Vinyl backdrop 

Support system 

Soft box light 

Light with umbrella 

Outdoor LED Light 

Spiral Light 5600K 

- **Camera**

  For a more professional image I have a DSLR (digital single-lens reflex) camera, rather than a compact digital camera. The DSLR will have a higher quality image and the colours will look more natural. My camera was one of the cheapest DSLR cameras

and came with a 18mm-55mm zoom lens which saves moving the camera to and from the piece. I would not recommend a wide angled lens as they can cause distortion. The more expensive camera lenses have better quality glass, and consequently a sharper image. The iPhone lens is as good as DSLR but does not have the versatility of manual control to adjust the exposure and depth of field. Another criterion for camera selection is the level of mega pixels (the number of dots on an image) which is recommended to be at least 12MP for detailed artworks. My camera is 24MP. You can buy cheaper refurbished cameras with higher specifications. www.dpreview.com gives exhaustive reviews on all cameras.

- **Camera tripod**

  Keeping the camera still is essential, as no amount of digital editing resolves a picture when it is out of focus. If you get even the slightest shake whilst taking a shot it will result in the loss of image definition. You can check for the level of definition by zooming in on the camera image, to check the finer details are in focus. You can get tripods for phones or cameras. They are usually height adjustable with telescopic legs and have extendable necks. Tripods with a spirit level are useful to check the camera is level. Another way to dispel shake in addition to a tripod is a remote control.

- **Backdrop**

  Photographs with visually noisy backgrounds of different colours and shapes distract attention from, and compete with, your sculpture. A full plain backdrop with no interference is the best way to focus attention onto your piece. This is one of the drawbacks of taking outdoor photographs of sculptures as they can have busy foliage as backgrounds. For larger outdoor sculptures there may be no other option than to take photographs where you exhibit.

  The advantage of taking photographs indoors is having more control over all the factors such as background and light. However, I have spent hours with sheets, white card and black felt backdrops with natural sunlight and flash photography (not recommended). The drawback of using card is the visible shady vertices and for sheets that they invariably fold or crease. I then managed to take my images against a long wall painted matt white in the café next to my workshop. But to get a more professional result I decided to invest in a simple flat screen of one colour.

  I purchased a vinyl screen which was wide and high enough to achieve full coverage with no interference. I draped it from about 1.5m high, over a table and then under

the sculpture giving a seamless and consistent backdrop to the floor (see figure below). The first screen I purchased was 2m wide to ensure I had enough background coverage. However, it was too wide and over hung the width of my table and creased badly. So, I bought a more manageable narrower roll (1.5m wide) which was more easily supported by the table and still gave full coverage to my background when I looked through the lens. I have found it is best if the vinyl comes attached to a steel roll to keep it flat in storage. The steel roll is quite heavy so needs a support system. The vinyl can be wiped clean with a damp cloth. I stick leather patch underneath the base of the artwork to prevent the vinyl being scratched when I rotate the sculpture. But I am due to invest in a turntable, so I don't have to move it once it is in place.

Some vinyl screens were reversable with white on one side and pale grey on the other. The grey backdrop complemented the warmer coloured sculptures, but I use the white backdrop where I can in order to offer the most light for the camera. It helps if the background isn't the same colour as the sculpture, so it doesn't blend in and disappear.

- **Support system**

  A support system is a collection of poles which fit together to make a crossbar which rests on two telescopic stands. The detachable cross bar threads through the steel roll of vinyl and then rests on the top of the stands.

  The cross bars are usually adjustable in length. Make sure your cross bar is long enough to support your backdrop. The telescopic legs of the stands need to be tall enough to frame the top of your sculpture and cover the area above your sculpture when looking through the lens.

- **Table**

  The vinyl back drop hangs from the crossbar and should drop low enough to drape over the table on which I set the sculpture and then reach the floor to conceal the table legs. The sculpture is set on a table at the same height as the camera on the tripod. Having the sculpture elevated means no more lying on the floor on your belly to get an eye level shot. The further away the backdrop is from the sculpture table, the better, as the curve of the vinyl will be more gradual. This means that you'll be less likely to have shadows on your backdrop and is why working in a small space is not ideal. Where the sculpture is heavy and it is fixed to a plinth there is no need for a table and the backdrop simply hangs straight down from the cross bar.

- **Lighting**

Ideally indirect natural midday light is most desirable as cool or warm lighting will affect the colour of your sculpture. Unfortunately, direct sunlight can cause glare, over exposure and deep shadows. Therefore, photography outdoors is best when the cloud cover is moderate and consistent. But as the weather is so unpredictable, the controlled environment of a studio can often save time.

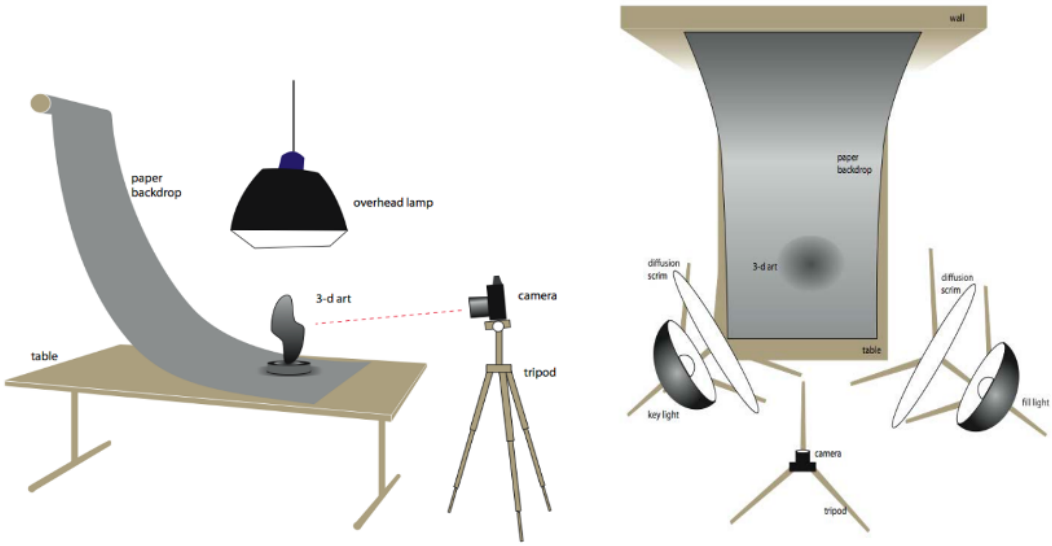
The best light is natural (ambient) indirect light. Whilst indoors, overhead skylights are good for indirect sunlight and preferably in a room painted white. However, we can give the impression of daylight with artificial lighting. Photographic lights come in different temperatures ranging from warm light to cool light. The temperature or colour of the light is measured in a unit called Kelvin (K). Light equivalent to the midday sun, which is what we are aiming for, is 5600K. My spiral florescent light bulbs are 5500K. Warmer yellow lights are less than 5000K and cooler blue lights are more than 6000K. The cooler and warmer lights will not give a true representation of the colour of your sculpture; therefore, it is best to aim for midday white light. A flash will be about 5600k but is not recommended as, like direct sunlight, it causes glare, over exposure and deep shadows.

To soften harsh bright photographic lights, we can use a scrim. This is a piece of fabric or paper which can be placed between the light and the sculpture to soften the light. Commercial scrims come in the form of soft boxes or umbrellas. I use fabric photography umbrellas and grease proof paper.

When setting up, it is best to begin with the initial key light to get a focus on your sculpture. Acting as a top light, I begin with an outdoor LED light attached to the ceiling (with heavy duty Velcro) and cover it with greaseproof paper to soften the glare. This light needs to be set directly above the sculpture and high enough not to cause deep shadows. Then add the lights one at a time. The first key light will need to be accompanied with a side light to reduce aggressive shadows. To create bidirectional light, I have two spiral lights with umbrellas to reduce shadows on the left-hand and right-hand side of the sculpture. Finally, if you have used all your light sources and your sculpture still needs extra light, one can use a reflective board to gently light the remaining shadows and act as another light source.

To create more mood lighting one can use light positioned more to the rear of the sculpture or unidirectional light.

When you have had a successful shoot, make a note or take a mobile picture of where the lights were placed.



Taking a photograph

- The sculpture

  Before taking photographs, your sculpture should be finished to the highest quality as every scratch, speck of dust and imperfection will be magnified in the images. I usually keep a clean brush, damp cloth, duster, almond oil, and renaissance wax on hand to touch up things I find when looking through the lens.

- Positioning the camera

  Make sure your camera is square on and level to your sculpture. Try to have an equal proportion of background around your piece with your sculpture at the centre.

- Settings on your camera

  - Menu settings

    Make sure your camera is set on ‘high resolution’ to get the maximum number of pixels in your image. You can always reduce the size of the image with editing, but one can never increase them.

  - Focus

    I prefer the ‘manual’ (M) focus setting rather than ‘automatic’ (A) so I can adjust the exposure and choose where I set the focus. Fix one of the red focus dots to where you want the focus point to be and then focus the lens. My camera bleeps when the shot is in focus. This is one reason why I believe our

mobile phones are inadequate as you have little or no control over the exposure and focus.

A problem with smooth finishes on sculptures is getting a point of focus. I usually find a shadow or flaw in the stone to fix onto. If this doesn't work a photographer recommended holding a piece of card on top of the sculpture to get a lock on the piece.

- Exposure

  The camera's exposure is the amount of light that reaches your cameras sensor so it can record the image. An over exposed image is too light and under exposure it is too dark. The exposure setting is usually at the bottom of the view finder. I generally keep the exposure setting at zero, and then experiment with -ve and +ve settings for different effects.

- Angle of the shoot

  The table allows shots from lower down looking upwards, for a more imposing perspective. To achieve a spread of shots at different angles I rotate the sculpture a quarter turn until I am back where I started. At each turn take shots from lower down, straight on and then above.

- Interest shots

  Close ups shots catch those interesting details, particular textures, and unusual viewpoints for example through gaps in the sculpture.

- Image selection and Editing

  To help decide which images are the best I sort the images into folders with headings like right hand side shots, front shots, left hand side, those from behind and close ups. I choose the best couple of shots from each and store them into a file of the best shots. The best images can then be enhanced using editing features on your computer (e.g brightness, contrast, exposure, shadows). I adjust the features to get as much light as possible without overexposing or losing detail and natural colour. Make sure you leave enough space around the image of the sculpture in the photograph so it can be cropped into either a portrait or landscape arrangement so a graphic designer can adjust it to fit the page of a catalogue or web page.

No one knows a sculpture better than the artist who made it. We know its good points and bad. Often a professional photographer may take a great shot but not get the image you had in mind. So, working at your photography technique will pay off eventually.