

# Portrait Photography

## Art and Techniques

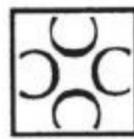
Saraya Cortaville



# Portrait Photography

Art and Techniques

Saraya Cortaville



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# **Dedication**

To my beautiful Rosie who inspired me to take images

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**Jasmine.**

Image taken in the studio. Leaf Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70mm lens.

## Introduction

**W**ith the introduction and ongoing development of digital photography equipment, the medium of photography has become far more accessible and tangible to the wider public. For many amateurs and semi-professionals cameras and technology that effectively do the thinking have taken away the control of constructing a well-composed, crafted and considered image, with the artistic and creative process being overshadowed by gimmicks, plug-ins and effects. However, photographers wishing to progress beyond 'program' mode, where the camera makes the choices when producing the image, would be advised to learn the tried and tested rules and tools employed by photographers from film and high-end digital photography if they wish to develop and progress their work and ultimately take control of their image making.

With this in-depth guide to portrait photography the photographer will be taken through the basic rules of portraiture, with the emphasis on getting it right in-camera and learning to use the camera as a tool for image making rather than relying on presets and modes to create the final photograph.

Every aspect of the art form will be discussed, from cameras and lenses through to the final print, and all the various stages in between. For the professional

photographer there is informative advice on how to get the best from your clients, including how to communicate effectively and how to pose your subject sympathetically to create successful and meaningful images. Overall the intention is to Introduction give the reader a deeper knowledge of portraiture, enabling a more considered and informed mind when producing images.

**In response to the quip at a dinner party from a woman down-scaling the skill associated with making photographs: ‘But Jack, anyone can take a photograph!’ Yes you are correct, but only some people can make a camera sing and dance.**

— Jack Picone

Each chapter has a main focus, giving accurate up-to-date information for each area of portraiture, and structured so the photographer can choose to read relevant subsections or the chapter as a whole. Some of the information within the book is relevant to other areas of photography as well as portrait photography, and over time the reader will be ready to move towards the more advanced tips and techniques within each chapter.

For those who wish to proceed onto more complex ideas or equipment each chapter offers a Masterclass to help the reader to experiment and push the boundaries of lighting and creativity to find a personal style in their own portraiture. The Masterclass sections are intended to inspire the reader to use the camera and the light more and more creatively, pushing the boundaries and breaking the rules;

these are the photographers that will make the camera ‘sing and dance’ rather than just take photographs.

You have within this volume all the information and advice needed to produce stunning high-quality and meaningful portraits of your clients and to approach a portrait shoot with confidence.

## **CHAPTER BY CHAPTER...**

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The guide is set out in chronological order, as a photographer would approach a shoot, from the initial contact with the client right through to post production and printing of the final piece.

### **1 The Photographer**

It is often said that it is the photographer, not the camera, that takes the image. The first chapter discusses the necessary qualities and abilities needed to become a successful portrait photographer, paying particular attention to the need for professionalism and developing the vital communication skills. The central task is how to create the right impression and deliver to the subject’s expectations so that they become long-term clients.

The Masterclass in this chapter is designed to encourage the photographer to develop a unique style and way of working so that they may set their work apart from other portrait photographers.

## 2 The Camera

Starting with the camera set-up, this chapter explains the correct settings to use for your camera in manual mode, and why doing so will enable you to be in complete control of the outcome of your photography. We will concentrate on using the camera and equipment correctly to obtain the best results from the portrait sittings.

Camera file formats such as RAW, TIFF and JPEG are explained in depth, along with how best to use these formats to record and store photographic images and the reasons why. Thorough explanations of ISO (film sensitivity), shutter speeds and the aperture settings will enable the photographer to understand the basics of light entering the camera and how each variable can affect the outcome of the image.

Appropriate uses of lenses will be covered in general terms and then followed with more specific direction as to the correct choices when taking portraiture images; this section will also cover the pros and cons of zoom lenses and prime lenses. This is followed by discussion of depth of field and what it means, and how understanding the term can create more meaningful portraiture, by developing a perspective and more considered focal point of the image. There is guidance on how the photographer is able to utilize the various focus techniques in camera to highlight the primary points of the image, with details on the methods available and how each should be employed. In-camera light metering will also be covered with the variety of systems available to the photographer and the lighting situations where they can be used effectively.

The Masterclass will go into more depth about the relationship between ISO, *f*-stops and shutter speeds and how they can be used together to create different styles of images.

### **3 The Client**

The various aspects of managing clients are covered here. Posing of clients of all ages will be discussed from pregnancy portraits through to large family groupings, with an in-depth examination of how to connect with them and draw the best results from each studio sitting. The guide emphasizes the use of eye contact and constant communication with the subject, which are critical when conducting a shoot to put the client at ease and to create a relaxed atmosphere. Tried and tested tricks and tips for each age group will be given with some examples of solid saleable images (hotshots) for each.

The general dos and don'ts of posing are explained, with common mistakes and bad practices highlighted, with particular emphasis on the reasons why certain poses should be avoided. The use of poses that are particularly good for feminine or masculine subjects is explained and the reasons why they are used to distinguish gender, with a posing guide for each. The importance of how to pose the subject's hands correctly is discussed in detail with explanations of certain hand gestures and placements and their connotations within portraiture.

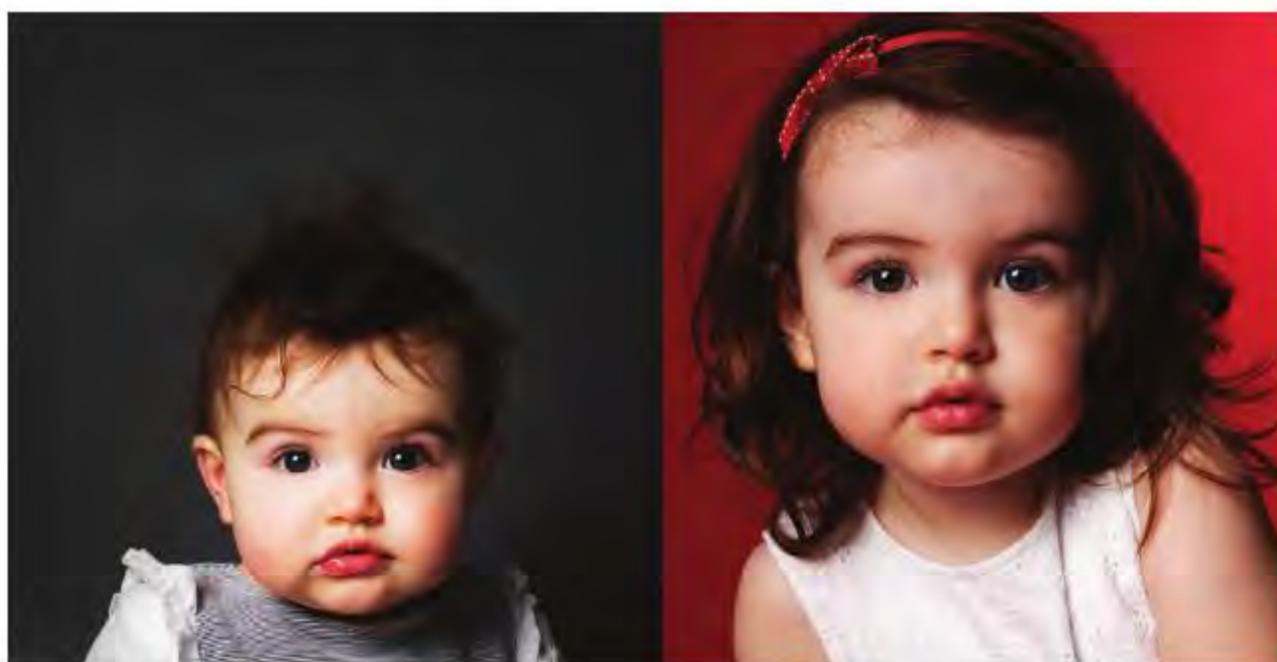
The Masterclass will cover body language and how the photographer can utilize the reading of the body to get the most success from the client.



**Fig. 0.1**

Knowing how to draw expressions from all ages is a true skill. Getting the best results from each client should be the priority of the portrait photographer.

Image taken in the studio. Smoke Gray Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.



### **Fig. 0.2**

Developing a strong client relationship will ensure that they return again and again. One of the great pleasures of being a portrait photographer is to watch the babies and children grow over the years.

Image taken in the studio. Smoke Gray and Poppy Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## **4 In the Studio**

Mastering studio lighting and accessories is vital in enabling you to shape and bring depth to your portraits in the studio environment. In this chapter you will discover the joy of learning how the studio and the lighting can give ultimate control over light and shade within an image, and how this can create wonderful and meaningful graphic imagery.

Starting with the basics of how the light works, we move on to light meters and their use in the studio environment, from how to take a reading to understanding how to balance the light between two light sources. The anatomy of the studio flash with its various components and settings is outlined, enabling the photographer to understand how the light is produced, and how the modelling bulb can be used to predetermine how the light will behave. In addition the wide variety of lighting accessories and modifiers is summarized, with details of how they are used to manipulate the light and how they ultimately can affect the final image. The correct camera settings for the use of

studio flash are discussed, with an explanation of why the photographer needs to use these.

The most common lighting techniques used by the studio portrait photographer are explained in detail, with what to look for when using the lights to create these various effects, including high-key and low-key lighting, butterfly, Rembrandt and rim lighting, amongst others.

The Masterclass will encourage the photographer to think more creatively with regards to studio lighting, encouraging them to try more advanced and experimental forms of lighting, such as silhouettes.



**Fig. 0.3**

The portrait photographer should be capable of working in all situations, whether on location or in the studio. Both require very differing skills that should be mastered.

Reflector, Nikon D2Xs and 24–70 lens.

## 5 On Location

Here we will examine the fundamentals of location portraiture, using both natural light and off-camera flash units to create stunning images within a natural surrounding. The correct choice of location is considered, and particularly how this can add meaning and context to an image. The photographer's ability to scout out locations for patterns, leading lines and textures is developed, along with understanding how these can add perspective and dimension to an image.

This chapter covers learning to read the light in a location setting with various indicators used to determine this. There is more in-depth analysis of how using the light's shadows and highlights can create mood and atmosphere in the final piece. We also consider the correct use of reflectors and diffusers and how these can be utilized to manipulate and control the light on location, for successful portraiture.

We discuss the best times of the day to schedule a location portraiture shoot and why, with detailed explanations of the golden and blue hours, and when these occur. We look at how the effective use of depth of field can create impact and isolate the subject from a background, and the key to creating an attractive bokeh is highlighted. Using available light inside is covered here, including window lights and how they can be successfully utilized and how reflectors and diffusers can benefit the photographer in the lower light scenario.

The Masterclass will deal with difficulties encountered when shooting inside with just the ambient light, and the skills required in taking candid portraits.

## **6 Rules of Composition**

This chapter explains how the photographer can use the composition rules to draw the viewer into the portrait, using space, textures and focal point effectively to enhance and strengthen portraits. A wide variety of compositional tools will be considered, showing why they work in portraiture. Specific examples are: the rule of thirds, cropping, storytelling with multiple images, negative and positive space as well as how these can be utilized by the photographer to create dramatic images. With these basic tools you will be able to control and create portraits very simply, where you as the photographer have made the decisions and so have the power to dictate the final outcome for the images.

The Masterclass will discuss the meaning and use of rabatment and the golden spiral in photographic composition.

## **7 Post Production**

This chapter will give detailed insight regarding the processes available to the photographer after the image has been taken, such as backing up your images, editing and renaming, reading, understanding and learning from your Camera RAW metadata. We will consider white balance, destructive and non-destructive editing, the correct black and white conversions, tinting and toning, and layers and sharpening, as well as explaining plug-ins and actions.

The Masterclass will cover the Zone System created by master photographer and printer Ansel Adams and how the modern-day photographer can utilize this system. We will also consider the uses of HDR imaging.



**Fig. 0.4**

Post production can transform an image, and its potential should be harnessed to push portrait photography creatively.

Image taken in the studio.

Buttercup Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox

key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## **8 The Final Print**

One of the most satisfactory elements of photography is viewing the final output displayed on the wall. Unfortunately quite commonly photographers are disappointed with the results they achieve from labs and production houses, and this happens because they have incorrectly prepared and supplied files.

In this chapter the photographer will discover the wide range of mediums available, and learn how to prepare files for output, including sizing, how to colour proof correctly for various sources and the importance of doing so. Further, the importance of choosing the correct medium to display photographic work will be considered, paying particular attention to the wide array of printers and papers available to the photographer, and the subtle differences they can make to output.

Chapter 8's Masterclass will enable the photographer to understand how to prepare the image ready for print, ensuring that you are using the correct image sizes and with a suitable pixel density so that the quality is not compromised.



**Anna.**

Image taken in the studio. Smoke Grey Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

## Chapter 1

# The Photographer

If we were to take a look at some of the true great portrait photographers, with a particular view as to the way that they work and interact with their clients, they seem to share certain inherent qualities. They have a natural ability to read characters and personalities extremely quickly, and to act upon their assessment with ease. Hand in hand with this, they need to love people and their quirky idiosyncrasies with no boundaries or judgements.

## A STRONG CLIENT RELATIONSHIP

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The skill to connect with their clients on a very personal level, finding a common ground where a dialogue can begin, is the primary skill the photographer will need to have ingrained in their nature. It takes a certain amount of charm and confidence in what they do to be able to relate quickly and easily to a stranger.

The gift of being able to make the sitter comfortable enough to give a little of themselves to the viewer is of great importance if the photographer is to record a true and honest portrait. Often this can mean the photographer giving a piece of themselves in order for the client to open up and reveal a little more of their personality. All of these

qualities are worth developing in order to create the correct environment and ambience for the sitter to feel at ease and comfortable in the portraiture scenario. Team these skills with sound technical knowledge of the equipment and settings and the ability to control these to determine the desired outcome, along with the understanding of light and how it works to illuminate your subject, and you will have the perfect ingredients for a successful shoot.

**If a photographer cares about the people before the lens and is compassionate, much is given. It is the photographer, not the camera, that is the instrument.**

— Eve Arnold 1912–2012

While the photographer with the camera ultimately has the power, they must make the sitter feel as if they have collaborated in some way in the process. So asking initially what the client hopes to get from the shoot is a tool to relax and ‘make friends’ with the client, and it is also a great way to learn the client’s expectations of you the photographer. If all the client’s needs are met the shoot is likely to be a pleasurable experience for both the photographer and the client, and the photographer will ultimately end up with a more successful outcome.

Each sitter will have their own needs and wants. The photographer should approach each shoot with no prejudged idea of whoever may walk through their door; people are unique, and with a little imagination and creativity each shoot should be seen as a new collaboration

between the artist and the client. With this philosophy and approach the photographer will set about each shoot in a different way to the last. A photographer who treats each client in a formulaic way will only dampen and stifle any creativity, and will quickly lose all enthusiasm for their craft. As an artist, if you push yourself out of your normal comfort zone some of your most inspiring work can be created.

## **CREATING THE RIGHT ENVIRONMENT**

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Creating the right impression in the first place is vitally important if the photographer wants to instil trust and convey a sense of professionalism. It is common practice for the client and photographer to have an initial discussion regarding the portrait shoot before the actual day. This discussion usually takes place over the phone when the client rings to book the appointment. It is an opportunity for the client to air any particular requirements they have regarding the shoot and to learn what they should bring along, such as coordinating clothing, as well as getting travel directions and parking advice.

This telephone conversation is the first point of contact that the photographer will have with the client, and even though it is not in person the photographer needs to be able to create the right feeling, and give the client the best impression possible. Phone manner should be polite and friendly, and the photographer needs to answer any questions posed, confidently and concisely. It is often said that if you converse with a smile on your face whilst on the

phone, it creates an impression of approachability and good nature.

They say that a person will make up their mind about you within the first five seconds of meeting you, and children seemingly do this even faster. When meeting the client in person the photographer needs to create the right image immediately, beginning with a genuinely friendly smile and a confident handshake. Your body language should be open and giving, and eye contact constant and engaged. The ability to communicate effectively will be key to a successful ongoing client relationship, where a basis of mutual respect and trust is at the core. Asking questions and open-ended statements will create a free-flowing conversation, where your client will feel cared for, and ultimately will put them at ease with the situation.

When the photographer is meeting the client at the studio, it is important that the space is tidy and welcoming, warm and inviting. The photographer must remember that this may well be the client's first time in a studio and as such it may be unfamiliar territory. Explaining to the client the area of the studio and what is going to occur during the shoot may help them to understand what is expected of them. In return they will be more relaxed and able to deliver what the photographer wants. A similar tack should be taken if meeting the client on location. You might suggest that you meet at a coffee shop or restaurant close to the chosen location, as this will enable you to explain the proposed plan for the shoot in detail beforehand, and the client will be able to discuss any particular requirements they have.

If children are part of the shoot, they should be made to feel as important as the adults; the photographer should communicate at their level and pose age-relevant questions and comments directly to the children. When shooting children's portraits, the photographer should take extra care to explain the environment and what is going to happen. Above all the studio must be safe for children to explore the area and become accustomed to their surroundings. Children will quite often have their own questions, aiding communication, and creating a rapport.

### **WORKING WITH SMALL CHILDREN IN THE STUDIO**

Be mindful that the younger the child, in general the shorter the attention span. Work fast where any little ones are involved to ensure that they do not lose patience. Quite often a little rest or a snack can help. However, the photographer must be able to read the signs and suggest the shoot comes to an end while a mutually happy ending is still likely.



**Fig. 1.1**

Playing hide-and-seek with a hat is great fun for under-fives. Creating a rapport with children is of the utmost importance if the photographer aims to

have a successful shoot, and playing games and engaging with the child should make this easier.

Image taken in the studio. Painted black background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## **DELIVERING CLIENT EXPECTATIONS**

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Working out the needs of the client and their wishes for the outcome of the shoot is paramount. Showing examples of work can assist in determining the style of images that are required and thus give a more tailored shoot. Try asking simple questions such as: Do you prefer black and white or colour images? Would you rather have close-cropped head shots or full-length images? Is there a part of your body that you like/dislike?

Generally the photographer would still shoot all of these throughout the session to give the client a variety of choice; however the information that they give at this point may dictate certain poses or those that the photographer may want to avoid. For example, if the client suggests that they do not like their nose, you may want to avoid shooting anything in profile or at least ensure that the lighting is flattering.

By determining the client's tastes and preferences, the photographer is then able to shoot with a final outcome in mind. In an ideal shoot the photographer will try and give the client as many options as possible, with as wide a range of choices as possible. If there are many people in the

shoot, variety in poses is also important so as to create interest and keep up the energy in the shoot.

The actual shooting time for any type of shoot can vary dramatically depending on what the client requires. If it is a simple headshot for a business portrait, this can take only a short time, while in comparison a large generation family shoot can take time. When shooting larger family groupings a great question for the photographer to ask is what is the main priority for the shoot? It is quite often a good idea to 'get this in the bag' as quickly as possible! More often than not the main focus will be on getting an image of everybody together. If a member of the party becomes tired or unwilling to carry on posing, it is important that the main focus and purpose of the shoot has been fulfilled. Any extra images that the photographer is then able to extract from the sitting will be beneficial to the final outcome. Quite often smaller groups can be worked around; whilst one family is resting, another family can be posed. Work from the largest group down to any individuals that might be requested, and with this pattern particular members of the party can be worked around.

## **EASING THE CLIENT INTO A SUCCESSFUL SHOOT**

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At every step of the session you must clearly explain to the client what you are doing and what you are trying to achieve; keeping the client informed will reassure them and make them feel that you are striving to create the best images possible.

The shoot should start with some relaxed images; placing the client in a naturally comfortable pose is a good starting point. Suggest to the client that you are just doing a few test shots to check for lighting – this will get them used to standing in front of the camera, so they become accustomed to the process.

During this time it is important for the photographer to spend more time having eye contact with the client than looking at the LCD of the camera, which can be disconcerting. In fact, throughout the shoot, you should only really look at the back of the LCD sporadically to ensure that the lighting and posing are correct, after each change of set-up.

Have ready a few simple poses that you can demonstrate to the client easily and that they will not feel awkward doing. Once these have been covered and the client has relaxed, you can then take a more creative approach to the shoot, introducing more complex lighting set-ups and poses if the client is willing.

All shoots should be relatively client-led, allowing time for them to be able to relax. Remember that this may take longer if there are children involved; some children can and will perform for the camera on cue, while others will take a little more time and maybe need some encouragement.

The client should never at any point feel rushed or under pressure; this will only lead to a tense and anxious sitter. They must at all times feel valued and that they are important.

## ENDING THE SHOOT

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Towards the end of the shoot the client must feel that the photographer has delivered what they have requested, and the photographer must feel confident that all possible creative avenues have been covered and that the client's initial requests have been catered for. At this point it is a good idea to ask the client if there is anything else they would like to try. This can lead to some unexpected requests that may not have been present at the beginning of the shoot, as the client should at this point feel much more at ease with the photographer and how they work, and thus more comfortable about requesting something a little more creative.

If the client feels that the shoot has covered all requests, you should now reassure them that you have managed to produce some wonderful work, and describe the process from here. Explain to the client that they will not see all of the images that you have taken; only the very best ones will be selected and fully edited for them to choose from. Never state how many images you may select, as the client will expect to see the amount that you say, and will be disappointed if there are not as many as stated.

Showing examples of products and other work at this stage is again a useful tool for the photographer to learn what the client expects. For example: Do they like the idea of collages of images? Do they want an album? These can all be catered for in post production if the photographer is well informed about their wishes and expectations.

The theme running throughout the photographic process from the initial meeting to the end result is that the photographer needs to be an extremely effective communicator. If you care for people, the client will automatically feel at ease with you, undoubtedly ensuring a more successful and pleasurable experience for both client and photographer.

## Masterclass

### DEVELOPING YOUR OWN STYLE TO SET YOU APART

**W**hen contemplating becoming a professional portrait photographer, at the outset you must primarily master the camera and lens, the light, the software, and the skills to pose and draw good expressions from the clients. Once these important skills have been mastered the next step for the developing portrait photographer is to evolve a particular photographic style to set you apart from others, and to drive your work forward both creatively and expressively.

Over time you will naturally migrate towards the style in which you wish to work and become more specialized in this area. For example in the portraiture field many photographers specialize in particular ages, such as babies or teenagers, and become specialists in producing these images. Developing a style can be a daunting process initially as the scope is so wide. Deciding where your talents and passions lie is the key point in understanding which area of photography you find most enjoyable, what gives you the most satisfaction and creative pleasure.

A good starting point for developing style is to learn and draw from other photographers' imagery. Observing other photographers' work on blogs and websites can inspire and push your creativity, and will highlight the imagery that you enjoy viewing.

Drawing from other creative forms of art can also motivate you to move your work in a particular direction. Genres such as fashion, music and art are constantly changing, and being aware of these trends can be hugely beneficial to producing creative photography. Keeping tear sheets from magazines and other inspiring imagery, and collecting these in an inspiration file, can be a wonderful creative spur to influence lighting, posing and expressions in portrait shoots.



**Fig. 1.2**

If siblings or friends are involved in the portrait, encouraging interaction between them can create some fabulous natural expressions.

Image taken in the studio. Leaf Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

As with all art forms, styles in portrait photography never stay static and your style should be redefined periodically, as you will ultimately become bored and tired with your own work if it is not nurtured and developed. As a creative you will be emotionally attached to your work, and you should be evolving constantly, and free to move forward keeping the work fresh and current. Shooting images for personal projects and trying new ideas with friends and models are both useful in maintaining excitement and building confidence in creative portrait work.

Photographers who move out of the box and push themselves creatively are those that will become the more successful image makers, setting themselves apart from the masses producing lifeless and inert portraiture.



**Monique and bump.**

Leaf colourama rim lit with one  
elinchrom BRXi 500, Octa 100cm.  
Nikon D2Xs and 24–70mm lens. The  
subject wears the perfect choice of  
clothing for a pregnancy portrait.

## The Camera

**A**s a minimum requirement for quality portrait photography, the photographer should ideally have the use of a DSLR (digital single lens reflex) or an MILC (mirrorless interchangeable lens camera), one where you are able to change lenses and shoot in a manual mode, as this level of equipment will allow the greatest possible control of the settings.

Photographers should be aware that with all digital cameras the size of the sensor can vary; some cameras will have cropped sensors and others will have full-frame sensors. The sensor size will ultimately dictate the focal length of the lens used. For example a cropped sensor will lengthen the perceived focal length of a lens.

### PREPARATION

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If you look after and maintain photographic equipment well it will rarely let you down. Ensuring that lenses and sensors are kept clean and dust-free – by either cleaning with a purpose-made kit (kits such as Lenspen are great for smaller dust removal) or by getting them cleaned professionally – will significantly lessen time at the processing stage when trying to edit these out. If dust

shows up in awkward places like eyelashes and hair, this can be a rather time-consuming affair. Some cameras now also have a self-clean mode that is executed each time the camera is switched on or off; if you change lenses frequently this may well be something to investigate and invest in.

**No matter how sophisticated the camera, the  
photographer is still the one that makes the  
picture.**

— Doug Barlor

The photographer should plan a strategy prior to the shoot, thinking carefully about what is likely to be utilized in terms of lenses, memory cards, props and equipment for the images to be captured, and always over-prepare, taking spare batteries, flash syncs and leads to cover all eventualities. Check that the camera is ready to go. Format all memory cards ready for use, remembering also to take enough memory cards for the intended use. Now let's take a look at the camera settings we will need to set up prior to the shoot.

### **RECORDING INFORMATION ONTO A MEMORY CARD**

When shooting onto a memory card you should download the images before all memory space has been filled with information. It is good practice to do this as it will lengthen the life span of the memory card itself and also minimize

the chance of it corrupting any information that may be stored on it.

## **DIGITAL IMAGE FILE FORMATS**

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First you will need to decide which image file format is most suitable for shooting. All Digital SLRs and MILCs will give you the option of shooting in three different file formats. All have their own advantages and disadvantages for shooting; files such as RAWs will capture as much information as possible with the equipment chosen, while others will compress and change the information depending on the settings of the camera.

There is also currently much debate as to the longevity of certain file formats. If you envisage the images taken to be seen by generations to come then the choice of file type is an important consideration at this stage.

Each file format will have its own benefits and constraints, explained clearly here, although these are still widely debated in the photographic world. Most professional photographers will use RAW files for capture, where the greatest information is recorded, and then process the RAW file into either a JPEG or TIFF file in post production.

However the photographer should understand how all image files work, as they are commonly used not independently of each other but quite often in synergy.

## **RAWs**

RAW files are those where all of the information needed to produce an image is taken untouched and uncompressed from the camera sensor. As a result these RAW files are very large and take up a significant amount of memory both in camera and when processing the images. Some cameras now have the option for the photographer to slightly compress the RAW files in camera to lessen memory space used.

### **SUMMARY OF DIGITAL FILE FORMATS**

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#### **RAW**

- An uncompressed data file of information minimally processed straight from the camera sensor.
- May have various file extensions generally relating to the camera used, such as NEF (Nikon) CR2 (Canon), ORF (Olympus).
- Files do not have a colour space attached to them; this is decided in post production when converting the RAW file to the final file ready for output.

#### **TIFF**

##### **(Tagged Image File Format)**

- An uncompressed data file.
- Lossless (no information is discarded).

#### **JPEG**

**(named for the Joint Photographic Experts Group,  
which created the JPEG standard)**

- Can be high, medium or low resolution.
- A compressed data file produced by the information given in the camera.
- Lossy (some information is discarded).
- JPEGs are currently thought to be the most widely recognized file format, easily accessible and usable over a wide variety of platforms.
- Some, higher-end professional digital SLRs and MILCs will also offer the photographer the option to capture a combination of two formats together, RAW and JPEG most commonly, either on the same memory card or on two separate ones – an instant method of backing up important files.

The sensor within most digital cameras is comprised of a number of light-sensitive areas – red, green and blue channels – set out in a grid-like pattern, named after its inventor Bryce E. Bayer. The RAW output from the majority of digital cameras is sometimes referred to as a Bayer pattern image. The arrangement and function of the sensors were devised in such a way as to record the most life-like representation of an image in camera as close as possible to that seen by the naked eye.

The green channels of the pattern account for 50 per cent of the pixels of the sensor, as the human eye is more sensitive to this colour light. When the camera's shutter is opened to capture the image, each of these sensitive areas will react to the amount of light falling on it, in the same way that the brain would react to light hitting the retina of the eye.

Each pixel is able to record the information of one of the channels, either R, G or B. The data from each pixel cannot produce the colours independently, and must draw the information recorded from all the red, green, and blue values. The camera sensor will decipher all of this information and with it produce a colour image, the RAW file.

This RAW file cannot be printed in its original format, and will most likely not resemble a correct final image. To process this RAW file the photographer will need to utilize a programme designed to see these larger and more complex files. The most widely used currently are Camera RAW in Adobe Bridge or Lightroom. Cameras will also have their own unique RAW software available to use; however many may not have the wide range of options available for the more creative forms of image manipulation.

RAW files, correctly exposed and straight from camera, will generally look dark, flat and with little contrast, sometimes noisy, and have an appearance of being unsharp and with inconsistent colour balance, especially if the photographer has been shooting in varying lighting conditions.

In the same way that the film negative would have needed developing and processing, the RAW file requires extra manipulation and processing to make it print-worthy. This area of skill takes time and knowledge to execute correctly; good clean processing and manipulation can make or break a good image. When used to its full potential the RAW file is the tool of the true photographic craftsman.

Within the editing software, the photographer is able to make changes to various details such as white balance, temperature, exposure and clarity, to name a few. The control is in the hands of the image creator, and as a result the photographer is more likely to obtain the results he set out to produce when pressing the shutter.

Once the photographer has manipulated the file in post production and imparted any creative editing, the file is then saved as a TIFF or JPEG file ready for print. The RAW image then remains in its original state and can be manipulated again at a later date in an entirely different way if required, without any loss of the original information gathered from the camera.

RAW files are currently thought to be the safest way for the photographer to capture images that he wants to have a certain amount of longevity. The question, however, still remains, how long? Will there always be the means for somebody to reproduce a similar file that was initially intended by the creator?

## **TIFFs**

A TIFF file from camera is an uncompressed image file. When used in camera capture however, it is in no way as versatile as the RAW, as it cannot be manipulated in such a delicate or controlled way. The majority of professional photographers will opt to shoot either RAW or JPEG and then convert to a TIFF, as it is a lossless compression file format (it allows the original data to be reconstructed from the file).

## JPEGs

When produced in camera JPEG files are generated by using the information in the camera called firmware to create a compressed data file. The camera will render the data and form the image by discarding some information that it sees as expendable. JPEGs are designed to be used immediately and can be printed with little or no manipulation as the levels of exposure, contrast and colour correction have all been predetermined in some way by the settings in the camera, either by the user or by the camera itself.

There are obvious limitations when using this method of image capture. The photographer is effectively giving the majority of the control over to the camera, allowing it to make the final creative choices. Although the camera is a sophisticated and extremely powerful tool it is not able to see an image accurately and sensitively in the way the human eye would. For example subtleties of light and shade, a lovely warm skin tone, and a creative flair are not based on averages and baselines but rather on minute little tweaks and adjustments that make it visually correct or pleasing.

JPEG files by their nature do not handle manipulation particularly well, and they will degrade and deteriorate fairly rapidly if many changes are made. With a far lower dynamic range than that of a comparable RAW file from the same camera, the JPEG is much more sensitive to change when you are playing with tools that affect exposure and colour balance, and as such getting the required quality and output is much less predictable.

Having said all this, JPEGs can come into their own when used for shooting. They take up a significantly smaller amount of space than a RAW file, and when shooting in certain situations where a high volume of images needs to be taken this could be of great benefit. To illustrate this, one camera capturing files onto an 8GB card would be able to record approximately 396 RAW images; however if shooting with high-resolution JPEGs the capacity could be as high as 1900.

## CAMERA SETTINGS

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The three most important variable settings that you should familiarize yourself with and fully understand are ISO, shutter speed, and *f*-stop. These must be considered independently and mastered in relation to each other for successful portrait photography. The photographer must develop the ability to control and master the light, and how it is then recorded to the focal plane. Each is as important as the other, and even slight variations of each can have a profound effect on the final outcome of the image. They are all explained in detail below.

### SUMMARY OF VARIABLE CAMERA SETTINGS

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#### ISO (film sensitivity)

A universal standard for film sensitivity set by International Organization for Standardization.

### **Shutter speed** (exposure time)

The effective time the camera shutter is open to allow light to enter the camera and reach the sensor/focal plane.

### ***f*-stop** (focal ratio)

The *f*-number is the focal length divided by the 'effective' aperture diameter.

### **ISO (film sensitivity)**

Before the introduction of digital photography, the photographer would have chosen a particular film for its sensitivity to light. This was referred to as the speed of the film, or ISO value. The photographer would have had to physically change the roll of film should he require a film with a different speed (ISO).

With the digital systems now in place, and the same values applied to ISOs, thankfully this is no longer an issue, as the image maker can change the ISO value from shot to shot, making the process much more usable and flexible.

The lower the ISO the finer (smaller) the grain of the film and the less sensitivity to light. These were generally referred to as slow films, as they would need slower exposure times to capture images. The higher the ISO the more coarse (larger) the grain of the film and the greater sensitivity to light. These were generally referred to as fast

films, as they could produce images with faster shutter speeds in lower light.

Lower ISOs have values from 50 ISO and are mostly used for subjects where a higher-quality image is required – wonderful for use in portraiture, where the greatest quality of image is desirable.

Higher ISOs have typical values of 400 ISO and 800 ISO and are more suited to work where the grain (noise) would not affect the outcome. However newer cameras are now becoming more and more sophisticated and sensitive so as not to have such an issue with the noise levels, even when shooting in lower light levels. On occasion when using films with higher ISOs photographers would make use of the grain (noise) for artistic and atmospheric effect. However the digital grain equivalent (noise) is not commonly considered as aesthetically pleasing as the ones found on film, and as such would not be a desirable outcome for most images.

Digital systems now enable the photographer to use even higher ISOs than were originally available with film. However the reality is still that the higher the ISO value the greater the amount of noise (grain) and the less dynamic range that will be present in the final image, and it is for the photographer to decide whether this is a compromise they would be willing to accept in an image.

### **Shutter Speed (exposure time)**

This variable is a fairly simple concept to understand – it is simply the amount of time that the focal plane is exposed to light. However there are certain values and settings that the

photographer should be aware of, so as not to compromise his image.

There are standard shutter speed values across all makes of camera, making them very easy for the user to become accustomed to. They are uniformly stepped at specific levels, so that opening one aperture stop and reducing the shutter speed by one step will result in an identical exposure, making the balancing act between these two variables vastly more accurate.

When shooting handheld and especially with some of the heavier lenses (zoom or telephoto) it would not be advisable to opt for a slower shutter speed (longer exposure) as the image may be affected by camera shake, where the photographer is simply not able to hold the camera steady for the required exposure time. The exact speed for this will vary, but would be around 100th of a second to reasonably rule it out. If the photographer wishes to shoot at a slower shutter speed it would be advisable to use a sturdy tripod to mount the camera along with a shutter-release cable.

### **STANDARD SHUTTER SPEEDS**

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- 1/1000sec (shorter exposures)
- 1/500sec
- 1/250sec
- 1/125sec
- 1/60sec
- 1/30sec

- 1/15sec
- 1/8sec
- 1/4sec
- 1/2sec
- 1sec (longer exposures)

### **SYNCING THE CAMERA SHUTTER SPEED TO THE STUDIO FLASH**

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When shooting in the studio setting the photographer must be aware of the flash sync exposure time of their particular camera body, so as to avoid using such a high shutter speed that it effectively captures the motion of the shutter. This will be evident if at the edge of your image you produce a blurred black band.

Although you will want to rule out camera shake, movement in an image may well be used as a creative tool to create a dynamic and interest in the piece. Panning and moving the camera with the subject can produce some interesting effects. With a little understanding and experimentation you can capture movement with the use of the longer exposures and can create some dramatic results. In these instances you may need to shoot a few frames before you achieve the desired outcome.

There are two other shutter speed values that can be utilized for longer exposures.

- **B (Bulb):** Where the shutter will remain open whilst the shutter release is held.

- **T (Time):** Where the shutter will remain open until the shutter release is pressed for the second time.

These functions are worth exploring when trying to produce creative portraits. However, they will have limited use in most commercial environments, as the outcome is relatively unpredictable. Again in this case a few shots may need to be captured before the final piece is realized. Although unpredictable, the uniqueness of these images will set them apart from the norm of static and over-controlled images and should be encouraged for their creativity.

### ***f*-stop (focal ratio)**

In its most basic form the aperture value controls the amount of light hitting the focal plane. In lower lighting situations the photographer may choose to use a wider (lower number) aperture value to allow greater light into the camera. Similar treatment may be given when light is particularly good and a smaller (higher number) aperture value is used to constrict the light levels entering the camera.

The photographer must comprehend the great influence over the image that the chosen aperture value can impart upon the final image, by understanding the way in which each value can control the way the light is channelled through the lens towards the focal plane; this will dictate the depth of field within the image.

In changing these values at either end of the scale (for example *f*2.8 v *f*22) and shooting the same scene, the effect will become more apparent, and should be

experimented with so the concept can be fully grasped. In essence this exercise will illustrate to the photographer how the overall image and the areas of depth of field are affected.



**Fig. 2.1**

Here are five examples of how an image file could be edited. The RAW file will always retain all the information taken in camera without any deterioration, and as such it may be edited again and again in many different ways without loss of quality in the original file.



**Fig. 2.2**

As a photographer, developing a style in the way you work and present the images will ultimately set you apart from other photographers, and drive your creativity forward.

### **LENS CHOICE AND DEPTH OF FIELD**

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Depth of field is to some degree dictated by lens choice, with longer lenses more likely to push points further out of focus on similar  $f$ -stop values than shorter lenses. For

example, the way in which two lenses at the same  $f$ -stop will record an image will be different, and as such lens choice should be considered along with depth of field.

The wider aperture (smaller numbers such as  $f1.4$  and  $f2.8$ ) will give the image a shallow depth of field and a smaller area of the image will be visually sharp. The smaller aperture (higher numbers such as  $f22$  and  $f32$ ) will give the image a longer depth of field, where a larger area of the image will be visually sharp. Creatively these ratios can be used to great effect with differential focusing and selective focusing.

As with the standardization of the shutter speed values, the introduction of a universally consistent way of representing the focal length makes the system a little easier to grasp, with each major step exactly doubling or halving the amount of light entering the camera ( $f1.4$ ,  $f2.8$ ,  $f4$ ,  $f5.6$ ,  $f8$ ,  $f11$ ,  $f16$ , and so on). As previously stated these can be worked effectively in conjunction with the shutter speed values to create the desired effect.

The three variables – ISO, shutter speed and  $f$ -stop values – when used correctly and with in-depth understanding, will allow the photographer to fully control the light entering the camera and to obtain the required results from a capture, with well-constructed and considered choices being made. Teaming this knowledge with the sound understanding of which lenses to select and utilize in certain situations will allow the photographer the most creative input.

## THE LENS

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With the vast array of lenses available to the photographer, it can be a little confusing as to which ones to choose when approaching a portrait shoot. As a general rule lenses can be broken down into 4–6 different categories.



**Fig. 2.3**

Sebastian on Wimbledon Common Nikon D3s  
70-200mm *f*2.8 Zoom lens. 1/400sec exposure, ISO  
200, *f*2.8 with a focal length of 200mm

### **Wide-angle lenses**

- **20mm or below:** Classed as extreme wide-angle, and would include fish-eye lenses.

- **21–35mm:** Still classed as wide-angle, but you would get less distortion from lenses within these ranges. Lenses below 35mm would primarily be used in architectural, landscape and interior photography, where a wider view of the subject would be needed. However these could be used creatively in a portraiture environment by using the nature of the lens to emphasize and distort certain parts of the frame, for example by placing a dominant area of the image closer to the frame to accentuate the size.



**Fig. 2.4**

Nikon D3s, 14-24mm f2.8 Zoom Lens. 1/400 second exposure, ISO 200, *f*2.8, with a focal length of 24mm.

### **Normal Lenses**

- **35–70mm:** Standard (normal) lenses, good all-round use. These lenses are very versatile with minimal distortion of the subject, giving a ‘natural’ field of view.

Lenses within this range would give the most like-for-like image, and as such would be used predominantly for documentary and candid imagery.



**Fig. 2.5**

Nikon D3s, 24-70mm f2.8 Zoom Lens. 1/160th second exposure, ISO 200, *f*8, with a focal length of 60mm.

### **Telephoto Lenses**

- 70–135mm: Medium telephoto.
- 135–300mm: Telephoto.
- 300-plus: Super Telephoto.

Within these ranges sit zoom lenses (with variable focal lengths) and prime lenses (fixed focal lengths). The benefits and qualities of both are listed below.

### **Zoom Lenses (variable focal length lens)**

With the zoom lenses the photographer has a variable focal length at his disposal. These may range from focal lengths in one focal range (wide-angle, for example 18–40mm). Or they may span consecutive focal ranges (normal telephoto, for example 70–200mm).

The benefit of using a zoom lens is that the photographer has a greater scope for versatility when approaching a shoot where the subject is unpredictable and constantly changing. With the option to change focal length at speed, the photographer can seamlessly frame, compose and capture images without the need to change lens for a specific outcome.

Zoom lenses can be of great use when photographing moving subjects, such as people (especially children), animals and sports, and will give the photographer freedom to move around the subject and with ease create a variety of viewpoints and crops of a subject without the need to change the lens. With particular use when photographing portraits, a photographer is able to take a full-length, mid-length and head shot in a matter of seconds, with the use of a zoom, such as a 24–70 or 70–200.

However the photographer must be aware of the distortions and effects certain focal length choice can have on the subject and be mindful to utilize the zoom in its most beneficial to the image required. For example, if a

photographer is to choose to shoot a close -in head shot of a subject with the lower end of a 24–70 zoom, the resultant portrait will be distorted and unflattering to the sitter; however; this value would be perfectly suited to a full-length shot with space for the subject to move around the frame.

### **Prime Lenses (fixed focal length lens)**

Prime lenses are those where the focal length of the lens is fixed. You will see that common prime lenses for use in portraiture are 50mm, 85mm and 135mm, a good range for covering a good variety of focal lengths.

Again there are benefits to be gained from using fixed focal lenses. Many believe that creatively these lenses are for the ‘true’ photographers, the ones that stop and consider their subject and then decide upon the correct lens for the outcome they require, composing and framing the image at this level to maximize the impact of the shot. This of course is not possible in all shooting scenarios, and as such using a prime lens may compromise the ‘perfect’ shot.

In general prime lenses are also cheaper than zoom lenses, although you may have to invest in a few if you are shooting different genres of photography.

Typically fixed focal lenses will have a wider aperture value than zoom lenses (some as low as 1.4) and subsequently are more usable in low light situations. They are sometimes referred to as a fast lens, as the light is able to reach the sensor at a quicker rate than those with a narrower aperture value, allowing the use of a faster shutter speed. It must be considered that with this capability you

will also experience an extremely shallow depth of field at the lower values, which may have limited use depending on the subject and the photographer's desired outcome for the image.

### **THE 50MM PRIME LENS**

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From the huge variety of lens choice available to the photographer, the 50mm prime lens is thought to be the most 'normal' lens available. It is thought to capture the most realistic rendering of an image, most similar in view to the way our eyesight would view the same scene, and as such is the primary choice for many candid street photographers.

Three images designed to illustrate the difference in the depth of field seen at various  $f$ -stop values.



**Fig. 2.6**  
Image at  $f2.8$   $1/1000\text{sec}$  (shutter speed), ISO 200,  
Nikon D3s, 24–70 at 50mm.



**Fig. 2.7**  
Image at  $f8$   $1/125$ sec (shutter speed), ISO 200,  
Nikon D3s, 24–70 at 50mm.



**Fig. 2.8**

Image at  $f22$   $1/80$ sec (shutter speed), ISO 800,  
Nikon D3s, 24–70 at 50mm.

Prime lenses are also much less bulky and heavy than most zoom lenses and as a result are less prone to camera shake when being handheld and can easily be manoeuvred without too much effort.

One of the main benefits of using fixed focus lenses in portraiture is the superior quality of bokeh (derived from the Japanese term boke meaning blur or haze) they will impart in an image when used at lower apertures. Bokeh is the way a lens, by means of its construction, will render the out-of-focus points of an image, depending on the light and

textures of the background. Bokeh can play a great part in the composition of your final image, and will instantly isolate the subject from the background. Using this beautiful effect of blur and distortion correctly can enhance and draw attention towards the main focus of the image. In a portraiture setting this can be a very powerful tool and can give images a wonderful depth and dimension.

Opinions seem to vary greatly as to which is the best lens to use for portraiture work. Factors that will strongly influence your choice should be subject matter, style of shooting, handheld or tripod, and ultimately the desired outcome for the portrait shoot.

It is a general rule in portraiture that the longer the focal length of the lens the more flattering the outcome for the sitter, as the nature of the longer lens will be to narrow and thin the subject, making features smaller and more pleasing to the eye. However extremely long lenses (more from the super telephoto range above 300mm) would be very impractical when used as a portrait lens, as the photographer would have to be some distance from the subject, and as such would not be able to create a good rapport with the client and so a conducive environment for shooting a relaxed portrait.

In contrast the shorter focal length lenses (wider-angle lenses below 35mm) will draw in more information from the surrounding areas of the frame and can distort the sitter in a rather unflattering way, by, for example, making a particular facial feature such as the nose more predominant in the frame. However they can be used to great effect when shooting a subject within a location, especially with

leading lines or horizons present, as these can be exaggerated and used to lead the eye into the subject.

As the main aim of the portrait photographer is generally to capture a likeness, or true representation of a person, the lenses mostly commonly used would fall more into the mid-section of the focal range. Satisfactory portraits will be achieved with 50mm–200mm lenses, depending upon various factors such as distance from the subject and the style of portrait the photographer wishes to take. However, in creative terms, those who understand the principles and limitations can then push the boundaries of the medium. These are the photographers that produce the most striking and visually stimulating portraiture, as they are beyond the boundaries of normal portraiture.

## FOCUS

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With all digital SLRs there will be various options for the photographer and how he decides to focus on his subject. Specifically within the genre of portraiture, the photographer will usually be focusing on facial features and more particularly on the eyes; however this will not always be the case, and detailed understanding of how to control and master the focusing system on your camera is key.

All digital SLRs will have the ability for the photographer to focus manually (M) using the focus ring on the lens, although this is slow and time-consuming especially if shooting with people who are constantly moving around. Many

photographers will decide to use the fast and very efficient auto-focusing (AF) options. However there are a few options and considerations that need to be understood to get the best outcome from these.

The photographer must realize that although the focus system is very sophisticated it is not foolproof. Focusing systems work by seeing light and dark between two planes and lock into this; if this distinction is not present, say for example in low levels of light or when the scene is fairly flat with no distinguishing features, the system will struggle. To illustrate this, try to focus the camera on a flat white wall or in low light, and the lens will take its time to settle on anything to focus upon; in these situations it may well be prudent to switch to manual focus.

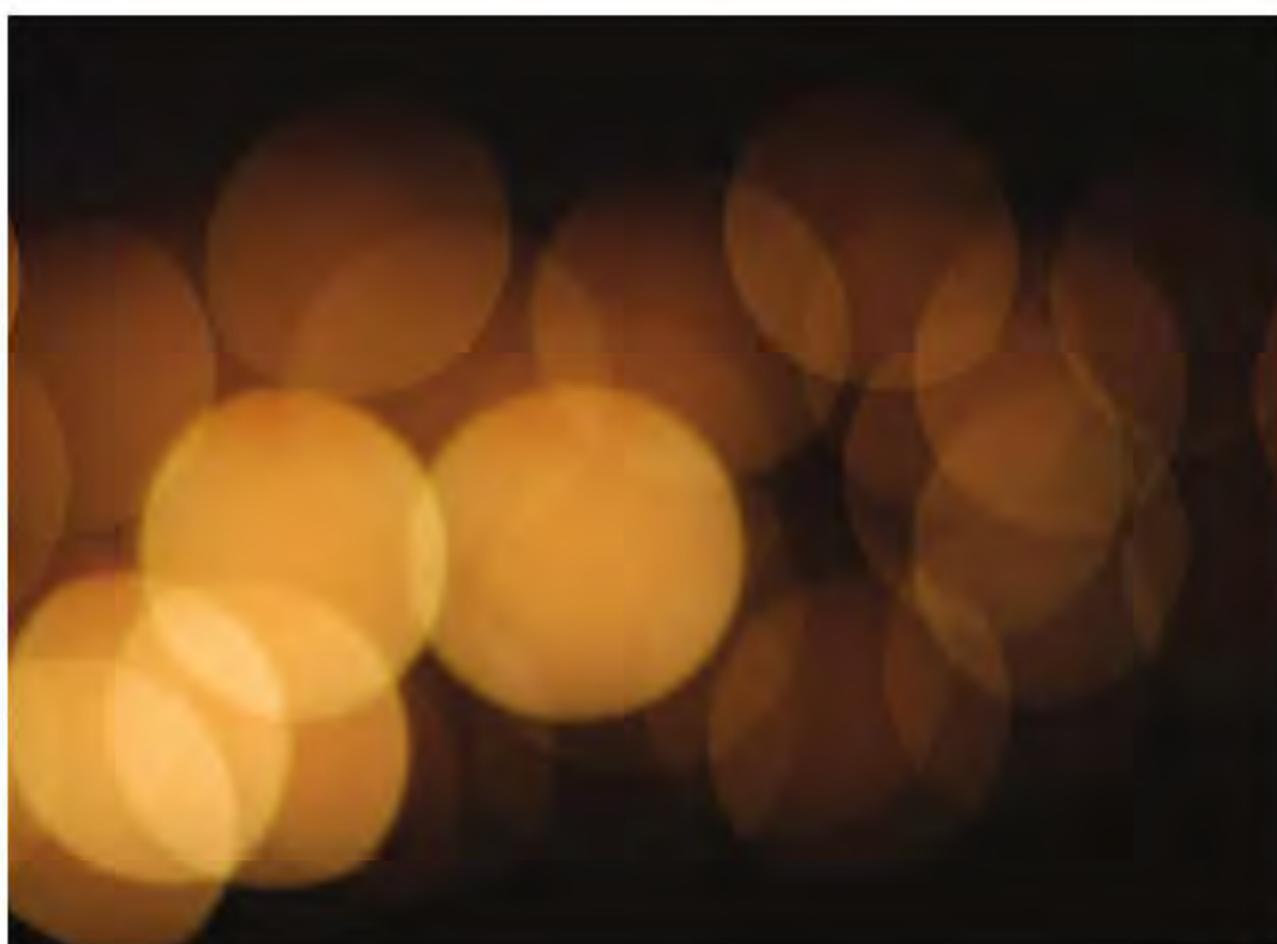
When looking through the viewfinder of the camera the photographer will most likely see a grid of red focusing points. These will light up when they have focused in on a subject; with no input from the photographer they will automatically focus on any point closest to them. The camera will have maybe three or four for how to use these focusing spots. Research them and find out which best suits your method or way of working.



**Fig. 2.9**

Image with shallow depth of field. Notice how the subject is pushed forward into the frame and is isolated from the background.

Image taken with Nikon D3s, 70–200mm lens at *f*2.8.



### **Fig. 2.10**

Example of how Bokeh is rendered. Nikon D2xs on a 50mm lens at  $f1.4$ .

## **Multi-Point Autofocusing**

When using the multi-point autofocus in your camera, the system will decide for you what should be in focus; in general these will be points closest to the camera. This may be of benefit if you are working with larger groups of people and need to ensure that as much as possible is in focus.

You may, however, encounter some issues when using this system in certain conditions, for example if shooting in a field of flowers or through the foliage of a tree. If there is something in the foreground the camera will want to focus on this rather than on the subject, leaving your subject blurred and no longer the point of interest. When shooting a close-up head shot of your subject and wanting to focus in on the eyes you may find that using this particular focus setting may cause the camera to settle on the nose or forehead rather than the eye, as these will be the points closest to the camera. This is obviously not desirable when producing portraiture of this style.

This system can override any creativity the photographer may wish to put into the image, and it is advisable especially in a portrait scenario to change to the single point focus, enabling you to be in complete control to decide what your point of interest should be in the final image.

## **Spot Autofocusing**

A singular spot of the grid controls the area of the image that is to be focused upon. This can be any part of the grid and can quite easily be controlled by the user. For example, if you wish to compose the shot with the subject placed on the third, you will choose the corresponding focus point in camera; this is the most accurate way to use this system. However, some may find it slow and fiddly to control, especially if shooting at a fast rate where the subject is constantly moving around the frame.

Another option open to the photographer is to use the central focusing spot to focus on the point you wish to be sharp, and then reposition the camera to compose the shot, as this may be a faster solution when focusing on moving people or children in portraiture.

Composing the image in camera using the AF can be very useful in the field of portraiture, although many photographers will choose to shoot fast and untethered so as to keep momentum and energy levels high, so that the subject is engaged and interested at all times.

## **Differential Focus and Selective Focus**

Differential focus is a wonderful photographic device for storytelling in images. It can be used to great effect when used in a series of images. For this technique to be successful the scene will need to have a certain amount of depth in it already, and a wider aperture is needed. Rather than in a studio differential focus is better conceived when shooting on

location, where graphic elements of the landscape can add to the effect; tree-lined paths and walls will allow for a more dynamic, effective use of this technique.

Selective focusing can be a very powerful creative tool in portraiture, with the photographer deciding to highlight a particular feature such as the eye or hands of a person or an area within the image; this in turn can add a narrative and character to a portrait.

A strong portrait image using selective focusing with a shallow depth of field can really draw extra meaning from an image by pushing all other details out into blur. The viewer is then drawn towards, the point of interest quickly and with little distraction from other areas of the image. By using a less shallow depth of field the photographer may add a few more details into the portrait, giving a context and location to the image. In both situations you ultimately need to consider what information is important for the portrait and the story you wish to tell and also how this will affect the composition of the image as a whole.

If it adds nothing to the story or composition, blur it out; if it gives us a little more information about the subject or adds a dimension or graphic to the composition, then leave it in focus or as a suggestion.

## **METERING THE LIGHT**

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A correctly exposed image is key to quality portraiture. The photographer should be aware as to how to achieve this by understanding fully the inbuilt metering system of the camera. Every digital SLR on the market today will have a

variety of systems enabling the camera to read the amount of light entering it and informing the photographer of the correct exposure level. Each will take light readings in different ways and from varying proportions of the frame to create a reading. Understanding how these work and how they read the light can affect the final outcome of the image.

### **Average Metering**

In average metering, as the name suggests, the camera will make an average reading from the whole scene and the light entering the camera from this. However problems will occur with this kind of metering when the frame has any extremes of light or dark areas that could affect the overall reading. For example the reading from a portrait taken in a very bright or dark scene would not be particularly accurate, and the face of the portrait would become either over- or underexposed as the camera took the reading from all of the information contained within the scene. Clearly for a satisfactorily exposed face this would not be beneficial for the portrait.

### **Spot Metering**

The spot meter will take a light reading from an area of the frame anywhere from 1 to 5 per cent of the overall image, usually from the central point of the lens although with some cameras this point can be changed. It is the most accurate and sensitive of all the readings available to the photographer. The point from which the reading is taken is precise and will not be influenced by any other area of the image in any way. In a portraiture scenario the

photographer would most commonly use this point to correctly expose for a mid-tone within the frame; this will ensure a correct reading.

### **Partial Metering**

The partial metering system will behave in the same way as spot metering, although drawn from a larger area of the image, in general between 10 and 15 per cent of the frame. Both spot and partial metering should be used when lighting conditions may be difficult for the camera to read, such as situations with high contrast as explained previously, or when shooting into light.

### **Centre Rated Average**

Available on all camera systems, this form of metering will draw its reading from the whole of the frame, with priority given to the centremost 60–80 per cent of the image, and is a good indicator of light. However as it is easily influenced by large areas of light and dark, these can throw the reading off.

### **Matrix metering (multi zone metering)**

Matrix metering is a system which will take into consideration many different factors when arriving at the correct exposure. Primarily this system takes the average of readings from many different points in the frame, and this will give a good base for a correct overall exposure. Readings will also be taken in the same frame from colours within the frame, and other factors such as where the autofocus has been set will prioritize where the readings are taken from.

What makes this system more advanced than the others mentioned is a database of many images taken in a huge variety of lighting conditions, which is stored on the camera. The camera's internal processor will then use this information to determine the type of image that is being taken by the photographer; this will then affect the reading given.

### **With Flash**

The camera metering system becomes redundant when shooting in the studio, as the flash system will need to be metered independently.

#### **READING THE HISTOGRAM**

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Reading the histogram can be a very useful tool when trying to meter an image correctly, and should be viewed in conjunction with the metering systems as explained here.

The histogram in its simplest form is a record of all the tonal ranges captured by the camera and how they are distributed. On the far left-hand side of the histogram the levels of absolute black (a value of 0) are recorded, and on the far right are the levels of absolute white (a value of 255). In between these two points will be varying degrees of tones of grey. The height of the histogram at any particular point is a representation of the number of pixels of that specific tonal value.

In a perfect exposure the photographer will endeavour to achieve a good range of tonal values across the scale. However this is of course dependent on the image being taken. For example if an image is taken and has a predominantly lighter tonal range the histogram will be weighted to that side of the scale, with the same being true of an image with darker tones. The photographer must then compensate and understand that this is what the camera is seeing, and is not wrong.

However, where the photographer must be careful is when the histogram starts to approach the edges of the scale, where any areas of the image that are overexposed or underexposed will be seen to 'clip' or rise up against the outer edges of the histogram, and detail will be lost.



Image taken in the studio. Union Jack flag, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.

## The Client

**M**any photographers starting in the industry believe that becoming a successful image maker is all about having the latest camera, lenses and best equipment. All of these are of course very helpful and in some cases necessary to creating images. However in the field of portraiture the greatest tool has got to be communication. It bears repeating that before the client walks into the studio or arrives at the location, there should be a certain level of communication between the photographer and the subject, to ascertain exactly what the client's needs are.

The portrait photographer has to use their intuition, instinct and skill to draw from the client an expression and emotion in the relatively short time since meeting them. The client has to feel a connection to the photographer in order for them to feel comfortable to give a little of themselves over to the image. The more successful portrait photographers will connect very easily with people from all walks of life and manage to find a common ground in order to make the client feel relaxed and comfortable as quickly as possible.

Here we will consider how the photographer should approach each type of shoot, from pregnancy portraits and babies through to adults, from the singular to the group and

generation shoot, in order to give the client the best possible experience whilst having a portrait taken.

**Remember that the person you are photographing is 50 per cent of the portrait and you are the other 50 per cent. You need the model as much as he or she needs you. If they don't want to help you, it will be a very dull picture.**

– Lord Patrick Lichfield

## **APPEARANCE**

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One of the first questions asked by the client booking a portrait shoot will be 'what should I wear?' It is an important consideration, and the more involvement the photographer has at this stage the more successful the outcome of the final portrait. At this point you can already start to build up an image of the family and the style of shoot that they may require.

### **Ask the client where their portrait is likely to hang**

Are there any colours in that room that could be used in the portrait? Or conversely are there any colours that would not be suitable to be included in the portrait?

## **Is the portrait to be shot on location or in the studio?**

In the studio the photographer may have more options, as they are not restricted in any way by the weather. The studio photographer will also have the option of allowing the client to bring a change of clothing and so also get a few different looks.

The location photographer may decide that it would be nice to coordinate the family's clothing with the location, giving a similar feel. For example with an autumnal shoot in a wood you may ask the clients to dress in browns, dark reds and greys to tie in with the overall feel, thus creating a more styled and aesthetically pleasing image. If shooting in the rain you may ask the family to bring along bright coloured wellies and umbrellas to create a vibrancy and interest in what may otherwise be a rather grey shoot.

## **Dress for Comfort**

Advise the client to wear clothes that they are comfortable in, first and foremost. Being comfortable will be of special importance if the shoot is to include children. There is nothing worse than a child who is uncomfortable and restricted in clothing that he would normally not wear. The photographer will automatically be on the back foot.

Specifically with babies and children ask the parents to choose two or three outfits to bring along to the shoot, ones that they like seeing the children in. You might also suggest an outfit that the child has chosen, maybe a fancy dress or party outfit, that can be put on towards the end of

the shoot; this can then be used to the photographer's advantage to give the child an end goal.

Hats are always great, especially on children, as they will automatically frame a face; if they bring their own that would be perfect, but always have some spares in the studio, just in case.

With very little ones, sometimes the most natural and honest shots are when they are topless or just in their nappies. With these shots innocence and purity will be captured and they can be beautifully simple portraits, although photographers must be aware that while some parents will be comfortable allowing you to do this others will not, so be understanding of their wishes.



### **Fig. 3.1**

Hats are a great way to automatically frame a face in a portrait, and of course the expression on the baby adds to the success of the image.

Image taken in the studio. Crimson Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## **Colours and Patterns**

If the portrait is of a family grouping ask clients to think carefully about how they would like to coordinate their clothing with each other – do they all want to wear the same colours?

Advise clients to avoid any strong patterns and logos on clothing, as these will date the images very quickly and be distracting in the final image. Strong colours can also cause casts on faces, for example a strong red or green worn close to the face can throw a cast over the face and render unflattering skin tones.

For classically inspired images more neutral and muted clothing is better suited, whereas more vibrant colours will add a more relaxed and contemporary feel to the portrait.

## **Props**

A prop can add interest and personality to a shoot, especially if it has a particular meaning to the subject, so they should be encouraged. Musical instruments, toys and other personal items can add another level to the image by telling us a little more about the subject; however they

should be used creatively and artistically so as not to distract from the main subject of the portrait.

## **PREGNANCY PORTRAITS**

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Pregnancy portraits are a real celebration of life and renewal, and as such they should portray this sensitively in a beautiful image. The best time to book these shoots is around the 33–37 week mark, where the bump is lovely and shapely, but the mum-to-be is still able to move around comfortably.

The photographer should advise pregnancy clients to wear nicely fitted or figure-hugging clothing to show off the bump, rather than unshapely, unflattering clothing that could just make the mum-to-be look overweight. It is best to avoid patterns and busy or fussy clothing, unless they add to the style of the proposed portrait or accentuate the bump in a particularly good way.



**Fig. 3.2**

Sometimes the most classic portraits of children are those where just the head and shoulders of the image are in the frame. Simple cropping with no distractions from fussy clothes gives a clean and striking image.

Image taken in the studio. Maize Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.



**Fig. 3.3**

There are so many creative ways to capture a beautiful bump, with the main priority of the photographer being to make the mum feel feminine and accentuate the shape of the bump in a flattering way.

The main focus should be the wonderful bump and should be simple and sensitive. The photographer might also want to suggest some semi-nude portraits or some with a luxurious material draped around her.

Most women during pregnancy will generally put on a little weight all over. The photographer must be aware that to lessen this, he may want to shoot from a slightly higher viewpoint and with a longer lens. Some poses that will work with pregnant mums will be far more flattering to the body than others. Remember that each body that is photographed is unique; to deliver the most creative and flattering portrait the photographer needs to consider body shapes and face shapes on a client-by-client basis.

Lighting the pregnancy portrait is also key to a flattering and shapely bump. If shooting in the studio it is best to feather the lighting through a soft-box to increase the

presence of the bump, whilst using the shadows created to thin and narrow the rest of the body. If shooting on location the photographer can recreate this lighting with the use of a window or doorway to shape and frame the subject.

Hands can be used meaningfully in pregnancy portraits; placed over or underneath the bump, they can create a protective and caring feeling. Be mindful that the hands should remain soft and delicate in nature to enhance this emotion.

If an older sibling or partner is present in the shoot keep them as involved as possible; kissing or embracing the bump can create a beautiful emotive image, if delivered in a sensitive way. Again using hands and focusing attention on the bump rather than at the camera will create the sense of family unity.

Further suggestions for pregnancy posing:

- Silhouettes and rim lighting to accentuate the bump.
- Funky colours/graphic.
- Sensitive nude.
- Muslin/silk.
- With partner.
- With other children.
- Do not open until...boy/girl, where the bump is wrapped with a pretty ribbon (pink or blue) and the due date printed on a label.



**Fig. 3.4**

Including an older sibling in a pregnancy portrait can create some lovely images of a precious moment in time.

## **BABIES AND TODDLERS**

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Babies and children can be greatly rewarding when being photographed. If the photographer is patient and a few useful tricks, children are free and natural with their posing and expressions, as they are far less self-aware than most adults.

Quite often children will naturally produce some stunning results without too much involvement from the photographer; it is sometimes just a matter of positioning them in the correct lighting situation or location, constant communication and letting them be themselves.

### **Newborn Babies**

To be commissioned to capture the baby's first portrait is a great privilege, one that the photographer should cherish. If the client's wishes are fulfilled at this wonderful time the client could be one to last.

Ideally, for these portraits to be successful the newborn must be under two weeks of age, and still in that lovely compact foetal position. It is at this stage, when baby is sleeping a great deal, that some beautiful artistic images can be created.

Shoots of this nature take careful planning, and a great understanding of little babies and their needs. For example, the studio must be kept at a warmer temperature for the baby to remain content and asleep. Patience here is key, and you must be acutely aware that this is also an extremely memorable and precious time for the family, so allow enough time for the shoot to be structured and unrushed.

Further suggestions for newborn poses:

- In arms.
- In posing cocoon.
- In hanging material.
- In pot, with blankets.
- With hats/accessories.
- With mummy and daddy.
- Montages, feet and hands.



### **Fig. 3.5**

If the photographer is patient and just watches, the child will produce some wonderfully natural poses without any guidance. Just being ready with the camera and knowing when to press the shutter can capture some honest and true portraits.

Image taken in the studio. Crimson Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.

## **Babies 4–6 Months and Onwards**

When contacted to take images of babies and toddlers, the first question to ask the parent is: When are they at their best and most alert during the day? There is no point in booking a shoot for when a child is due a nap or a feed, as you will be fighting a losing battle from the off! As a general rule most portrait shoots involving younger ones are better to be scheduled first thing in the morning, as children tend to be at their most awake and responsive; but remember, this may not be true for all, so it is best to be guided by the parent in most cases.

Advise the parent to bring along a few changes of clothes, and those that they associate or are special to the child at this particular time. Suggest colours and accessories, and advise that these will personalize the portrait.

It is also a good idea to suggest the parent brings along a snack and a drink to have a break halfway through. Raisins are a great staple to have ready just in case, and can rescue a grumpy little one!



**Fig. 3.6**

Using soft blankets and materials can frame and cocoon the newborn to ensure they remain asleep during the portrait.

Image taken at the client's house. 1  
Elinchrome 500 head, octagonal softbox,  
Nikon D2XS and 24–70 lens.

If shooting in the studio, the most important consideration is to make the environment as familiar as possible. If you have a large enough area this can be achieved by having a comfortable seating area in the studio, away from the lights and equipment, for the child to become accustomed to the setting whilst still in close contact to the parents.

The photographer must be very considered in the way he addresses the child, and aware of how sensitive children

can be to certain stimuli. For example, how do you feel when somebody talks down to you? Threatened? Insecure? If a photographer talks to a child in this way of course the child is not going to respond in a positive way to them.

So the first response when a child walks into the studio would be to get down to their level to communicate, be that verbally or non-verbally; it is much more familiar and reassuring for a child to interact with someone at eye level.



**Fig. 3.7**

Newborn image.

Image taken at the client's house. 1 Elinchrome 500 head, octagonal softbox, Nikon D2XS and 24–70 lens.

Some children will of course be very confident in this situation; others will be a little more apprehensive, and

need a bit more convincing to cooperate. Understanding that each child is different is key, and having the patience needed to work at it a little longer will be the difference between a successful and an unsuccessful child portraiture shoot.

Most children will come around in the end with some patience, game play and silliness. You can convince the toughest child to have fun and create some great expressions! Sometimes even the grumpy expressions can be priceless – let's not forget, nobody smiles all the time, and all expressions tell us a little more about a person.

Once the baby or child is comfortable it is important to remember that they have a relatively short attention span, and may need a few breaks in between shots to have a cuddle with mum, get changed, have a feed, nappy change and so on. In these times it is a good idea to move around the lighting set-up to create a different look, or to include mum and dad in the shoot to keep baby or little one happy. Work fast and know when you have the shot you require, and then move quickly onto the next.

It is also a good idea to have to hand a variety of small toys and rattles to help distract and draw the attention of the baby. Babies up to the age of around eighteen months will respond very well to babble and peek-a-boo; the older baby will lose interest in this very quickly, so puppets and other small toys are great to use to maintain their attention.

With babies and younger children one of the greatest toys in the studio can be a ball or little rubber duck, each of which can be hidden, placed on top of the head, used to

play hide and seek – at this stage it is all about game playing and keeping attention and focus into the camera.

Successful baby and children photographers are generally those who are quite animated and express themselves easily. Quite often babies and little ones can mimic and copy an expression made by the photographer; for example blowing a kiss, and clapping, can be captured from a relatively young baby by just doing the action yourself.

When the baby gets fed up, read the signs and react accordingly. You will not get favourable results from a baby pushed to the limits; sometimes just a little cuddle with mum can reassure and re engage the child.

Further suggestions for baby poses:

- Sitting.
- Clapping.
- Over shoulder.
- Blowing a kiss.
- Playing peek-a-boo.
- With sibling/siblings.
- Full length.
- Profile.

## **Shooting with Children**

Children from the age of two upwards have really started to grow their own personalities, and a great time can be had in the shoot if the photographer knows how to keep their interest in the process.

In these shoots communication is key, and the photographer should be consistently engaging with the child, with questions, praise and reassurance.



**Fig. 3.8**

With a limited attention span toddlers can be challenging to photograph. Having patience and time are key to capturing some wonderful images embracing their character.

Image taken in the studio. Buttercup Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light,

background light with honeycomb,  
Nikon D2Xs and 24–70 lens.

Again games and small tasks can become part of the shoot, and with a certain amount of skill the photographer can manage and manipulate the child into different poses and expressions. Asking a child what noise does a ...tiger, monkey, mouse (you get the idea) make, can create some brilliant expressions and reactions; they will respond very well to being engaged with and sharing their stories. Likewise playing a game, asking where the child's, or a sibling's, nose is, can create great interaction with both the photographer and/or another in the shoot. Hiding a small toy somewhere around the studio can be a great game, and the expressions you get when they find it can be just wonderful.



**Fig. 3.9**

Younger children are generally free with their expression if the photographer manages to engage their interest.

Image taken in the studio. Painted black background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.



**Fig. 3.10**

Older children will be more conscious of how they react to the camera. It is important for the photographer to encourage and draw out natural expressions with constant reassurance and compliments.

Image taken in the studio. Carnation Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## Teenagers

Teenagers by their nature are generally more self-aware and critical of themselves in images; they may not want to smile or pose as they did a few years ago. As a portrait photographer, it can be quite fun to go along with these more 'attitude' shots and embrace the changing personality of the child.

Again, here communication is important; the photographer should be asking about school, friends, what they like to do and so on, and this will generally show that the photographer cares about the teen, and will be able to build a good rapport. This will put the client at far more at ease.



**Fig. 3.11**

Posing guide demonstrating a variety of poses that could be used when photographing teenage boys.

Remember also that they are very aware of the media, and current trends in images. A teenager is more likely to cooperate and be happy with the results if the photographer asks them to strike a pose or action they have seen in a magazine or on TV.



### **Fig. 3.12**

Teenage girls are generally very confident in front of the lens. Here are a few images to illustrate some good poses.

## **POSING**

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For all shoots that you engage in, first and foremost the client needs to feel as comfortable as possible; if not the body language will communicate this instantly. A nervous and tense sitter will be stiff and rigid with raised shoulders and forced expressions, and this tension will translate quite obviously in the image. To eliminate this, you must communicate, and reassure the client until they have relaxed. This can be achieved in various ways, both verbally and non-verbally.

Initially when you greet the client you should be friendly, open and genuinely interested in them and their needs and wishes. When the shoot then begins you should be constantly communicating with the client, asking questions and talking throughout; this will automatically put the subject at ease. You must also be careful to listen as well as speaking to the client, picking up on any cues the subject may give you.

The last thing a photographer should ask the subject to do is to pull an expression; for example asking a client to 'smile' will just produce a forced and stilted grin, rather than a natural and honest smile. It is the skill of the photographer in being able to extract these emotions from the subject in this way, with a joke, pulling an unexpected

face or playing a game with a child, that means the results will be far more genuine.

When asking the client to pose it is very good practice to actually show the client how to do it; in this way they can see for themselves what you are requesting them to do, without feeling awkward or unsure. Face the client when doing this and they will mirror what you are showing them. If they are sitting down, then you need to sit as well. If you try to demonstrate this standing in front of them you have lost the eye contact and interest of the person; they will also not be fully aware of what you are trying to show them.

### **General Posing Rules for Most Shoots**

The photographer should be acutely aware that strong posing and conveying a mood will have a foundation in the body language of the sitter. Certain poses will evoke strength and power while others will suggest a more passive and submissive feel.

In general a good basis of a strong pose is to start from the feet upwards. Even if the feet are not to be included in the final image they will ground the subject and give flattering lines to the rest of the body creating good posture in the subject.

It is not advisable to pose a person directly face-on to the camera; this will result in an unflattering and rigid portrait. Far better to angle the body diagonally towards the camera, as this will instantly slim the subject and create interest. Shoulders, being the widest part of the body, should be

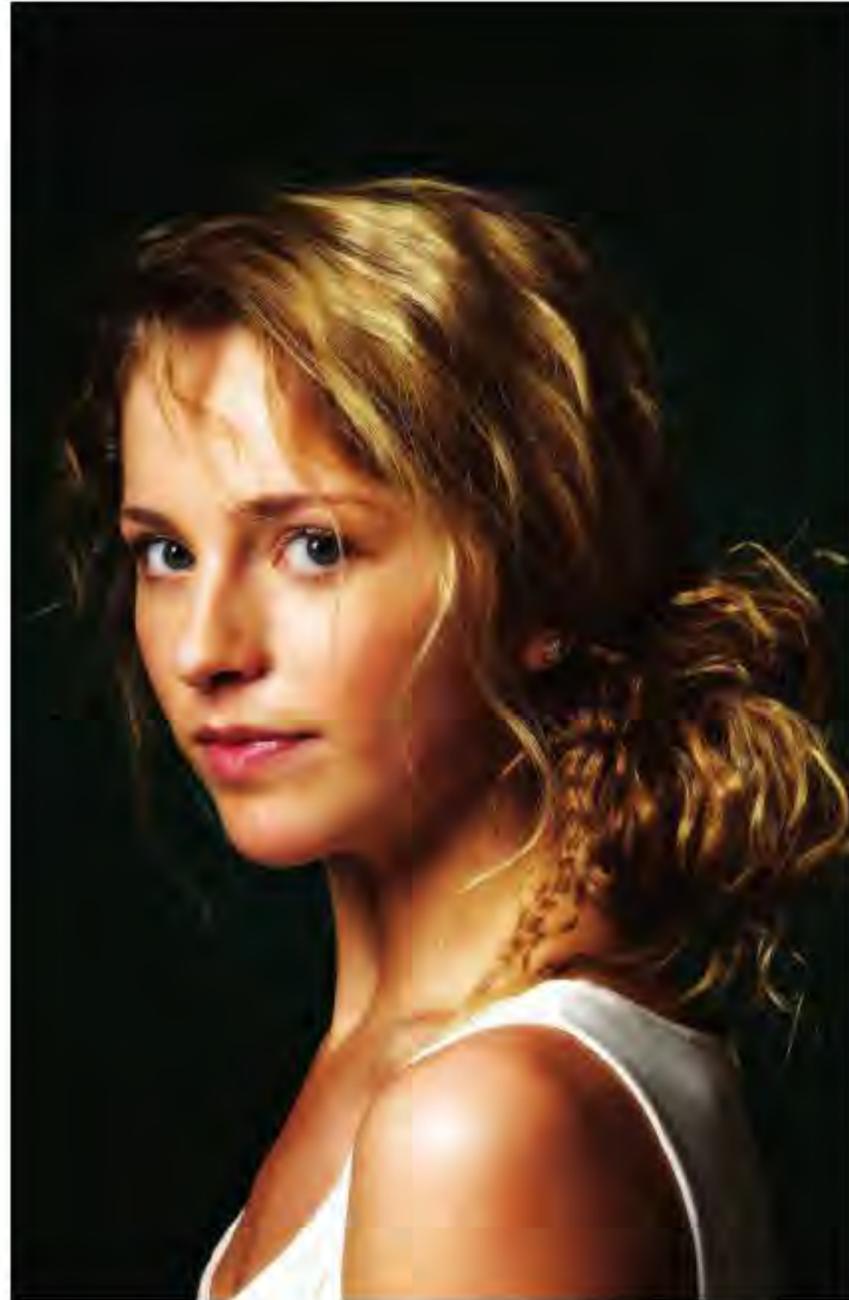
turned at an angle away from the camera, so as to slim and narrow the shape.

Bending limbs such as arms and legs will create interesting and flattering shapes; for example, placing a lady's hands on her hips will slim the waist to show off her figure, while the arms will be away from the body creating slender lines and making for a more flattering silhouette.

When capturing the image the photographer must always be aware of where the client's body will crop. You must take care not to 'chop' wrists, ankles and fingers when framing the shot, as this will instantly create unease within the image.

Horizontal and vertical lines chopping through the portrait are unfavourable to the image, and should be avoided if possible.

Whether the portrait is of a male or female subject, the head ideally should be tilted in a way as to create interest and shape within the frame. If the head is placed at a slight angle the natural line becomes diagonal, and thus the pose appears more dynamic and interesting to view.



**Fig. 3.13**

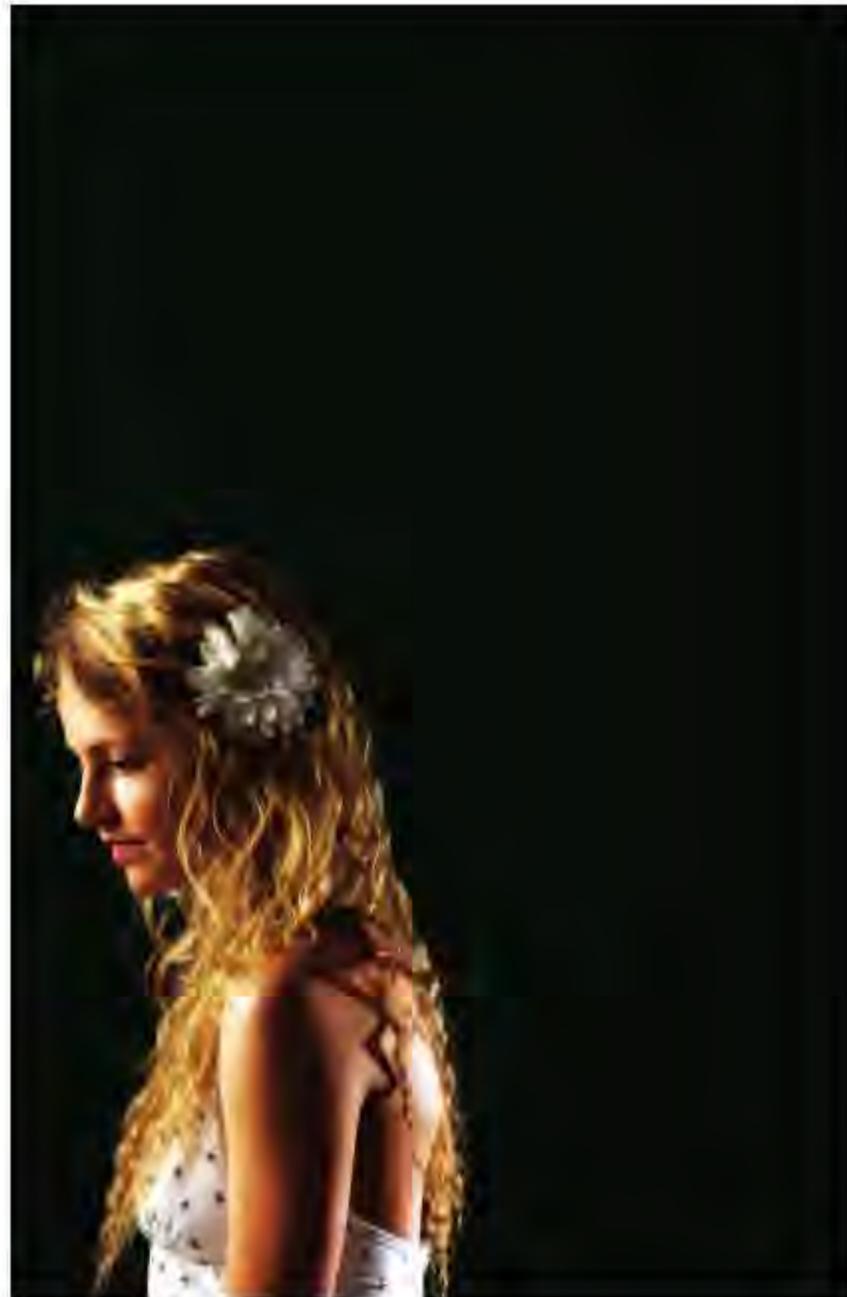
Eye contact and strong body position can create a portrait with a sense of strength. The crop of the image will enhance the power of this portrait.

Image taken in the studio. Spruce Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

If the mask of the face is level in a portrait, the line of the eyes will be straight and so parallel to the top edge of the

frame; this will lead to a lifeless and static composition, not allowing the viewer's eyes to move freely around the image.

As a general rule it is thought that when there are two of each in an image – such as eyes, hands, shoulders – these should never be aligned with each other; this uneven placement of elements will guide the eye toward the primary focus of the image (the face or eyes) in a more fluid way.



**Fig. 3.14**  
By placing the same subject into the corner of the frame and with

the eyes looking towards the edge of the portrait a more thoughtful and pensive image has been rendered.

Image taken in the studio. Spruce Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

Good posing, and getting it right from the ground up, can also enable the photographer to ‘work’ a pose to create a wider variety of shots from the same set-up. If every element of the body is placed in a considered way and the lighting is correct the photographer can take a series of shots by just getting closer to or moving around the subject.

## THE EYES

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It goes without saying that in most portraits the primary area of interest will be the eyes, one of the most expressive parts of the face. If the subject is unengaged or uncomfortable, it will be instantly apparent, as the eyes will glaze over or look away from the photographer.

Quite often, especially when photographing children, we notice a spark in the eyes; this will occur when the subject is excited or captivated by what they are doing. Adult subjects are also more likely to feel comfortable in the presence of somebody who is interested and can listen and converse well. Achieving this expression and emotion in the eyes should be the photographer’s main goal when

photographing people; after all it is the expression that is most likely to create an emotion in the viewer, far more than a perfect pose.

Constant conversation will allow the photographer to keep eye contact with the sitter, enabling them to feel more comfortable when the actual image is being taken. If the subject is not able to give the photographer eye contact they are uncomfortable and insecure in the situation, and more work is needed to relax and reassure the client.

As we are sociable beings our eyes are more expressive if engaging with another set of eyes rather than with the lens of the camera. In some instances the photographer may wish to frame the shot in camera, and then look above the camera to engage with the subject to achieve a more natural expression. This technique works very well with children and adults alike; the photographer can pull faces and push for emotions and expressions if they are engaging with the client.

You must also be aware that the sitter may read from your facial expressions when looking to the camera display. They need reassurance that what they are doing is correct. By gaining your subject's interest, you will of course then allow them to relax into the sitting, and a level of trust is gained.

The direction of the sitter's eyes can make or break a good portrait. Many portraits will have the subject looking straight into the lens. Looking into the lens for any period of time can become disconcerting and uncomfortable for the sitter, as there is no personal interaction when looking into the camera lens, and mixing direct eye-contact shots

with looking in other directions can help to mix up the atmosphere.

If photographing a group of people there should also be interaction between the subjects as well as between the subjects and the photographer. Some of the stronger portrait images taken can be those where the photographer has 'set up' the scenario and then asked the subjects to interact with each other; quite often these can create some wonderful storytelling images full of emotion.

Eyes in a portrait should ideally either follow the line of the nose in whatever direction the face is pointing, or be directed towards the camera. Eyes looking too far to the side of the head can evoke emotions such as mistrust and wariness.

Avoiding too much white area in the eye is advisable, as it can be uncomfortable for the viewer. In some certain occasions, however, the white space can be intentional; for example, when taking images of children the photographer may want to evoke a sense of innocence; this can be heightened with a wide-eyed expression where a space underneath the iris is desirable.

Pupil size is important when taking a successful portrait. If working with bright lights in a studio or bright sunlight on location, the pupils will be very small and the subject's eyes can look unattractive. The most common method used to rectify this is to ask the subject to close their eyes for a moment just before the image is taken – some photographers will find it better to count down to when the eyes are opened – and this technique will allow the pupils to return to a more regular size.



**Fig. 3.15**

The eyes are the most expressive feature of the face. Even though the viewer is not able to see the little girl's mouth, it is still very clear from the emotion in her eyes that she is enjoying herself.

Image taken in the studio. Buttercup Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

In contrast the opposite can happen if you are working in lower light situations. The pupil can appear too large, giving the subject a blank expression. In this particular instance the photographer may ask the subject to turn to a

brighter light in order to return the pupil to a more acceptable size.

## **CLASSIC PORTRAITURE POSES**

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### **Male Posing**

Masculine poses for portraiture should make the client feel strong and in control. Steady feet and sturdy arms will accentuate any male posing; ensuring that the legs are strong and grounded and the shoulders are wide and broad will enhance the ideal of a male shape. By shooting from a lower camera angle you can make the subject automatically dominate the frame and give them an air of authority.

Masculine posing can be difficult if you have a client who is not entirely comfortable with being in front of the camera. This can be made easier if the subject is given something to sit on or lean against. By simply asking them to prop themselves against a wall or to sit on a stool you can give them something to pose with, and it will feel more natural for them to do.



**Fig. 3.16**

Male posing should be strong and powerful to enhance their masculinity. Here are a variety of good male poses.

### **Female Posing**

Feminine posing will be softer and more delicate than masculine poses. In feminine portraiture posing, the photographer should be aware of the parts of the body that flatter and complement the female form. Accentuating the waist and bust will result in a pleasing silhouette and a lovely flow to the body. This can be achieved by simple turning the body away from the camera, and for the subject's torso to face away from the main light source.

This will automatically slim the subject by lighting a smaller portion of the body and face.

Good strong posing always starts at the feet. Asking the subject to place their feet in certain ways will cause their body to react and shape itself in a particular way.

There are three commonly used posing techniques that are utilized by photographers when posing women: the S, C and T poses, each creating very different shapes and placements of the body.



**Fig. 3.17**

Female posing should enhance and flatter body shape to create soft and

delicate silhouettes. Here are some successful feminine poses.

### The S Pose

The S pose will give your client a flattering line and silhouette. Ask the client to face the camera, and then to cross one leg over the other; this will automatically slim them and add curve to the image. Placement of hands will also add to the shape and final feel of the pose.



**Fig. 3.18**  
S pose image, illustrating how the shape of the body is accentuated

with the simple placement of the feet in this position.

weight evenly distributed  
and legs crossed



**Fig. 3.19**  
S pose diagram,  
demonstrating the placement  
of the feet. Weight should be  
evenly distributed with space  
between.

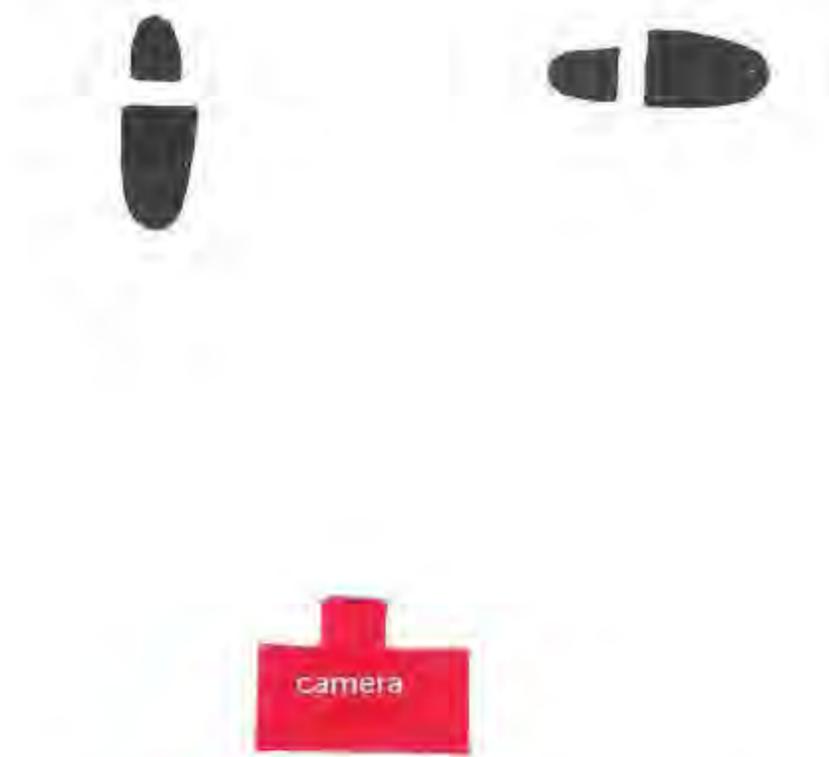
### The C Pose

Ask the client to face the camera, and to put the weight onto one leg; the remaining leg is then pointed away to the side of the body. The resulting image will be an elegant and soft-shaped C curve to the body, with the hands and arms following similar lines, and a feminine and graceful pose is produced.



**Fig. 3.20**  
C pose. Notice the graceful silhouette within this portrait and how the model's body shape creates interesting and elegant lines.

weight on the foot facing the camera  
the toe of the other foot just touches the floor



**Fig. 3.21**

C pose diagram, showing the placement of the feet for the female. The majority of the weight should be on the right foot, with the left foot toe just touching the floor.

### The T Pose

The T pose is another strong posing technique which will enhance and elongate the shape of a female. Simply ask the client to put all her weight on to her back foot (ideally this foot should be placed at a 45–90 degree angle to the body) and then point the remaining foot towards the camera. Again hands and arms placed in a delicate and flattering way will complete the pose.

When posing both males and females together, the photographer will see that these particular posing ideas are

a wonderful way to accentuate and illustrate the qualities and traits of the two differing body shapes.



**Fig. 3.22**  
T pose, a fantastic strong pose, highlighting the waist and shoulders of the model to great effect.

weight on back foot



**Fig. 3.23**

T pose diagram, showing feet and their placement. Again with this particular pose the majority of the weight should be placed onto the back foot.

## **Group Posing**

The posing of larger groups can be one of the most challenging areas of portrait photography. Keeping in control of a number of people, keeping them engaged in what is happening to gain good expression, and posing them all, become more testing as more people are added to the scenario.

Initially the key to delivering a good solid group shot is planning and forward thinking. The photographer should ensure that everything is ready and in place for the group to be posed, and expressions given readily. With larger grouping the photographer will need to work quickly to ensure all participants are engaged at the same time and do not lose interest. Especially if the group has children involved, this becomes of paramount importance, as they will quickly become disinterested if too much time is spent in one position.

Clothing choice is the primary consideration, and should be discussed with the group beforehand. Whether the shoot is in the studio or on location the final piece will be far more cohesive if there has been proper consultation on what each participant is to wear. The clothing should all be fairly neutral and tonally similar. If one person is wearing a stronger colour, they will automatically become dominant within the frame, and the portrait will look unbalanced.

When dealing with larger groups the photographer needs to look not only at the grouping as a whole but also at smaller subgroups of people. Quite often larger groups can be made up of smaller family groupings, and ideally these should be kept together, and posed as a unit within the larger set-up. The best place to start work is to set up the pose, one family grouping at a time, working from the centre outwards. If the gathering is a generation shoot ideally the more senior members of the family should be placed centrally and towards the top of the grouping in a protective manner, so it would make ideal sense to start here.

Quite often the most difficult aspect of a larger group is more logistical, the challenge being to find enough space to accommodate it. On location and in the studio you may find it harder to manage larger groups in the way you would normally shoot. The use of a set of stepladders may enable a higher vantage point from which to take the image, allowing more people to be included within the scene.

Throughout the process, you need to remain in full control, and as always with portraits the key to this is calm communication. If the clients do not know who is in command or if they are not given clear instructions as to what is expected of them at all times, the shoot can quite easily descend into chaos. Working quickly, keeping the clients engaged with eye contact and constant instruction should alleviate the risk of this happening.

The photographer must also ensure that everybody is clear and in view for the camera. One way to ensure this happens is to tell everybody that if they cannot see the camera, it cannot see them. However, the photographer should be acutely aware of everybody in the group; maintaining a rapport with the group as a whole will be the quickest and most direct way to obtain alert natural expressions from a group this size.

If the large group has been assembled for a birthday or celebration, the main subjects for whom the portrait is being taken should be placed in a prominent position in the grouping; this will generally be in the centre of the image. Try a variety of poses – some where the clients are facing the camera and perhaps some where the focus of the group is on the person or persons who are the centre of attention;

this can create some lovely natural and spontaneous expressions.

Heads should be posed in such a way that they are on differing levels, and should not be in line with each other; this will create a more interesting composition for the viewer, where the group becomes the focus rather than the individuals within, and the eye is able to move around the piece with ease. This

arrangement can be achieved on a flat surface with clever posing and varying the levels at which people are standing/sitting. You can also make use of chairs, the floor and other props in order to achieve this. On location you may find more natural ways to do this – a flight of stairs, a wall and some trees, for example, can produce some interesting ways to group people together.

Most importantly you should plan, take control, communicate constantly, work quickly and take more images than you would normally do of each pose. With more bodies in the shoot the margin for blinks and missed expression is larger, so give yourself more of a chance of capturing everybody together; if this does not occur, by taking ample images you will be more likely to be able to manipulate an image to please the client.

## HANDS

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Hands, along with the eyes, are an extremely expressive part of the body; we can often interpret what a person is feeling if they use certain gestures. By reading a person's

hands and using this knowledge in our composition we can include them to heighten meaning.

Hands in portraits can quite often be hard to position in a satisfactory and pleasing way. Looking unnatural and rigid they can create unease in an otherwise successful image. Taking care to place them attractively and in character can greatly enhance the overall feel of the composition.

Again there are certain rules that the photographer should adhere to, to create more pleasing lines in their imagery. Masculine and feminine hand poses will also apply, and again male hands will be strong and powerful, and female hands softer and more delicate.

Backs of hands should be avoided in images as they can appear aggressive and closed, especially if placed near the face. They can also compete with the face as the primary subject so should complement the shot rather than override it.

By turning the hands the photographer will also in turn slim down the arm, since the slimmer side of the forearm will be directed towards the camera as opposed to the wider area that would again compete for attention and be unflattering to the subject.

Hands should be relaxed and natural if they are to be included in a portrait; there is nothing more unattractive than tense claw-like fingers. You can ask the subject to shake their hands to loosen them, or to place the thumb in the centre of the palm of the hand to loosen and relax the tendons and joints in a more attractive way.

Male subjects can be put at ease by asking them to place their hands in trouser or jacket pockets, to fold their arms, or to clasp their hands together. In each scenario, however, they must look natural; if not the portrait can become too staged and set up.

Female subjects can be asked to replicate male hand posing if the situation arises and fits the scene; more commonly, however, a more delicate approach will be used to accentuate the gracefulness of the subject.

### **MIND READER**

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There are many different gestures and hand placements that our mind will read. These are the more common ones:

- Hands placed with the palms up can mean openness, trustworthiness and honesty. Think of how many people greet each other with an open hand; it says: I have nothing to hide, and welcome.
- A clenched fist will be read as aggression and/or determination.
- Hands placed near the face or with fingers running through the hair will conjure feelings of flirtation and allure.
- Hands placed on the hips will give an air of confidence, assertiveness and presence. This pose is also great for

slimming down the silhouette of a woman as it creates space between the arm and the body, adding shape and curve to the body.



**Fig. 3.24**

Multi nine image of Dr Who Elliott! Who even at only four was able to be directed into various poses and expressions. Shot on a Peat Colourama, With 1 Elinchrom 500 head to the right and small Octagon.

## Masterclass

### READING BODY LANGUAGE

**I**t is to a point inherent in human nature to read body language. We are conditioned from childhood to read the intricate signals that another person's body gives off in order to determine what emotion they are feeling. It is generally thought that around 60 to 80 per cent of all communication between people is of a non-verbal nature, illustrating just how powerful a cue it can be for the portrait photographer.

Body language is not just about how we hold and move our bodies, it can also encompass the following:

- How we position our bodies, our posture, and the general way we carry ourselves.
- The space between us and other people and how this changes as we warm to them or they become more comfortable with us.
- The facial expressions we may instinctively make. Facial expressions in their raw and simplest state will override any language and cultural difference, with the six universal facial expressions that everybody can relate to: happiness, sadness, disgust, fear, anger and surprise. More subtle facial expressions are harder to read.
- How the eyes make contact and move around whilst interacting with another person.
- The way in which we physically touch others and ourselves.

Subtle changes in the client's body language are powerful visual cues that the photographer should use as a tool to conduct their way through a successful portrait shoot. We all know a little about positive (or open) and negative (closed) body language. As soon as a person leans towards you, you can take that as a cue that they are engaged and interested in what is being said. If the subject is leaning backwards they are giving the impression of aloofness and a closed nature.

Using all of these clues the photographer can read and react to their clients in a more understanding and empathetic way, remembering that it takes communication and collaboration between the client and the photographer to create the most successful images.



**Rosie.**

Image taken in the studio. 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light Octa 135, Nikon D2Xs and 24–70 lens.

## Chapter 4

# In the Studio

**T**he studio environment is where the photographer will have the greatest amount of control over the lighting of the subject, with all factors being easily managed to create a myriad of effects. Initially fairly daunting and technically challenging, the studio can result in some fabulous images once the equipment and various lighting techniques have been mastered.

The primary thing to consider is that studio lighting is all a matter of using ratios of light, and once these are balanced, by following a few simple rules, the same principles are very much applied through all the techniques and set-ups of studio lighting. When working within the studio a photographer's aim is to utilize the lights and their modifiers in ratio with each other to create a balanced flattering light in which to take a portrait. With the most important features of the sitter being the mask (triangle) of the face and the eyes, if all of these features are lit sympathetically the resulting portrait will be successful.

In the studio environment there are a few key pieces of equipment required to achieve these results, as outlined below.

## LIGHT METERS

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Light meters are indispensable in the studio environment and are vital for measuring the correct exposure levels of your portraits. They are relatively simple to operate: by setting the correct ISO (the same ISO as the camera is set to) and shutter speed into the light meter, the photographer is then able to take a correct *f*-stop reading from the subject towards the key light. This type of metering is called an incident reading and produces the most constant results.

**Life's light. Life is light. You can make light do anything you want to. Photography means 'light writing'.**

– L. Ron Hubbard

The photographer should first place the subject in position, then put the key light on to the subject, and take a reading from the face of the subject back toward the key light. This reading will determine the *f*-stop value of the light hitting the subject, and thus be the value the camera is set to, for an accurate exposure. All other lights and reflectors added should be balanced in ratio with the key light or lights, and should complement the key light and not fight against it. If the ratios are incorrect, the portrait can become flat, uninteresting or unflattering.

When setting up studio lights, the photographer will need to take a few test shots to determine what the camera is

seeing, and that the correct ratios have been achieved; however, if metered correctly the result should be near to what was expected.

Over time, and when using similar set-ups, the photographer may find that they can predict how the light will fall and will not need to take these readings every time, and it may be that they are able to read this from the LCD display of the camera and its histogram as they become more familiar with the way the light moves around the studio.

## **THE STUDIO FLASH**

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The most important tool the photographer will need in the studio is the flash equipment. There is great variety to choose from, and the photographer will need to consider their needs when choosing the correct one. All will have differing power outputs, price, longevity, and certain accessories. You should invest in the highest-quality equipment you can afford for the type of work that you are intending to do, especially if the main bulk of the portraiture work will be produced within the studio environment.

The photographer has the option to choose between two differing lighting sources available for the studio, either continuous lighting (available in tungsten or fluorescent), or strobe (flash) lighting. Both systems are suitable for the studio environment, and allow the photographer fairly similar outcomes.

Continuous lighting systems give the photographer the ability to constantly 'see' how the light is falling on the subject, allowing them to adjust the positioning and power of the lighting with relative ease, with the ability to visualize the shot instantly. One drawback, however, is that after a certain amount of use these lights can become hot, and in a confined environment this may not be so comfortable for the sitter.

Strobe (or flash) lighting has as its great advantage the ability to sync with the camera at higher shutter speeds, allowing the photographer to stop motion and movement, always beneficial when photographing people and especially children. As it is the most commonly used system for portraiture it will be explained in more depth.

Whichever system is chosen, most portrait photographers will initially start their studio with a two-head kit and then build up their equipment from there, adding modifiers and extra lights as they progress.

A well-equipped studio should have enough flash heads to cover any lighting set-up the photographer may wish to produce, and ideally have a spare should a light need repair. Once the flash heads have been chosen, the photographer now is able to decide on the most suitable accessories to complement his style of portraiture.

There are many different lighting controllers and attachments available to the studio photographer, such as beauty dishes, snoots and reflectors, all designed to shape and manipulate the light. The portrait photographer must take time to understand and use each one with the correct knowledge of how it will affect and shape the human face.

When used appropriately the results can be flattering and beautiful; however, used incorrectly they can be ugly and harsh.

Some lights and their attachments are designed to be soft and diffused, while some are harsh; and others are for accent use and not for lighting the subject as a whole. Softboxes are generally used to soften and disperse the light, whereas tools such as snoots or reflectors can be hard and direct, lighting more suited to light backgrounds rather than the subject itself. All will have their use depending on the required look of the final portrait.

The photographer's main concern when lighting for portraiture is to use the equipment in a sensitive and considered way so as to enhance and be sympathetic to the sitter. The more advanced portrait photographers will study each and every studio sitting, and light their subject accordingly. They will notice features such as cheekbones, eyes and face shapes, and will decide to use the light and accessories to accentuate and enhance these good features.

### **Inverse Square Law**

The inverse square law in a photographic lighting scenario is used to determine the fall-off in illumination on a subject as it moves closer to or further from the light source.

For a quick calculation, it is good for the photographer to remember that simply doubling the distance between the lighting source and the subject will reduce illumination to one quarter of the power. For example if we were to illustrate these ratios:

- Light at  $2\times$  the distance from the subject is  $1/4$  as bright.

- Light at 3× the distance from the subject is 1/9 as bright.
- Light at 4× the distance from the subject is 1/16 as bright.

## **THE FLASH HEAD (STROBES )**

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Invented in the 1930s by the electrical engineer Harold Edgerton, the flash tube was developed initially to capture and record moving objects on film. It is now a mainstay in the portrait studio environment, where its ease of use and reliable output of light is indispensable. There are many different makes and models of flash kits available to the portrait photographer, all with their own benefits and features; however almost all are built to similar specification, offering ease of use in the studio.

### **Sync Lead or Trigger?**

All flash heads will be supplied with a sync socket and a sync lead – which is the connection from the key light into the camera, and the means by which the light is ‘fired’ when the shutter is pressed on the camera. In the portraiture studio setting, where people are constantly moving around, the photographer may find that the lights are safer if they are fired wirelessly, so as to avoid trips, and also allowing the photographer to move freely around the studio.

Many newer lighting kits will be supplied with built-in syncs that can be fired via a radio or infrared transmitter from the hot shoe of the camera. Alternatively you can find infrared or radio triggers that behave in the same way;

these will have a receiver that is plugged into the key light of the studio set-up.

## **Flash Heads**

When used in conjunction with each other flash heads will have a slave cell; this enables other lights in a set-up to be triggered when the main light is fired.

All flash heads will have a power setting that the photographer will be able to control to some extent. This will also be dependent on the internal power of the flash head itself. For example a flash head with a 600W power will emit more power and have more range than a 300W flash head.

Some flash heads will also have an audible sound which will enable the photographer to hear when the flash duration has recharged enough for the light to be fired again for the next shot. If the photographer overshoots, the flash will produce less power and the resultant image will be underexposed.

The two lights found within a flash head are a modelling lamp and the flash tube.



**Fig. 4.1**

The flash head, showing the flash ring surrounding the modelling bulb. The flash ring is the light that produces the 'white light' when the flash is triggered.

### **Modelling lamps**

Modelling lamps are used for the photographer to 'see' where the light is going to fall, before the shot has even been taken. Used while the photographer sets up for the shot, modelling lamps can be turned off once the desired outcome is achieved, as they can become very hot, and it does not in any way affect the final outcome of the image whether they are on or off. If used for some time, take extra

care when changing modifiers such as snoots and reflectors as these can become hot also.

The flash bulb is where the true 'white' light is produced when the shutter is depressed on the camera; this is normally a small ring of glass surrounding the modelling lamp.

### **TREAT THE FLASH BULB WITH CARE**

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Be careful *never* to touch the flash bulb. They are extremely hot when fired, and touching them can damage the glass. They are extremely fragile and relatively costly to replace. The lifespan of the flash head is dependent on the power output and the frequency of firing; however this can be compromised if touched.

## **LIGHTING ACCESSORIES AND MODIFIERS**

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The main advantage when shooting within the studio is the vast array of lighting accessories and modifiers you have at your disposal to control the way you want to use the light to tell the portrait of the sitter. Some modifiers create soft lighting while others are designed to produce harsh lighting, and each will have a use in a studio environment.

### **Spill**

Spills are generally supplied with the lighting kit, as they fit some of the other modifiers onto the outer rim or inside;

for example barn doors generally clip onto these, or honeycombs are slotted onto the inside ring.

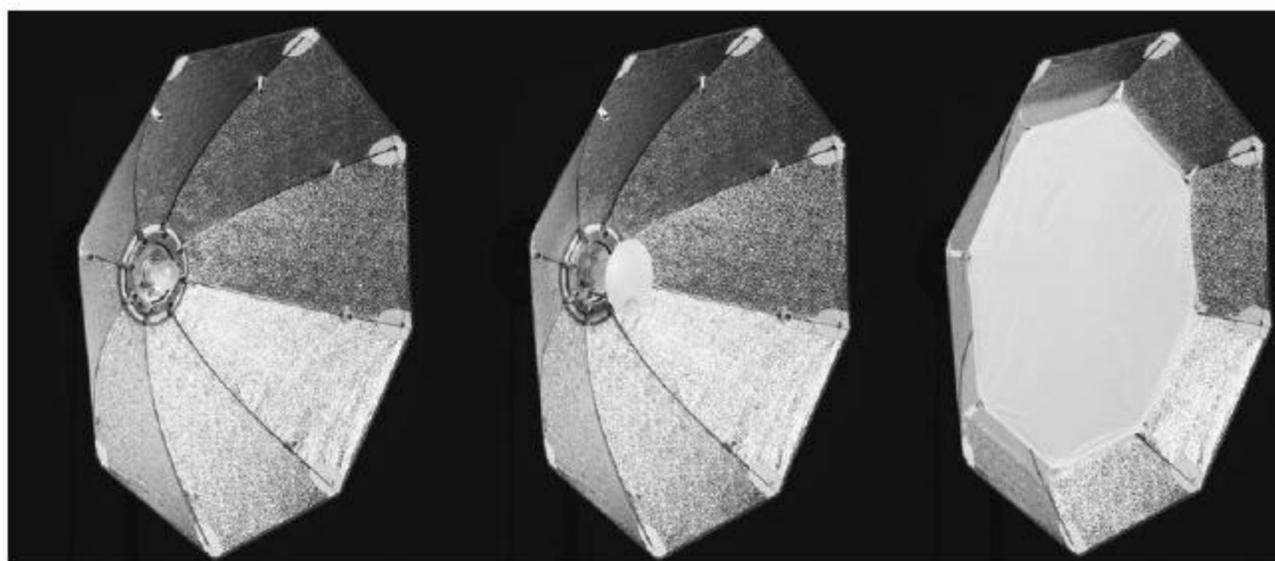
If used independently from these modifiers the light produced from the spill is a harsh direct light, suited only to light the background.



**Fig. 4.2**  
Image of a spill without any additional modifiers.

## **Softboxes**

The softbox is a very common tool when shaping the light for portraiture. As the name suggests, it will give the photographer a soft light with smooth shadows and a more graduated contrast than some of the more harsh lighting tools such as a snoot or spill.



**Fig. 4.3**

This illustration shows the internal workings of the softbox. In the first image we can see the flash head; then a deflector is placed in front of the light, and a layer of translucent material to soften the light further.

The softbox works by initially containing the light in a box or chamber, quite often with a dappled silver textured surface inside; this bounces the light around until it is diffused through the front of the softbox via a translucent diffusion material. The already softened light then scatters to produce an even and soft light to illuminate the subject. With larger softboxes you may even find they have an extra layer of material in between the flash and the front diffuser; this will of course soften the light even further.

Softboxes are available in a variety of shapes, most commonly square, rectangular or octagonal; they also vary greatly in size from smaller square ones to enormous octagons. All will lend themselves to certain uses, smaller ones being more suited to head shots for example and larger ones for more full-length images. However there are no hard and fast rules; it is just a matter of using the best tool for the required outcome. To obtain the softest light

from a softbox the general rule is: the larger the better. Also when placing the light closer to the subject you will achieve an even softer feel, with the light almost wrapping around the subject.



**Fig. 4.4**

An image taken with a softbox. Notice how the light softly wraps around the face to create a soft and beautiful profile image.

Image taken in the studio. Leaf Colourama, 1 Elinchrom BRXi 500,

Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.

Softboxes are extremely versatile in the field of portraiture, with a variety of uses. With just a small movement of the light, by only one or two inches, you can completely change the feel of the portrait, using the exact same light but all will use the softbox as the main light source. You can create some wonderful images with the use of just one softbox.

### **Deflectors**

Deflectors are small discs placed in front of the flash tube underneath the softbox to further soften the light before it hits the subject. Some of the light will pass through the deflector whilst the remainder of the light is reflected back towards the flash tube. The output can be varied simply by adjusting the distance from the flash tube, and with the choice of colour – either white, clear, silver or gold.



**Fig. 4.5**

A deflector was used within the softbox to further soften the light emitted.

Image taken in the studio. Peat Brown Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, and one honeycomb to light the back, Nikon D2Xs and 24–70 lens.

## **Umbrellas**

Umbrellas are used in the studio in a way very similar to the softbox. The light is placed facing away from the subject and is bounced toward the subject from the umbrella. The resulting light will be soft and flattering and will wrap around the subject with ease.

The spread of the light can be altered when using this modifier by moving the umbrella closer or further away from the light source. The closer the light is to the umbrella, the narrower the fall of light; and the further away from the umbrella, the larger the fall and the softer the light.

There are a variety of different umbrellas that can be used. Varying in colour and in size, the one most commonly used is the white umbrella, as it will complement skin tones. The silver umbrella will bounce the light very efficiently, and as such can be used as a very effective fill light. The most diffused umbrella light is created when the photographer shoots using the translucent umbrella, as the light is dispersed in a way similar to a regular softbox. However you will find that the spread of light from the umbrella is not quite as controllable as the light from a softbox, and as a result they are more commonly used in the portraiture setting for the purposes of a fill light, where a less directional light source is needed.

## **Barn Doors**

Barn doors can offer the photographer very directional lighting and can produce some interesting effects and shapes. However, as the light is not being diffused in any

significant way it is rather aggressive and harsh, so these would be used predominantly to light the background.

## **Snoots**

The snoot is not generally used as the main or key light, purely because the lighting is of a harsh nature, where the shadows and contrast are just too strong to be flattering when used to illuminate facial features.

The snoot is more commonly used for a hair light, or a kick light, or indeed to create a light spot on the backdrop. However, the light, due to its nature, must be balanced carefully in ratio with the key light so as not to overpower the portrait, or blow out any details. By using this attachment correctly you will create more drama and depth in your portraits, as the sitter will become more three-dimensional. Some snoots are also supplied with honeycombs; these will soften and diffuse the light in the same way as a regular honeycomb.



**Fig. 4.6**

A snoot. This harsh light modifier would generally only be used for lighting details such as the background or hair.

### **Honeycombs**

A honeycomb is a grid used in conjunction with the spill modifier and is similar in its nature to a snoot or a spotlight, although the circle of light it produces is generally wider and softer-edged. It is most commonly used to give depth to a background or as a hair light. Honeycombs can be used with various sizes of grid; the finer the grid used the more diffused and soft the light.



**Fig. 4.7**

A spill with honeycomb attachment fitted inside. The honeycomb softens the light, but it is still relatively harsh.



**Fig. 4.8**

Although producing a harsh light, the use of the

honeycomb in this series of three images has worked well, creating an atmospheric and dramatic set of portraits. The muscles and build of the boxer are pronounced, powerful and strong.

Image taken in the studio. Slate Grey Colourama, 1 Elinchrom BRXi 500, Key light with honeycomb, Nikon D2Xs and 24–70 lens.

The honeycomb is sometimes used as the key light within portraiture, although as it produces a fairly non-diffused and harsh light the photographer must be careful to use it sympathetically. It is most suitable for use with strong masculine portraits where defined jaw lines and heavy shadows are required.

### **CAMERA SETTINGS FOR STUDIO FLASH**

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For the greatest amount of control the camera should be set to M (manual mode), enabling you to regulate the variable values of aperture whilst the other values will stay relatively static.

- The ISO in the studio should be as low a value as your camera will allow, 50–100 being ideal if viable, allowing the highest-quality image possible.
- The aperture will be variable, will change within different lighting set-ups, and will be determined by the light reading you receive from your key/main light.

All digital SLR cameras will have maximum shutter speed that they will sync at when used with studio flash. Check

with your camera's manual as to what this value will be; they range from around 180th to 250th of a second on most pro cameras. If you select a shutter speed faster than this value, the resultant image will have the black line of the shutter skimming the edge of the image. Most studios will shoot around 160th of a second, enough to stop some action and movement yet well within the sync threshold.

For the greatest quality of image, and the most control, the camera should be set to capture RAW images; this will give you the highest dynamic range from your image, and the greatest ability to manipulate in post production.

## **Reflectors**

The reflector is more commonly used when shooting portraiture on location, but it can still be valuable in the studio. Used in the place of an extra fill light the reflector can add more shape into the final image with the softness and subtlety of a large softbox.

Primarily used to bounce flash back onto the subject when placed on the opposite side of the key light, its purpose is to fill in any shadows and darker areas of the portrait, although to a lesser strength than the main light so as not to flatten the image in any way. When the subject is lit from above, the reflector can also be placed underneath the subject to push light into stronger shadowed areas, such as under the chin or the nose.

## STUDIO LIGHTING

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Along with the huge number of lighting accessories and attachments there are also many tried and tested lighting techniques that are routinely used by portrait photographers in the studios, to flatter and shape their clients; each of these will be demonstrated and discussed, with clear explanations of the general rules and things to be aware of. The first two most commonly used techniques that the photographer must grasp initially are high- and low-key lighting.

### High-Key Lighting

High-key lighting is a term used when the studio space is set up with lighting that illuminates the studio in an even and uniform way. This style of lighting is most commonly found when shooting against a white backdrop and has an air of brightness, fun and vibrancy.

With the lights in a ratio, the background is lit to an even white, normally half a stop to a stop higher than the key light (main light), and the foreground lit evenly with a key light (main light) and a fill light.

With this very low contrast ratio there will be very little difference found between the highlights on the image to the shadows. If the background is lit to a higher level than one stop the photographer will start to find the light will bounce back (sometimes called spill) from background onto the client, and detail and definition can be lost, especially if you have a client wearing white or with blonde hair, as any fine details will be 'blown out'.



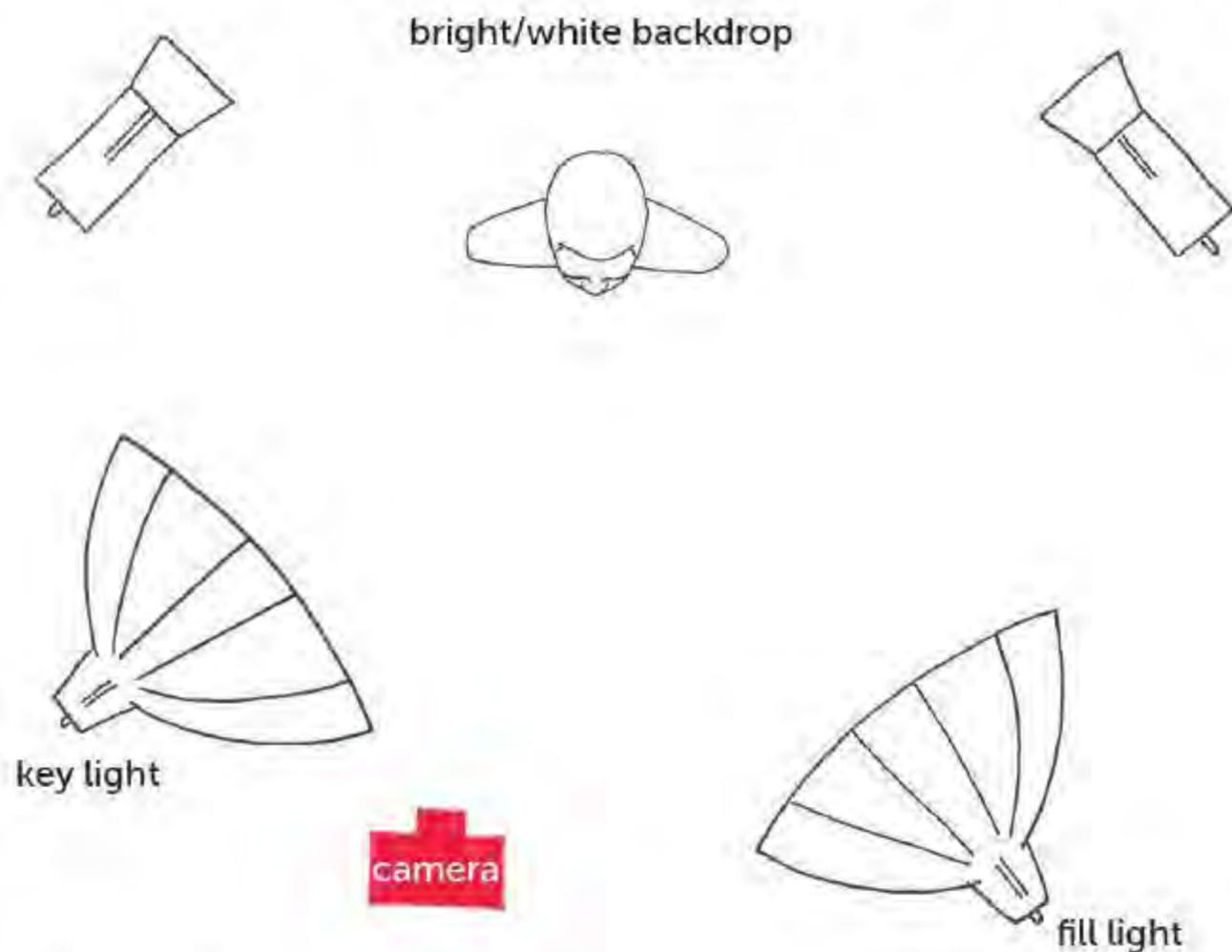
**Fig. 4.9**

The perfect image to illustrate a good clean high-key set-up – simple, bright and with great expression.

Image taken in the studio. White Colourama, 1 Elinchrom BRXi 500, Octa 135cm softbox key light, 2 background lights, Nikon D2Xs and 24–70 lens.

This is an easy set-up to work with as the lights are arranged in such a way as the subject, whether an individual or a group of people, will be lit in a satisfactory way when placed in various different positions and poses. When photographing larger groups of people, say in generation shoots or large family groupings, high-key lighting is a great style to use to ensure that all are lit adequately.

The leading advantage of shooting portraits with high-key lighting is that it does not require adjustment for each pose, so it allows the photographer to change the client's position with little or no movement of the lights, saving time and disruption to the flow of the shoot. With this flexibility in mind studios and photographers dealing with a high volume of sittings may often adopt the high-key approach.



**Fig. 4.10**

The basic four light set-up needed for high-key portraiture.

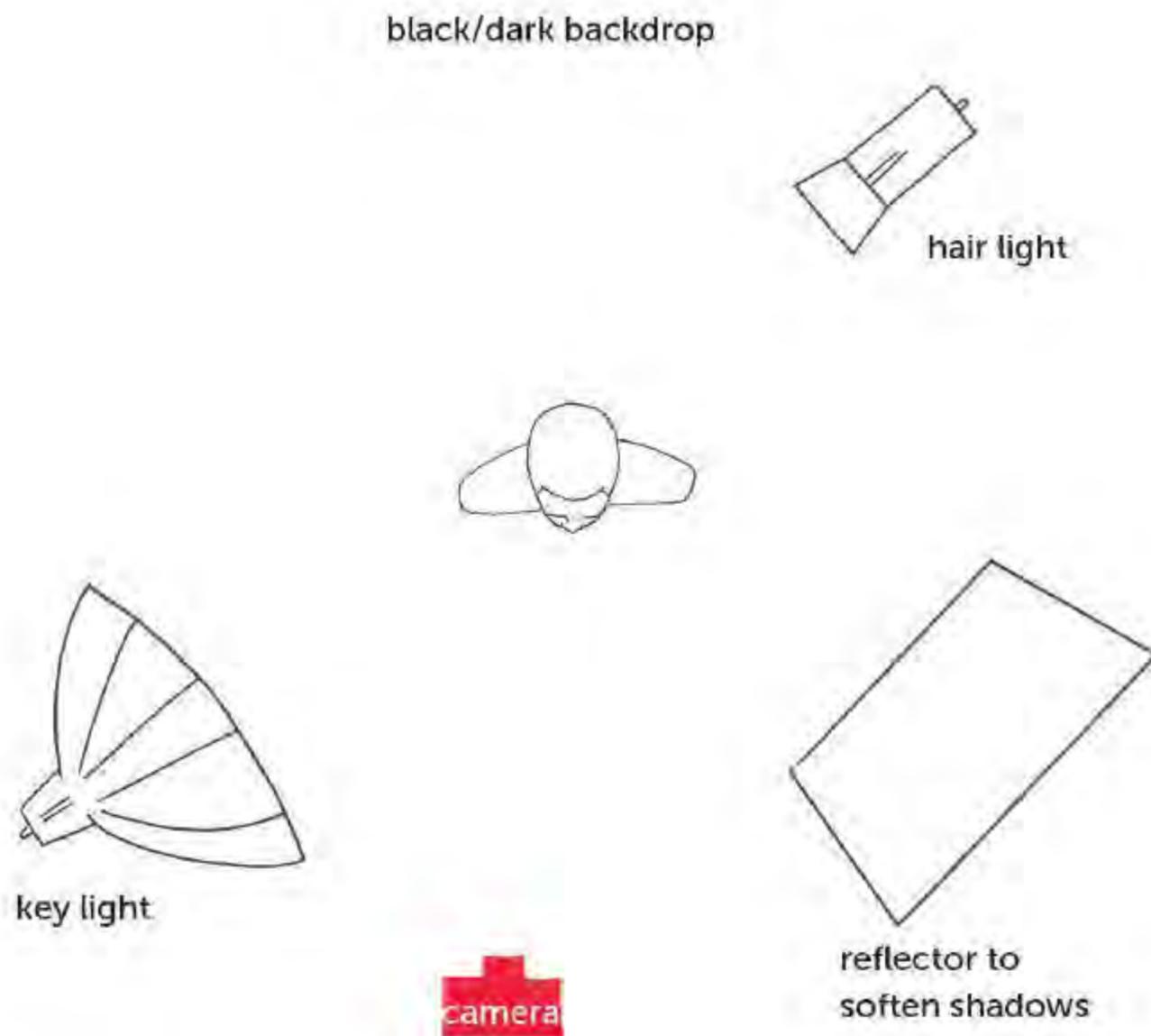
The overriding drawback is that high-key lighting fails to add meaning or drama to a portrait, as the overall lighting can be relatively flat and indirect; it treats every sitter with identical qualities, not as individuals. Over time the photographer will want to inject some creativity and

interest to their portraiture, otherwise risking it becoming repetitive and unexciting.

### **Low-Key Lighting**

Low-key lighting is a more considered and calculated way of lighting the subject. Unlike high-key lighting, where the photographer floods the studio area with light, low-key portraiture uses the light in a very specific and restricted way, to shape and define the subject's features.

Low-key lighting can be achieved with as little as one key light, and many classic examples of portraiture are known to have been shot this way, although using reflectors and extra fill lights balanced correctly in correlation with the key light will enhance these images and give a greater sense of depth and drama. More commonly shot onto a darker background again to add to the effect, low-key portraiture really draws the viewer into the image by allowing the eyes to be guided to the lightest part of the image.



**Fig. 4.11**

Basic low-key lighting set-up. Once the photographer becomes familiar with this, further modifiers and reflectors and so on can be added if needed.

The key point the photographer must be aware of when shooting with a low-key lighting set-up is that the lighting is far more unforgiving than that of the high-key set-up – unforgiving for both the subject and the photographer. In terms of the way the light falls on the skin, ideally in a low-key set-up the subject needs to have almost perfect porcelain skin, otherwise any imperfections will be heightened and will need to be retouched. It is also uncompromising for the photographer, as they must be far more considerate when placing the subject and the lights to

ensure they obtain the most flattering results, as slight movements of either the lights and/or the subject in the wrong direction can result in an unflattering and unsuccessful portrait. Dark, dead eyes and harsh shadows across the face are common mistakes when lighting low-key portraits; these can easily be avoided if the lighting is placed correctly in sympathy with the sitter's face shape and position.



**Fig. 4.12**

Low-key image.

Image taken in the studio. Slate Grey  
Colourama, 1 Elinchrom BRXi 500,

Octa 100cm softbox key light, hair light  
with honeycomb, Nikon D2Xs and  
24–70 lens.

## **STUDIO PORTRAIT LIGHTING TECHNIQUES**

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An extremely useful practice when learning about portraiture is to start looking at images that you would wish to emulate. Learning to ‘read’ an image is a great skill and one that teaches you to understand how lights work in the eyes and on the mask of the face. By looking at the reflections of lights (catch lights) in the subject’s eyes, you can determine how the photographer has utilized their lights to get the desired result. From these small clues you can discover various details: Are the catch lights square or circular? Where has the light been positioned to obtain the best lighting? How many lights have been used?

As an aspiring photographer the more images you read in this way the more fluent you will become, and this will advance your own tastes and styles as to what portraiture you are drawn towards. This capability in return can shape and develop a photographer’s own particular style and technique when shooting images for their own clients.

Each of the six primary techniques described below will be more suitable for some subjects than for others, and all will give a slightly different feel and quality to your portraiture. When understanding and learning each technique, you may find it useful to begin by studying the basic idea, using just

the key light, as this way you will get a better understanding of how the light is behaving towards the subject and how it affects the face. The key light in each scenario should always be placed above the sitter's eye level; this is the ideal position for flattering portraiture. Look for highlights in both eyes when visible, and ensure they are in the correct position; if not the client will have dead eyes, with no sparkle or life. When this has been mastered you can then progress to more complex lighting scenarios where reflectors, fill lights and background lights can add greater depth and shape to the portrait.

With the correct understanding of the lighting ratios needed to create a balanced and well-structured image, you are free to create a variety of effects, moods, drama and feeling within the portrait. Once you have achieved a heightened level of skill and mastery in the studio, some wonderful portraits can be created. However, to achieve these high qualities the key is to really understand the principles and ratios and to apply them correctly and appropriately to each individual subject.

### **Rembrandt Lighting (also known as 45-degree or Chiaroscuro lighting)**

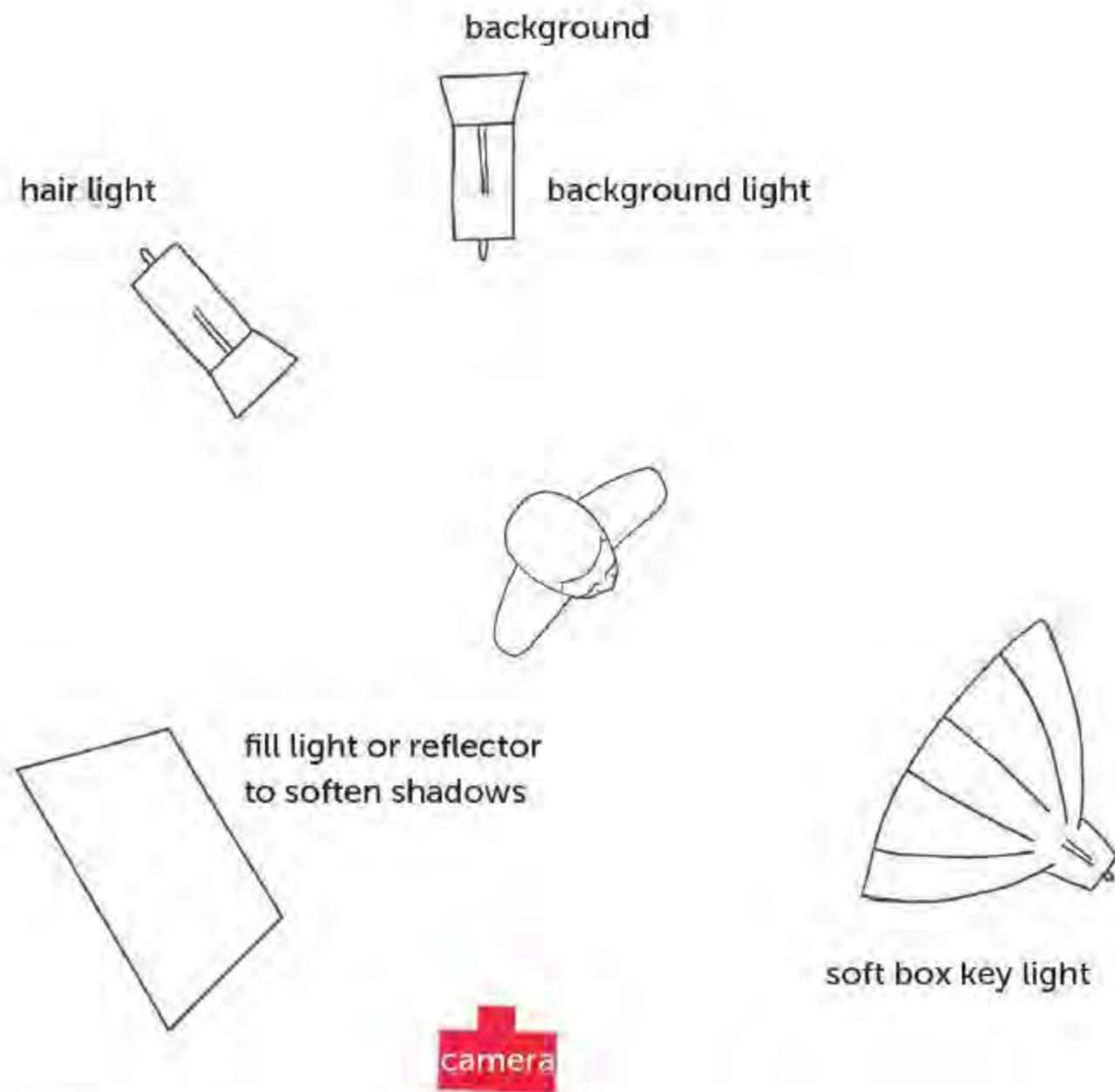
As the name suggests, Rembrandt lighting is named after the Dutch renaissance painter. Rembrandt's distinctive style of lighting his painted portraits is often used today in photographic portraiture, due to the depth and detail it gives the image. The drama and quality of the darker areas of the portrait created by this approach draw the viewer into the image; it has a richness and tonality unmatched by other techniques. Portraits become instantly

more three-dimensional as there are shadows and textures suggesting depth and strength. Quite often used to light strong male portraits, the technique can be applied to most portrait sittings, as it can be very flattering by narrowing and shaping the face.

When studying images captured with this lighting set-up you will notice a few key features, most noticeably a triangle of light found on the cheek of the sitter, on the opposite side to the placement of the key light. It is a general rule that this triangle of light should be no wider than the base of the eye and no longer than the nose.

Initially to achieve a good example of Rembrandt lighting, you will need a key light, most preferably an octagonal softbox, so as to obtain lovely round catch lights in the subject's eyes. The key light must be placed at a 45-degree angle to the mask of the face, and in a position higher than the eye level of the subject. The photographer ideally will want to see the highlights at either 11 o'clock or 1 o'clock in the eyes; if not, the key light is placed incorrectly.

When the correct placement has been achieved you may want to add in a fill light or reflector at a lesser power than the key light to soften the shadows a little. If required, the fill light or reflector is placed again at 45 degrees on the opposite side to the key light so as to soften a little of the harshness or sharpness of any shadows; it is set at half the power ratio of the key light so as not to cancel out the desired effect. The light will be at a slightly lower angle to lift any shadows under the chin.



**Fig. 4.13**  
 A demonstration of the positioning of lighting needed for a good Rembrandt portrait.



**Fig. 4.14**

Rembrandt portrait. Note the triangle to the left of the face, and the strong contrast in the face, rendering a striking male portrait.

Image taken in the studio. White Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, 2 background lights, Nikon D2Xs and 24–70 lens.

## **Butterfly Lighting (also Beauty or Paramount Lighting)**

Butterfly lighting is so named because, when produced correctly, the shadow that occurs underneath the nose resembles that of a butterfly. As the Rembrandt lighting set-up is ideally suited to photograph male models and clients, butterfly lighting is generally more suited for use with the female bone structure and narrower face shape. Used commonly in beauty and fashion shoots, the light is flatter and more even than the more directional approach of the other techniques explained here, the resulting effect being to even out any blemishes and to highlight lovely cheekbones and the beautiful symmetry of the face.

To produce a simple butterfly light you will need the key light – again ideally a lovely octagonal softbox or a beauty dish – to be placed directly in line with the subject's nose, and pointing downwards towards the nose, whilst being placed at an angle higher than eye level. You must be acutely aware that any movement in either the model or the light can lead to shadows becoming unflattering and incorrectly placed.

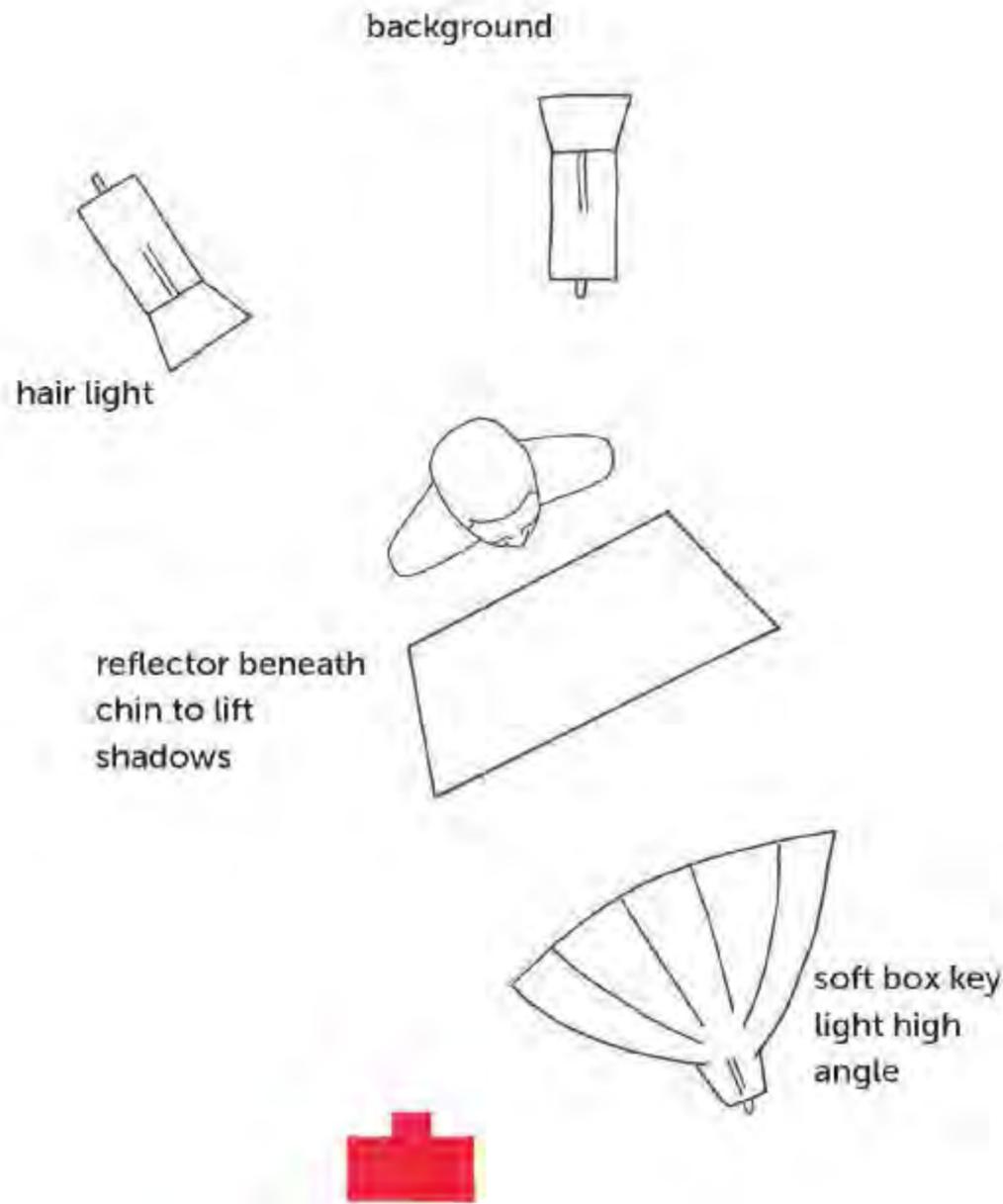
When this has been mastered you may find that adding another light or reflector directly beneath the fill light will soften any darker shadows that will fall underneath the chin of the subject.



**Fig. 4.15**

With the light placed high above the subject's face, the butterfly-like shadow is apparent underneath the nose, accentuating the beautiful cheekbones and features.

Image taken in the studio. Slate Grey Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.



**Fig. 4.16**  
 Illustration to show the correct placement of lights in successful butterfly lighting.

## **Rim Lighting**

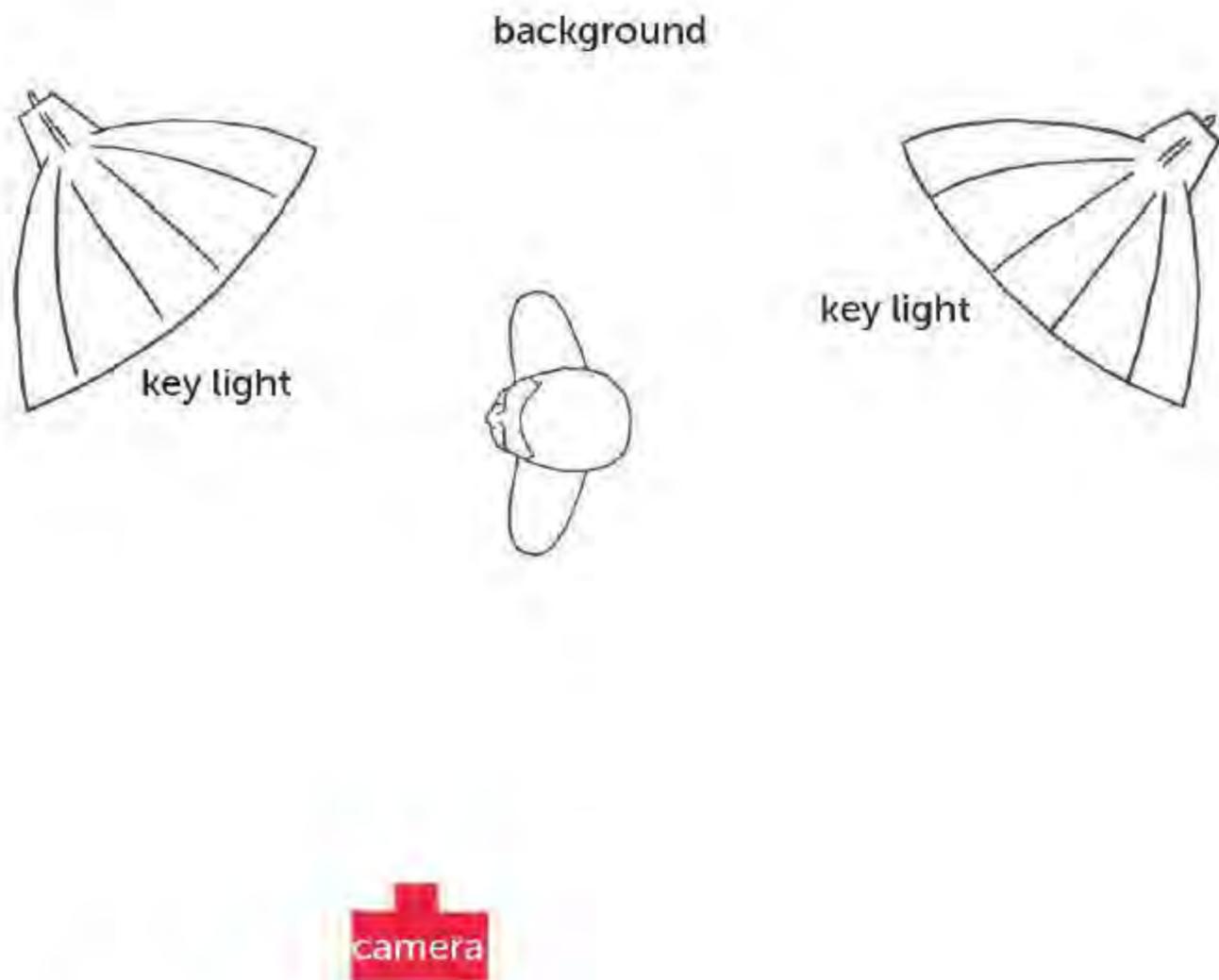
Rim lighting is essentially lighting the edges (rim) of the subject, and is achieved by placing the lights behind the client in such a way as to visually separate the sitter from the backdrop. When used by itself rim lighting can create some wonderful images, and it is also used as a technique to lift portraits to another level, by giving depth and dimension.



**Fig. 4.18**

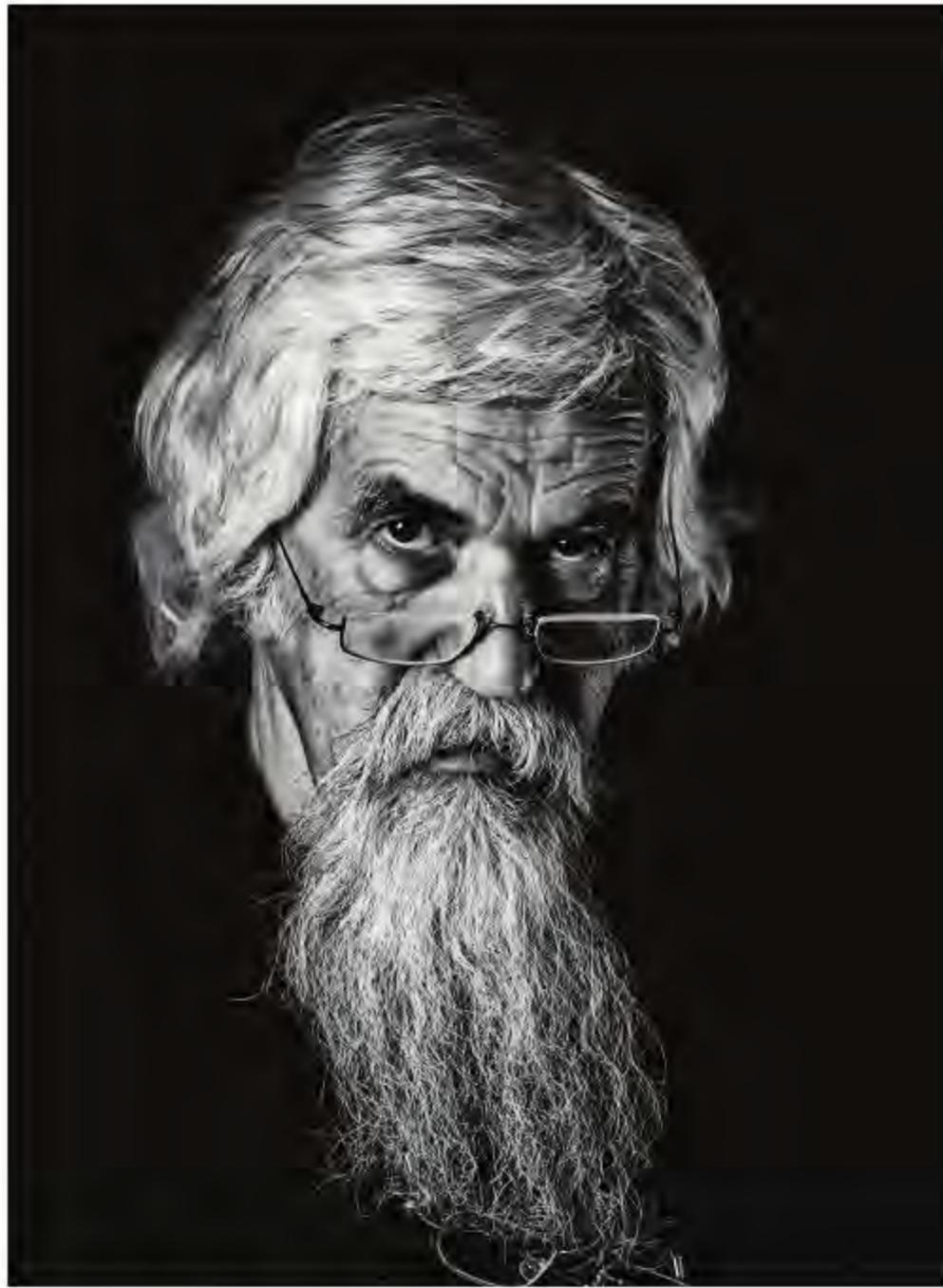
The perfect image to demonstrate how to utilize the graphic technique of rim lighting. Note how the light skims the body on either side to suggest shape and movement in a subtle way.

Image taken in the studio. Slate Grey Colourama, 2 Elinchrom BRXi 500, Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.



**Fig. 4.17**  
 Illustration demonstrating the correct positioning of lights for rim lighting.

When using one key light a very strong profile image of a subject can be taken. The photographer must be aware however that this technique when used on a face will highlight every blemish and bump, so it must be used considerately. Again a fill light or a reflector, at a lower power level than the key light, can be added to the opposite side to bring out a little more detail in the shadow area.



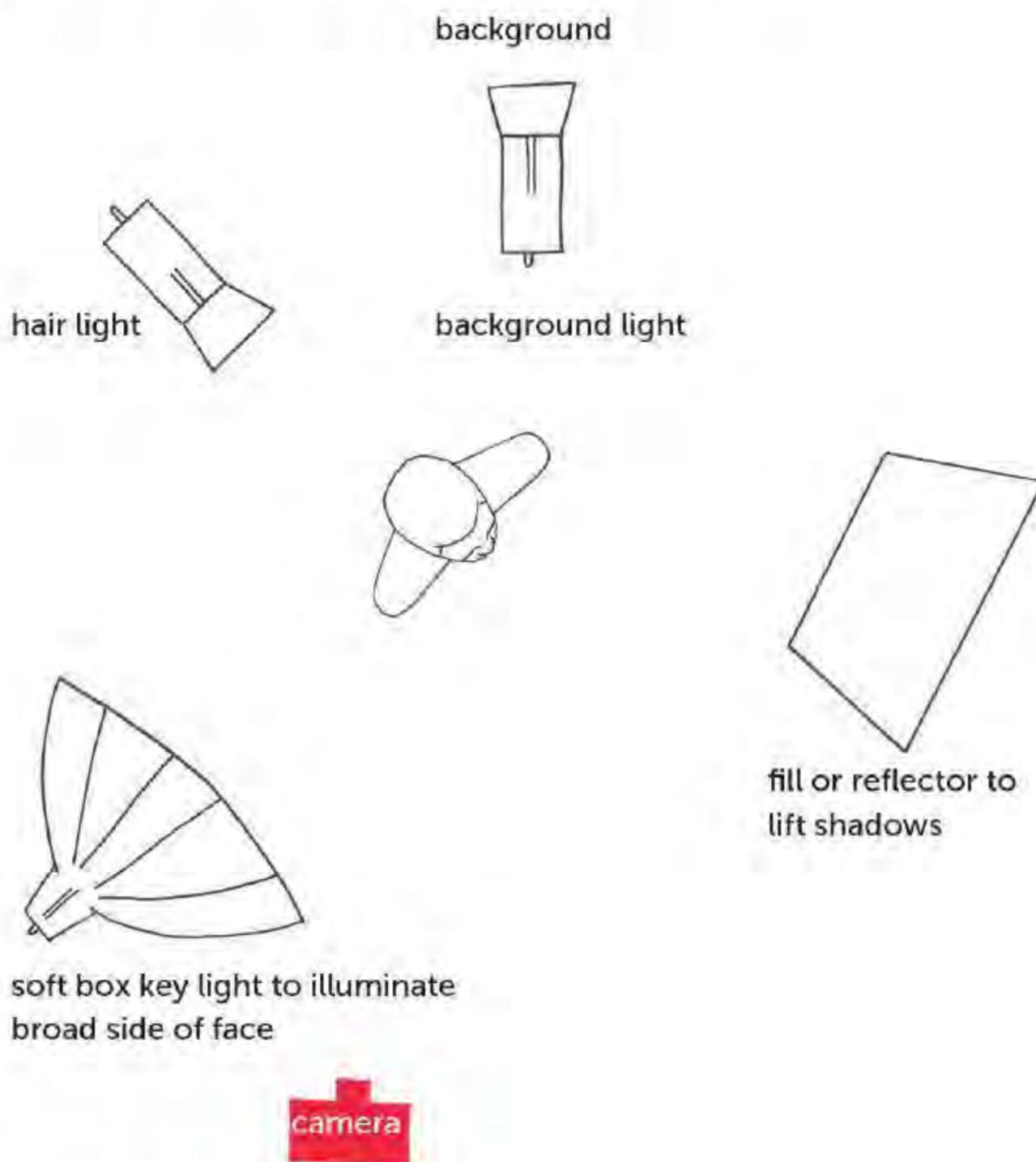
**Fig. 4.19**

A broad-lit image where the key light is aimed towards the side of the face closest to the camera.

Image taken in the studio. Painted black background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

## Broad Lighting

Broad lighting is the term used when the key light is illuminating the area of the face closest to camera (the broadest view of the subject). It is a flat light which will even out skin tones and uneven skin; however, as it tends to widen faces, it is not often used in a portraiture set-up unless the subject has a thin face and the photographer is required to make the person appear wider.



**Fig. 4.20**

Illustration demonstrating subject and light placement for a portrait lit with broad lighting.

## Short Lighting

Short lighting is used quite regularly in the portraiture studio as a flattering technique to thin and shape a face. As the name suggests, the key light is placed so that it illuminates the area of the face furthest away from the camera (the shortest view of the subject). The key light should always be placed above the sitter's eye level for the most flattering shape. You should be seeing catch lights in the top half of both the subject's eyes.

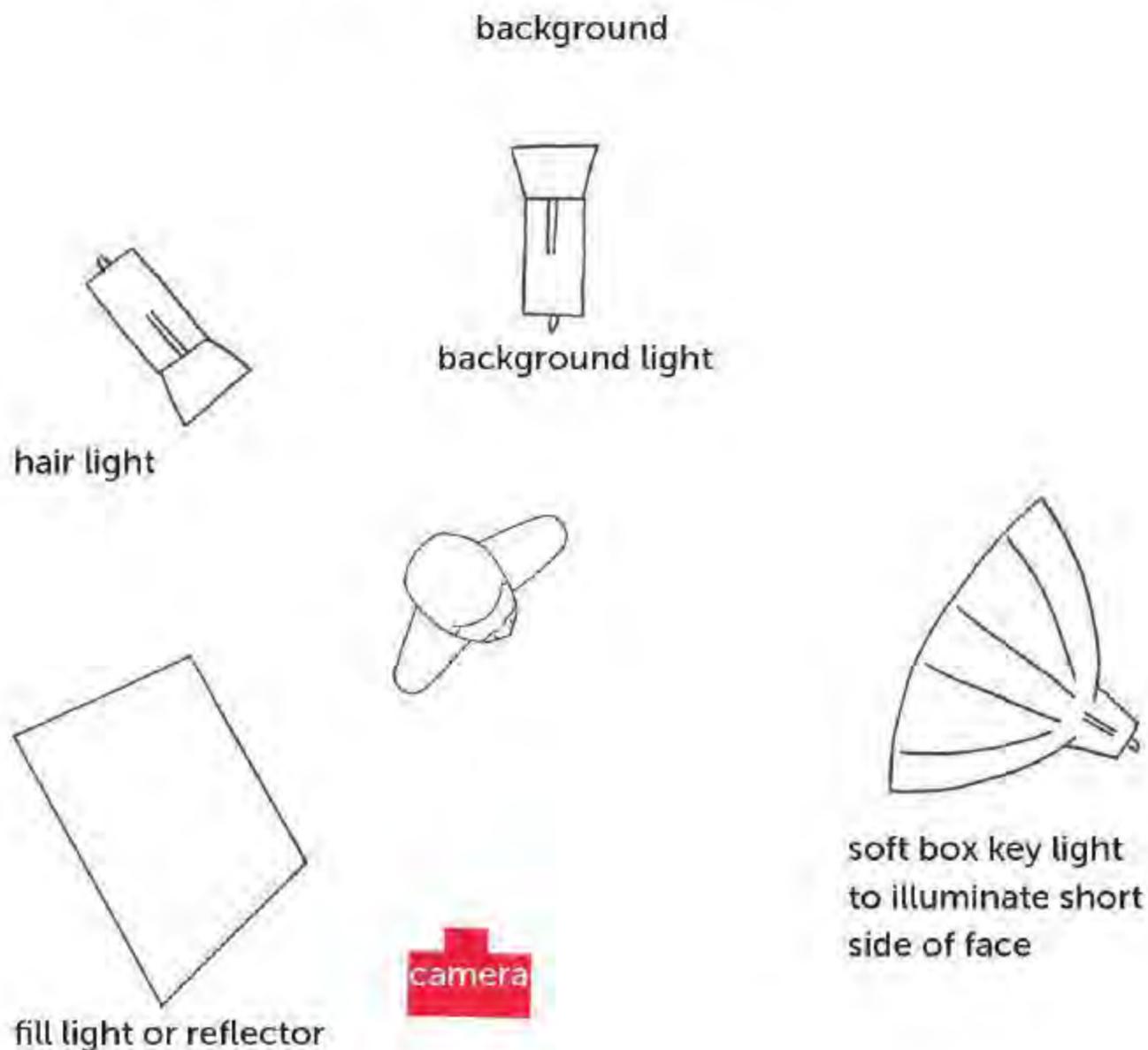


**Fig. 4.21**

Short lighting image. Note that the key light is positioned to illuminate the side of the face furthest from the camera,

shaping the face in a particularly flattering way.

Image taken in the studio. Painted black background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, Nikon D2Xs and 24–70 lens.



**Fig. 4.22**

Short lighting diagram, illustrating the positioning of the lights to create this popular lighting effect.

## **Split Lighting**

Split lighting is a hard and dramatic lighting most suited for strong masculine portraits. The technique involves only one key light placed at approximately 90 degrees to the subject

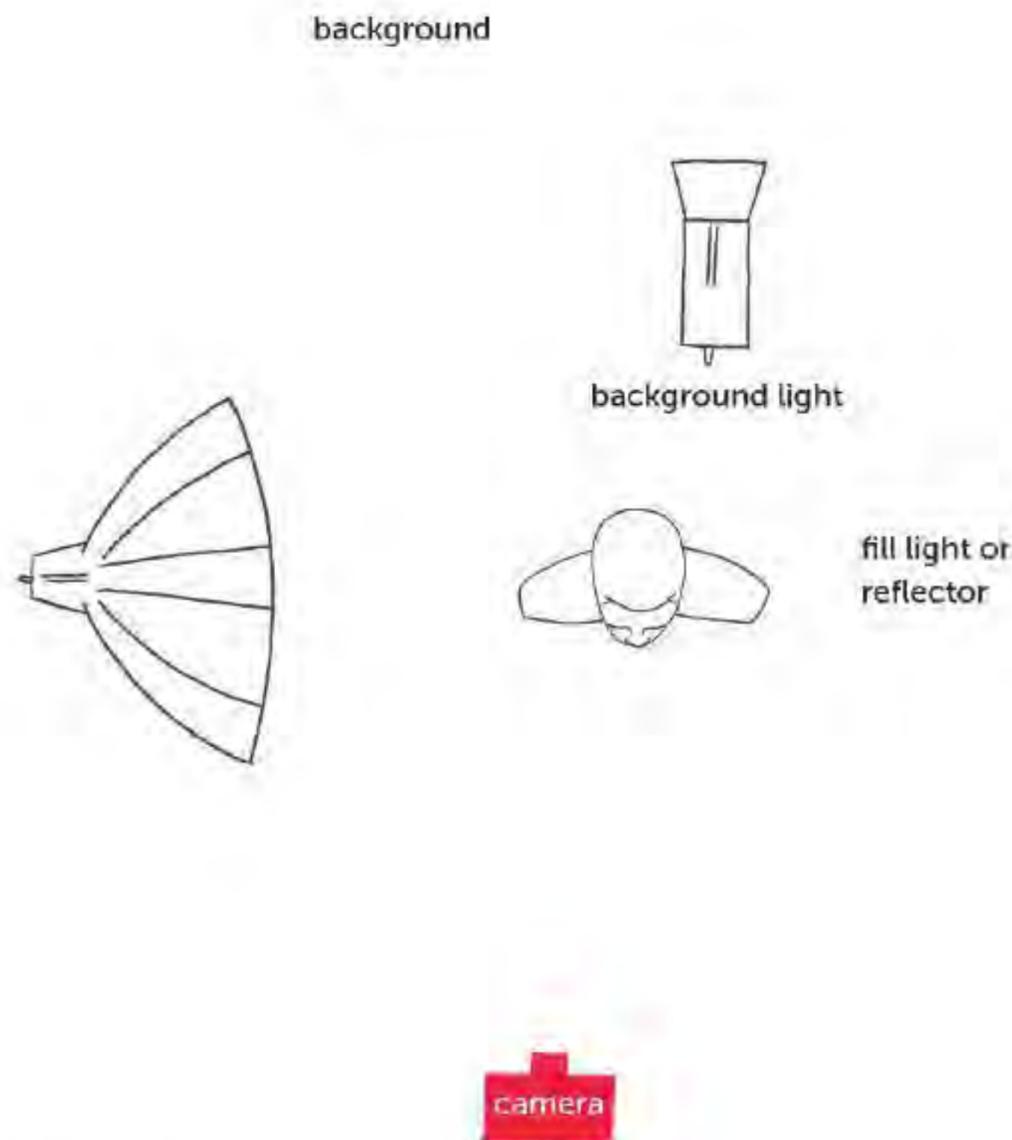
and slightly behind the subject. The resulting light should fall on the client's face in a uniform way, as to light exactly one half of the face whilst the opposite side is thrown into shadow. The line of the lighter area with the shadow should fall within the centre of the subject's face.



**Fig. 4.23**

Split lighting image. Notice how the shadowed area of the portrait exactly matches the lit area of the portrait. The line of transition from light to dark should run directly down the centre of the face, enhancing the power and strength of this portrait.

Image taken in the dance studio. Brick background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.



**Fig. 4.24**  
Illustration of the set-up of the lights for a dramatic split lighting portrait.

### **Feathering the Light**

Feathering the light is a term used when only the front edge of the softbox is used to light the subject. The light is towards the subject in such a way that the softbox appears to be lighting the space in front of the subject rather than the subject itself. If you were to view the highlights in the eyes when using an octagonal softbox the catch lights would be almost elliptical. Because of its positioning the resultant light hits the sitter in such a way as to smooth off the transition between the highlighted areas of the portrait

towards the shadows, so giving a more sculptural and graduated way in which the light moves around the subject.

Feathering the main light can be used to great effect when lighting larger groups of people, as they will be lit evenly from one side of the group to the other, with the middle to outer edge of the light illuminating those furthest away from the key light.

Of course as with all of these lighting techniques feathering can be modified and experimented with. As long as the basic principles are adhered to, the photographer can create and develop a style and technique personal to their work. Some photographers become well known for using particular lighting set-ups and develop a distinctive style that is instantly recognizable. Take a look at the work of Irving Penn and Helmut Newton to see the way in which they used light to dramatic effect, which makes their work so classically beautiful.



**Fig. 4.25**

When feathering the light, the photographer will be using the very edge of a softbox to illuminate the face. Look into the eyes to see the narrow highlights of the softbox and how the light drops off to create a lovely shape to the face of the subject.

Image taken in the studio. Painted black background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

## Ring Flash

A ring flash is a lighting modifier that fits directly around the camera lens by means of a bracket that is attached to the base of the camera. As the light is wrapped around the lens and is in fact on the same plane as the lens, the light the ring flash produces is very flat and shadowless in nature.

The light is often powered from a separate power pack, and is more commonly used in the fashion industry. However it does have a place in the creative portrait studio, with its unique catch lights and halo effect produced behind the model, and with the right subjects some interesting images can be produced. For example with teenagers and for modelling portfolios and band shoots this would be a wonderful tool. Great effects can be obtained using sunglasses, and close-in headshots of beautiful eyes can look sensational.

Again as with other lighting modifiers the outcome will change as the subject is closer or further away from the camera. The closer the subject the larger the circular catch lights will appear in the eyes, and the softer and more dispersed the halo and shadows, and in contrast the further away the less noticeable the catch lights will be and the harsher the halo.

With the ring flash the photographer should be mindful that the light is extremely bright and is flashed straight into the subject; this can be a little overwhelming, so it would be prudent to inform the clients of this, and it is not suitable for use with most children.

The ring flash can effectively be used outside as a fill flash, just to provide an additional light without competing with the original light source.

## Masterclass

### BE CREATIVE WITH YOUR LIGHTS

Once you have mastered the lighting set-ups outlined in this chapter, there are no boundaries to the creativity you can have in the studio. Here are a few examples of how a few simple techniques could take your portraiture to a different level, with a little experimentation and imagination.

#### Gels

Gels are small coloured squares of acetate or plastic that can be attached to the front of a spill and barn doors to create a different coloured light or cast over a studio shoot. Available in a wide variety of colours, they can be used to add wonderful drama and mood in a portrait shoot, at a fraction of the cost of buying multiple paper backdrops. For optimum results they are best used with a mid-grey backdrop; this way you will achieve the greatest colour saturation from your gels. Used singularly or in multiples they can create a wonderful atmosphere in a shot.

When using gels as a background, the lighting ratios used must be very controlled and the client placed at a correct distance away from the back, in order to eliminate the chance of any light spill back onto the sitter, as this will make the client look unattractive, especially if using certain colours that may affect skin tone in a negative way.

The key light should also be positioned in such a manner as to not affect the way in which the gels are illuminating the

background; if for instance the light from the key light was to fall onto the backdrop, the effect would be to wash out the vibrancy of the gel.

When using gels you need to consider the mood of the shot you wish to achieve, and apply simple colour rules:

**When one sees the residuum of greatness before one's camera, one must recognize it in a flash. There is a brief moment when all that there is in a man's mind and soul and spirit may be reflected through his eyes, his hands, his attitude. This is the moment to record. This is the elusive 'moment of truth'.**

– Yousuf Karsh

- Tones from the bluer end of the spectrum are cold and clinical, and will naturally recede from the viewer.
- Red/orange tones are warm and passionate, and will advance towards the viewer.
- These colour tones can be very powerful when used in conjunction with each other. For example, giving a warm skin tone to a subject shot on a blue background will produce a wonderful sense of depth in the portrait.
- Greener tones are not generally used at all in portraiture, as they do not have a flattering effect when used against skin tones.



**Fig. 4.26**

Gels used in portraits can add real drama and depth. Care must be taken to balance the light correctly and in such a way that ratios used do not fight with each other.

Image taken in the studio. White brick background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, gel light with honeycomb, red gel, Nikon D2Xs and 24–70 lens.

## **Silhouettes**

Silhouettes can make wonderful graphic portraits when they are handled correctly. It is best for you to visualize beforehand what you would like to achieve. The key to this technique is shape and angle, as these will add interest and a graphic nature to the image.

The subject needs to be lit from behind, with sharp defined edges to their features, for this to be correct. No light should spill from the background to the subject. The most effective way to light a silhouette would be through a pop-up lit backdrop such as a Lastolite, or by bouncing the light onto a large background, and placing the subject a few feet in front of this.

Asking the subject to bend, pose, turn to a profile or two little ones kissing or jumping will create interesting shapes and movement to the background. Colour, in the form of gels or backgrounds, can also add to the graphic quality of this particular kind of image.



**Fig. 4.27**

Silhouetted images make wonderful graphic portraits if the subject is animated and the viewer is able to decipher the image.

Image taken in the studio. Slate Grey Colourama, 1 Elinchrom BRXi 500, background light with honeycomb, Nikon D2Xs and 24–70 lens.

### **UNDERSTANDING COLOURS**

To create added interest in your work, you may find it useful to study an artist's colour chart or wheel to learn about complementary and contrasting colours. Understanding how colours work with and against each

other will enable you to create more drama and meaning in your portraiture.

Further possibilities will be available if you ask the subject to bring along a prop that means something to them, such as a musical instrument or an object with a distinguishable shape.

### **Modifying Lights and Backdrops**

Experiment with other ways to modify your lights; for example, shooting through blinds or textured objects/materials can create dramatic graphic backdrops or lighting effects; do however be aware that the lights can get very hot, so be careful when placing anything too near the bulbs.

Creating your own backdrops for use in the studio can also produce some unique portraits. Glass, mirrors, scrap bits of wood and metal, fabrics and textures can all add an extra dimension to an image that would normally be fairly ordinary.

### **Creating Movement and Depth**

Movement and depth are qualities that can inject interest and meaning into your images, and using the imagination to capture these can be great fun. Often introducing something as simple as a wind machine to the hair of the subject can add a great deal of impact to a shot.

Using a tripod and slowing down the shutter speed can also create some interesting effects. To create abstract and

dynamic shapes try some movement shots with subjects moving silks, or people dancing or moving.



**Fig. 4.28**  
Children and movement can make wonderful portraits full of energy. Simply

using a wind machine helped to create a lovely set of three dynamic portraits.

Image taken in the studio. White wall background, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, hair light with honeycomb, Nikon D2Xs and 24–70 lens.

## **Green/Blue Screen Photography**

Green screen photography is a technique used widely as a way to make a convincing composite image, by subtracting your subject from its original background and placing it in another. First an image of the subject is taken and then extracted from the original backdrop by use of a software tool such as FxFoto, and then placed onto another backdrop.

This technique is used to great effect for portrait photography taken at functions and parties, and for corporate website images, cards and promotional material where a specific backdrop may be requested. The process is

a relatively simple one, and if some basic guidelines are followed, the outcome can be very successful.

To begin, you need to choose the correct backdrop on which to take the image of the subject. The norm here would be chromakey green or blue; these two colours are specifically used as they are colours that are the furthest away from human skin tones, and so an easier separation can be achieved. Green chromakey is more commonly used in a portrait photography setting as the camera sensors are more sensitive to green, so giving a more accurate reading of what will need to be subtracted from the image.

You will have the choice of either paper or material (most commonly muslin) backdrops; either will produce the desired outcome, if the subject and backdrop are lit correctly, and certain other details are adhered to. You must make sure that whichever backdrop is used there are no creases or wrinkles in the material, as this could lessen the effectiveness of the process.

The key to a good separation lies with the ability to separate a colour (either green or blue) as a whole from the original image, so the subject must not be wearing any clothing that could be seen as similar to the background colour, as this will make the separation process difficult to achieve cleanly.

To light the subject and the backdrop you will only need two lights, as the lighting needs to be fairly 'flat' to create the perfect cut-out. The lights should be placed in such a way that the light is very evenly spread across both the subject and the backdrop. The ideal positioning for the

lighting will be at a 45 degree angle either side of the subject at identical power and distance.

Shadows cast from the subject are very problematic and should be avoided by placing the subject far enough away from the backdrop to eliminate them totally, but still being lit by the same light source; by doing this you will also avoid any colour spill from the backdrop to the subject which can again cause issues.

The camera settings will also be key in the capture of a successful green screen image, as these will dictate the amount of information the file will have to work with. The camera should be set to the lowest ISO possible (100 or lower if possible) as this will eliminate the chance of any 'noise', which can lessen the ability of the green screen software to create a good cut-out. It is also advisable to shoot with a wider aperture so as to push the background out of focus, so an aperture value of around  $f8$  or below is thought to be beneficial in this technique.

Once the backdrop has been extracted the subject can be placed onto a variety of creative and imaginative scenes. Many green screen software packages will supply some, and indeed the user can create their own. It is always advisable to create the most convincing image, to source background images where the lighting used is of a similar nature to that of your original set-up; otherwise the resulting image can look disjointed and unrealistic to the viewer.

With all of these advanced techniques, the emphasis is on creativity, and pushing boundaries. Many of the great photographers develop their own style through years and

years of practising and honing their skills to produce unique studio portraiture. What sets them apart from the ordinary is their inventiveness and unconventional approach in an environment of control.



**Alex.**  
Image taken Westcliff-on-Sea. Reflector,  
Nikon D3s 70–200.

## On Location

**S**hooting portraiture on location can be thoroughly rewarding and challenging in equal measure. Creatively, the scope and opportunity to shoot portraits in many differing locations and lighting conditions is vast. The photographer, however, is no longer in as much control as in the studio environment, and will have to think about light in a more organic and progressive way. Again, as within the studio scenario, the success of a location shoot for both the client and photographer is down to the quality of communication and collaboration between the two.

The key to successful location portraiture is thorough and detailed planning. If the photographer can be prepared for all outcomes the shoot is more likely to be a success. Prior discussion as to location and concept is an important step in the client–photographer relationship, and should be explored fully before the shoot takes place. The photographer should remember that the initial meeting in a studio can be far more controlled and structured compared to that of the meeting on location, and as such more information should be discussed prior to meeting.

The photographer should still ask similar questions, such as the preference for B&W or colour images, full-length or

head shots. However with the added ingredient of a location involved the photographer should pose the question: Is there an area/location that is of particular importance for you and your family? If so why not shoot the majority of the shoot there? This instantly renders the portrait more personal and meaningful to the client, and it will also dictate to the photographer the kind of shoot required.

**The virtue of the camera is not the power it has to transform the photographer into an artist, but the impulse it gives him to keep on looking.**

– Brooks Atkinson, 1951

## **SCOUTING THE RIGHT LOCATIONS**

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It is often a good idea to pre-shoot at the location where you are planning to go scouting out the area beforehand, with interesting and suitable places to shoot already prepared and envisaged, can give you a great advantage when it comes to the actual shoot.

Some clients may not want to be photographed in a busy location, where they are the centre of attention, but others may relish this; it would be prudent for you to determine their preferences beforehand. Chose locations where the client will be most comfortable – it may be a busy street scene or a deserted beach – but whatever the choice, the

subject must at all times feel at ease and in control for the portrait to be successful.

Scout the area thoroughly, and do so at the same time of day that you are planning to shoot for real, as this will allow you to observe the lighting and overall feel of the area in preparation. Although it is unlikely you will return to the exact same conditions it will of course give you a rough indication of how the light will fall.

Take a few images as a tester as to which sites might be suitable for the shoot; these can act as a reminder on the day and will help the shoot to flow. Choose areas that are relatively close together so that you are able to guide your client easily, especially when shooting children, as they will get bored relatively easily if asked to walk a great deal between shots.



**Fig. 5.1**

Multiple images shot in the same location can be used to create a wonderful montage, with each image slightly differing, to tell us a little more about the subject and the location. The colours and textures all blend well together to create a harmonious feel to the final piece.

Shot with Reflector, Nikon D3s, lenses 14–24, 24–70 and 70–200 zoom.

## **Looking for Patterns and Variety**

Paying particular attention to areas of interest in which to place your subject, be alert to repeating patterns, colours, textures and focal points that will add impact and meaning

to your portraits. Being able to utilize these wonderful graphic tools will enhance and create interest in the final image, and is one of the fantastic benefits of shooting portraits on location.

Converging lines such as paths, staircases and pillars are great tools to use when placing your subject in a location as they will naturally draw the viewer into the frame and give graphic elements that are easy for the viewer to follow. Doorways and arches will automatically frame a subject and will add a natural structure to the image; if they have character and interest, even better!



**Fig. 5.2**

Utilizing doorways, archways and windows automatically frames a portrait and will draw the viewer towards the point of interest.

Shot with Reflector, Nikon D3s, lens 24–70 zoom.

## **MANIPULATING SHADOWS AND HIGHLIGHTS**

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Whether you are shooting in bright sunlight or on an overcast day, the skill of an accomplished location portrait photographer is to see where and when the light is at its best and how to utilize this to your advantage. Understanding how sunlight changes and behaves is key to creating the most flattering and favourable portraits.

Constantly changing lighting conditions are the primary drawback when trying to control and read the light on location. The photographer must be constantly aware of these changing factors and be quick to adapt and change their approach to any situation that might occur.

### **FINDING THE LIGHT ON AN OVERCAST DAY**

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When shooting in an overcast situation it can be difficult to see where the sun is. You can determine where the light is coming from by holding either your hand or a folded piece of white paper up towards the subject's face. Look to see where the lightest area of the hand or paper is, and this is the direction of the sun. The subject should then be placed with this information in mind.

Shooting in strong sunlight it can be difficult to control the light to create flattering portraits. It is best to avoid if possible shooting between 11 and 3 o'clock as this is when the sun is at its most concentrated; this light by its nature is

so strong and harsh that the subject will be lit with bleached highlights and contrasting dark shadows.

A more usable light for shooting on location is an overcast day when the cloud cover acts as a natural diffuser, giving the photographer a lovely soft light with which to work. The subject will be able to move around more freely, without the overall feel of the shot changing, and reflectors can be used in this instance to add a little punch to the subject to lift them from their surroundings.

Two key pieces of equipment for the photographer to employ when shooting on location are reflectors and diffusers; these will help the photographer to manipulate and modify the light in many ways. They are lightweight and easily portable, and can potentially make a considerable difference in the final image when used correctly on location portraiture.

## **Reflectors**

A reflector is in photographic terms a sheet of material designed to reflect and guide light into a specific area, which is generally stretched over a pliable frame enabling the reflector to be folded away and carried easily by the photographer. Reflectors are available in various finishes, each with their own quality of changing and shaping the light. Their primary use in the portraiture setting is to minimize shadows and reduce contrast.



**Fig. 5.3**

Reflectors are wonderful tools when shooting on location for pushing light towards a subject. This image was shot on Wimbledon Common, London with a white reflector held just underneath the subject's chin to soften shadows and brighten the eyes.

Shot with Reflector, Nikon D3s, lens 70–200 zoom.

They come in a wide variety of sizes, and it is important for the photographer to use the appropriate size for the subject matter. In general, the larger the subject group, the larger the reflector needed to bounce the light towards them. If

shooting a singular portrait you may need only a small reflector and you may manage this yourself. However if a larger grouping or more complex set-up is needed an assistant may be required to position the reflector.

Reflectors are particularly useful in shaded situations, for pushing light into an area where it would not normally reach. For example, if your subject is wearing a hat a reflector can be used underneath to push light into the eyes, which would otherwise be dark and lifeless.

White reflectors are the most neutral way to bounce the light when the photographer is considering how to produce the most natural skin tones. Silver reflectors are more efficient at bouncing the light than white reflectors; however, the photographer must be mindful that the light can sometimes be overpowering, especially if used in brighter sunlight. Be careful not to place the reflector too close to the subject; the reflector should be used to fill shadows naturally and look 'real', and if held too close the resulting image will look overlit and unnatural.

The light that silver reflectors bounce can also be cooler in nature than a white reflector, and may lend a more stark air to the portrait. Gold reflectors have the same effect as the silver reflectors; however, as they are warmer in their treatment of skin tones, they can be used to great effect to emulate the warmth of the sunlight and of the golden hour.

Other reflectors may have a mix of two colours, either white/silver and white/gold or gold/silver, and these can be more usable in a variety of situations.

## Diffusers

A diffuser is a neutral translucent material stretched over a frame through which light can be softened, by scattering the source in the same way as a softbox used in the studio. When used on location diffusers are also a perfect tool for controlling strong sunlight. Placing the diffuser above the subject will instantly soften and disperse the strong light from the sun, yielding a softer and more pleasing portrait. However diffusers are fairly large and the photographer will need assistance to use one for this purpose.

Diffusers can also be used inside when shooting a portrait, for example when shooting with available light through a window if the light is too harsh. The diffuser can be placed in front of the window to scatter and soften the light.

Although these tools are of great use to the photographer, you can also utilize natural reflectors and diffusers in many situations. A white or neutral-coloured wall or ceiling can be used to bounce light towards a strategically placed subject. Canopies and doorways can subsequently be used to diffuse and feather any strong light.

When using these techniques, however, you must be acutely aware of your surroundings. Be sure not to place the subject too close to an object that will throw any strong colour casts that may affect the skin tones of the sitter in a negative way.

## THE GOLDEN HOUR AND THE BLUE HOUR

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The golden hour, or magic hour as it is sometimes referred to, is the first hour after sunrise and the last hour before sunset. Many portrait photographers will choose specifically to shoot their subjects at these times, as this is when the light is at its most pleasing and flattering for portraiture.

In the same way that the portrait photographer in the studio would use a softbox to diffuse the flash, producing a softer more flattering light on the subject, the location photographer will wait until the light from the sun is diffused by the atmosphere, in such a way as to produce the similar effect from the light.

It is well known that portraits shot in the daylight are hard to control to produce satisfactory results; they can quite often be harshly lit, overexposed and with strong shadows and intense highlights and thus unflattering to the subject. Also the midday sun can affect how comfortable your sitter is and can result in forced expressions, squinting eyes and general disquiet. In the golden hours the intensity of the sun is diffused, producing a rather softer light, which in return becomes more flattering and soft for the use of portraiture. Tonally the light at these times is warmer and less bleached out, again far more usable for portraiture.

Although named the golden hour, it is not set in stone; it is also dictated by the weather, time of year and other such factors. Many photographers will ensure that they arrive early to make the most of the beautiful light, and will

research the area before the shoot to determine where and how the light falls at certain times.

Towards the end of the sunset golden hour, when the sun is very low in the sky, just above the horizon, some fabulous silhouetted images can be achieved by simply shooting towards the sunlight. Visually these images create great graphic impact. Be sure to make the subject as animated as possible to create shape and interest. With two or more subjects even more interest and interaction can be harnessed to create meaningful images. Holding hands, kissing and jumping will make for dynamic shots that will also be great fun for the client.



**Fig. 5.4**

Golden hour silhouettes can create some wonderful graphic images and tell a story without seeing the subjects' faces. Telling a story in this way, the photographer will need to have ultimate control over the subjects for the image to be successful.

There are various tools and applications that can give you a rough idea of the start times and duration of the golden hour in certain areas by typing in postcodes, the Golden Hour Calculator and Sunseeker being two of the more useful ones.

When using reflectors in the golden hour the photographer should be mindful to select the most appropriate ones; placing a gold reflector into an already warm and glowing light will be overkill, while a silver reflector may cool down the subject to a degree where the use of the golden-hour light is lost. A white reflector is likely to be the most appropriate if a reflector is needed; however, experiment and see what works for the shot.

The Blue Hour is then the time between sunset and complete darkness, or the time just before sunrise, where the light is dark blue. Again some wonderful imagery can be produced at this time; however some form of additional lighting such as off-camera flash would need to be utilized to create portraiture.

## SEEING TEXTURES, SHAPES AND LINES

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**Fig. 5.5**

Textures and tones can add more interest and depth to the appearance of a portrait. They can also enable the photographer to isolate the subject from the background with contrasting elements of smooth skin tone and coarse surfaces.

One of the greatest reasons for shooting portraits on location will inevitably be the chance to work within a landscape or setting that has particular meaning or emotional significance for the client or photographer. The opportunity to use natural and urban settings away from a studio environment can inspire the photographer to produce images with a more graphic and symbolic element.



**Fig. 5.6**

Urban locations are particularly good for shooting with teenagers, especially if they dress accordingly; they then lend themselves perfectly to the style.

Shot with Reflector, Nikon D3s, lens 24–70 zoom.



**Fig. 5.7**

Becoming aware of visual patterns and graphic elements in locations will add dimension and interest to images, allowing the viewer's eye to move around the frame freely.

Shot with Reflector, Nikon D3s, lens 24–70 zoom.

## **Textures**

Both natural and manmade materials will have certain textures and qualities that can easily be used to enhance and impart interest and structure to a portrait. This is particularly relevant where colours and textures either complement or contrast with those of the client's skin tone and what they are wearing, making these particularly successful. For example, placing a subject in front of a textured painted door will create a

beautiful contrast with lighter skin tones and a subject with blond hair.



**Fig. 5.8**

Textures and colours can considerably enhance an image if utilized correctly.

In a natural setting quite often the more pleasing textures are those where the effect is random and organic, such as a moss-covered wall, a weathered tree or a bank of grasses, used to create a texture and interest in the image whilst not impacting on the portrait itself.

In an urban setting this may be a wall of graffiti, a rusted metal door or an iron staircase, and again these can be used to give the portrait a context but not to draw the viewer away from the main focus of the image.

## **Shapes and Patterns**

Shapes and patterns can also be used to create interest and movement in the composition of a portrait, especially when these are repeated; they can be extremely pleasing to the viewer as they are easy graphic cues for our brains to decipher and make sense of. If used sympathetically they can enhance the flow and aesthetic quality of an image.

## **Lines**

Whether they are straight, curved or converging, lines are a fabulous graphic way to draw the viewer into the portrait, allowing the photographer to use them to place the focal point of the image with ease. When looking for these elements on the location shoot you can easily find natural lines in roads, pathways, walls, fencing and of course the horizon.

When using lines as part of the image composition you must be sure that they do not impact on the success of the portrait by cutting through the subject; this can very easily be avoided by moving around the subject and ensuring that no elements intersect the body.

## **USING DEPTH OF FIELD**

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When shooting portraiture on location the photographer will need to have a good understanding of depth of field and how it can change the overall feel of an image. Depth of field is simply the area of an image from near to far that is seen as acceptably sharp to the eye – it can be either a

wide or a shallow area of the image depending on various aspects.

The ability of the eye to read the sharpness varies from person to person. When looking at depth of field in particular there will be certain areas of the image that will be read as sharp and then certain areas that are obviously out of focus. The areas between these both in the foreground and in the background are called the circle of confusion; this area between the two is what will draw our eye towards the area of the image that is sharp.

The amount of depth of field is determined by various factors, the primary one being the aperture (*f*-stop) value set on the lens. A shallow depth of field is when a small focal length of the image is in focus; the lower the *f*-stop (wider the aperture) the shallower the depth of field.

### **Shallow Depth of Field**

Shallow depth of field is commonly used by the portrait photographer to isolate and separate the subject from the background. By using a lower *f*-stop – for example *f*5.6 or *f*4, values used commonly in lifestyle portrait photography – the background will be thrown out of focus and the subject drawn towards the foreground of the image.

The choice of lens will be of significance when shooting for a either shallow or wide depth of field. Prime lenses rather than zoom lenses will give you the ability to have a wider aperture, sometimes as low as *f*1.8 or *f*1.4, and thus a shallower depth of field, throwing the background into blur. However, using a depth of field that is so shallow may not be quite as suitable for successful portraiture, where

only the smallest area of the image will be in focus. Shooting as low as  $f1.2$  results in a very thin slice of the depth of an image pin-sharp and the rest thrown out to blur. In general the  $f$ -stop value thought to be best for portraiture will be somewhere around the  $f4$ – $f5.6$  mark.

It is also the case that the longer the lens the better the ability to narrow and limit the background when producing portraiture of this style. A long lens such as a telephoto will crop in tight to the subject and also allow the background to be visually pushed further into the distance. For this to be effective the photographer must ensure that the subject is placed far enough away from the background for it to occur. The closer the subject is to the background the more detail will be seen, and the more likely the background will be to distract the viewer.

The photographer should also be aware that although the background may be pushed out of focus the quality of this background can greatly enhance or hinder the portrait. The background used needs to be even and unobtrusive, thus neutral and uniform shapes and hues are ideal.

Our eyes will automatically be drawn to the lighter areas of an image – ideally this should be the mask of the face or the eyes of the subject; otherwise the eye will wander over the image until it settles. A far stronger portrait image will draw the viewer straight to the subject, and by choosing a darker background in which to place the subject the photographer should achieve this.

Be careful also to notice any strong horizontal and vertical lines that may appear in the background; however blurred, they can destroy the

impact of an image instantly if they cut through the model's face. This can generally be avoided by moving the subject higher or lower in the image, or indeed by the photographer moving slightly.



**Fig. 5.9**

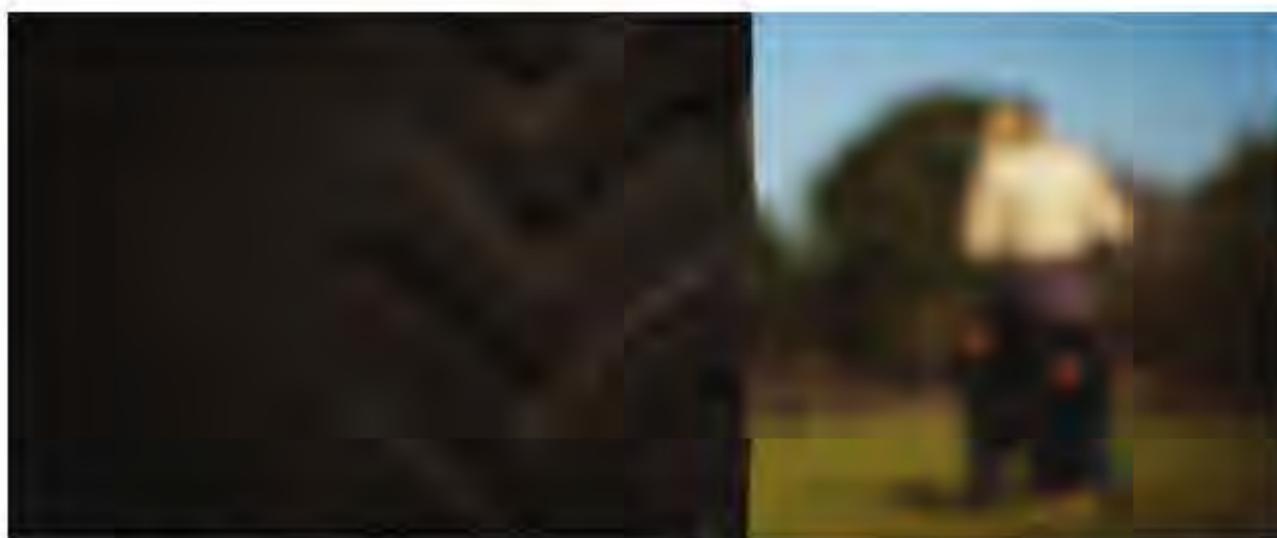
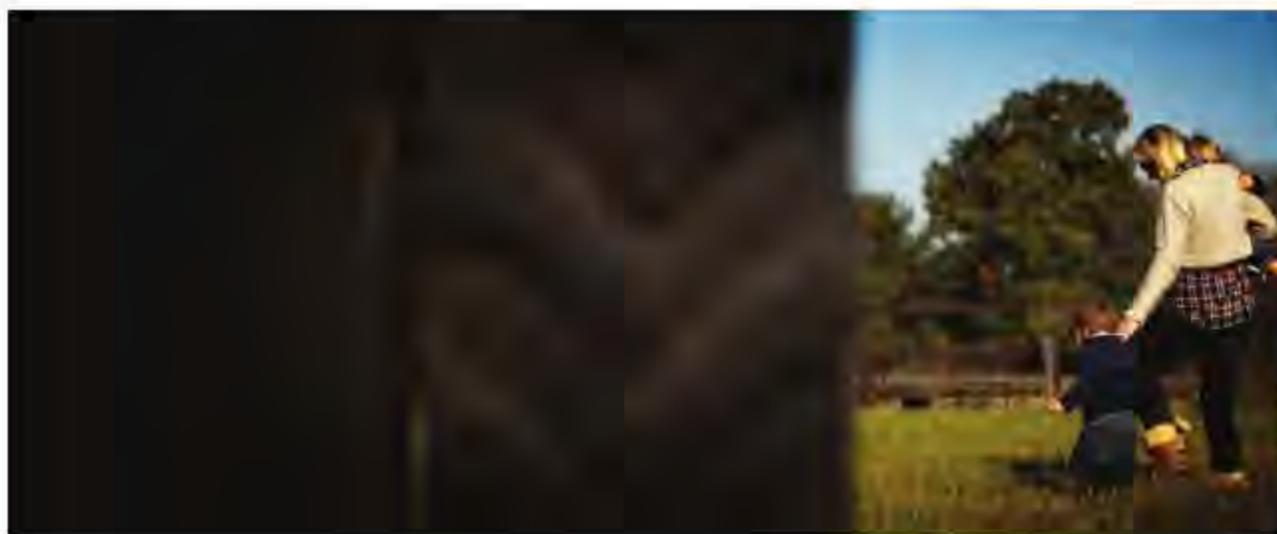
Using a reflector to lift a portrait.

Shot with Reflector, Nikon D3s, lens 70–200 zoom.

## **Bokeh**

From the Japanese word meaning haze or blur, bokeh is the way in which a lens interprets and represents areas of an image that are outside the depth of field. Depending on the lens used the bokeh will be seen as wide circular discs of colour, more commonly drawing from the lighter areas, in particular any highlights that can be found in the background or foreground.

Many photographers using a shallow depth of field for their portraiture will want to create a bokeh that is pleasing to the eye. By understanding how the camera will render these out-of-focus areas, and what creates attractive bokeh, the photographer will develop a better feel of where to place their subject for the best results. Look for even and uniform textures and light for the optimum results when creating bokeh with portraiture, as this will give the least distraction to the subject.



**Figs. 5.10 and 5.11**

Two images showing how focusing on one area of the frame can create interesting contrasts and set the scene.

## Wide Depth of Field

When a greater focal range of the image is in focus, it is a wide depth of field. The higher the *f*-stop figure (the smaller aperture) the wider the depth of field. A wider depth of field can be useful for the location photographer when he is shooting with the aim of including the subject within the landscape and surroundings. For example if shooting on a beach or in an area of interest, more detail will be beneficial to tell the story or to set the scene.

Wider-angle lenses will allow for a greater amount of the surroundings to be present in the image. The photographer may want to select a zoom lens such as the 24–70mm or the 70–200mm, as these lenses offer them the ability to capture some wonderful wide-angle lifestyle shots setting the scene, yet also to crop in close to the subject quickly should they see something that they might like to capture.

## Masterclass

### SHOOTING INSIDE WITH AMBIENT LIGHT

**S**ometimes if a location shoot has been planned, the weather may not allow you to shoot outside, and you may need to make practical use of the space in a client's home to produce a portrait. Understanding how best to utilize the available light will be key to getting the results that you require. Shooting inside using ambient light can be difficult, with lower lighting levels, furniture and unfamiliar surroundings to deal with.

Choosing the correct equipment and knowing its limitations is of great importance to achieving the results you require. Portrait lenses that allow the photographer to stop down to a wider aperture will be of benefit here, due to the lower levels of light. The more suitable ones are prime lenses, as they will allow the widest aperture values of around *f*1.4 or *f*1.8.

In these circumstances you may also be short on space, and lenses must be selected carefully; depending on the sensor size, portrait lenses such as the 50mm, 85mm or 105mm or a zoom lens such as the 24–70 would be perfect. You might also choose to use lenses such as the 70–200, if appropriate to the space available and style of shot.

You will find that the light indoors is of a fairly diffused nature already, due to the way the light is bounced around walls and ceilings. Although this is a lovely soft light, quite often the level of light is fairly low and you will need to be

acutely aware of any available light and how best to control this to your advantage.

The use of modifiers such as reflectors and diffusers will really come into play when shooting indoors, as they will enable the photographer to manipulate small amounts of ambient light that may be available to make a real impact on the final portrait. However they must be used to enhance the quality of the natural light rather than overpower the image, as all too easily they can be used to a level where the image looks unreal and forced.

Making use of the light from windows, doors and any other openings will enable you to use the available light in the same way as you would a large softbox in the studio. By simply moving the subject around the window with an understanding of the direction of the light source you can achieve all manner of different lighting techniques. If the light from the window or doorway is too bright and harsh, just positioning the subject further into the room or at a slight angle to the source will instantly soften and smooth any harsh highlights. If this is not possible, by simply placing a large diffuser or other translucent material against the light source you will achieve the same result of soft and dispersed light, which is more flattering to the sitter. Of course diffusers and reflectors can be used in balance with each other, but when doing so take care to ensure that the lighting does not become too flat.

When shooting indoors you should also be mindful of the effect that indoor lighting may have on the final portrait. Tungsten and halogen lights will add certain colour casts over the image, but these can be removed easily if you are shooting in RAW, or if you set the camera white balance to

the corresponding lighting. Be careful to change the white balance when moving around into different locations, as it will inevitably be variable.

It follows that when shooting on location indoors you should keep an eye out for neutral unobtrusive backgrounds to shoot against and keep the subject away from any strong colours that may affect the portrait in any way.



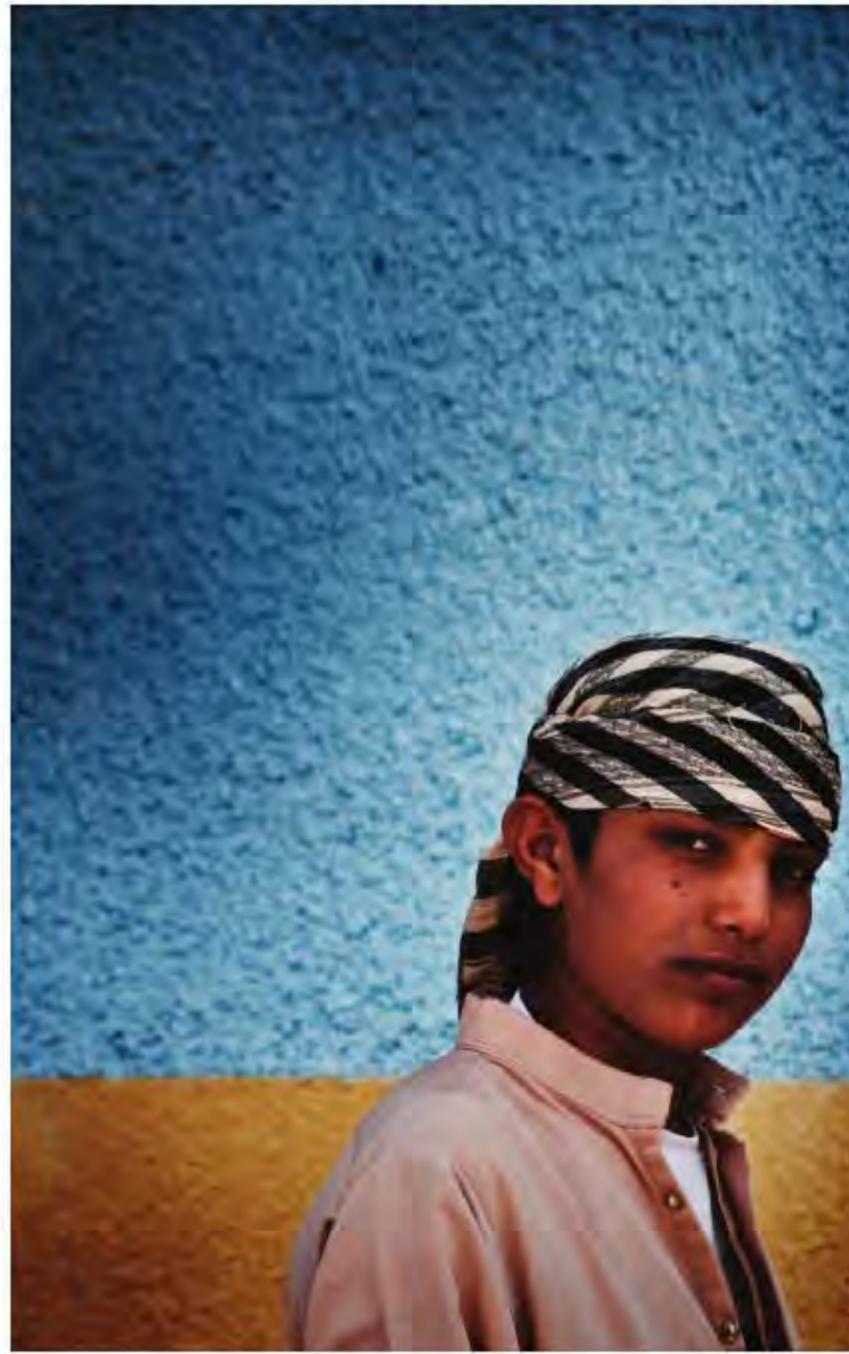
**Fig. 5.12**

Egyptian man reading the newspaper in January 2011, during the political uprising and protests in the country.

## **Taking Candid Portraits**

A candid photograph is an image that is captured generally without the subject's knowledge or without their explicit permission, and as such it is more likely to be unposed and more natural in expression. Quite often it is fruitful to capture people at their work or normal activities, to create a sense of the location and normal way of life, particularly in different countries.

The key to this type of portraiture is to be observant, notice every detail and most importantly work quickly. If the subject notices that the image is being taken, politely ask if it is alright to do so. Never take an image if the person refuses, but respect their wishes and move along.



**Fig. 5.13**  
Egyptian boy.

Equipment for candid photography is more suitably lightweight, small and unobtrusive rather than large and obvious, with most photographers in this genre opting for smaller lenses and those with a more normal focal length such as the 50mm or, for the speed of in-camera crop, the 24–70mm.



**Horse and Owner, Sorrento, Italy.**  
Nikon D2Xs, 50mm prime lens.

## Composition

**W**hen composing an image in camera, the photographer has many different aspects to consider. How they choose to fill the frame will enable the viewer to read the image in a particular way. By using the various elements of composition you have the power to add more meaning and feeling into your work.

The impact of the image taken will be greatly influenced by how the photographer pre-visualizes and delivers the image. Knowing what you want to achieve before the shutter is pressed is key to producing strong images with identity and narrative.

Composition and the placing of the main subject is key to the success of the final image, with the viewer being able to easily read and understand it. There are many aspects that can influence the composition of the image; the photographer ultimately has to decide what elements are important and necessary for a strong image.

Mostly we strive for a clean structured composition that is easy for the viewer to interpret, with the eye moving around the image unhindered towards the point of focus the photographer intended. However, on some occasions the photographer may want the viewer to feel a certain way when looking at the portrait, and again this is where a

strong sense of good image formation is useful, and understanding how certain elements can evoke feelings and meanings within an image.

Understanding how the human eye reads images is of great importance when learning how to compose an image; the photographer will need to be aware of how the viewer's eye will move around the image to make sense of what the photographer has taken. It is commonly believed that we read an image as we would do a book, from left to right, and as such many photographers would compose their images with this in mind. For example, having a leading line run into the image from the left-hand side, the viewer is instantly drawn into the image; if the point of focus is then placed along this line the composition will be visually strong.

**...looking at, studying, and absorbing good photography serves the same purpose for a beginning photographer. That is because learning the components of a good image – composition, lighting, gesture – and seeing those elements used differently over and over by different masters, makes it easier for a person to achieve the same end on his or her own over time. And there is simply no alternative to this, no shortcut.**

**– Frank Van Riper**

However, with the digital age it is now thought that most people rather than reading from left to right, read from top to bottom, so maybe in future this will challenge the way in

which we compose certain images, especially if they are to be viewed digitally, or onscreen as so often images are now.

Other factors such as leading lines, diagonals and space will also affect the way in which the viewer interprets an image as our eyes will automatically follow a line, if used effectively these can add to the success of an image.

### **LIGHTING FROM THE LEFT FOR GOOD PHOTOGRAPHIC COMPOSITION**

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With specific reference to portrait photography the key, (main light) if possible should be placed on the left-hand side of the photographer, meaning the lightest area of the image leads the viewer towards the subject, as if reading from left to right, and towards the eyes.

## **PROPORTIONS OF SPACE**

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### **The Rule of Thirds**

The rule of thirds is a compositional tool that every photographer should take time to understand and master. Very rarely when composing an image do we place the main focal point of our shot in the middle of the frame. Images composed in this way will often lack any form of energy or interest; with the viewer not being challenged in any way the image becomes static and lifeless, and not provoking of an emotion.

Simply explained, the rule of thirds is where an image space is divided evenly with four lines, two vertically and two horizontally, to create an equally spaced grid pattern over the area. These guidelines and where they intersect with each other are then used to position the main focal points of the image, to create impact and tension. These points where the lines cross are sometimes referred to as the eyes of a rectangle.

Within portraiture, the general rule of thumb for good aesthetic composition is to place the subject's eyes or main point of interest towards the top third of the frame.



**Fig. 6.1**

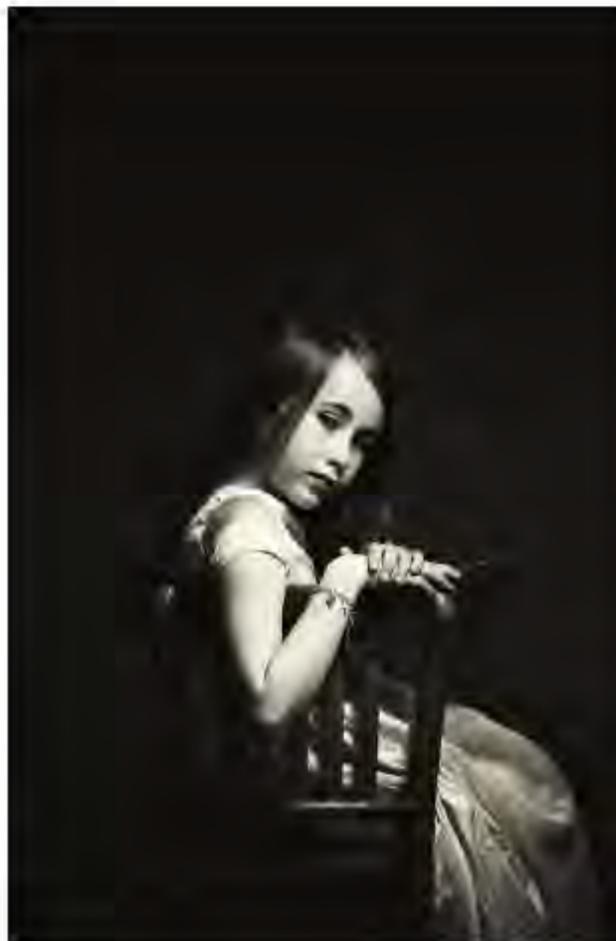
Rule of thirds, cropped with the eyes to the upper third, drawing attention toward the focal point of the image.

Image taken in the studio. Carnation Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light,

background light with honeycomb, Nikon D2Xs and 24–70 lens.

## Headroom

In portraiture the term headroom refers to the space between the top of the subject's head and the top edge of the image frame. This area can affect how the viewer perceives the final image. If the headroom given space is too large, the subject will be lost in negative space and the point of impact will be lessened. If the headroom space afforded is too little the subject will appear restricted within the frame, with no room to breathe. The headroom necessary for a pleasing composition is relative to the amount of space that the subject is filling the frame; the closer the subject appears to be, the less headroom will be required.



### **Fig. 6.2**

Two images illustrating the difference in space needed for headroom, dependent on the size of the subject within the frame.

### **Space (lead room, or nose room)**

When composing an image, the photographer must always be mindful of space – of giving the viewer's eye the appropriate amount of space to move around the frame, and allowing the subject to sit comfortably within the scene. Often a portrait will be placed within the frame, and cropped in quite closely. This makes for an uncomfortable and static image, with no area for the eyes to move around.

Within a portrait the subject's eyes should always have space in which to look, creating interest and meaning within an image. If there is not sufficient space for this to occur the viewer's eyes will have nowhere to follow, and the portrait becomes awkward and confined. Ideally eyes should not appear to look out of the frame of an image, as the viewer's eyes will naturally follow the line of vision of the subject out of the image, when the photographer's aim is to draw the viewer into the frame. Following the same theory, if you are taking the image of a moving subject, they too should have space in which to travel.

Of course if this is what the photographer intends to portray the rule can be used to create this feeling; we must remember that the photographer can use all these principles of composition in any way to heighten the impact of their imagery.



**Fig. 6.3**  
Good composition will always give the viewer's eyes somewhere to move in the frame.

### **Negative and Positive Space**

The positive space in an image is the actual space taken by the main focal point. Negative space (or white space) in any form of imagery is the space that surrounds the main subject of the scene. Space in a portrait will ultimately lead the eye to an area of interest, and if used correctly can create a balanced and dynamic image, adding a stronger emphasis towards the intended focal point.

Too much negative space can cause the eye to move around the frame too much, and the main focus of the image can then be lost within the area; this is sometimes referred to as dead space, as it adds nothing to the way in which the image flows. By contrast, if not enough negative space is afforded to the image the subject becomes tight and restricted, not allowing the viewer's eye to move around the frame with ease.

Both the negative and positive space should be correctly balanced together to create an engaging and cohesive image.



**Fig. 6.4**

Image highlighting positive and negative space within a frame. There should be just enough space to give the image room to breath.

## **FOCAL POINT**

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The focal point of the image is the point of interest that the photographer would like the viewer's eyes to rest upon. The first question the photographer needs to ask himself before taking the image is: What is the primary focal point of the image, and how can I emphasize this?

It is generally better to have one main focal point of an image because the viewer will find it easier to read the scene. In portraiture the point is more often than not either the eyes or the mask of the face. The photographer must make sure that nothing detracts from this focal point, by always giving the main focal point enough prominence in the composition so that all other elements are secondary.

If the focal point of the image is small, it can be given prominence by composing sufficient negative space around it, thus drawing the eye towards the main subject.

### **Balancing Elements Within the Frame**

Each component part (positive space) of an image holds a weight value, with regard to how much space in the frame it occupies. For a dynamic composition the primary focal point of the image will hold the largest weight within the scene; quite often this will be aesthetically correct, but if the main subject holds too much weight the picture can

seem unbalanced and uneven. To counter this, another secondary element can be added to the frame; of lesser significance, the purpose of this is to add equilibrium to the image, resulting in a more balanced composition.



**Fig. 6.5**

Balancing elements within the frame in both the context of shapes and tonality help to frame the image of the Egyptian shopkeeper.

## **Contrasting Elements**

Highlighting certain qualities of a person and their personality can be achieved to great effect with the use of contrasting elements, thus making the message stronger and more obvious. Light and dark, smooth and textured, big and small, happiness and sadness and many others can be used graphically to emphasize and enhance the impact of the composition.

## **CREATING INTEREST WITHIN THE FRAME**

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### **Leading Lines**

Leading lines in an image, especially in portraiture, can be hugely useful to the photographer, as they can add a wonderful graphic element to the structure of an image with a narrative quality of distance and space. By using leading lines – such as pathways, roads, train tracks – to place your subject, you will directly draw the attention of the viewer to the main point of focus of the image.

Looking for different types of lines in the scene can aid composition and add meaning. Various lines and how the photographer decides to utilize them will create another element within the image.

Vertical lines used in an image will create a sense of strength, power and dominance. If repeated in the frame they can create a very graphic pattern, useful to the photographer.

Horizontal lines will by their nature accentuate width, stability and permanence. They can add rhythm to an image when repeating. This rhythm can be used to create impact by placing the point of interest so that it intersects this calm.

Diagonal lines are far more dynamic and creatively interesting. More successful composition will make use of strong diagonal lines, as they add depth and perspective to an image.

Curved lines in photography will reflect nature, creating a sense of relaxation and sensuality, and leading the viewer into the image in a more organic and free-flowing way.

### **Symmetry, Shapes And Patterns**

When shooting portraits, especially on location, the photographer should be looking for elements that will add interest and value to the image. Repeating shapes and patterns when used in the background of a portrait can create a great contrast the main subject.

### **Odd Numbers**

Human nature is drawn to the appeal of an odd number of subjects in an image. An even number of subjects will produce a certain symmetry in the image, which can appear less natural for a realistic, informal composition.

When composing images we can use the rule of odds: for example if you have more than one subject in your picture, the ideal is to choose an arrangement with at least three subjects. The main focus of the image should be placed in

the middle, with the outer two effectively framing the person placed in the centre.

When we place images together for composition, this rule should also be applied. We would be more likely to choose to place three, five, seven or nine images as a series, as they can be balanced well together, again placing the stronger images more towards the centre of the grouping.

### **Golden Triangles**

Another common rule that may be applied in photographic composition is that of the golden triangle: if the rectangle of an image is dissected diagonally from corner to corner and then again, any point of interest should be placed running along these lines.

Diagonals in images give the perception of energy and depth, and can be used to give a sense of perspective, leading the viewer towards the primary focal point of the image. Generally for good composition the diagonals should lead in from the left-hand side of the image, as our eyes naturally behave in this way as if we were reading a page of text.



**Fig. 6.6**

Triangles in an image will guide the viewer towards the intended focal point of the frame.

Shot with Reflector, Nikon D3s, lens 24–70 zoom.

## **Viewpoint**

The choice of viewpoint when taking an image can create some wonderful and dynamic images, especially when used within portraiture. The same subject when taken from various viewpoints will change in both its scale and perspective.

More often than not a flattering portrait will be taken from a higher viewpoint than the sitter so as to elongate and flatter the face. Especially with a larger subject the photographer should be mindful that shooting from a lower viewpoint will make the sitter look heavy and can accentuate wider limbs and double chins. With a simple change of viewpoint to a higher one the sitter is automatically slimmed and lengthened.

When taking portraits of children, it is often good practice to shoot at their level; not only are they more likely to connect with the photographer, but the portrait will be a more realistic perspective of the child.

### **Story Telling with Multiple Images**

Multiple images such as diptychs (a series of two) and triptychs (a series of three) can be a wonderful tool for photographic storytelling, giving the viewer more information and insight into what the photographer is trying to illustrate. The more successful series will be those where the photographer has thought about what they want to emphasize.

With multiples the photographer can create great atmosphere; for example, with one image showing the whole scene and contrasting this with another zooming in on a particular section of the image to draw the viewer's attention. Another good example especially in portraiture is taking a series of differing expressions. A series where motion is involved can create an image that is graphically very strong, where the images are pieced together to create the whole movement to tell the story.



### **Fig. 6.7**

Storytelling in a montage can tell the viewer a great deal more than one image can show. An image setting the scene along with detail shots create greater interest.

Shot in Egypt, Hurghada with Nikon D2xs, lens 24–70 zoom.

## **FRAMING**

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When capturing a portrait we are instantly framing the subject within the confines of the image. However, framing can also be used as a graphic element within the image.

Doorways, archways and windows can naturally frame and contain a subject, giving a context and grounding the portrait to a location. Often an old doorway can also add texture and interest.

Using framing techniques can help to pose the subject within the portrait; sitting or leaning the sitter within the frame will allow for a more comfortable relaxed posture, and as such create a more informal portrait.

Framing part of the subject in this way can add to the meaning and impact of the image; by highlighting just the face, with the use of a frame the image takes on a more graphic nature.

Choosing where to position the framed element of the image can heighten the feelings the photographer is trying to evoke; for example if it is one of solitude the

photographer may place the frame in such a way as to accentuate this feeling.

### **Foreground Elements to Frame the Subject**

Shooting through doorways and window frames and placing the main subject in the distance can inject further interest and also add a sense of isolation and separation from the viewer, by creating both a physical and visual barrier between them and the sitter.

Shooting through foliage such as trees and flowers, and using these to frame, can create a wonderful foreground texture into which the subject is revealed to the viewer, giving the feel of a captured moment, where the photographer has naturally represented the scene. For this technique to be believable the subject must be directed to behave as if the photographer is not there; it is particularly suited when shooting couples.



**Fig. 6.8**  
Little girl, Dal Lake, Kashmir.  
Shot with Nikon D3s, lens 24–70  
zoom.

## **Depth of Field**

The depth of field that you choose to take an image with will have a certain impact on the composition of the final picture. If the photographer uses a shallow depth of field (large aperture, lower f-number) this will isolate the subject from the background and foreground, drawing the viewer directly to the intended focal point. By contrast a larger depth of field (small aperture, higher f-number) selected will give the subject a context by revealing the surroundings and giving more information to the viewer.

## **Depth and Scale**

The perceived depth and scale within a portrait image can add another level to the substance of a frame. With considered placement of the main subject, the overall impression can change. If the subject is small in relation to the image as a whole, a feeling of vulnerability and isolation can be portrayed; in contrast to this, a subject that fills the frame will exude power and dominance over the viewer.

## **Cropping**

Careful consideration should be taken when cropping an image, whether this is done in camera or in post production. In portraiture the photographer needs to be acutely aware of all elements of their frame and how the subject is placed within it. There are general rules when cropping into a face or body; ignoring these can destroy an image and will be unflattering to the subject and uneasy for the viewer. As with most forms of portraiture the

photographer is trying to draw attention to the positive features of the subject and produce a flattering likeness.

When shooting for a close tight headshot the photographer should be sure to accentuate good features and to hold back those that do not add to the image. For example ears, chins and noses can be sympathetically handled to create a more pleasing image. Quite often cropping out a feature that does not need to be there will make for a cleaner and simpler image. For example, when producing an image of the profile of a person the photographer may crop out the ear and the back of the head of the subject to draw the viewer's attention towards the face.

Extreme tight cropping of the mask of the face can produce some very graphic and abstract images, if produced in a considered way. Taking elements from within the face and highlighting these will create a whole new perspective of the portrait. Cropping of this nature needs to be clean in its delivery, with all other details excluded. Tight cropping should be just that – if the photographer is not tight enough the effect is to flatten out the facial features and remove depth and shape from the portrait.

When shooting mid- or full-length portraits this becomes more detailed and complex, as the cropping of limbs comes into play. Again there are general rules in portraiture which the photographer should follow, the most important being to never crop into a limb. Fingers and feet, being at the ends of these limbs, are prone to being cropped incorrectly, and you should ensure that they are all within the frame of the image if they are intended to be. Shooting loosely and allowing more space in these situations is often good practice, to make certain that these are not missed. Legs

and arms also need to be considered and should be cropped in a pleasing way. As a general rule, legs and arms should never be cut; leave or enter the frame halfway between a joint.

## **Background**

Quite often when taking images the photographer will be focusing on the main subject and their placement within the frame. However, of equal importance is the relationship between the subject and the background. What is present in the background can ultimately affect the impact and quality of the image. The photographer should be aware that even if pushed out of focus, elements in the background can be distracting and fight against the overall feel of the portrait.

Be careful to place a subject where they are not intersected by the lines of a horizon or strong graphic elements. This can quite easily be avoided by altering the viewpoint of the photographer either higher or lower. In some instances graphic lines and structures can be used to frame the subject; however, they must not compete or distract from the main focal point of the shot.

Remember that the eye is naturally drawn to the lightest area of an image; if this happens to be in the background, the eye will move to that point first rather than the intended focal point of the frame.

The more successful portraits are those where the background is a texture or neutral tone, which serves as a contrast to the skin tone of the sitter. Creating depth and dimension without having a negative impact on the shot,

this will allow the subject to be isolated and to become the focus of image.

## **KEEPING IT SIMPLE, AND BEING CREATIVE**

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When composing an image why add or include something that is of no importance to the final message or meaning you are trying to convey? The photographer should be constantly questioning themselves when composing a shot: Does an element tell the viewer something about the person or message that I am trying to tell? If not, then leave it out of the frame. The more elements within the frame the more the eye will move around these to determine what the photographer's intention was. The more simple and clean a composition can be, the more effective the image.

With all of these composition techniques the most important feature to grasp is to be as inventive and experimental as possible. Quite often the more interesting and engaging images will occur when the photographer is aiming to push the boundaries of their creativity, and ends up producing something out of their normal comfort zone.

The guidelines of composition are there to help improve and refine the structure of your images. However they are not to be adhered to by the letter, as doing so will kill any inspiration and vision the photographer may have.

## Masterclass

### EXPLORING RABATMENT

Once the photographer has mastered the rule of thirds there are more sophisticated ways in which to compose an image. Taking time to understand each of these methods and the logic behind their reasoning will ultimately lead you to a greater appreciation of image composition.

#### **Rabatment and the Golden Rectangle**

The composition technique of rabatment is used predominately by artists, to arrange elements of an image onto a canvas, and it can of course be used in photography. In its most basic form it is a guide fairly similar in nature to the rule of thirds. However with development it can also become a fairly complex and powerful tool, allowing the photographer to see a usable structure of compositional diagonals running through the frame.

The technique consists of taking the short side of a rectangle and placing it against the long side, creating points along the edge that can be connected directly across the canvas as well as a diagonal from these points to the corners to create two identically sized squares that will overlap each other.

For each horizontal rectangle, there will be a right rabatment and a left rabatment. For each vertical rectangle there is an upper and lower rabatment. By positioning the most important subjects within either of these squares you

will achieve a composition that the viewer will perceive as unified, harmonious and balanced. It is thought that this form of composition is successful as our eyes are able to interpret the area of a square more easily.

Once these have been mastered, diagonals can be drawn from each point at the edge of the rectangle towards each of the corners, allowing the photographer to align their focal points along these.



**Fig. 6.9**  
Golden ratio overlay in Lightroom showing how to use it to crop the image with the correct composition.

### **The Golden Ratio 1:1.618**

The most sophisticated tool for the photographer to utilize when composing an image is the golden spiral (sometimes referred to as the golden mean, the Fibonacci spiral or ratio, the divine proportion, or Phi).

Found to be inherent in many of the great works of art and architecture, it is commonly observed in many forms of the natural world, from the proportions of the human body to the structure of many plants and natural structures. Based on the findings of Fibonacci, an Italian mathematician from the 13th century, the compositions with foundations built upon the golden spiral are thought to have the most harmonious proportions to the human eye.

The first two numbers in the Fibonacci sequence are 0 and 1, and each subsequent number is the sum of the previous two as follows:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89...and so on.

The golden rectangle and the golden spiral are structures based on these figures. They are thought to be shapes that our eyes and brain can decipher easily, because they are so used to seeing these proportions in everyday life.

The ratio of the golden rectangle is approximately 1:1.618. A series of decreasing sized squares are then arranged within the rectangle, and a spiral then constructed within these. This is the golden spiral.

The area at the centre of the spiral is named the sweet spot: this is where the photographer should aim to position the intended focal point of the image.

Photoshop, recognizing the importance of composition, has now introduced six of these rules into their cropping views, each having an overlay option where the photographer can easily see where to place the important elements of his image. Encompassing the rule of thirds, a grid, diagonal, triangle, the golden ratio and the golden spiral, each of

these tools can be utilized to heighten the impact of the portrait.



**Sean.**

Image taken in the studio. Smoke Gray  
Colourama, 1 Elinchrom BRXi 500,  
Octa 100cm softbox key light,  
background light with honeycomb,  
Nikon D2Xs and 24–70 lens.

## Post Production

**P**ost production is the stage of the process where the image is taken from its digital state in camera to a more usable image ready for print or display. If the photographer has worked hard to produce as close to what he wants in camera the post production stage should involve very little work, and just be a matter of minor adjustments and manipulation.

To lessen post production time, the photographer should endeavour to achieve RAW file information as close as possible to the final output required. With good lighting, correct use of lenses and settings, correct exposures and composing the image in camera, only a few minor adjustments are needed to create the final image.

If photographers become complacent and work in the mindset that images can be rescued in post production they will spend time correcting and rescuing poor images, with a negative effect to the final quality of the image; the more a file is manipulated the more information will be moved, and the result will be poorer quality.

## BACKING UP

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The clients have left the studio... Ensuring the files are stored safely at this point is key to preserving the information that the photographer has captured. Unlike in the days of the negative, with digital information there is a far greater chance for files to be lost, accidentally deleted and become corrupted.

**I am sure the next step will be the electronic image, and I hope I shall live to see it. I trust that the creative eye will continue to function, whatever technological innovations may develop.**

– Ansel Adams

The photographer needs to take great care in deciding where and how to store the image files, especially if he intends to be able to retrieve the information years in the future. There is currently a wide variety of systems and locations available to the photographer for file storage, each having its own benefits and drawbacks.

### **Optical Storage Devices**

The optical storage devices include CDs, DVDs, Blu-ray removable discs. They are perfect for short term storing of digital files as they are easy to store and comparably inexpensive, although the more stable ones will cost more money. With an expected lifespan of five to ten years the

data would need to be transferred to another storage system at a later date to ensure image longevity.

They have several drawbacks. They are slow to transfer and retrieve data when compared with hard drives. With very little damage they can easily become unusable or unreliable; a small scratch to the surface of the recordable side can render the data unreadable. In addition to this, depending on how the disc is stored or archived and indeed handled, the chemicals on the disc can react and degenerate, resulting in corrupted image files.

If using CDs/DVDs as your storage device however, ensure that you are doing so with the WORM system (write once read many) and not a device that is rewritable, as these could be mistakenly overwritten with other data.

### **Online Storage**

Such spaces as the Cloud, Backblaze, Flickr, Picasa and Dropbox, amongst many others, offer the photographer the option to store data virtually. As we are predominantly dealing with RAW files these options would need a fast internet and download/upload speed to make this a viable source of backing up large quantities of files. However they could be a good option if smaller JPEG versions of the original are needed.

### **Hard Drive Sharing**

This is a system whereby a back-up can be made via the internet onto another hard drive located away from the main storage device, say at home or at a friend's or

colleague's, enabling multiple copies of files to be produced. A number of websites offer this back-up system, such as [buddybackup.com](http://buddybackup.com) and [crashplan.com](http://crashplan.com).

### **SSD Solid State Storage**

Currently the fastest system to store and retrieve images to and from an external source are solid state storage devices such as flash drives. They are more expensive than other systems mentioned here but are thought to be more robust and resilient to changes of environment and humidity. Solid State storage is in theory more stable than the external hard drive, and with no moving parts it is less vulnerable to physical damage. Without moving parts they are also silent in their operation.

### **EDH (External Hard Drive)**

External hard drives are a convenient and comparatively fast way to back up your digital files. Connecting to the computer via the USB or FireWire port they can transfer and store a large amount of images relatively securely, using a rotating magnetic disc and magnetic heads to read and write the information.

However, as with all forms of technology there are certain drawbacks and limitations to the system. Hard drives need to be treated with a certain amount of care or they become more likely to fail. With the large numbers of files that can be stored on an EHD this can be devastating to the photographer if a suitable alternative is not in place. Hard drives are known to be sensitive to heat, moisture and movement and should be stored in the most stable

environment possible with the minimum risk of movement or damage.

Even with these considerations observed, it is thought that the average lifespan of any external hard drive is anywhere between five and ten years. With the advances in technology, it would be prudent for the photographer to transfer any data he wishes to preserve every three to five years onto a more advanced and more stable technology available.

### **The RAID System (Redundant Array of Independent Disks)**

The RAID system was developed to counter all problems that may arise from storing data digitally. It employs an array (variety) of hard drives, all used in conjunction with each other to preserve and ensure the image data is stored securely. If one hard drive is failing there are others within the system that will detect and backup information.

There are varying levels of the RAID system relating to the fragility and importance of the data being stored. the more basic copy/mirroring of data is taken care of lower down the scale, and the higher up the RAID scale the more complex and sophisticated the data, detection and protection becomes.

### **The Best File Type for Archiving?**

The type of file that the photographer ultimately archives should also be a consideration, as the longevity of certain file types may be questionable in years to come. Throughout this guide the photographer has been

encouraged to shoot RAW image files where the highest amount of information is captured. This is all well and good currently; however, as each camera system has its own unique format (Nikon's NEF and Canon's CR2 for example), RAW files could become incompatible with future systems.

With all of these systems the photographer needs to prepare for all eventualities. Fire, theft, corruption of digital files – any disaster can mean that one or more of these systems can instantly become unusable. The more copies in different locations the photographer has, the more likely the survival of the images for future generations to access and enjoy.

## **TRANSFERRING IMAGES**

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First create a folder on your desktop; name and date the folder for ease when archiving the file.

### **Card–Computer**

Connect the card reader to the computer. Copy and paste the information captured on the card into the folder on the desktop.

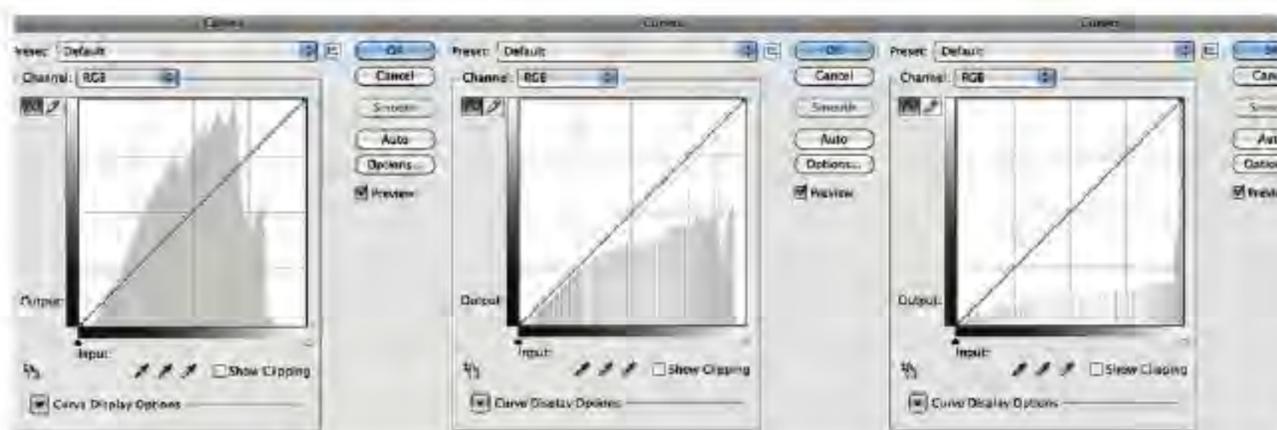
Complete an initial edit and discard any images that are not required for the client. It is at this point that we will rename and number the images, with the client's family name. If you were to do this editing process without renumbering, the client would see that there were missing numbers and might well think that there were other images that you are

not showing them; this system will lessen the chances of this happening.

Best practice at this stage is to always keep two copies of the images taken, in different locations: Card–Computer, then Computer–Hard drive (or chosen method of back-up). You should ensure at this point that the files are located in their correct positions. If so, it is now safe for the card to be formatted for the next shoot.

### CARD WARNING

When transferring images from the card always copy and paste – it is important never to cut and paste images between locations, as there can be a risk of losing images. And before formatting the card always double check that the information has reached the desired position.



**Fig. 7.1**

Three images illustrating the loss of information recorded in a file's histogram by destructive editing. Notice how the image degradation is represented by the missing areas from the formerly smoothly rendered histogram.

## **Hard Drive–Hard Drive (back-up)**

Your hard drives should be in separate locations to cover all eventualities. If one is damaged or corrupted you are able to retrieve the information from the identical back-up. Remember that even this system will not protect your files forever; it is thought that the average life span of a hard drive will be around five years, and it should be replaced regularly. When purchasing your external drives make sure that you buy the most stable one you can afford.

Organizing the hard drives so that information can be easily retrieved is very important. You may wish to do this by date, with each shoot archived into the month it was taken, or with folders a-z, with each shoot labelled and archived within their corresponding folder.

To sync these two hard drives on a regular basis (normally at the end of each shooting day) you may wish to use one of the following systems: if working on a Mac, Chrono Sync. or if on a PC, Second copy. Both are downloadable from the internet.

As we are shooting in RAW the space taken will be larger than that of a similar amount of JPEGs, so it is a good idea to keep a close eye on the space available on both the hard drives and computers that you will be working from.

### **KEYWORDS**

When organizing their images many photographers will keyword the images to make a search faster (this can be done in either Lightroom or Photoshop). Using words

such as the family name, kid's names, or what the shoot was (family shoot, model portfolio) helps to narrow down the choice.

## **IMAGE SELECTION IN BRIDGE**

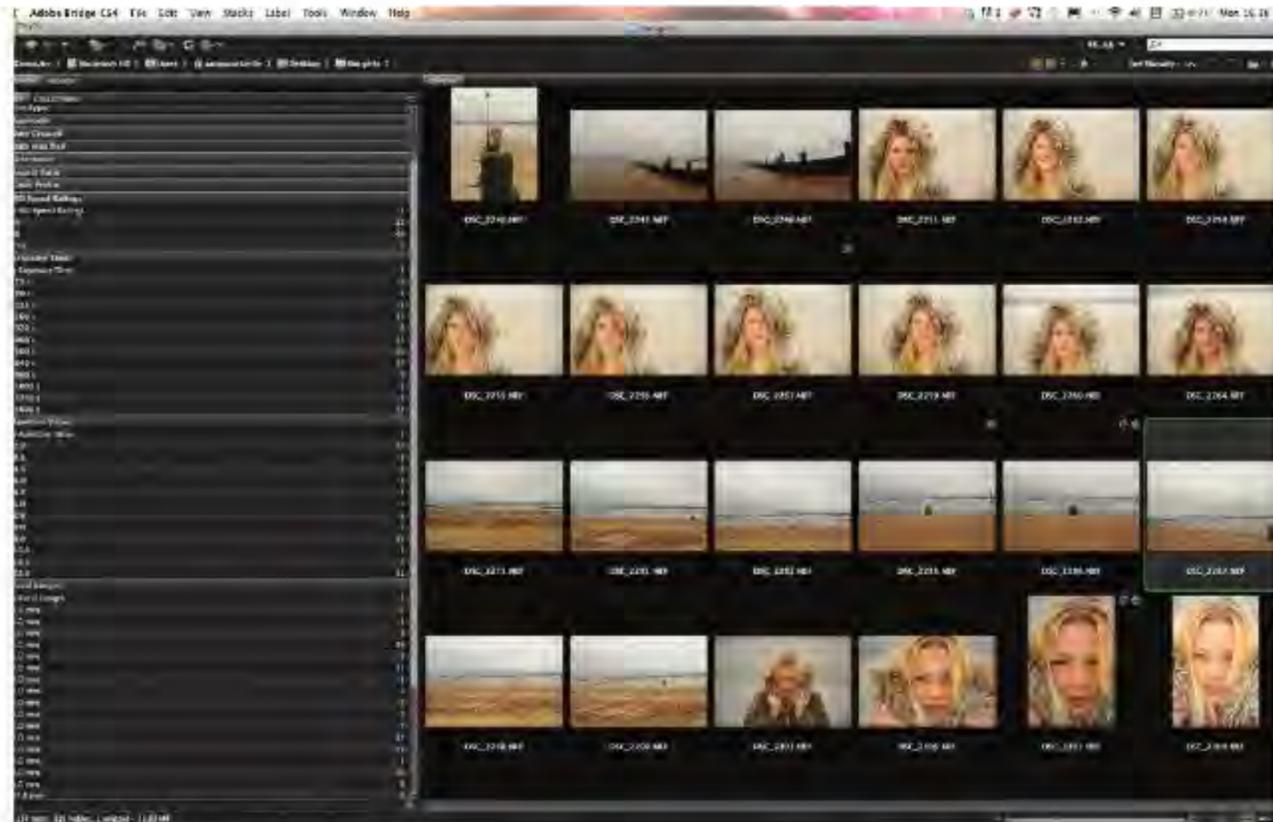
---

Before the photographer edits any images, the selection process begins, in Adobe Bridge. There are various methods by which this can be achieved and each photographer will develop a system they can work with comfortably. Everybody will work in Bridge in a slightly different way; the workspace and menu options can all be selected to work in the way the photographer wants.

By using the various headings on the left-hand side of Bridge (Metadata, Filter, Collections, Export) the images can be filtered into groups of images determined by a variety of factors such as lens choice, focal length and aspect ratio. When selecting batches of images these can be grouped together by simply labelling or star rating the image using the drop-down menu from the star found in the top right of Bridge. (In Lightroom the metadata information for images can be found in the library menu to the right-hand side of the Lightroom window, underneath the histogram, and the labelling and star rating function of Lightroom can be found in the library top bar under attributes.)

Images can also be sorted in order in Photoshop by file name, type, date created/modified and others for ease of

use (again this can be found next to the Photoshop star menu top right).



**Fig. 7.2**  
Image selection window in Bridge enables the photographer to label and batch images together for editing.

## Metadata

In the Metadata tab you will need to have an image or images selected for any information to be seen. You will then see a number of drop-down menus, something along the lines of those listed below. For the purposes of portrait photography we will only be interested in a few of these; however, we will briefly outline what they all mean, as a useful tool.

### File Properties (unchangeable values)

Within this area you will find:

- File name (the name you have given your file, e.g. smith 001)
- Type (Camera RAW image)
- Application
- Date created
- Date Modified
- File size (in megabytes)
- Dimensions (in pixels)
- Bit Depth (either 8 or 16)
- Colour Mode
- Colour Profile

### **IPTC Core (International Press Telecommunications Council)**

The photographer can submit all the information in this section, with the edit tool to the right-hand side of the relevant heading. To save the changes made, click the tick icon in the bottom right of the box.

The information that can be recorded in this area will be mainly used for press and commercial photographers, but it also could be a valuable tool for the commercial portrait photographer, as here we can record data such as creator, job title, phone numbers and website of the photographer, and any keywords or headlines which may help to categorize the image for use. It can also give the user details of location, instructions for use and so on, all useful in the fast-paced world of press photography, where images will need to be uploaded for use, and their meaning and use understood very quickly.

Also in this particular menu we can assert copyright notice and the status and rights of usage terms set by the

photographer. It is good practice to assert copyright status in all images that you take, so as to avoid any confusion if any copyright issues crop up in the use of the image. However this is not a foolproof method of asserting your rights, and as such you may wish to use this alongside another method of digital watermark to protect your images.

### **Camera Data (unchangeable values)**

In this menu we will find all the technical data received from the camera, expressed in Exif (exchangeable image file format) such as:

- Exposure mode (manual for our use).
- Focal length (figure in mm).
- Focal length in 35mm (figure in mm) will only be applicable if you do not have a full-frame digital SLR.
- Lens (the lens you have selected to shoot the client will appear here).
- Max Aperture Value (the maximum aperture the lens selected will open up).
- Flash.
- Metering Mode (the metering mode you have selected for your camera).
- Subject Distance (the distance between the camera and the client).
- Custom Rendered.
- White Balance.
- Camera information and serial number.

### **Camera RAW**

The information found in this section will be any changes that have been made in Camera RAW, so for example you

may make an adjustment to the temperature of the image, and this would then be shown here.

### **Filter**

Underneath the filter tab you will find five separate headings which can be useful when the images are being selected for editing and post production stage, as images can be manipulated in batches according to how they were taken.

### **Keywords**

Any keywords that have been entered into the IPTC core section in the metadata tab can be filtered at this point. For example if you keyword half of your images with the same word all of these can be filtered for selection. Adding keywords will also enable easy access to the images once they have been archived.

### **Orientation**

Simply to enable the photographer to filter either landscape or portrait images.

### **Aperture Value**

Will filter all images selected into their various aperture values.

### **Focal Length**

A filter to group together images with the same focal lengths.

# IMAGE EDITING

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## Programs

The two main programs available to the photographer for image editing are Adobe Photoshop and Lightroom. Both are very powerful tools and if used correctly can enhance and add creativity to the images taken.

Many photographers use Lightroom as a way of organizing their images and workflow, taking advantage of the library function as an effective way of cataloguing work, and it is good for batch editing and quick manipulation; the slideshow function can be used for showing clients images if required. Lightroom is also significantly less expensive than Photoshop and may be a good starting point for learning to edit and manipulate images. More commonly photographers however will utilize the power and versatility of Photoshop for the finer details of image manipulation.

Whichever editing software is favoured, the main priority of the photographer is having in place a systematic and consistent workflow in which to process images, ensuring constant and predictable quality of image output is achieved.

## When Editing Portraits...

With particular reference to editing portraits, if the photographer captures it correctly in camera with regard to cropping, lighting and exposure and composition, the time taken should be minimal. Initially, colour corrections and minor adjustments can be made in Camera RAW or

Lightroom, and then the image exported into Photoshop where further changes can be made. In Photoshop more precise and accurate editing can be achieved, and the finer details of the face can be corrected and polished.

Many portrait photographers have a tendency to over-edit their portraits, and these can appear unreal and the skin tonality and texture can tend to look fake. The key to the editing really should be to enhance features rather than change the face in any way. Ideally the skin should just be cleared of blemishes such as spots and pimples, leaving the natural texture and tone of the skin to shine through. Spots can be edited in both Camera RAW and Lightroom using the spot removal tool. However a finer, more controllable edit can be achieved in Photoshop where a variety of tools such as the patch tool, the spot healing tool (J) and the clone stamp (S) can erase any number of blemishes with accuracy.

Eyes, being the most expressive part of the face, should be handled with care when editing. They will commonly be the focal point of the image and as such should appear as natural as possible. The temptation to over-lighten the whites of the eyes can make the eyes look unnatural and should be avoided. In general if the eyes are fairly large in the portrait they should be cleaned up of blood vessels and any hairs that may cross them, and perhaps lightened slightly if needed. Too many highlights in the eyes can also be a little distracting to the viewer. If the portrait was lit with more than one key light, or the fill light is also present in the eye, it may be beneficial for any extra highlights to be cloned out of the image.

Underneath the eyes sometimes may need a little retouching to eradicate dark circles or heavy eyes; however again, this should be manipulated as naturally as possible. Softening and blending is key here, and can easily be achieved using the same tools as mentioned before.

## **Destructive and Non-Destructive Editing**

When utilizing Photoshop or other editing programs many photographers will find that they develop their own unique workflow, as there are myriads of ways to achieve similar results. Generally speaking there is no right or wrong, and it is what the photographer is comfortable doing.

However, to save all of the wonderful information we have created by using the Camera RAW setting, the better systems to protect this information are those that are non-destructive to the original file. A perfect example of this would be when we convert an image to B&W. There are many ways that photographers are able to achieve this effect; nevertheless, not all will give you the lovely tonality and density that another conversion may render.

The best place for the photographer to look for any loss of information is the histogram; if no information is being lost the flow of the histogram should be smooth. As soon as a photographer edits directly onto the file information will be lost and you will start to see spikes appear in the histogram. The most commonly used method of editing images with no loss of information is through a series of adjustment layers.

One of the primary tools that the photographer can learn from when processing the images can be found in Bridge.

The metadata (basically data about data) panel can be selected on the top right-hand side of Bridge or by command F3. A panel will then appear to the bottom left of the Bridge desktop. You will see two separate tabs, Metadata and then Filter.

## **USING CAMERA RAW TO EDIT IMAGES**

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Once the images the photographer wishes to edit have been selected they are now ready to open in Camera RAW. By simply double clicking on the images selected a new Camera RAW window will appear. The Camera RAW menu is designed in such a way that the photographer can use the order of actions to work through from left to right and top to bottom with ease, thus making their image workflow more fluid. (In Lightroom all of the same headings can be located to the right-hand side of the Develop desktop.)

Any changes that are made to the image in Camera RAW will be saved alongside the original file as an XMP file (Extensible Metadata Platform).

### **Basic**

In the Basic menu the photographer is able to make any basic adjustments to the image in relation to white balance, colour temperature tint and exposure. By working from the top of the menu towards the bottom, slight modifications and refining of the image can be made. The amount of refinement will differ from image to image and will be subjective to the photographer and what they are trying to

draw from the image. Any changes can be seen immediately by ticking the preview box on the top right of the image.



**Fig. 7.3**  
Image to illustrate the options available in the basic window in Camera RAW.

## Clipping

By reading the histogram on the top right-hand corner of the Camera RAW window the photographer is able to determine the exposure level of the image as a whole. The left-hand side of the histogram represents black, and to the far right white is represented. If the histogram rises up at either end of the graph, then information is lost and detail in these areas will not be present; this is called clipping and should be avoided if possible, although it is also dependent on the image taken (some images will inevitably clip the edges, especially high-key or low-key images) With the sliders in this window some information can be retrieved.

## White/Grey/Neutral Balance

The most significant change the photographer can make in this area is the white balance. The photographer is able to either choose from one of the preset options, such as daylight, cloudy or flash, or create a custom white balance.

When using the white balance tool menu, the aim of the photographer is to remove any unrealistic colour casts with adjustments of the RGB channels, to render the image as neutral as possible to the eye, so that objects that appeared white in the original scene are seen as white in the final image.

Select the White Balance dropper icon (top left). Simply place this onto a neutral area of the image, and it will then change the overall mix of the colours until they become neutral to the eye. Finer adjustments can be made to the white balance using the temperature and tint sliders. Additional sliders are available to further modify and manipulate the image. Clicking the Auto option can sometimes render the image the way the photographer intended; however these can be refined by using the Exposure, Contrast, Highlights and the other variables available.

### **WHY WHITE IS SOMETIMES NOT WHITE...**

Our eyes and brains are so highly tuned that in any lighting situation they are able decipher whether an object is 'white' or not. Camera technology is not quite as sophisticated and will simply render what is in front of it.

When the camera takes a RAW image the colours and tones that it renders for the file will be greatly influenced by the surrounding factors of light and colours. Certain lighting conditions such as sunsets or shade may affect the colour temperature of the image in an unrealistic way.

## **Curves**

The curve menu is where the photographer is able to manipulate the image contrast.

### **Parametric**

With this option you can affect Highlights, Lights, Darks and Shadows. By using the sliders the dynamic of the curve will be changed at certain points.

### **Point**

Here we have the option to control the strength and output of the contrast within the image.

### **Curve**

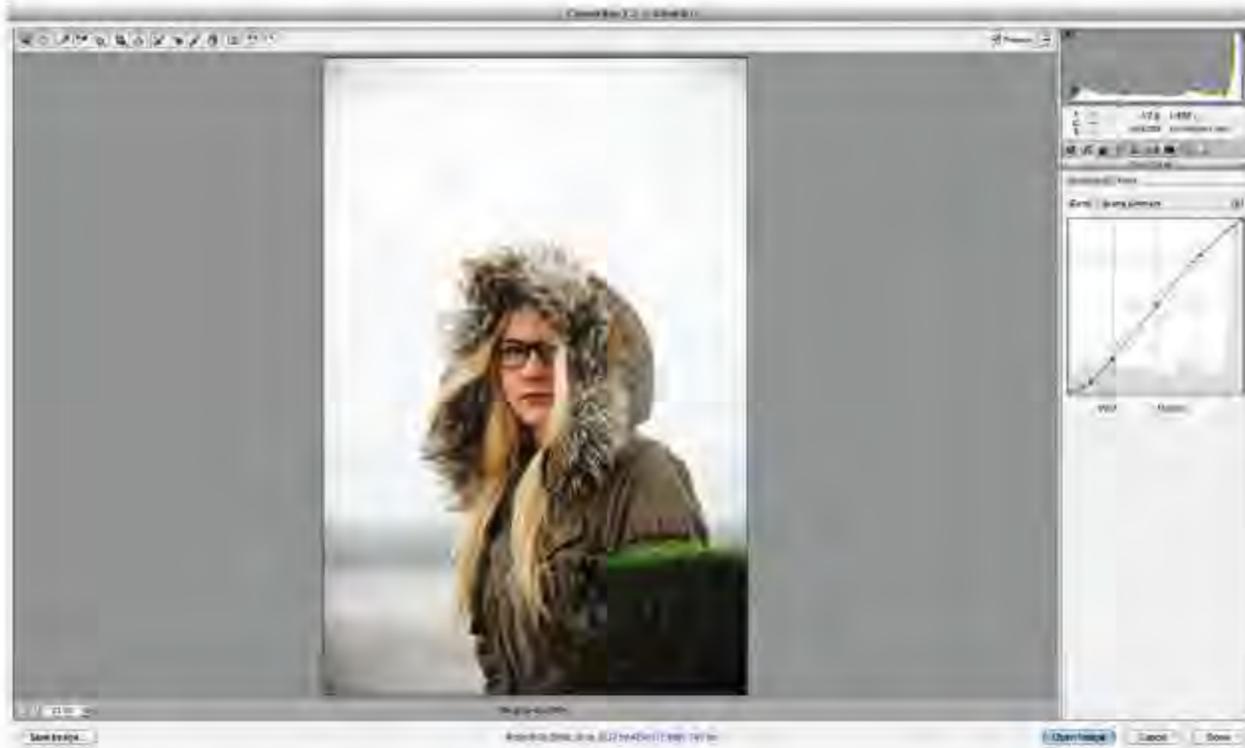
In the curve option there are a few preset variants for the photographer to select.

### **Linear**

This option will render the image fairly flat and would not be used in the genre of portraiture, but it is more commonly used for flat copy images, where the least amount of contrast is required.

## Medium Contrast and Strong Contrast

Watch what happens to the shape of the curve if either of these options is selected.



**Fig. 7.4**

Image to illustrate the options available in the Curves window in Camera RAW.

### Custom

The user sets the levels of the curves by clicking along points of the curve and altering the flow of the curve. The S curve is normally the desired shape for nicely contrasting portrait images.

### Channel

With this option, by selecting RGB the image can be manipulated as a whole, or the individual red, green or blue channels can be highlighted and controlled independently from each other. When using the presets or if self-setting the levels the photographer must ensure that as much

information is retained as possible, especially in the highlights and shadows.

## THE CAMERA RAW TOOLBOX

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The Camera RAW toolbox is located in the top left-hand corner of the RAW window. Each tool is described below with the letter shortcut to select to the right of the option. (In Lightroom these functions are found just underneath the histogram in the Develop window.)



**Fig. 7.5**

The camera RAW toolbox.

### Tools

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#### Zoom (Z)

Offers the ability to zoom in and out to view particular sections of the image in more detail. Double clicking on the icon will zoom the image in to 100%.

#### Hand (H)

Move around the image when zoomed in by clicking and dragging the clenched fist in the desired direction.

#### White Balance (I)

Allows the photographer to select a neutral area of the image so that a neutral white balance image is achieved.

### **Colour Sampler (S)**

Can sample a particular colour from the image, by simply selecting the tool and clicking on the required area of the image.

### **Targeted Adjustment (T)**

Can target a specific area of an image to adjust, by click the icon directly onto the image will change the area depending on what the photographer has chosen to target, by simply moving the cursor up and down or left to right will change the image in that targeted area.

### **Crop (C)**

Crops the image (see below).

### **Straighten (A)**

A useful tool especially if there is a horizon line present in your image, allowing the photographer to straighten an image that is slightly askew. By simply dragging the icon from one point to another along the line to be straightened and then double clicking in the image, this problem will be rectified.

### **Spot Removal (B)**

By either healing or cloning the photographer has the ability to remove spots.

### **Red Eye Removal (E)**

Removes red eye.

### **Adjustment Brush (K)**

Will allow targeted adjustments to be made to the image.

### **Graduated Filter (G)**

Enables the photographer to add a graduated filter of any colour over the image.

### **Preferences Dialogue (Cmd K)**

If there are any preferences saved here the dialogue box will appear.

### **Rotate Anti-Clockwise and Clockwise (L & R)**

Will rotate the image either clockwise or anti-clockwise.

## **Detail**

In this particular section the finer details of sharpening and noise reduction can be managed. When sharpening portraits the photographer's primary aim is to enhance the areas of the face that he would like to be sharpened, more commonly the eyes and eyelashes, drawing attention towards them. When doing so, however, the sharpening must be skilfully balanced so as not to affect other elements in the portrait, such as the skin and other smooth surfaces. There are various formulas and suggestions of differing levels of the sharpening tools to use. To be honest most will need a little tweaking depending on the image taken in the first place and the distance the subject is from the camera.

## USING ASPECT RATIO TO CROP

The aspect ratio is a 2-figure value, commonly written as  $x:y$ , determined by the height and width relationship of an image. One of the most common aspect ratios in digital photography is the 3:2 ratio, but there are others: 1:1, 2:3, 3:4, 4:5, 5:7, and 9:16. Image sizes within the 3:2 ratio are  $6 \times 4$  inches,  $12 \times 8$  inches,  $24 \times 16$  inches and so on. Whatever the size of the image the values will still remain proportional to each other.

All square images have the aspect ratio of 1:1 (both height and width are equal). A common panoramic or letterbox aspect ratio is the 3:1 ratio, and can be created in Camera RAW through the custom setting in the crop tool. The golden ratio referred to Chapter 6 has the value 1.618:1.

When cropping an image in Camera RAW the photographer has the ability to do so by using the aspect ratio rather than an actual crop to size. This method will enable the photographer at a later stage to crop the image to varying sizes within the chosen aspect ratio as all pixel information will be retained.

A sharpening setting that can be very successful with a close-up headshot will not achieve the same quality on a larger family grouping. For closer portraiture, the Amount can vary from 35 to 70, Radius is around the 1–1.2 mark, Detail should be in the region of 20, and Masking again should be around 70. These levels will give a lovely sharp

quality to the eyes, nose and mouth, yet will leave the relatively smoother areas of the skin untouched.



**Fig. 7.6**  
Sharpening in Camera RAW. The two images on the left are shown as they came originally from the camera; the two images on the right have both been sharpened.

## **Hue, Saturation and Luminance/Greyscale**

In this menu the photographer is able to transform the colours within the image using the finer adjustments of Hue, Saturation and Luminance. When manipulating the image using these separate HSL tools it is important to understand the effect they will have on the final image.

### **Hue**

This affects the colour or shade found within the image.

### **Saturation**

Controls the intensity of the colour in comparison to white.

### **Luminance**

This option relates to the brightness of the colour.

By using the sliders in each menu changes can be made to any red, orange, yellow, green, blue, purple and magenta areas that are present in the image. Within portraiture the main aim of the photographer is to create flattering and real skin tones, and as such the red and the orange sliders will have the most effect.

If the Convert to Greyscale box is checked the image will become mono, and again the areas of the image can be manipulated to add contrast. When the Auto button is selected Photoshop will set the sliders to create a good level monochrome image that may render the image as the photographer wishes; however this may need extra tweaking for a satisfactory outcome.

By selecting the Default button all the sliders will be reset back to zero.

Further manipulation can be made to the image using the Targeted Adjustment Tool found in the top left of the Camera RAW screen menu. By selecting any of the separate controls for hue, saturation or luminance, then selecting the specific colour on the image, you can move the tool either upwards or to the right to increase the slider values, or downwards or to the left to decrease the values. The colour's corresponding slider will move accordingly and the values will change.



**Fig. 7.7**  
HSL/Greyscale image, in the Camera RAW setting  
(can also be achieved in Lightroom Develop menu).

## **Split Toning**

There is an option in the adjacent drop-down menu to tone the greyscaled image from the HSL/Greyscale menu. By simply balancing the hue and saturation sliders in both the

highlight and shadow areas the photographer can create a great variety of toned images, from sepia to blue-toned. Tones such as orange and red will warm the image, whereas blues and greens will cast a cooler, more edgy quality to the image.



**Fig. 7.8**  
Split toned image, using the Camera RAW setting  
(can also be achieved in Lightroom Develop menu).

## **Lens Correction**

This particular window provides the photographer with a set of tools specifically tailored to correct lens issues such as chromatic aberration and vignetting.

### **Chromatic Aberration**

Chromatic aberration is an effect caused by the diffraction of light waves as they pass through the glass of the lens, which causes the light to fragment and split into different colours. This can sometimes cause a coloured fringe to

appear at the edges of an image around points of contrast. Some lenses are worse than others and this will only occur in certain situations.

In the lens correction window there are two sliders under the heading Chromatic Aberration: Fix Red/Cyan Fringe and Fix Blue/Yellow Fringe. Depending on the colour of the fringing present in the image, moving the corresponding slider will eradicate the effect.

### **Vignetting**

Vignetting is the darkening of an image towards the edges of the frame, an effect more commonly caused by the limitations of some lenses and the way in which the light passes through them. Sometimes however a photographer may purposely choose to apply a vignette to an image in post production for creative effect, as it can draw the viewer's attention towards the centre of the image.

In newer versions of Photoshop there is an option to enable the lens profile corrections where the specific qualities of certain lenses are already preset and will rectify any negative lens distortions.

### **Camera Calibration**

In this area of the Camera RAW menus various camera settings may be applied to the image. The default setting for Photoshop will be Adobe Standard, which may well be acceptable for certain images. However it is worth just checking through the other options available to see if they improve on the image. Depending on the camera used to take the image, the options can vary from landscape, portrait, vivid and standard, amongst others.

Other finer adjustments can also be made to the tint of shadows and the colours within the image, but this would probably not be so useful when processing portrait images.

## Effects

### Grain

In the effects menu, the photographer is able to create the impression of higher ISO film grain. When producing grain, the amount, size and roughness of the grain can be altered and manipulated to replicate the effect.



**Fig. 7.9**  
Image illustrating the grain that can be added to an

image in the Effect menu of both Camera RAW and Lightroom Develop.

### **Post Crop Vignetting**

Post crop vignetting will behave in a slightly different way to the vignetting tool in the lens correction menu. If applied at this stage the vignette will be reapplied in the same way if the image is then subsequently cropped in a different way. There are more options in this menu to make finer adjustments to the style and overall appearance of the vignette.

### **Presets**

When making changes to any of the above menus in the Camera RAW settings, if there are common adjustments that are routinely used the photographer may want to save these settings as a preset, as they can then be used and applied to other images with ease. Simply add the new preset by clicking the icon in the bottom right of the menu. (Lightroom also enables the user to create and select presets and has many of its own B&W, colour, effect, general, and video presets that can be applied to the image. These can be found to the left-hand side of the Develop window, with a useful and instant preview or navigator window located above the options.)

### **Snapshots**

In the snapshot menu the photographer is able to record the state of an image at any time. Snapshots are all of the edits made upon that image up to the point when the snapshot is created. A new snapshot is created in Camera RAW by

clicking the icon at the bottom right of the menu and then renaming it (and in Lightroom by clicking the + sign next to the snapshot option on the left of the Develop window).

By creating snapshots of an image at various times during the editing process, a comparison between the stages of the edit can easily be made. There is also the option to return the image to an earlier state if you want to use it at another time. One of the main benefits of using snapshots, and the difference between this and a preset, is the ability to be able to work with multiple versions of one image without having to duplicate the original. This is also particularly useful when a large number of changes are made to an image.

## **ADVANCED EDITING: PHOTOSHOP**

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Image editing within Photoshop allows the photographer unlimited creativity with the image. The vast array of effects and possibilities available can produce some truly beautiful imagery and the scope for imagination is open wide.

Using a tablet is more akin to painting with the pixels of an image as the subtleties of pressure and stroke of a paintbrush can be replicated.

When editing images the most control and accuracy will be if using a tablet and pen; the subtlety of control is unmatched and as such the finer adjustments of an image are made with a greater amount of accuracy and skill.

Many tablets will also enable the user to personalize them including short cuts and action keys which will ultimately speed up workflow, a great asset when editing numbers of images.

## **Black and White Conversions**

Black and white images will always have such a beautiful timeless quality to them, and over the years many portrait photographers have leant towards this classical study of tones and textures to create some very striking images.

With the advance of the digital age the photographer no longer has to choose before they take the shot as to whether the image should be in B&W or colour, as in the days of film, giving us greater freedom to be creative with the image. However, with the vast number of techniques available, and software options to convert the images taken into monochrome, many B&W conversions are of poor quality and lack a tonal range that would have been produced from a well-exposed black and white negative.

When you are producing from a RAW file the better B&W conversions are those that offer the photographer a non-destructive solution (not affecting the original file). Two of these methods are explained below. Both techniques will involve the photographer creating an adjustment layer, so all the usable information available can be used. RAW files that are produced by your digital camera contain red, green and blue information. These are called channels and contain all of the information needed to create your image.

## **Technique 1**

Using the Channel Mixer adjustment layer, select:

**Layer>New Adjustment Layer>Channel Mixer**

Then a new layer will appear on top of your original and the channel mixer box should appear. Within this box you will see a Monochrome option, with a tick box. Select this to make the layer monochrome.

There are three colour sliders – Red, Green and Blue – each with percentage number next to it. Photoshop will automatically load in the ratios of Red 40 per cent, Green 40 per cent and Blue 20 per cent, and it is worth moving a few around to see the levels of changes they make. When moving these to their required levels, the photographer must ensure that the levels all amount to 100 per cent.

If you find that most of your work sits well with certain levels it may be worth loading this as a preset (icon to the top right of the Adjustment Layer box), and then you can tweak it afterwards as you wish.

## **Technique 2 (a little more versatile than Technique 1)**

Again using the Channel Mixer adjustment layer, select:

**Layer>New Adjustment Layer>B&W> New Layer  
(click yes)**

You will then see the black and white selection box, as with Technique 1. Here you will find sliders, but there are more here, six in total, to allow more control.

A wonderful tool that can be found here is called the Targeted Adjustment (you will also find this tool in other adjustment layer boxes). By simply clicking and holding directly onto the section of the image you would like to change, sliding the icon to the left will darken all similar tones and moving to the right will lighten.

Another extremely useful tool that can be found in the black and white adjustment box is the Tint option, great for sepia and blue toning images. Simply check the box and choose the colour option by clicking in the larger box to the right. Again if you find a good level for your workflow it would be worth saving some presets.

## **Tinting and Toning**

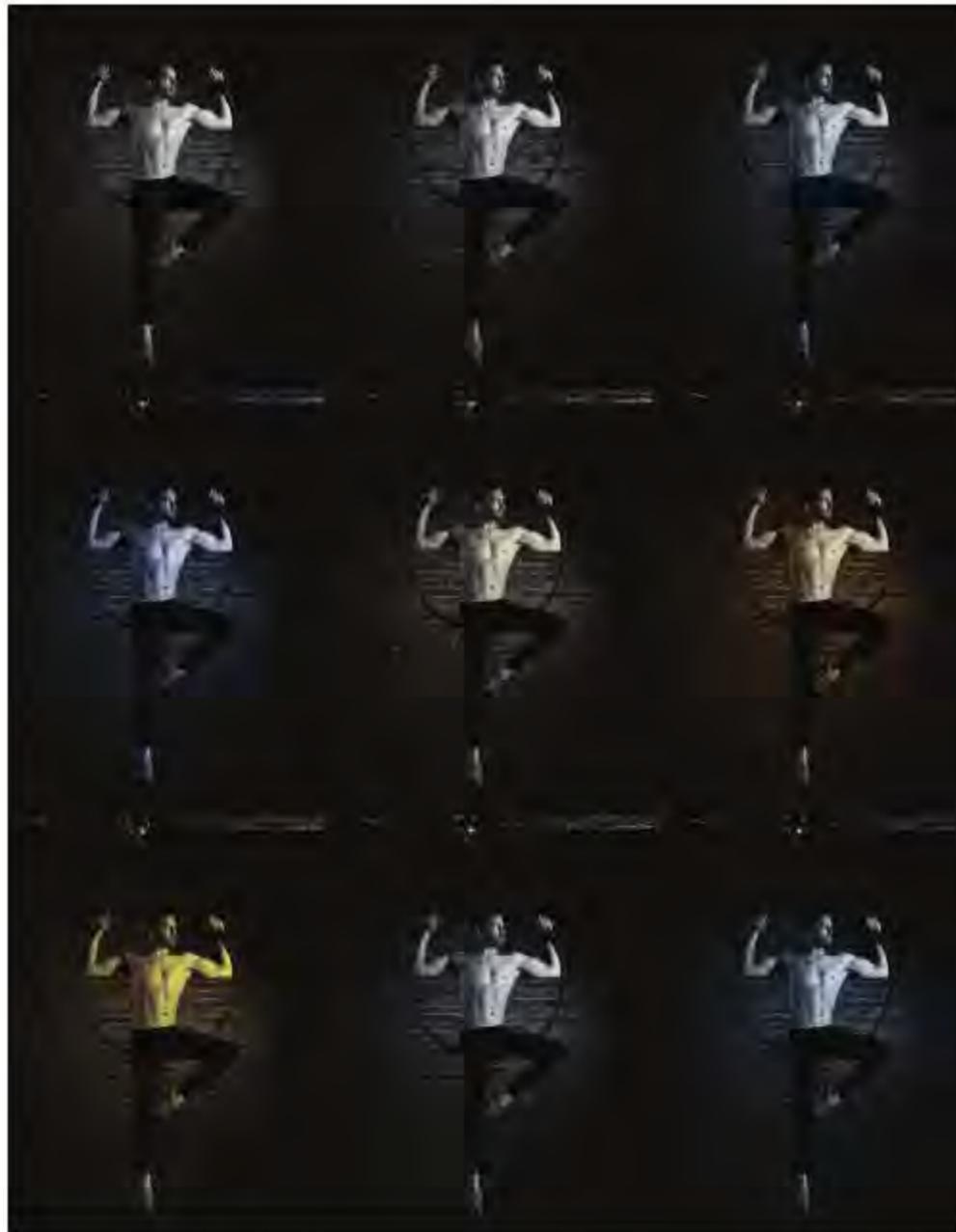
Print toning in film photography was originally a technique used to alter the overall colour of monochrome images. A chemical process was used to change the original silver-based print, using a variety of chemicals such as Selenium or Sodium Sulphide (Sepia), where each would have their own colour qualities to impart various tints and tones on the print. Processes such as the selenium and sepia toning were commonly used to enhance the longevity of the final print, rendering the image more stable. Other styles of tinted images such as the Ambrotype and Cyanotype were developed from a different way of printing entirely, where an original silver-based image was not needed but an original print was made using chemicals, giving either an Amber or Cyan cast as a result of the technique used.

The effects of these processes can now be reproduced in the digital age using various software applications, and are

far easier to control. Toning and tinting monochrome images in Photoshop is a wonderfully creative and relatively simple technique. With simple adjustments of the RGB channels in Channel Mixer or by using dedicated plug-ins and actions some of the more popular tones and tints can be produced.



**Fig. 7.10**  
B&W original, edited in Nik Silver Efex  
Pro plug-in for Photoshop.



**Fig. 7.11**

Nine images showing differing toned or tinted images. Top row: B&W original, Light Selenium, Dark Selenium. Second row: Cyanotype, Light Sepia, Dark sepia. Third row: Ambrotype, Light Blue and Dark Blue.

Notice how each of the examples affects the skin tone of the portrait and the image as a whole, influencing the tonal quality and overall feel of the image; some have a warmer feel, others a more

cool tone. Edited in Nik Silver Efex Pro plug-in for Photoshop.

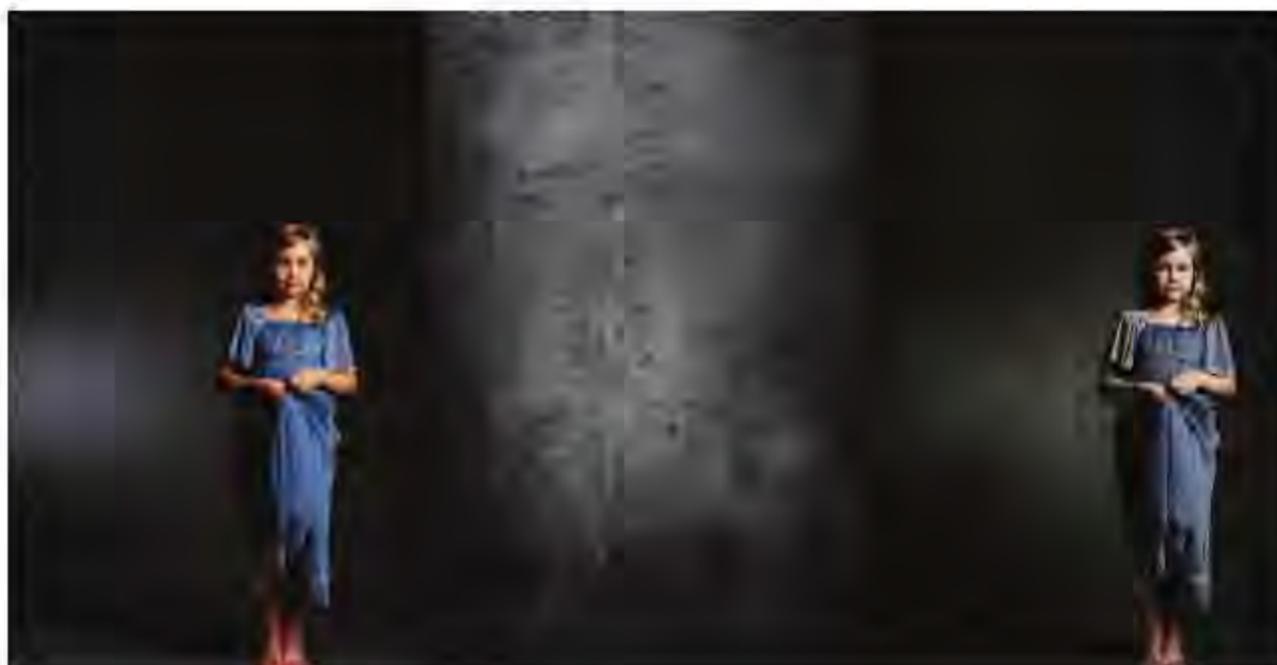
## **Layers**

Layers in Photoshop can be wonderfully useful tools when manipulating images. There are three kinds of layers, each with a differing purpose. To visualize how they work, you can imagine a number of imaginary images placed on top of one another. Each layer can be manipulated and controlled in such a way that when the layers are flattened together the resulting final image is a composite of many.

A Duplicate Layer of an image will just be a straight copy of the original, placed over the top. This can be worked in certain areas, and then merged or flattened into the original, without affecting the information in the original piece.

A Layer Mask is another layer placed on top of the original image. This layer again can be manipulated in such a way as to add and subtract elements from the top image with the use of the paintbrush tool, using either black, white or grey.

Adjustment Layers are those where a duplicate of the original is made, and any changes required are made on this layer. The opacity of the layer can also be changed to blend these in with the original in a more natural and selective way.



**Fig. 7.12**

Illustration of layers in Photoshop and how they can be used to work together, creating an entirely new image with a greater depth and creativity.

## **Actions**

Photoshop actions automate repetitive editing tasks, enabling the photographer to drastically improve and increase workflow. Similar to the way that snapshots operate in the Camera RAW menu, Photoshop actions allow the photographer to record steps of an edit which can then be saved as a named action and applied to other images. There are also various plug-ins and actions available for the photographer to add to their editing workflow for different effects and actions. Many will work in synergy with Lightroom and Photoshop and can be accessed via the filter menu.

Recording an action is a simple process. Just click the new action icon, either in the top right menu of the Actions window by selecting the Create New Action option or click the small square icon (next to the bin).

The small circle will then be highlighted, and any process that is subsequently performed on the image will be recorded. When you have completed the desired action press the Stop button (the square to the bottom left of the action window). The action can now be repeated on another image by simply selecting the desired action and clicking the Play button.

### **Dynamic Cropping**

Cropping an image in post production can be done for a variety of reasons, to add impact to the composition, to highlight a certain aspect of the image and to create graphic interest. Each of these can significantly change and enhance the final impact of the image.



**Fig. 7.13**

The same image cropped in five differing ways. Notice how the crops lend differing compositional qualities to each image.

If you take one image, you may well find that there are any number of ways to crop the image, each one giving more emphasis or weight to a particular area or excluding elements that do not add meaning to the final image. Cropping images as squares and panoramas can also add a

great deal of interest by narrowing the field of view. Experimentation is important at this stage and can dramatically strengthen the composition of the image so it is worth the extra time.

## Masterclass

### THE ZONE SYSTEM

**T**he Zone System was devised by the photographers Ansel Adams and Fred Archer in 1939–40 to enable photographers and printmakers to make better judgements when producing tonally rich black and white prints from film negatives. The system was one that understood the tonal values of an image and how to manipulate them in such a way as to obtain the greatest detail and information from the negative.

Arranged in eleven separate sectors, the system is similar in concept to the histogram found in today's digital cameras, and is still very much relevant in the age of digital imaging. The eleven equal sectors were arranged as follows:

0 Pure black.

I Near black, tonality but no texture.

II Textured black areas.

III Average dark materials showing adequate textures.

IV Dark foliage, dark stone, shadows.

V Middle grey, clear north sky, dark skin, average weathered wood.

VI Average white skin, light stone.

VII Very light skin.

VIII Lightest tone with texture.

IX Slight tone, without any texture.

X Pure white, and specula highlights.

Although the negative in Ansel Adams' time could record the vast dynamic tonal range, the difficulty would arise when the printer would try to utilize all the information gathered when the print was produced in 'normal' situations. And as such it would need further manipulation such as dodging and burning of the image to draw all the information from it.

It was accepted that 0–X was the full range possible. However, the full range was unlikely to be achieved from a single un-manipulated print straight from the negative. The Dynamic Range, effectively Zone I–X, would represent the darkest and the lightest useful part of the negative. The Textural Range was where there would appear to be a recognizable texture or substance, in Zones II–VIII.

This system encourages the photographer/printer to pre-visualize the image and what they required from it, making conscious decisions as to where to place various tones within the frame.

The Zone system can be applied in many areas of photography, from the histograms used to read images on cameras to the output at the other end with the final print.

With this in mind all photographers wishing to pursue this system must ensure that all parts of the process are in complete harmony with each other – the camera, monitor used to manipulate, printer, inks and paper. Each of these will have its own variables that will need to be considered and explored to get the required result.



**Fig. 7.14**  
Image created and processed using the Zone System, where all tones are represented in one form, and all details are retained in both the shadows and highlight areas.

### **High Dynamic Range Imaging**

High Dynamic Range images are those where multiple exposures of one image are taken and merged together in Photoshop or other software to create a single image.

The human eye naturally has the capacity to visualize a larger range of tones (somewhere between 10 and 14 stops from light to dark) than the camera can capture on the chip.

The HDR Manipulation of images creates one image, by combining multiple exposures of the same image that have been bracketed at differing exposures in camera to create a more representative rendering of the scene.

The HDR image shows greater depth where all the details in the light and dark areas are retained, and as such a wider range of detail is available to the photographer from the highlight areas through to the shadows, where they may not have been visible in a single exposure. Thus the technique is effectively extending the dynamic range of the image.

For the ultimate results the images selected must be RAW files, and at least three images should be used to create a satisfactory result. The exposures should be first a correctly exposed image, then an underexposed image to capture details present in the highlights and an overexposed image to capture details in the shadow areas. These images are then merged by the software (in Photoshop this can be found in the file menu under Automate) to create the HDR image.



**Fig. 7.15**  
Image illustrating the change of the detail  
when an HDR image is detailed.



**Fig. 7.16**  
HDR image. Notice the extra detail present in the sky and sand.

If the photographer is trying to capture HDR images which involve people or moving objects they must be aware that for the process to work the frames must be identical in their content or the merge will fail. A tripod should be utilized if possible, and the subject needs to remain as still as possible whilst the frames are being taken.



**Megan.**

Image taken in the studio. Leaf Colourama, 1 Elinchrom BRXi 500, Octa 100cm softbox key light, background light with honeycomb, Nikon D2Xs and 24–70 lens.

## **The Final Print**

**U**ltimately when the photographer presses the shutter they are thinking of the final outcome of the shot and how they want the viewer to see and interpret the image. They may have deliberated over the composition, the style and finer details of the portrait, yet the entire feel of the image could be lost if displayed in a way as to not enhance or strengthen it.

### **CALIBRATING YOUR MONITOR TO THE PRINTER**

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When editing the images in Photoshop the photographer will have the expectation that the results seen onscreen should be very similar to those when printing or receiving back from the professional lab. The way in which to ensure this happens is to periodically calibrate the screen on which the images are edited, generally once a month for the best results.

Most important is to check that both screen resolution and bit modes of the screen are correct. The screen resolution should be set as high as possible and the bit mode ideally at

24, in order to display the correct amount of colour information for accurate calibration.

**A good photograph is one that communicates a fact, touches the heart, and leaves the viewer a changed person for having seen it. It is, in a word, effective.**

– Irving Penn, ‘What Makes a Good Picture?’

The calibration can be completed by the photographer if they have a good eye for colours, by simply printing off an image with the printer normally used onto photographic quality paper. Compare the colours within the image and make adjustments to either the screen or the printer as required.

For a more consistent outcome you may wish to invest in software that, working together with a colorimeter (an onscreen gadget that reads the colour values produced by the monitor), will calibrate the screen. You must ensure that the screen is properly warmed up for calibration to be accurate. Two examples of this software are ColorVision Spyder Pro and ColorVision ColorPlus.

Alternatively, if using a professional lab, the printer may well calibrate the system for the photographer, and offer details and advice for syncing output to their system.

Correct calibration of the printer and screen together is especially important when working with the Zone System of printing (as explained in Chapter 7); if any of the

components are out of alignment the outcome will just not be what was expected.

When printing on paper the photographer should be aware of the two main printing processes available to the digital photographer: Giclée and digital C-type prints.

## **PRINTING IMAGES**

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With the vast amount of options currently available to the photographer, real consideration should be given to ensure that the chosen method of display complements the final image. The most common of the options is of course to print the image, but even with printing there are a huge variety of possibilities to choose from.

### **Giclée Prints**

The term Giclée (pronounced zhee-klay) has its origins in the French word gicler meaning to spray. The printers used to produce Giclée prints are high-end professional inkjet printers with a great capacity to reproduce fine details and colours with the use of multiple ink cartridges.

Sometimes there are as many as 10–11 ink cartridges including 4 black cartridges (LB Light Black, LLB Light Light Black, PB Photo Black and MB Matt Black). The colour cartridges include orange, green, magenta and light magenta, cyan and light cyan, and yellow. With all of these possible colours a very wide colour gamut and depth of image can be achieved.

The method of printing uses high-quality archival and fade-resistant inks printed onto high-quality archival paper. The resulting quality prints are thought to have a lifespan of around forty years in daylight and two hundred years in the dark; with the newer printers the black and white images are thought to have an even longer life expectancy, of over two hundred years.

High-quality papers are used, such as Canson, Hahnemuhle, Harman and Epson fine art; these are heavy-duty papers that feel more like art papers than like photographic paper. In conjunction with the appropriate inks, these papers allow for the correct representation of the digital image, affording a wider gamut of colours to be recorded and thus a finer quality of image.

### **Digital C-type prints (also known as Lambda prints or light jet prints)**

Digital C-type prints are genuine photographic prints made onto a light-sensitive paper from an LED light source with the use of red, green and blue lights. The process uses the traditional silver-based chemistry that was originally used to produce prints from negatives, where the paper or substrate is coated in a light-sensitive emulsion (commonly silver halide and gelatine) and then exposed to the light source.

C-type prints are generally thought to have superior quality to that of the Giclée print, as well as having a longer life expectancy, although with the newer inks and papers Giclée printing now has very similar outputs and archival qualities. The papers used in the Giclée process tend to be either Fuji or Kodak papers, while the C-type process is the

only printer where metallic and high-gloss prints can be produced.

## **SUBSTRATES**

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When it comes to substrates the difference in quality and output can be vast, and the photographer can quite easily become confused with what to expect. Even with paper the amount of variety is huge.

### **Paper**

If the photographer has a specific style of work this may well be suited to one particular type of paper over another. Each type of paper will add something to the final feel of the photographer's work. Some may be more suited to colour images or to black and white or toned images.

When choosing a paper the photographer should always consider a few options and decide which medium will suit his image and enhance the feel of the portrait. You should also be mindful that the best-quality images will be produced from

the best-quality papers and inks. Brands such as Canson, Harman, Epson and Hahnemuhle, Fuji and Kodak will all offer many of the types of paper listed below.

### **Warmer-toned papers**

Of a creamier nature than a pure white paper, these will enrich warmer colours and being softer and more tonally forgiving could easily be used to enhance more delicate,

graceful portraits. They can also be used to enhance the quality of sepia, selenium and antiqued toned images.

### **Cooler-toned papers**

These will offer a bluer tone to the final image, which could enhance a gritty and more edgy portrait, especially one with strong contrast and detail. Papers with a cooler tone can be used to produce cyanotype-toned images.

### **Gloss papers**

Extremely reflective in their nature, gloss papers will impart lovely deep and rich blacks and lively highlights, and will accentuate colours, giving an image a good strong punch and vibrancy. Gloss paper is a very unforgiving medium, as it will accentuate and emphasize all elements of the image, so image choice should be considered carefully. Gloss does lend itself well to strong contrasting black and white images, and images with striking graphic elements of colour.

### **Metallic papers**

Like glossy papers, metallics are very punchy and vibrant in nature. Even more reflective in quality, they lend themselves well to fine-detailed and intricate images, and are ideally used for the more avant-garde and contemporary forms of portraiture. Metallic papers can only be printed using the Digital C-type method of printing.

### **Textured papers**

These will give the image a feeling of a more fine art nature. They can be slightly or heavily textured; they are

relatively non-reflective and do have a tendency to be flatter than a gloss or pearl finish.

### **Pearl papers**

With a slight sheen to the finish a pearl paper will have the appearance somewhere between gloss and matt paper, giving lovely rich blacks and punchy whites. Pearl paper is a good solid choice for the majority of photographic images.

### **Matt paper**

Matt papers are non-reflective and tend to be flatter with less contrast than glossy papers. Matt can deaden a lively image by muting strong colours and softening any sharp details. However some images may benefit from using this medium.

## **Other Materials**

### **Metal**

Printing or etching the image onto metal can create some brilliant avant-garde imagery. More often than not, the more successful images printed this way are in monochrome, or minimal colour.

### **Canvas**

Canvas printing has always been a popular method to display photographic images. Canvas is available in a wide variety of textures and finishes, and as with all of these choices the photographer needs to make the correct choice for the image chosen to display.

## Acrylics

Displaying images as an acrylic block or wall mount can give them a contemporary feel. Mounted or sandwiched between two sheets of acrylic can make for a modern and clean way to exhibit the final piece.

## PRESENTING IMAGES

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Many professional printers now offer the photographer some wonderful ways to display loose prints, such as in beautifully presented print boxes and folders, or mounted ready to frame, giving the client the choice of how to use them.

### Boxes, Folders and Mounts

Various boxes and folders can quite often be sourced independently from specialist packaging companies. Although not specifically tailored to photographers, with a little creativity they can be utilized for a unique way to display images and photographic products. The photographer should consider how to possibly personalize these products to both advertise their photographic skill and give the personal touch to the final product. The simple addition of an image or signature to the product can add a perceived value to the final piece.

You should select a medium in which to display your work to the fullest. Often photographers will settle upon a black or white mount or folder; however, with further creativity the mount can become integral to the image as a whole. For example, when choosing mounts and folders, you should

favour complementary colours and styles, to enhance the quality of the imagery.

When the photographer offers their clients signature pieces that are more fine art in nature, whether these pieces are framed, mounted or within an album, they should all be treated in the highest quality possible to represent the photographer and their work. If the style of work is of a more contemporary nature, then a similar form of display medium should be chosen; in contrast if the imagery is natural and classical, a more pure and restrained style should be used.

## **Albums**

Deciding how you want to represent the work is an important consideration here; there is nothing worse than producing a wonderful set of images for your client, only for them to be incorrectly printed and poorly displayed.

Albums can be a wonderful way to display larger collections and series of images. When choosing albums or books the huge amount of variety can be daunting. Some are bespoke hand-made and hand-bound, with fine art paper, and can create a real impact that matches the quality of the images; others are intended more as keepsake items.

The pages should be designed simultaneously with each other, often as a double page spread so the album flows aesthetically from page to page. Taking care to sympathetically place images next to others that complement each other will allow the viewer's eye to read the images throughout the album with ease.

The photographer may want to make certain images more dominant within the album, while others may be used as fillers. The size, colour, strength of image and opacity of the images used will dictate a hierarchy within the album, allowing interest and dynamism to flow from page to page without becoming monotonous.

When designing the album the photographer may wish to group similar images onto one page to tell a story or to strengthen the message of the image. Also certain images may be used as background images to stronger ones by simply reducing the opacity of the background image, creating a texture and context with the main images standing apart.

Deciding upon the correct orientation of the album, either portrait or landscape, will be a consideration also, and should be guided by the majority of the images to be placed within it; if the main bulk of the images are of landscape orientation, the obvious choice would be to design to a landscape format, thus displaying the images at their best.



**Fig. 8.1**

Simple composition and lighting can quite often create the most striking portraits of children. Shot against a painted black background, using Nikon D2xs 70–200 mm Lens, One Elinchrom light positioned to the left of the subject.

The cover of the album should be given due consideration, representing the content of the album with a strong single image. A wide variety of cover substrates are available, such as glossy and metallic finishes, which can add real touch of quality to the final product. A date and names of the clients may also be added to the cover design, giving

the album context, and thus encouraging clients to return periodically.

## Masterclass

### UNDERSTANDING HOW TO PREPARE THE IMAGE READY FOR PRINT

**W**hen editing the final image for print, the photographer must fully understand how the printer will decipher the information sent to it in order to produce the final piece, using the correct sizes and with a suitable pixel density so that the image's quality is not compromised in any way.

Most commonly, photographers will use the term DPI (dots per inch) when explaining images and prints. However the more accurate term really is PPI (pixel per inch), as for each pixel there are already effectively 3 dots (RGB). In printing terms the higher the PPI the more information is recorded in the area, resulting in a higher density and greater quality output.

The majority of photographic printers will print a good-quality image at between 240 PPI and 300 PPI, and most will suggest the highest-quality 300 PPI. If we take the example of a  $12 \times 8$  image sized to 300 PPI (aspect ratio 3:2) the pixel count would be  $3600 \text{ px} \times 2400 \text{ px}$ .

#### **Upsizing and Downsizing Images in Photoshop**

If preparation of larger or smaller images is required for the printer, the photographer will need to resize the image.

If the image is to remain in the same proportions as the original, then a simple upscaling or downscaling of the

image is all that is required. This can be done in the image size dialogue box in Photoshop; first check that the resample box is ticked, then resize the image using the document sizes to create the intended size.

If the size is to be increased, depending on the original size of the sensor that took the image there will be a certain amount of interpolation of pixel data that Photoshop will need to add to the image. Photoshop will thus change and re-render the amount of pixel information within the frame to accommodate the change in size. Some image quality can be lost if the image is pushed to an unrealistic size, and care should be taken when doing so.

If downscaling an image, the quality will not be lost if the image is constrained to the ratio that it was initially intended and the proportions and DPI are kept constant.

With all of the methods of display explained here the photographer should make the most suitable choice for the representation of the image intended. Fundamentally this decision is based on how the subject will view this image, and how the photographer envisioned their work to be displayed. In the end it is important because selecting poor quality or inappropriate methods of exhibiting work will lessen the final impact of the image.

## Glossary

**aberration** The inability of a lens to render a perfectly sharp image, generally found towards the edges of an image, and more commonly found with the use of zoom lenses.

**ambient light** Light that is already naturally present in the location, whether that is indoors or outside.

**angle of view** The view you can see through the lens, which is always determined by the focal length of the lens being used, with a wider lens having the ability to record a wider view.

**aperture** The lens opening, represented as a scale of f-numbers; the higher the number value the smaller the aperture.

**autofocus** A camera system used to focus on a particular area of the image, offering the photographer various focus points to select.

**backlighting** When the subject is lit from behind, such as in a silhouetted image at its most extreme.

**barn doors** A flash lighting modifier enabling the photographer to control the power and direction of light.

**Bayer pattern** The pattern of light-sensitive pixels (red, green and blue) found on the camera chip of a digital SLR.

**bayonet fitting** Mechanism for coupling the lens with the body of the camera; each camera manufacturer will have its own unique fitting, and they cannot be interchanged.

**bit depth** The part of a digital file which captures all the colour information for an image; the higher the bit depth the more colour information will be recorded. In RAW files 16 bit depth is recorded, but for file management 8 bit images are normally manipulated and printed.

**blue hour** The time of day between the golden hour and darkness and the golden hour and daylight.

**bokeh** The way a lens manipulates the out-of-focus areas in an image and how the camera renders them.

**bouncing light** Available light, either natural or flash, that has been manipulated by the photographer by means of a reflector or wall or other reflective surface to illuminate the subject.

**bracketing** A series of images of the same subject at varying levels of exposure, taken by the photographer to ensure the correct setting is achieved.

**buffer** The part of the internal memory of a camera that stores images queuing to be written to the compact flash card, if the photographer is shooting at a high speed.

**bulb** An exposure setting on the camera allowing the photographer to take variable lengths of exposure; the

shutter remains open as long as the shutter release button is pressed.

**burn in** A tool in Photoshop that allows the photographer to make certain areas of an image darker; similar to the darkroom technique of burning in where more light was given to a certain area of the paper.

**calibration** The process of modifying or adjusting the appearance of an output device, for example a screen, or printer for output.

**circle of confusion** The area of an image where it is neither in or out of focus to the naked eye.

**clean image** Describes an image where all unimportant elements have been omitted, through cropping or strong composition.

**colour cast** The appearance of the subject or overall final image which is influenced by a strong colour within the frame. This can be from anything such as a light source or also the cast from light reflecting off a strong background or other element in the frame.

**colour balance** Varying colour temperatures can be produced in an image by various lighting conditions; these can be neutralized to give a more natural feel to the image to create colour balance. Colour temperatures are measured in Kelvin (K).

**colour management** Techniques employed for maintaining consistent colour representation across various

devices with different input or output characteristics and capabilities.

**compact flash** The card that is inserted into the camera to capture the data recorded by the camera.

**compressed files (JPEGs)** Files used in digital photography because less storage space is needed; however the quality will deteriorate at higher levels of compression.

**composite** An image created by placing two or more images together, very common now as digital imagery can be used to great effect, with layers of images. Used extensively when producing HDR images.

**composition** The arrangement of parts to make up an image, with the photographer generally following rules to create an image that is pleasing to the eye, the most commonly understood being the rule of thirds.

**contrast** The difference between the lighter areas (brightness) of an image and the darkest areas (density).

**copyright** The right of the photographer to own and control an image.

**cove (infinity cove)** Found in many studio set-ups, it is a large concave area, generally painted white, that when lit creates the illusion of space.

**CMYK** A colour space representing the four colours used (Cyan, Magenta, Yellow and Black) when printed material is produced. In general photographers will produce

their work in Adobe RGB, and will then convert their files for printing to CMYK.

**cropping** The method of singling out or highlighting part of an image either in camera while shooting or by removing unwanted aspects in post production; used for emphasis or to create a more meaningful image.

**density** Depth or opacity of an image.

**depth of field** The distance between the nearest and the furthest objects within a frame that appear to be in focus.

**distortion** The appearance of pulled and stretched edges of an image which can occur when a lens is used in a particular way.

**diffuser** A piece of equipment used to soften the light.

**digital C-type** A truly photographic print, exposed using LEDs on light-sensitive photographic paper and processed using traditional silver-based chemistry.

**digital colour proofs** Proofs created directly from digital art files rather than film, such as toner-based black and white or colour lasers, phaser wax proofs, dye sublimation, IRIS, thermal and inkjet prints.

**diptych** A series of two images placed together.

**double exposure** A photographic technique combining two different images into a single photograph.

**DPI (dots per inch)** The units by which we measure the number of pixels per inch within an image. For printing purposes most photographers will crop an image to 300 DPI, and for viewing onscreen the most commonly used size is 72 DPI.

**exposure** The quantity of light needed to create an image.

**EXIF Data (exchange image file format)** Data taken by the camera and exported alongside the image, carrying with it details such as the camera settings, lens, aperture for future reference.

***f*-stop** Refers to the aperture setting of the lens and will determine the amount of light that enters the camera, and also the depth of field of the image; the *f*-number can be anything from *f*1.2 (wide aperture) to *f*32 (small aperture).

**fast lens** Lens that lets more light into the camera faster, and as such lenses with a wider maximum aperture value will be faster.

**feathering** Method of using the light, either natural or flash, to produce a pleasing and flattering fall-off of light onto the subject.

**file format** In digital imagery there are three main file formats that the photographer should be aware of: JPEG, TIFF and RAW.

**file sizes** Digital file sizes are measured in kilobytes, megabytes and gigabytes.

**fill light** Another light source used to push some extra lighting into the shadow areas of an image. It is most commonly found on the opposite side of the main (key) light and at a lower power, so as not to lose the shape created but just to lessen shadows and contrast.

**filter** A small disc of glass placed on the front of the camera lens to create a different effect by changing the way that light enters the camera, such as polarizing, infrared and diffusion filters. Many of these filters are now to be found in the Photoshop menu bar and can replicate a wide variety of these effects in post production.

**fish-eye lens** An extremely wide-angled lens with a massive angle of view, which creates a strong graphic interpretation of the scene rather than an accurate representation. The widest fish-eye will produce a circular image, a true fish eye, and will have a focal length of 8–10mm; slightly less wide are the full-frame fish-eye lenses that range from 10mm to 15mm.

**fixed focus lens (prime lens)** A lens without any focal adjustment.

**flat** Describes an image that lacks contrast and definition.

**focusing spot (in the studio)** A lighting modifier which can be focused to create a sharp-edged spot light; can also be used for gobos and slides to create other lighting effects.

**formatting** Preparing a memory card for reuse by deleting all the information stored on it.

**gamut** The total range of reproducible colours and density values on some output devices like a printer or monitor.

**gels** Small squares of coloured acetate which are placed in front of a light source to create a colour cast over a background or subject; used in both a studio and on location.

**Giclée** French name for the process of producing fine art prints from a digital source using inkjet printing technology.

**gobos** Slides made from metal or glass to create texture and effects in lighting; most generally used in conjunction with the focusing spot, as they can then be manipulated.

**golden hour** Generally an hour before sunrise and an hour before sunset, where the light is naturally diffused; the portrait photographer can utilize this light to great effect.

**halftone** The reproduction of continuous-tone artwork, such as photography or pencil sketches, through a digital screening process that converts shaded images into solid ink dots of various sizes and concentrations; a few tiny dots produce highlight areas, and a heavy concentration of large dots produces mid-tone and shadow areas.

**HDR images (High Dynamic Range Imaging)** Created when several bracketed exposures of the same image are placed together in layers to achieve a more lifelike image, extracting far more detail than our eyes would normally be able to register and achieving something the camera in one exposure is unable to replicate.

**headroom** The space between the top of the subject's head and the top edge of the image.

**highlight** The lightest part of an image.

**high-key** A studio set-up where the subject is lit evenly and with little contrast between light and shadow.

**high resolution** Referring to a large digital file, which contains more image detail.

**hot shoe** Mechanism found on the top of the digital SLR which is used either for a portable flash unit to be placed on top, or for a shutter sync to fire a studio flash.

**histogram** A graph found on the back of the camera, which illustrates the distribution of data and is extremely useful for the photographer while shooting.

**image sensor** The part of a camera that captures the light information and translates this into electronic data.

**interpolation** The computation of unknown data that lie between known data, which is commonly referred to when upsizing image files in pixel editing software.

**inverse square law** Law explaining how a light source loses power over distance.

**ISO** The sensitivity of the pixels, within the camera's chip, in capturing and recording light: the higher the sensitivity, the lower the ISO number and the higher-quality. The lower the sensitivity, the higher the ISO and more noise that will be seen in the image.

**Kelvin** The units by which we measure colour temperatures. Warmer colours such as yellows, oranges and reds are found toward the lower end of the scale (2500–3000k) with bluer cooler colours being higher up the scale (over 5000k); daylight is approximately 5600k.

**key (main) light** In the studio this is the light that is illuminating the main subject; all other lights are balanced in ratio to this light.

**lens speed** Determined primarily by the speed at which it is able to deliver light to the camera; a faster lens will allow more light into the camera and thus create the image faster.

**light meter** A device with which the photographer is able to determine how much light is reflecting from the subject, enabling correct camera settings and exposures to be achieved.

**long lens** A lens where the focal length is longer than that of the diagonal measurement of the camera sensor that it is shooting with. Longer lenses have a smaller field of view than other lenses, and narrow the scene, a quality that can be beneficial in portrait photography specifically because it slims down a subject. Longer lenses can also create a shorter depth of field, and can be used to isolate and highlight a subject from the background.

**luminance** The quantity of light emitted by a light source, measured as the luminous intensity per unit area of light from the surface of the source.

**lossy** Describes a form of data compression where information that is deemed unnecessary is effectively lost or discarded.

**low-key** A more considered lighting technique where only a few lights are used in a very controlled and directional way, and often shot onto a darker background.

**low resolution** Camera files which are smaller than 1 MB.

**macro lens** Used for fine close-up detailed images, where often the subject will be greater than lifesize in the final image.

**matrix metering** A light metering system found in digital SLRs. Information is gathered from the red, green, and blue (RGB) sensor in the camera and takes in distance information provided by the lens, and evaluates these to obtain a correct exposure calculation. This information is then compared with the overall brightness, contrast, and other lighting characteristics, and makes a comparison with a database of many thousands of images, resulting in a correct exposure.

**metadata** Information stored by the camera with the image, recording all other pieces of information such as copyright, credit, the Exif data, any tags or other details the photographer may wish to add.

**model release** A document allowing the photographer rights to reproduce the image as he wishes.

**modelling light** The modelling lamp found in the studio flash head which allows the photographer to pre-visualize how the light (when the flash is triggered) will fall onto the subject.

**normal lens (standard)** A normal lens gives the most realistic field of view, in comparison to our eyes. The focal length has a similar value in mm to the diagonal measurement of the camera sensor; this measurement will clearly change depending on what size sensor your camera has. On a 35mm sensor the optimum 'normal' lens would be a 50mm.

**overexposed** Where too much light has been reflected from the scene, the result will be loss of any highlight detail. This can be seen on the histogram, where the 'white' edge will be clipped.

**panning** A technique used when photographing a moving subject; the photographer moves the camera with the subject, thus keeping the subject sharp and in detail and the background blurred with motion. Used to a greater effect when the shutter speeds are slower.

**panoramic** A wide-angle view of the scene, which can be either horizontal or vertical.

**pixel** A single unit in digital imaging.

**PPI (pixels per inch)** Used to describe the resolution of an onscreen image.

**print profile** Used to describe the properties of the printer and paper combination in a particular colour space;

key to colour managed workflow and accurate printing results. they can be used to soft proof your images onscreen or for precise proofing before sending images to print.

**post production** Refers to everything that happens to the image after the camera has been put down after the shoot, including the edit, colour correction, cropping and printing of the final piece.

**rabatment** A compositional tool used to aid the placement of objects within a frame.

**RAW** The digital negative, the largest file size available to the photographer from a digital SLR, carrying the unprocessed digital information straight from the sensor. It is a non-destructible file as all original information is stored even if changes are made.

**reflector** A reflective surface used to bounce and control any available light.

**RGB and SRGB** The two most common working spaces the photographer will encounter: Adobe RGB 1998 is a common colour space used for photographers, graphic artists and printers. SRGB is a colour working space primarily used for monitors and printers.

**ring flash** A circular lighting modifier that fits around the lens of the camera, creating flat, relatively shadowless lighting, used widely in fashion.

**SD Card** Secure digital memory card, storage for digital media.

**saturation** The intensity of the colour within an image.

**selective focus** Technique where a shallow depth of field (wide aperture) is utilized to highlight and isolate a particular area of the image.

**sharpening** A tool used widely in post production to emphasize the edges in an image, or the adjacent areas with tonal contrast to one another,.

**shutter** The blades or curtain in an SLR that control the amount of time the sensor is exposed to the light.

**slave cell** A mechanism found in flash lighting heads that allows for more than one light to be triggered from another.

**snoot** A metal lighting modifier that creates a small circular area of light, more generally used for a hair light or for lighting an area in the background.

**softbox** Accessory that diffuses the light from a flash head in the studio as it passes through at least one (sometimes more) sheets of translucent material; available in various shapes and sizes.

**specular** Describes the highlight which is the brightest area visible on shiny objects when lit.

**spot metering** An in-camera light metering system that takes a reading from a small user-defined point of the scene to achieve the desired exposure; ideally the photographer will take a reading from a neutral mid-point.

**stopping down** Moving the *f*-stop down to allow less light into the camera, for example, moving from *f*5.6 to *f*8.

**substrate** Any surface on which printing can be achieved.

**sync lead** A lead that communicates between the camera and the flash, enabling the shutter to be synchronized with the flash heads.

**telephoto lens** A specific type of long lens designed, by groupings of lenses, in a way that the actual length of the lens is shorter than the focal length.

**through the lens focusing/metering** Focusing and metering readings that the camera takes through the lens.

**TIFF (Tagged Image File Format)** A lossless file format used by photographers for saving images.

**toning** In post production warmer tones (browns, yellows and sepias) and cooler tones (blues) can be added to enhance the overall feel of a monochrome image, adding to the creative impact.

**tryptich** A series of three images placed together in a series.

**tungsten light** The lighting found inside most buildings, which will add an orange cast to any images taken in these situations; it can however be overcome with shooting in RAW and using the white balance tool in Camera RAW.

**underexposed** Describes an image where not enough light has been captured for the image to be correct, resulting in muddy and solid shadows with no detail.

**vignette** A darker area around the edge of an image.

**wide-angle lens** A lens that gives a wide field of view, due the nature of its construction, where the focal length is smaller than the diagonal of the camera sensor. Wider lenses will give a greater sense of depth of field than longer lenses.

**white balance** A tool in post production (Camera RAW) where the colour values of a RAW file are recalculated and remapped by the software to produce a more neutral and realistic image.

**white point** The colour commonly described in terms of the colour temperature of the brightest reproducible white by a certain device, since the white point of a material affects the reproduction of colour. For example, the white point for a photographic print is the brightness and colour of the paper.

**Zone System** A system of printing from a negative, describing a scale from the densest black to the brightest specular highlight and the tonal ranges in between, to be used as a tool to correctly print the final image. Developed by Ansel Adams, it is still used widely with digital imaging.

**zoom lens** A lens where the photographer is able to vary the focal length; referred to by name usually by the

smallest and the largest focal length possible, for example, 24–70 or 70–200.

# Further Information and Suppliers

## Cameras and Lenses

[www.1stcameras.com](http://www.1stcameras.com)

[www.bhphotovideo.com](http://www.bhphotovideo.com)

[www.calumetphoto.co.uk](http://www.calumetphoto.co.uk)

[www.camerapro.com.au](http://www.camerapro.com.au)

[www.cameraworld.com](http://www.cameraworld.com)

[www.canon.co.uk](http://www.canon.co.uk)

[www.fotoriesel.com](http://www.fotoriesel.com)

[www.jessops.com](http://www.jessops.com)

[www.nikon.com](http://www.nikon.com)

[www.teds.com.au](http://www.teds.com.au)

[www.wexphotographic.com](http://www.wexphotographic.com)

## Studio Equipment

[www.calumetphoto.co.uk](http://www.calumetphoto.co.uk)

[www.digitalcamerawarehouse.com.au](http://www.digitalcamerawarehouse.com.au)

[www.fotogenic.com.au](http://www.fotogenic.com.au)

[www.theflashcentre.com](http://www.theflashcentre.com)

[www.studio-flash.com](http://www.studio-flash.com)

[www.wexphotographic.com](http://www.wexphotographic.com)

### **Printing Supplies**

[www.breathingcolor.com](http://www.breathingcolor.com)

[www.epson.com](http://www.epson.com)

[www.gicleemedia.com.au](http://www.gicleemedia.com.au)

[www.hp.com](http://www.hp.com)

[www.paperspectrum.co.uk](http://www.paperspectrum.co.uk)

[www.permajet.com](http://www.permajet.com)

[www.hahnemuehle.com](http://www.hahnemuehle.com)

[www.innovaart.co.uk](http://www.innovaart.co.uk)

### **Production Tools**

[www.adobe.com/photoshop](http://www.adobe.com/photoshop)

[www.adobe.com/lightroom](http://www.adobe.com/lightroom)

[www.FlorabellaCollection.com](http://www.FlorabellaCollection.com)

[www.mcpactions.com](http://www.mcpactions.com)

[www.niksoftware.com](http://www.niksoftware.com)

[www.paintthemoon.net/blog](http://www.paintthemoon.net/blog)

### **Printers and Album/Book Suppliers**

[www.leathercraftsmen.net](http://www.leathercraftsmen.net)

[www.loktah.com](http://www.loktah.com)

[www.graphistudio.com](http://www.graphistudio.com)

[www.sim2000imaging.com](http://www.sim2000imaging.com)

[www.theprintspace.co.uk](http://www.theprintspace.co.uk)

[www.queensberry.com](http://www.queensberry.com)

## **Galleries**

### **UK**

#### **NATIONAL PORTRAIT GALLERY**

St Martin's Place, London WC2H 0HE

Phone: 020 7306 0055

#### **THE PHOTOGRAPHERS' GALLERY**

16–18 Ramillies Street, London W1F 7LW

Phone: 020 7087 9300

#### **SCOTTISH NATIONAL PORTRAIT GALLERY**

1 Queen Street, Edinburgh EH2 1JD

Phone: 0131 6246200

### **USA**

#### **THE ANSEL ADAMS GALLERY**

Village Mall, Yosemite National Park, California CA 95389

#### **THE APERTURE GALLERY**

547 West 27th Street, 4th floor, New York, NY 10001

Phone: 212 505 5555

#### **FRAENKEL GALLERY**

49 Geary Street, 4th Floor, San Francisco, CA 94108

Phone: 415 981 2661

**HOWARD GREENBERG GALLERY**

The Fuller Building, 41 East 57th Street, Midtown East, New York, NY 10022

Phone: 212 334 0010

**INTERNATIONAL CENTER OF PHOTOGRAPHY**

1133 Ave of the Americas #1A, New York, NY 10036

Phone: 212 857-0000

**NATIONAL PORTRAIT GALLERY**

F Street NW, Smithsonian Institution, Washington DC, DC 20560

Phone: 202 357 2700

**SF CAMERAWORK**

1011 Market Street, 2nd Floor, San Francisco, CA 94103

Phone: 415 487 101

**Australia**

**AUSTRALIAN CENTRE FOR PHOTOGRAPHY**

257 Oxford Street, Paddington, NSW 2021

Phone: 61 2 9332 0555

**NATIONAL PORTRAIT GALLERY**

King Edward Terrace, Parkes ACT 2600

Phone: 61 2 6102 7000

**Photographic Associations**

**UK**

**THE ASSOCIATION OF PHOTOGRAPHERS LTD**

21 Downham Road, London N1 5AA

Phone: 020 7739 6669

**THE BRITISH INSTITUTE OF PROFESSIONAL PHOTOGRAPHERS**

The Coach House, The Firs, High Street, Whitchurch, Aylesbury,  
Buckinghamshire HP22 4SJ  
Phone: 01296 642020

**THE MASTER PHOTOGRAPHERS ASSOCIATION**

Jubilee House, 1 Chancery Lane, Darlington, County Durham  
DL1 5QP  
Phone: 01325 356555

**THE ROYAL PHOTOGRAPHIC SOCIETY**

Fenton House, 122 Wells Road, Bath BA2 3AH  
Phone: 01225 325733

**THE SOCIETY OF WEDDING AND PORTRAIT PHOTOGRAPHERS**

6 Bath St, Rhyl LL18 3EB  
Phone: 01745 356935

**USA**

**AMERICAN PHOTOGRAPHY ASSOCIATION**

Membership Services, PO Box 951777,  
Lake Mary, FL 32795

**AMERICAN SOCIETY OF MEDIA PHOTOGRAPHERS**

50 North 2nd Street, Philadelphia, PA 19106  
Phone: 215 451 2767

**PHOTOGRAPHIC SOCIETY OF AMERICA**

3000 United Founders Blvd., Suite 103, Oklahoma City, OK  
73112  
Phone: 405 843 1437; toll-free (US): 855 772 4636

**PROFESSIONAL PHOTOGRAPHERS OF AMERICA**

229 Peachtree St NE, Suite 2200, Atlanta, GA 30303

Phone: 404 522 8600 or 404 614 6400

**THE WEDDING PHOTOGRAPHERS ASSOCIATION**

Nielsen Expositions, 770 Broadway, New York, NY 10003

Phone: 646 654 4500

**Australia**

**AUSTRALIAN COMMERCIAL AND MEDIA PHOTOGRAPHERS**

PO Box 779, North Sydney, NSW 2060

Phone : 02 9025 3975

**AUSTRALIAN INSTITUTE OF PROFESSIONAL PHOTOGRAPHY**

Suite 5, 205a Middlesborough Road, Box Hill South, Victoria  
3128

Phone: 03 9856 0700

**AUSTRALIAN PHOTOGRAPHIC SOCIETY**

Suite 4, 8 Melville Street, Parramatta, NSW 2150

Phone: 02 9890 6933

**Europe**

**FEDERATION OF EUROPEAN PROFESSIONAL**

Photographers (FEP)

Willebroekkaai 37, 1000 Brussels, Belgium

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