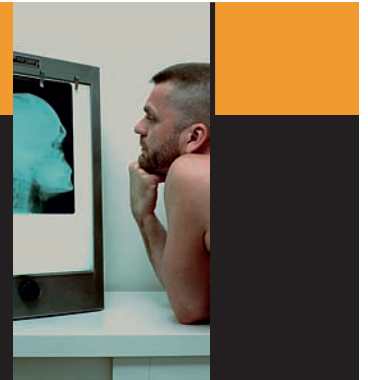




What is photography?



'What is photography?' May sound like an easy question to answer but the potential replies could fill this book alone. The fact that photography can mean different things to different people is part of its enduring appeal. Photography is such a part of our lives now that it would be incomprehensible to think of a world without it. We probably couldn't contemplate the fact of a wedding, watching the children grow up, or going on holiday without the camera. We are bombarded and saturated by images constantly, newspapers, magazines, advertisements, as well as the television and Internet, yet we have an insatiable desire for more.

So why take photographs? What roles do photographs play in our life and relative to other forms of expression or communication? Does a photographer have responsibilities? What is actually involved? And what makes a result successful anyway? We will explore these issues and some of photography's possibilities over the course of this book, with the understanding that photography is a combination of subjective thought, creative imagination, visual design, technical skills, and practical organizing ability. Begin by taking a broad look at what making photography is about, to put in to context and perspective your thoughts. On the one hand there is the machinery and the techniques themselves, although try not to become obsessed with the latest bit of equipment or absorbed in the craft detail too soon. On the other you have the variety of approaches to picture-making – aiming for results ranging from documenting an event, or communicating ideas to a particular audience, to work which is self-expressive, socially or politically or commercially informed for the family album or perhaps more ambiguous and open to interpretation (Figure 1.1). [AQ2]

Why photography?

Perhaps you are drawn into photography mainly because it appears to be a quick, convenient and seemingly truthful way of *recording* something. All the importance lies in the subject itself, and you want to show objectively what it is, or what is going on (a child's first steps or a scratch on a car for insurance purposes). In this instance photography is thought of as evidence, identification, a kind of diagram of a happening. The camera is your visual notebook.

The opposite attribute of photography is where it is used to manipulate or interpret reality, so that pictures push some 'angle', belief or attitude of your own. You set up situations (as in advertising) or choose to photograph some aspect of an event but not others (as in politically biased news reporting). Photography is a powerful medium of persuasion and propaganda. It has that ring of truth when all the time it can make any statement the photographer chooses. Consider the family album for a moment: what pictures are represented here; all of family life or just the good moments?

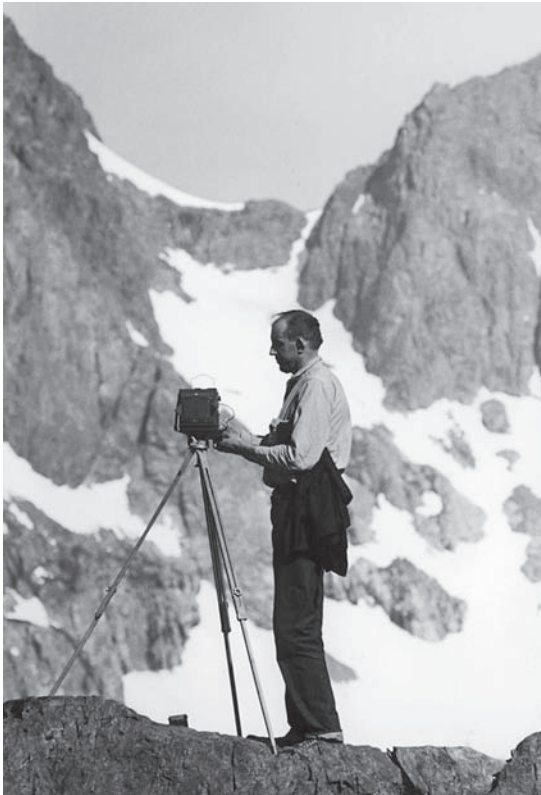


Figure 1.1 This photograph by Roland Partridge captures the great photography Ansel Adams in the wilderness with his large format camera. Adams was at the forefront of using his technical understanding and skills to create pictures of wonder of the American landscape

Another reason for taking up photography is that you want a means of personal self-expression to explore your own ideas, concerns or issue-based themes. It seems odd that something so apparently objective as photography can be used to express, say, issues of desire, identity, race or gender, or metaphor and fantasy. We have probably all seen images 'in' other things, like reading meanings into cloud formations (Figure 1.2), shadows or peeling paint. A photograph can intrigue through its posing of questions, keeping the viewer returning to read new things from the image. The way it is presented too may be just as important as the subject matter. Other photographers simply seek out beauty, which they express in their own 'picturesque' style, as a conscious work of art.

[AQ3]

One of the first attractions of photography for many people is the lure of the equipment itself. All that ingenious modern technology designed to fit hand and eye – there is great appeal in pressing buttons, clicking precision components into place, and collecting

and wearing cameras. Tools are vital, of course, and detailed knowledge about them absorbing and important, but don't end up shooting photographs just to test out the machinery. We must not forget either that being a photographer can be seen as a very glamorous job as well, some of the most well-known photographers are those who have taken images of famous people and become famous themselves by association.

Another attractive element is the actual *process* of photography – the challenge of care and control, and the way this is rewarded by technical excellence and a final object produced by you. Results can be judged and enjoyed for their own intrinsic photographic 'qualities', such as superb detail, rich tones and colours. The process gives you the means of 'capturing your seeing', making pictures from things around you without having to laboriously draw. The camera is a kind of time machine, which freezes any person, place or situation you choose. It seems to give the user power and purpose.

Yet another characteristic is the simple enjoyment of the visual structuring of photographs. There is real pleasure to be had from designing pictures as such – the 'geometry' of lines and shapes, balance of tone, the cropping and framing of scenes – whatever the subject content actually happens to be (Figure 1.3). So much can be done by a quick change of viewpoint, or choice of a different moment in time.

These are only some of the diverse activities and interests covered by the umbrella term 'photography'. Several will be blended together in the work of a photographer, or any one market for professional photography. Your present enjoyment in producing pictures may be mainly based on technology, art or communication. And what begins as one area of interest can easily develop into another. As a beginner it is helpful to keep an open mind. Provide yourself with a well-rounded 'foundation course' by trying to learn something of *all* these elements, preferably through practice but also by looking and reading about the work of other photographers.



Figure 1.2 Vic Muniz has made a deceptively simple photograph, a cloud in the sky. We then notice a man rowing a boat; the image was constructed in the studio from cotton wool. With reference to Alfred Stieglitz, Muniz wrote that 'the objective of a photograph is not merely a portrayal of a subject but the image of symbolic and emotional associations the formal treatment of a subject will bring to the viewer'

How photography works

Photography is to do with light forming an image, normally by means of a lens. The image is then permanently recorded either by:

- *chemical* means, using film, liquid chemicals and darkroom processes, or
- *digital* means, using an electronic sensor, data storage and processing, and print-out via a computer.

As digital methods have become readily accessible, cheaper and more ecologically sound photographers readily combine the two – shooting on film and then transferring results into digital form for retouching and print-out. In many cases now, such as news photography, for simple quickness of use the digital route is taken.

You don't need to understand either chemistry or electronics to take good photographs of course, but it is important to have sufficient practical skills to control results and so work with confidence. The following is an outline of the key technical stages you will meet in chemical and in digital forms of photography. Each stage is discussed in detail in later chapters.

Forming and exposing an image

Most aspects of forming an optical image of your subject (in other words concerning the 'front end' of the camera) apply to both film and digital photography. Light from the subject



Figure 1.3 Terri Weifenbach's photographs are careful observations of overlooked spaces and stolen moments – backyard gardens, a bee suspended in midair, the house across the street, open fields. Through her use of saturated colour and selective focus we rediscover the wonder and lushness of nature

of your picture passes through a glass lens, which bends it into a focused (normally miniaturized) image. The lens is at the front of a light-tight box or camera with a light-sensitive surface such as film facing it at the other end. Light is prevented from reaching the film by a shutter until your chosen moment of exposure. The amount of exposure to light is most often controlled by a combination of the time the shutter is open and the diameter of the light beam passing through the lens. The latter is altered by an aperture, like the iris of the eye. Both these controls have a further influence on visual results. Shutter time alters the way movement is recorded, blurred or frozen; lens aperture alters the depth of subject that is shown in focus at one time (depth of field).

You need a viewfinder, focusing screen or electronic viewing screen for aiming the camera and composing, and a light-measuring device, usually built in, to meter the brightness of each subject. The meter takes into account the light sensitivity of the material on which you are recording the image and reads out or automatically sets an appropriate combination of lens aperture and shutter speed. With knowledge and skill

you can override these settings to achieve chosen effects or compensate for conditions which will fool the meter.

The chemical route

Processing. If you have used a film camera the next stage will be to process your film. A correctly exposed film differs from an unexposed film only at the atomic level – minute chemical changes forming an invisible or 'latent' image. Developing chemicals must then act on your film in darkness to amplify the latent image into something much more substantial and permanent in normal light. You apply these chemicals in the form of liquids; each solution has a particular function when used on the appropriate film. With most black and white films, for example, the first chemical solution develops light-struck areas into black silver grains. You follow it with a solution which dissolves ('fixes') away the unexposed parts, leaving these areas as clear film. So the result, after washing out by-products and drying, is a black and white *negative* representing the brightest parts of your subject as dark and darkest parts pale grey or transparent.

A similar routine, but with chemically more complex solutions, is used to process colour film into colour negatives. Colour slide film needs more processing stages. First a black and white

negative developer is used, then the rest of the film, instead of being normally fixed, is colour-developed to create a positive image in black silver and dyes. You are finally left with a positive, dye-image colour slide (Figure 1.4).

Printing negatives. The next stage of production is printing, or, more often, enlarging. Your picture on film is set up in a vertical projector called an *enlarger*. The enlarger lens forms an image, of almost any size you choose, on to light-sensitive photographic paper. During exposure the paper receives more light through the clear areas of your film than through the denser parts. The latent image your paper now carries is next processed in chemical solutions broadly similar to the stages needed for film. For example, a sheet of black and white paper is exposed to the black and white film negative, then developed, fixed and washed so it shows a 'negative of the negative', which is a positive image – a black and white print. Colour paper after exposure goes through a sequence of colour developing, bleaching and fixing to form a colour negative of a colour negative. Other materials and processes give colour prints from slides.

An important feature of printing (apart from allowing change of image size and running off many copies) is that you can adjust and correct your shot. Unwanted parts near the edges can be cropped off, changing the proportions of the picture. Chosen areas can be made lighter or darker. Working in colour you can use a wide range of enlarger colour filters to 'fine-tune' the colour balance of your print, or to create effects. With experience you can even combine parts from several film images into one print, form pictures which are part-positive, part-negative, and so on.

Colour and black and white. You have to choose between different types of film for photography in colour or black and white (monochrome). Visually it is much easier to shoot colour than black and white, because the result more closely resembles the way the subject looked in the viewfinder. You must allow for differences between how something looks and how it comes out in a colour photograph, of course (see Chapter 7). But this is generally less difficult than forecasting how subject colours will translate into tones of monochrome. Black and white is seen as less lifelike, creating a distance between the 'real' and its representation, and for this reason appeals to a number of beginners and advance photographers alike, wrongly or rightly considered more interpretative and subtle.

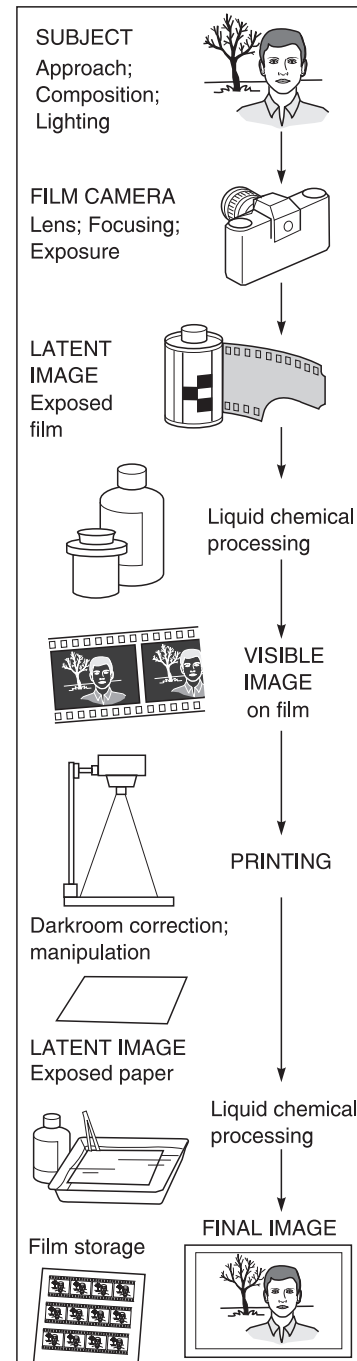


Figure 1.4 Basic route from subject to final photographic image, using film. This calls for liquid chemicals and darkroom facilities.



Figure 1.5 William Eggleston is one of the early pioneers of colour photography as an art form. Before his 1976 groundbreaking and controversial show at New York's Museum of Modern Art (Moma) colour photography was confined to advertising and product catalogues. His work has been described as 'ordinary and loaded with meaning, utterly simple and yet endlessly complex'

Colour films, papers and chemical processes are more complex than black and white. This is why it was almost a hundred years after the invention of photography before reliable colour print processes appeared. Even then they were expensive and laborious to use, so that until the 1970s photographers mostly learnt their craft in black and white and worked up to colour, there are of course exceptions to the rule such as William Eggleston (Figure 1.5). Today practically everyone takes their first pictures in colour. Most of the chemical complexity of

colour photography is locked up in the manufacturers' films, papers, ready-mixed solutions and standardized processing routines. It is mainly in printing that colour remains more demanding than black and white, because of the extra requirements of judging and controlling colour balance (see *Advanced Photography*). So in the darkroom at least you will find that photography by the chemical route is still best begun in black and white.

The digital route

Capturing and storing. If you are using a digital camera, whether that is an SLR or a cameraphone, the exposed image is recorded on a grid of millions of microscopic-size light-sensitive elements, which is normally smaller than one frame of 35 mm film. This is known as a CCD (charge-coupled device) and is located in a similar position to film within a film camera. Immediately following exposure, the CCD reads out its captured picture as a chain of electronic signals called an image file, usually into a small digital memory card slotted into the camera body, or else directly onto the 'hard disk' of the camera, or even to a CD or DVD. (For more detailed information on the sequence of digital capture as well as the alternative CMOS sensor, refer to Chapter 6.) Images can then be viewed on a small screen on the camera and any unwanted shots can be erased. Image files are later downloaded from the card or direct from the camera into a computer, where they appear on a monitor screen or directly to a television screen. Or they can be downloaded directly to a printer without first being viewed on a computer. A rough guide to the quality and size of prints possible from a digital camera will partly depend upon the number of megapixels available. The bigger the print you want to make, the higher the number of megapixels needs to be. If you are only looking to view images on screen or email to friends and family then a 1 or 2 megapixel camera is adequate. To provide 'photo' quality prints up to 10×8 inches you need a 3 or 4 megapixel camera. To produce images bigger than 10×8 inches you need to have at least a 5 megapixel camera or higher. If selling your photographs to an image library you will need to check the minimum megapixels required as this can vary between different libraries. After downloading or

erasures you can re-use the card indefinitely for capturing new pictures (Figure 1.6).

Various image manipulation programs can be loaded into your computer, providing you with 'tools' and controls alongside the picture to crop, alter brightness, contrast or colour, and many other adjustments, effects and graphics. Each one is selected and activated by moving and clicking the computer mouse or by a keyboard shortcut – changes to the image appear immediately on the monitor display. Image files can be 'saved' (stored) within the computer's internal hard disk memory or on a removable disk.

Output. When you are happy with the on-screen picture, the digital file can be fed to a desktop printer – typically an ink-jet or laser printer – for full colour print-out on paper of your choice. Or else, you can take your removable disk to a photo lab or machine in a shop for lightjet prints onto photographic paper.

It is possible to have digital files transferred to film and then printed in the usual way, or have prints made by commercially available print processes such as Lambda and Lightjet, that are printed on traditional photographic colour paper.

Practical comparisons between making photographs by the chemical (film) route and the digital route appear in detail in Chapter 6. You will see that each offers different advantages, and there are good reasons for combining the best features of each.

Technical routines and creative choices

With technical knowledge plus practical experience (which comes out of shooting lots of photographs under different conditions) you gradually build up skills that become second nature. It's like learning to drive. First you have to consciously learn the mechanical handling of a car. Then this side of things becomes so familiar you concentrate more and more on what you want to *achieve* with the machinery, getting from A to B. Whether you work by chemical or digital means, photography involves you in a range of complementary skills. Being able to communicate your ideas to an audience is like getting from A to B and there are a few skills you need to acquire to do this in an interesting and successful way.

There are set routines where consistency is all important, for example film processing or paper processing,

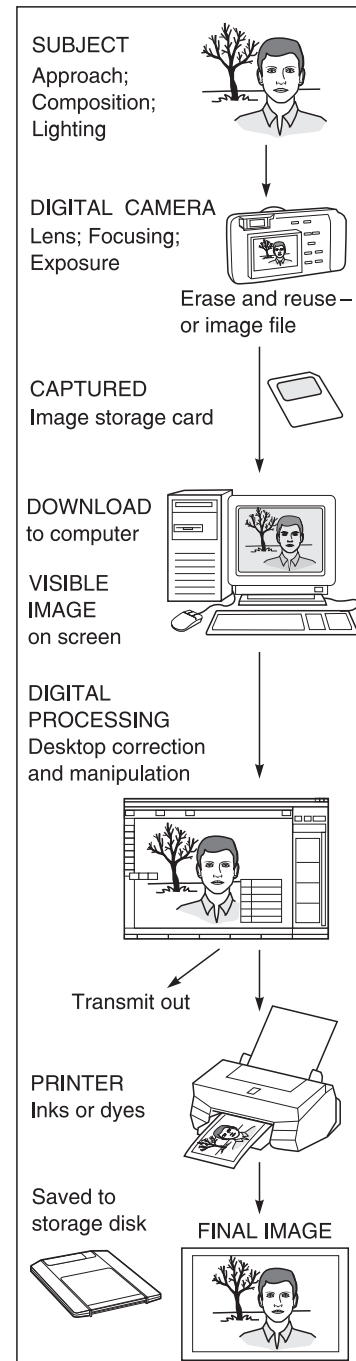


Figure 1.6 Basic digital route from subject to final image. No chemicals or darkroom are needed, and camera cards for image storage can be re-used. Images may also be digitalized from results shot on film, via a film scanner or from prints, via a flat-bed scanner [AQ5]

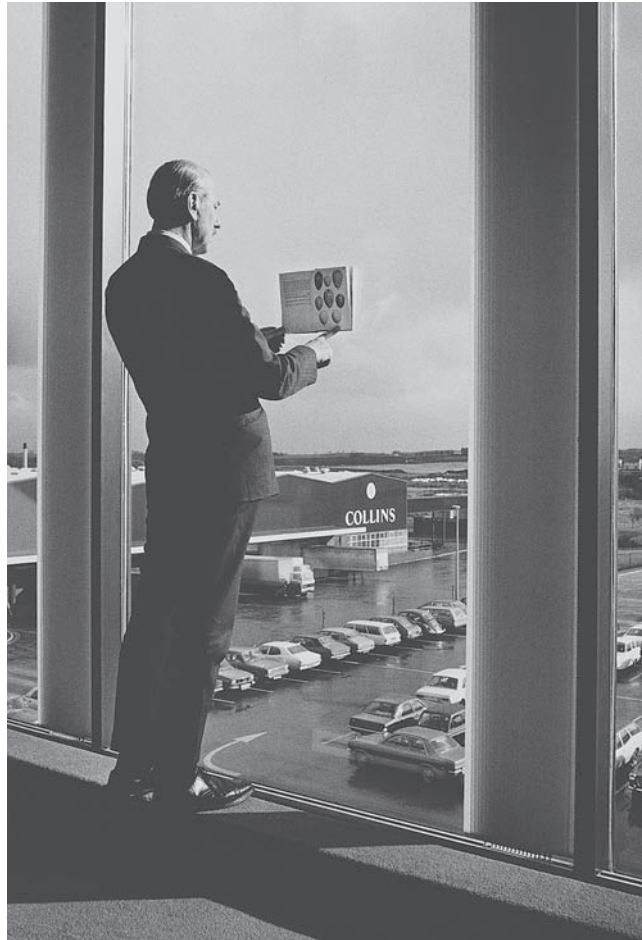


Figure 1.7 Pictures for business magazines don't have to be dull. Care over camera and figure positioning gives an eye-catching image of great simplicity. Much of Brian Griffin's work was for *Management Today* magazine

especially in colour, and the disciplines of inputting and saving digital image files. A consistency to your image-making, both technically and conceptually, will help in developing your own style. There are also those stages at which creative decisions must be made, and where a great deal of choice and variation is possible. These include organization of your subject, lighting and camera handling, as well as editing and printing the work. As a photographer you will need to handle and make these decisions yourself, or at least closely direct them.

Having more confidence about getting results, you will find that you can spend most time on developing the ideas and content as well as improving creative picture-making problems such as composition, and capturing expressions and actions which differ with every shot and that have no routine solutions. However, you should still keep yourself up-to-date by looking at the work of other new and contemporary photographers, and finding out about new processes and equipment as they come along. You need to discover what new visual opportunities they offer that could help your photography, but not by slavishly following fashion for the sake of it.



Figure 1.8 This documentary shot by Gareth McConnell was taken from a series of portraits of people living on what some might call the borders of society. It relies greatly on the photographer's ability to gain the trust of his sitter, and by providing a non-judgemental response to communicate about their life, he accords them a dignified value and concern

Technical routines and creative choices give a good foundation for what is perhaps the biggest challenge in photography – how to produce pictures which have interesting content and meaning. Can you communicate to other people through what you 'say' visually (getting from A to B) by simple humour (Figure 1.7) as in this picture by Brian Griffin that replaces the boring corporate portrait with a more interesting use of composition and pose or some serious comment on the human condition like Figure 1.8.

Picture structuring

Composition is to do with showing things in the strongest, most effective way, whatever your subject. Often this means avoiding clutter and confusion between the various elements present (unless this very confusion contributes to the mood you want to create).



Figure 1.9 A Henri Cartier-Bresson picture strongly designed through choice of viewpoint to use line and tone, together with moment in time.

The way you visually compose your pictures is as important as their technical quality. But this skill is acquired with experience as much as learnt. It involves you in the use of lines, shapes and areas of tone within your picture, irrespective of what the items actually *are*, so that they relate together effectively, with a satisfying kind of geometry (see Figure 1.9).

Composition is therefore something photography has in common with drawing, painting and the fine arts generally. The main difference is that you have to get most of it right while the subject is still in front of you, making the best use of what is present at the time. The camera works fast, although the darkroom and computer do allow for alternative compositions. Often good composition is just about looking more carefully through the viewfinder. How many times have you seen a photograph with people's feet cut off or a flowerpot growing out of someone's head?

We have all heard that 'rules are there to be broken', as they encourage results which slavishly follow them but offer nothing else besides. As Edward Weston once wrote: 'Consulting rules of composition before shooting is like consulting laws of gravity before going for a walk.' Of course it is easy to say this when you already have an experienced eye for picture-making, but guides are helpful if you are just beginning (see Chapter 8). Practise making critical comparisons between pictures that structurally 'work' and those that do not. Discuss these aspects with other people, both photographers and non-photographers.

Where a subject permits, it is always good advice to shoot several photographs – perhaps the obvious versions first, then others with small changes in the way items are juxtaposed, etc., increasingly simplifying and strengthening what your image expresses or shows. You need to get used to moving your body more when taking a photograph; all too often people will simply stand in front of a subject and shoot from eye level. Get down low, move to the side, hang from a tree! You will be surprised how much small movements can dramatically change the composition. It's your eye that counts here more than the camera (although some cameras get far less in the way between you and the subject than others).

Composition can contribute greatly to the style and originality of your pictures. Some photographers (Garry Winogrand, for example: Figure 1.10) go for offbeat constructions which