

WILDLIFE
AND NATURE
PHOTOGRAPHY

Wildlife and nature photography has benefited from advances in modern technology, which have provided the means to produce the most stunning wildlife photographs ever captured. Tragically, the subjects for those images are dwindling, and wildlife photography is increasingly being used to highlight the plight of disappearing species.

Wildlife photography is at its zenith. Millions of photographers have discovered the joy of working in the wild, close to nature. And thanks to excellent modern equipment, many of them can produce images of a technical quality equal to the professional work of only a few years ago. More importantly, our exposure to nature via photography has generated a new level of awe and respect, and a sense of responsibility to the natural environment.

Approaches to photographing nature and wildlife tend to fall into two broad categories. You may take images in order to celebrate natural beauty or communicate the thrill of being close to wildlife. Or, you may engage with the issues around threats to the natural environment. Of course, the latter approach may produce images that look the same as those taken purely for their aesthetic qualities, but it can be far more rewarding to engage with the campaign for protection and conservation of the planet.

In this chapter we look at simple ways to make your images more striking and more effective at stirring the viewers' excitement with the beauty and diversity of life on Earth. It's easy to be so dazzled by the spectacle of animals fighting, or the gorgeous colors of a butterfly's

wing, that you assume your image will capture it all. On the contrary, the more intense the splendor of what you see, the more skill is needed to convey to the viewer even a fraction of the experience.

One key element that can make a difference is the sense of scale. Many perfectly sharp and well-exposed images of animals and plants are little more than passport pictures, since we have no sense of size or distance. Failure to provide clues keeps the viewer on the outside of an image.

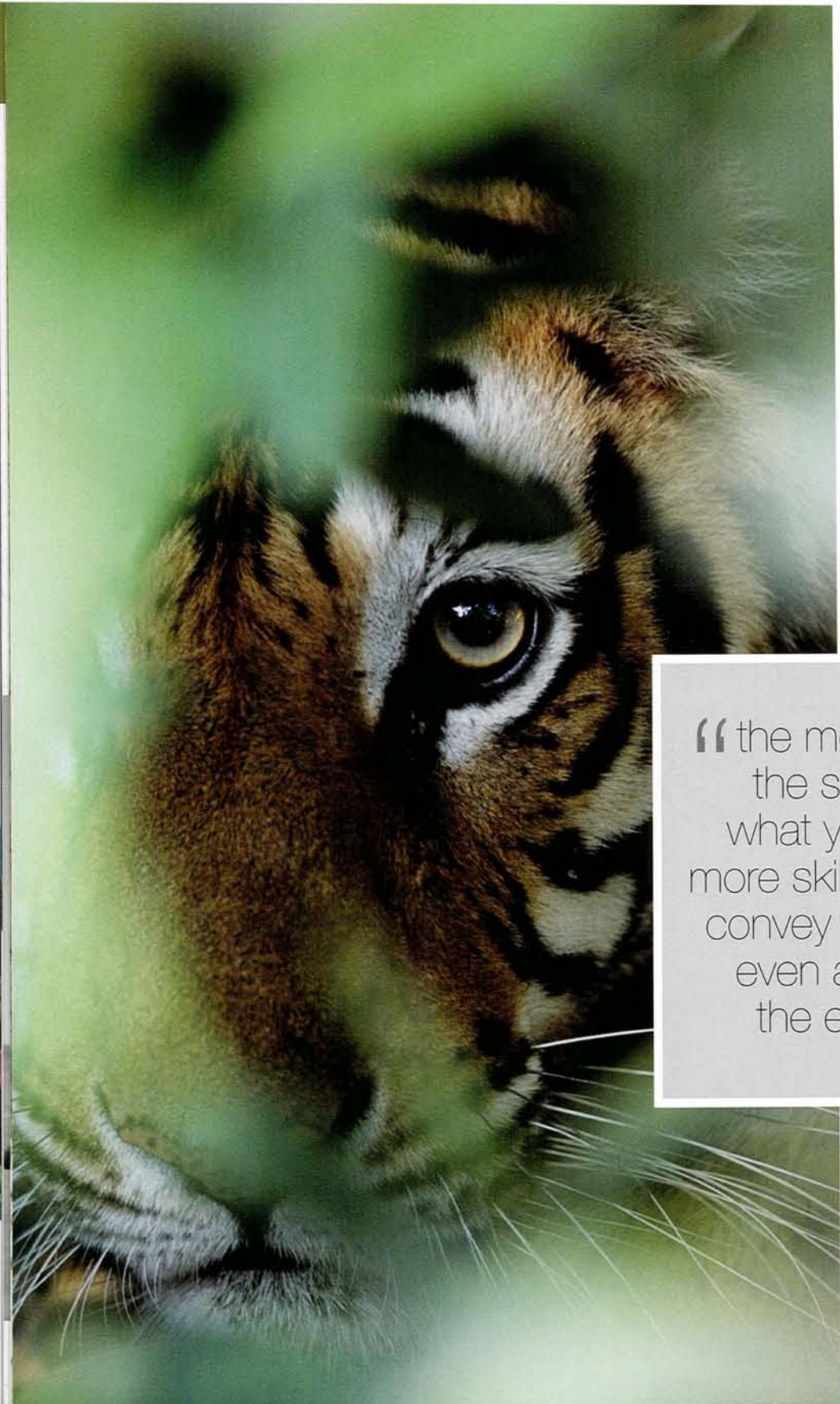
Another simple but extremely effective method of creating images with impact is by working with pattern. This applies to flowers, groups of animals, features in the landscape, and to movement. And while it's natural to concentrate on the subject itself, the astute photographer

pays equal attention to the background: often it takes up the greater part of the image and it always creates the frame and context for the subject. Modern ultra-fast (large aperture) lenses have transformed our control of background while image manipulation can eradicate distracting highlights. Nonetheless, careful choice of background doesn't rely on mastery of equipment but on command of a few simple photographic techniques.

key moments

- 1840** John Benjamin Dancer photographs a flea using a gas-illuminated microscope.
- 1843** Anna Atkins' *Photographs of British Algae* is the first book to be illustrated with photographs.
- 1856** William Thompson takes the first **underwater photograph** of seaweed in the sea near Weymouth, England.
- 1872** *On the Expression of the Emotions in Man and Animals* by Charles Darwin features photographs by Oscar Rejlander.
- 1890** Étienne-Jules Marey's *Le Vol des Oiseaux* ("The Flight of Birds") records the first images of a **bird in flight**.
- 1906** George Shiras takes wildlife photos at night using **flash powder**.
- 1912** Arthur C. Pillsbury designs the first **time-lapse camera**.
- 1966** The prestigious **Wildlife Photographer of the Year** competition is launched.
- 1970** Stephen Dalton captures **insects in flight** for the first time.
- 1986** The first **weather-proof compact**, the Olympus Infinity, is launched.

“the more intense the splendor of what you see, the more skill is needed to convey to the viewer even a fraction of the experience”



tutorial: from scale to pattern

One of the miracles of nature is how it offers eye-catching visual banquets at every scale: from sub-microscopic insect parts, to millions of birds, or herds of wildebeest massing over hundreds of square miles. Capturing that sense of scale effectively can turn an average shot into something breathtaking.

amazing scale

Unlike the majority of other photographic subjects, our choice of viewpoint—and therefore our control of perspective—is limited with wildlife. For the most part, we are restricted to a flat projection because we have to photograph from a distance, either for our own safety or to avoid disturbing the subject. We can seldom get close enough to obtain intimate or dynamic perspectives.

What this means for our photography is that we need other ways to give variety to the depiction or articulation of space in our images. One approach is to work with scale. The fundamental ideas here are that an object overlapping

another must be closer to us, and that if there are two objects of similar size, the one in the image that appears smaller must be further away. The overlapping "rule" enables us to show depth with small changes of scale while the larger variation in size helps the image to imply correspondingly larger spaces.

keeping your distance

By working with scale, you can overcome a common frustration in wildlife photography, which is not being able to get close enough. After all, it is only from a distance that you can show patterns of movement or groupings. And it only takes six flamingoes to form a line: all you have to do is wait for your subjects to get on with what they normally do. For example, flamingoes often feed in leisurely fashion several in a line: you can have a pretty good idea where they're going (and it's often the same route each day) and plan for when they will simply walk, on cue, into frame.

The further you are from your subject or the smaller it appears, the greater the number of animals you'll need for an effective pattern. That is why the reserves of the African

digital dark room: how far is too far?

Image manipulation ranges from bare-bones correction of exposure levels to the replacement of entire components of the image. For some genres of photography, such as "improvements" are easy to accept: in commercial and advertising photography, for example. And in others, such as in news photography, "corrections" are tamperings with the truth. In nature and wildlife photography, purists

condemn the removal of a twig from the scene. For others, pasting one animal into a scene it did not occupy is normal. This image of a leopard has been manipulated, and anyone who knows about leopards will be puzzled: normally it stalks through cover and does not give chase over open ground. In this image it is behaving like a cheetah. So if an image has been manipulated, at the very least, we should be told.



Rift Valley are so popular with photographers. The vast herds of animals on view offer a continuously shifting kaleidoscope of pattern. The key to an effective image of such subjects is patience. You will need to wait for the patterns to shift (sometimes watching through half-closed eyes helps reduce the visual overload) until visually it "clicks." This is usually when, momentarily, a symmetrical or regular pattern forms.

If the herd is large enough, you can capture effective images even with modest focal lengths. In fact, too much magnification only swaps detail for the sense of pattern.

monochrome work

The strongest way to convey the sense of a mass of animals and the patterns they create is by reducing elements of the image which do not contribute. Think of herds of zebra, or flocks of birds in flight or on a lake: you see a very limited range of hues. By working purposefully in monochrome or even in black and white you can improve the effectiveness of the image. The color dimension is reduced, which flattens the visual space and, in turn, brings out the pattern. Use your lens stopped down one or two stops for maximum sharpness and to



eye to eye

Close-ups of birds and smaller animals are obtained most easily with creatures in captivity. By filling the frame, the zoo environment becomes invisible.



blur and overlap

The three birds are the same size on the image, but their relative distances are obvious. Blur also carries distance information: the sharper parts usually look closer.



lined up

Careful observation of your subjects helps improve the chances of predicting their behavior so you can frame up and prepare for the shot.



massed groups

With an aerial view such as this, shoot many different scales to give yourself a wide choice later. It is difficult to be sure at the time which level of detail will work best.

give even illumination. Working in monochrome enables us to make use of abstract shapes and patterns. The abstraction can become an enjoyable visual puzzle, encouraging the viewer to study the image in order to make sense of it and identify the animal. In addition, abstraction allows the viewer to explore different aspects of the animal; if you don't show the usual identifiable features you offer something that is purely artistic.

Successful animal abstracts balance an absence of distractions with the presence of strong shapes or lively rhythmic patterns. The removal of distractions may stretch from working in black and white to obscuring unwanted details with mist, water-spray, or dust (see opposite). More subtle distractions include variations in sharpness, such as when the viewer sees blur where clarity is expected then the blur functions as a distraction. For example, if the stripes on a zebra appear soft—from falling out of depth of field or from movement—they interfere with the clarity of the pattern and distract the viewer. Highlights can be another source of distraction; that's why abstracts work best under flat or dull lighting conditions.



natural patterns

As if made to order for black-and-white photography, zebras present a challenge to avoid the obvious. While the shot of a group of zebras lapping at a pool together (**above**) makes an attractive shot, the large image (**right**) needs more visual intelligence to understand. It is less obvious, and because we are sufficiently close to enjoy the subtleties of variation in shape and width of the stripes, it is more rewarding to view.



looking at the elements

One way to understand how to make successful images is to analyze the contribution of different elements in a picture. Each of the images of the wildebeest migration on the opposite page are all highly successful in their own way. All are shot from a distance, so perspective is flattened. One image (lower left) frames a long, winding line of animals in which the composition of repeated overlapping elements conveys a sense of depth and distance. But it suffers from stasis. In another image (opposite, lower right), depth is conveyed by varying clarity and color saturation: the image is almost entirely monochrome thanks to the dust, though it reveals just the key features—the outline of the animals. Again though, motion appears arrested.

The main image delivers a sweeping composition in the set of light-colored diagonal lines racing from the top to resolve into one strong line—full of movement—leading into the corner. Best of all, out of the half-concealing dust emerges one of the animals clear and sharp, contrasting beautifully with the rest of the pallid image.



rhythm and motion

The dozens of wildebeest scrambling down a slope in these images create strong diagonal lines of movement while the dust simplifies shapes and colors. However, the single animal emerging on the left of the picture (**above**) is clearly a strong feature, while patterns can be used to mark out space in the winding line (**bottom left**). You can also make use of dust or mist to produce painterly effects by reducing image clarity (**bottom right**).

tutorial: miniature worlds

Nature offers glorious riches at every scale. Even the tiniest plants and animals can lead us into fascinating new worlds. And, as the smallest scale is outside the scope of everyday experience, it appears new and intriguing, though it lies at our feet, unnoticed when we pass it everyday.

appeal of the ordinary

Many of us dream of a wildlife safari unaware that rewarding nature photography can be found nearer to home. An overgrown suburban back yard may lack the glamour of exotic lands, but getting close to the subject means that the rest of the environment doesn't matter, for what is out of shot is out of sight.

Much of this miniature world lies at ground level. A camera with a tilting screen, so that you can hold it low down but still look at the LCD screen, makes this type of photography more comfortable. Set the mid-range of focal lengths to provide the working distance you need; the longest focal lengths hamper close-up focusing.

the gift of light

There is less wind low to the ground so your subject is unlikely to be blown around. You can stop movement in the subject by using flash. This also takes out more of the



moving magic

Motion blur is best shot against a dark background, which brings out even pale colors, and it is most effective when accompanied by some strong shapes.

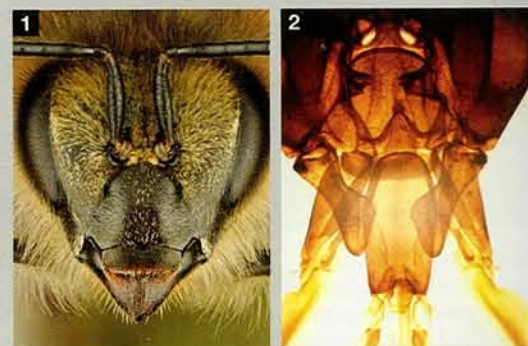
background by throwing it into darkness. For the best results, use a flash-unit that can be set to one side of the subject, or placed very close to the lens. Specialized macro-photography flash-units allow you to vary the position of the units and balance their effects.

If you don't have flash, you must wait for the light to come to you. On a morning after a night of light drizzle the uncut grass will glisten with hundreds of beads of light. A morning light often illuminates a spider's web to perfection: move around it to find the right angle. Experiment with different focal lengths from the same

focus on technique: photomicrography

The ultimate miniature subject may measure only a fraction of a millimeter and be visible only under a microscope. Thanks to the inexpensive optics now available, the microscopic world is open to amateur photographers and naturalists. If you want to make a different kind of image from the billions that populate photo-sharing sites, purchase a microscope with an adaptor for your camera. Suitable

subjects are no further away than your nearest pond, or park. Many specimens (1) don't need preparation though they will need to be killed if active, or you can work with still objects such as microscopic plant life or spores. Remember to light your subject too. For views that look through the specimen (2) a little simple laboratory preparation by setting the subject onto a glass slide, will make it translucent.



viewpoint: narrower views—from longer focal length settings—tend to concentrate on the lighting effect but the depth of field will also be narrow.

It's worth trying out widely varying exposures in these situations because very often a greatly over-exposed image can be as effective as an under-exposed one. As you frame your subject, try to imagine what it would look like if all the shadow areas were mid-tone or higher. Or imagine it with only highlights visible.

To train yourself, use bracketing exposures. A good range to set uses two-stop steps: one is over-exposed two stops, the next is normal, and the next is under-exposed two stops.

apertures and highlights

A crucial aspect of working in miniature is your handling of highlights (see p.36). When highlights are out-of-focus, they form blur spots whose shape depends on the physical

art in miniature

Your subjects might be in your nearest potted plant. Watch the light at different times of the day and in different seasons, experiment with fine sprays of water—the closer you look, the more you will find.

shape of the aperture in your lens. In many lenses, it will be a rounded pentagon, or hexagon, or an irregular shape. The best shape is perfectly round, obtained only at full aperture or, when stopped down, only in the costliest of lenses. Examine any highlights in your image with as much care as the main subject, as misplaced highlights are extremely distracting. If using a dSLR and not working at full aperture, study the stopped-down image with the preview button to see what the highlights will look like.

The quality of the out-of-focus blur can be important. For the best results, aim for any blurs in the image to be smoothly graduated. Some of the smoothest blurs come from macro lenses, which are ideal for this type of work.



Seizing opportunities
It is easy to give up on rainy days and miss the 2 minutes of sunshine. To capture this image in the Zordoban of Tajikistan, I needed to move quickly; a few seconds later, the rainbow was gone.

Children continued



Suitable framing Without the stick framing, this would be a well-lit, uninteresting image. But the frame not only helps the composition, it also gives us clues about where these boys live. With the hay just

visible, this must be a farm. A second before standing, the standing boy's hair was just in shadow, but I could not focus and shoot quickly enough.

HINTS AND TIPS

Children can be a challenge in technical terms, since they are small, low down, and move quickly. They require stamina and focus on the part of the photographer, as well as quick reflexes. You can help yourself by trying out these techniques:

- With very small children, work at a fixed distance; focus your lens manually (or, say, 16 in [0.5 m] and keep your subjects in focus by leaning backward or forward as they move. Small children move very quickly but usually only over short distances; this method requires little effort and can be superior to relying on autofocus.
- When you first photograph a group of children, fire a few shots in the first minute—they need to get used to the sound of the camera or light from the electronic flash, while you need to exploit their short attention span. Once they have heard the camera

working, they will soon lose interest and ignore you; however, you wait for them to settle down before taking your first picture; they will be distracted by the noise.

- For professional photography of children, the best cameras to use are digital SLRs or manual film-based cameras. These give you more flexibility than ordinary digital cameras or automatic compact types. You need the shortest possible shutter lag (the time interval between pressing the shutter and actually recording the picture) if you are not to miss out on the really spontaneous images.
- In low light, try using faster film or increasing the photosensor's sensitivity rather than setting the lens's maximum aperture. With non-professional lenses, you lose more image quality through using large apertures than from the grain given by higher-speed recording

Landscapes

The natural landscape is one of the most accommodating and challenging areas of photography. The land simply lets you photograph it from any angle, at any time, and in any weather, but you must work to find the ideal viewpoint.

There are three essentials of landscape photography—place, time, and mood—but the most crucial of all is place. And it will do you no good at all if you have an original approach to landscape in mind, but have not learned how to find just the right position from which to depict the place. To discover the perfect position, you cannot rush at it, hoping it will be obvious once you get there. Once you see a view that is promising, you need to slow down completely—even put your camera away. Then just walk and look, walk a little more and look a little harder. That is all there is to it.

Foreground interest

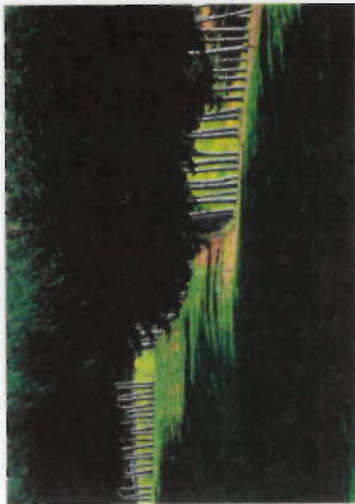
One of the most effective techniques in landscape photography is to make confident use of features in the foreground. Here, in New Zealand, a spider's dew-laden web catches the early morning sun, and in frames the landscape beyond. By using a very narrow lens, I framed the spider in the upper part of the image in this wide-angle view of the background in blurred and soft in hand from the mist.

Polarizing filter

The highlights of a picture made through a polarizing filter are the deep blue of the sky and, if any water is visible, a lack of reflections. In this image of Samboara, Kenya, the dark tones at the bottom of the post are clearly visible because the polarizing filter has removed reflections of the sky. Also, colors in the rocks were intensified because the filter removed the partial reflected but degradable-orateration.



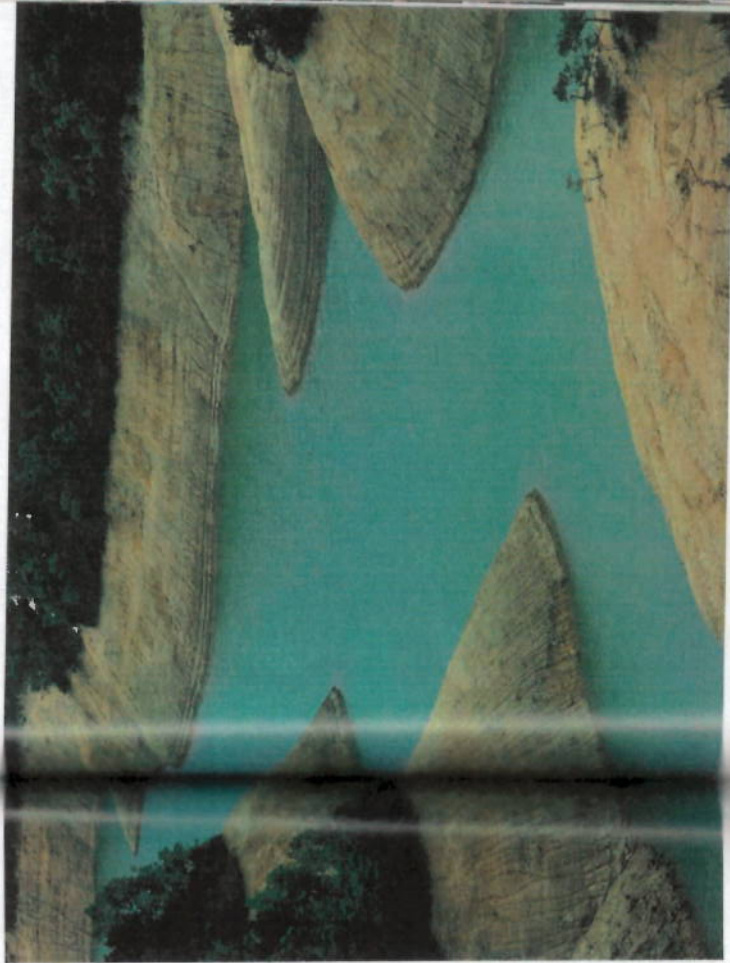
Landscapes continued

**Leading the eye**

A landscape photograph does not need to feature the sky or be shot with a wide-angle lens. The scene in New Zealand was taken with a zoom lens set to a 35- or 600 mm in order to lead the eye to the masses of variegated greens and the patterns of tree trunks. It is a scene that could easily be turned into a painting.

Selective emphasis

The scene was simple enough and its promise was clear, but finding the right position to photograph this half-empty resort in Hong Kong took many minutes, thanks to restrictions on access. Since the sky was dull, there was little chance about lighting, so I had to shift my attention to shape and the balancing of tonal masses.

**Polarizing filters**

One of the most popular (and would say essential) accessories for the landscape photographer is the polarizing filter. This is a neutrally dark glass filter on a rotating mount. When fixed on the front of a lens, pointing away from the sun, then rotated to a certain angle, the filter has the effect of making blue skies appear dark. This is because most of the light from a clear sky vibrates in a narrow range of angles; however, a polarizer passes light that is vibrating in one direction only and blocks all the others. The polarizing filter is an

effective way to reduce the luminance range of a scene, but it works most effectively when the sky is already blue (and so is darker than sky with diffused cloud), when it can cause over-darkening. This filter is best used on an SLR, where you can see any changes through the viewfinder. Modern polarizers should be of the circular polarizing type. Don't be tempted to use linear polarizing filters—although they are less expensive, they cannot be recommended for most modern cameras since they render autofocus and some metering systems inaccurate.

**Down mist**

Landscape photography may seem boring, but often you have to act quickly. Driving out of Auckland airport, New Zealand, just after dawn, I reversed first. I knew that this mist-enshrouded scene would evaporate quickly, so I jumped out of the car and raced back down the road to record it. Ten seconds later, the rising sun melted the delicate haze in the sky and the mist thinned.