

equipment
guide only

THE FIELD STUDIO

HOW TO CREATE PERFECT PORTRAITS OF NATURE ON WHITE.

tools for the job



Niall Benvie

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Niall Benvie

Les Saumais

Lieu dit Mulnot

SAINT SEINE

58250, France

office@foodandphotographyretreats.com

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LIGHTING

I have good news for you. In order to make photograph like those in this e-book, you don't need to spent a lot of money, assuming that you own a basic photographic kit and computer already. Your pictures will be pretty much indistinguishable from those of photographers with bigger cheque books and may actually be better.

I started off "budget", went "fancy", and have come back to something close to budget again. I imagined that the portable studio flash and softboxes I used for other work would give superior results to the old flashgun, acrylic background and Flyweight™ diffuser combination I had started off with years before. I continued in this belief for nine years until I had to admit to myself last year that there was something indefinably more attractive about the light I could get by firing a flashgun through a piece of plastic envelope stiffener (Flyweight) compared to that

from my fancy softboxes. The light was at once beautifully mellow, yet more shapely than that from the softbox. This apparent directionality, I suspect, arises because there is nothing to contain the light as it travels from the flashgun to the diffuser so only the beams going straight forward pass through the diffuser. The resulting light is less likely to wrap around the subject than that from a softbox which, in our line of work, is helpful when it comes to lighting texture.

For the reasons I've outlined above, I would recommend that you buy:

- Two flashguns with built-in radio triggers. These must be easy to operate in manual mode and, ideally, have their own 1/4" tripod bushes;
- A transceiver that not only synchronises the flashes with the camera but which allows you to control the flash's output remotely;
- Sixteen rechargeable batteries, colour

coded into groups of four to ensure they are used evenly. This will prolong the life of all of them.

I've been down the route of portable studio flash for field studio work and now appreciate the lightweight, lower cost alternative. It's certainly no compromise. Camera manufacturers' own flash units tend to be better built than those from the independents but maybe the time to invest in those is once you've perfected the technique.

Right, above. There are plenty of third-party flashes to chose from but I like the Cactus brand's built-in radio triggers and a tripod bush. Each takes four rechargeable AA batteries.

Right, below. The transceiver sits in the camera's hotshoe. This removes the need to have cables between camera and flash. It is possible to adjust each flash's manual output remotely by selecting a flash with the buttons on the left then moving the wheel to the correct power setting. It certainly saves a lot tramping about between camera and flashes. The transceiver doubles as a receiver for cameras without one built-in.



LIGHT MODIFIERS

Field studio photography uses just two lights: one to back-light the background; and one to provide fill illumination on the side of the subject facing the camera. Both these needs are met most efficiently and conveniently by flash. Since daylight contributes nothing to the exposure you are freed of the limitations of gloomy days and nagging winds. Flash is very fast.

Perhaps the reason so many nature photographers loath flash is because, unmodified, it is loathsome. It's rather like shooting under a mid-day sun that has slumped in the sky without dimming. As soon as a diffuser is introduced between it and the subject, however, everything changes. A diffuser acts like a thin layer of high cloud scattering the sun's rays, transforming it from a small point of intense light into a much, much bigger, less directional one. There are just two fundamental lighting principles I need you to remember for

now (there will be others later):

- The bigger the light source, the softer the shadows it casts and
- The closer the light source gets to the subject, the lighter the shadows.

In practice, there is little point in putting a plastic "diffuser" cap on the end of your flash gun simply because it doesn't make the source any bigger. You could hold the flash very close to your subject and the lighting wouldn't be as bad but the light source - the flash's window - is still more akin to the sun in a clear sky than to a thin layer of brightly-lit clouds. When I talk about a "bigger light source" I mean something in the region of 30 x 42 cm (roughly A3). There really is no point in mincing around with anything smaller. This will provide soft light for subjects up to the same size.

My first choice for diffusion, without reservation, is a fluted plastic material known as Flyweight™, Corlite™ or



Corex™. I've used it for 30 years for this purpose and prefer it over any fabric diffusers. It has the advantage of being fairly robust, wipe-clean, very

light and rigid and, since it is not aimed at photographers, inexpensive. Be prepared to buy a box at a time but don't worry; you'll find many other uses.

BACKGROUNDS

It almost goes without saying that the background you need must be white. Not a little bit off-white, or wrinkly so it creates shadows, or so dense that it doesn't allow light to pass through: simply translucent white. A softbox containing a flash head seem like a convenient, all-in-one solution but they take time to set up, are harder to get into tight corners, can start to yellow after a few years and are prone to wrinkle. This means that you end up putting out more flash power than necessary to make the wrinkles white too. The best solution is also the least expensive: a sheet of translucent acrylic

This material goes under a number of trade names - Perspex™, Plexiglass™, Lucite™, Makrolon™ - and no doubt many others. But you need a piece of this translucent plastic, in white, 3 mm thick, with a light transmission rating of about 40%. If that means nothing to your retailer, just say it's the sort of

plastic used for lightboxes. I'd suggest getting a couple of pieces: one about the same size as your diffuser material - say 30 x 42 cm - and another twice that size for larger subjects. They won't break the bank. You might, with good

reason, wonder why you shouldn't just buy the sort of fabric diffuser threaded with a high tensile steel ring that pops flat when you shake it. They are, after all, easier to carry than a rigid piece of acrylic and, unlike a soft box's front fabric diffuser, won't

go wrinkly. The only reasons I don't use one for this job is that they get marked and dirty pretty quickly and are not so easy to support as a piece of acrylic. They are also a lot more money, money better spent on supports.



SUPPORTS

There is a lot to be said for human light stands when it comes to supporting flashes, diffusers and backgrounds around the subject but, ultimately, three legs are more available than two and will never complain as you spend ages fiddling with your settings.

You'll need a minimum of two tripods, one of which can be trusted to support the camera if needed. There are many tripods on the market that shouldn't be allowed anywhere near a valuable camera but which make perfectly serviceable light stands. Look for a model in which the central column can be swung upwards to a horizontal position - the Benbo Trekker is a good example - as this is ideal for supporting a flash at one end and a diffuser or background at the other. There is no right or wrong way to configure your set up and there are almost as many variations as there are field studio practitioners. What I suggest here is

what has worked for me over the years and remains my standard kit today.

In addition to the two tripods you'll need an assortment of clamps, goosenecks and clips to hold all the gear in place. Given the convenience these afford, the investment is very small. This is the set I use to cover every eventuality:

- Manfrotto 035 Super Clamp x 3 (1).
- Manfrotto 175 Spring Clamp x 2. (2)
- Manfrotto 026 Lite-Tite Swivel Aluminium Umbrella Adapter x 2 (3)
- Manfrotto Heavy Duty Flexible Arm 520 mm x 2
- Manfrotto 119 3/8F to 1/4F Adaptor Spigot x 4
- Manfrotto 118 Short 16 mm Spigot with 1/4 and 3/8 Screw x 2 (may already be supplied with 026 Lit-Tite)
- Manfrotto 037 Reversible Short Stud, with 3/8" & 1/4"-20 Threads x 3 (may already be supplied with the 035 Super Clamp).



SETS

When we photograph plants, a “set” is nothing more complicated than a piece of translucent acrylic some distance behind the subject. But for small animals and aquatic subjects, a set to contain them is necessarily a little more complicated.

I’ll expand on the principle of background-to-subject distance in the next section, but in the meantime I’ll ask you to accept that you must be able to manage how near or far away your subject is from the brilliant white background. Clearly, with plants, you achieve that by moving the background to where you need it. But what if you’re photographing a beetle, or a grasshopper? Place your sitter directly on the white background, and you can’t manage the distance. If, instead, you put it on a transparent piece of acrylic, you can position that however far it needs to be from the white background. Transparent sets

can be used not only to manage the distance between subject and white background but also to contain it for photography. You can even design it to include a diffuser.

I have two contrasting transparent sets: one for animals I want to shoot from the side - such as mantids and crickets - and another for those I prefer to photograph from above - such as spiders and lizards.

Aquatic subjects present another set of challenges but the principle of managing subject distance from the background still pertains. My tanks have a clear back so that I can put a white background at the appropriate distance behind. I make these from a combination of white (for the base and sides) and transparent acrylic (back and front). I use 3 mm acrylic throughout for strength, except the front pane which is only 1 mm thick for

maximum clarity. Unlike some glass, the acrylic doesn’t introduce a colour cast. When it’s just 1 mm, it is prone to bowing, however, so I’d recommend you secure a wooden brace along its top edge.



all new edition

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