Selecting a background
Tips & Suggestions
for studio photography
Every photographer will have different preferences for which color background they prefer. Since we do botanical, zoological, and archaeological photography for research purposes we tend to use neutral colors: black, white, or gray.

But if you use these all the time it gets a tad boring. It helps to change the color occasionally. However when I look at a book of botanical photographs of flowers, I do notice that the best books are the ones which stick to one single color throughout the entire book. If each page has different color backdrops it looks a tad Micky Mouse. So far the book whose photographs of flowers I found the most useful tended to use a black background about 80% of the time.

To show different options, in this FLAAR Report I will show various other color options.
Our subject today:
“chile chocolate” from Guatemala

Since FLAAR studies cacao and pataxte we are interested in all the flavorings used by the Maya and Aztec a thousand years ago (and still today). The Aztec and especially the Maya tended to use achiote (Bixa orellana, annatto) to color their cacao red. The pre-Columbian people of Mesoamerica also used chile to provide flavoring. But since there are scores of different sizes, shapes, and flavors of chile, which variety did the Maya and Aztec use?

We have been doing ethnobotanical research on this for two years now, and have found that the chile used primarily as a cacao flavoring by the Maya people is ironically still called “chile chocolate” (literally). There are other chiles in Mexico with a similar name but they are totally different size and shape and are called chocolate because they are brown.

The true chile chocolate of the Maya is green at first and then turns red when it matures. Courtesy of university biology student Daniela da’Costa we have a chile chocolate plant in our ethnobotany garden. I have been photographing it over a two month period (from when it began to bloom).

Now, the day after Thanksgiving, all the chiles are bright red. So I thought it would be a good time to do a final set of photographs.
Blue: contrasting color to the subject (red chiles and green leaves). Blue is a nice backdrop; peaceful yet bright.
Light brown: this is a friendly backdrop color. It is different enough even from the flowerpot color. I like this backdrop for this particular scene.
Kind of brownish with sort of reddish tint. This is a much stronger color, not as subtle. This is a bit bright for my tastes, but everyone will have different preferences.
Greenish: Since the leaves are green I am not sure any green would be a good backdrop. But it all depends on your personal style. I prefer a contrasting color.
Deep bright red: this is overpowering, even if the chile peppers themselves were not also bright red. Notice how you can barely see some of the chiles. This is a good example of a color to avoid for red-colored subjects!
White: I find this too white; too bright. I prefer the black, or even brown or petate. Even the green is softer to the eye.
Of course you can use a Chroma Key green background, or comparable green background. These are two special colors which you can “knock out” in software and then you have no background at all. The graphic designers here at FLAAR often get rid of the background, in software, but it is usually manually (in Adobe Photoshop). However there is special knock-out software (not from Adobe). But this is a special subject and would need its own report. We are not using knockout technique on this chile chocolate plant.

The downside of a Chroma Key backdrop is that it tends to reflect its color on the side or back of your subject, so you have to be careful with the angle of your lighting. And if you then create your own background color in software, sometimes it is obvious how you have achieved it. I prefer a natural background for flora, fauna, or archaeological artifacts. Or remove the background completely.

Here are all the colors together on one page.
Be sure the background has no texture

When we want a textured background we often use a petate (native Maya woven palm fronds of Guatemala). So yes, there are times when a nicely textured background has many advantages.

But the worst backdrops are
- Paper with the structure visible
- Paper with dings or creases
- Paper with marks or other stains from previous use

I see too many books on flowers with unprofessional backgrounds, either material which is not really made to be a backdrop, or which is worn out from use.

The same problem occurs in most archaeological photos taken by the field staff. Scholars tend to think that because the object being studied (flower or artifact) has intrinsic academic value, that there should be no need to put a professional backdrop behind it. Some feel that a sophisticated setup is too “commercial.” The result is a stained, wrinkled or obviously uninspired background, which detracts from the quality of the scholarly research.

When I was doing my original PhD field research in Guatemala in the 1970’s, I used cheap lighting fixtures from a hardware store and whatever material was available as a backdrop (most field projects use bedsheets!). But now, after over 35 years of subsequent photography, I tend to use better backdrops. My photographs have been published by Japanese coffee table style art publishers, and by National Geographic.
Here is a set of final photographs of the chile chocolate of Guatemala

We often have the plants on a turntable, so we can easily turn them around. We like to present several sides of the plant: minimally the front and back.
Lighting in all FLAAR studios is digital fluorescent, from FJ Westcott

Over the last forty years we have used lights from Lowel, Dedolight, North Light SunSpots and many other brands. For the past five years we have tended to use fluorescent lighting made for digital studio photography by F. J. Westcott. We have four TDS units with medium softbox on two of the lights. The other two Spiderlite TDS units we use without a softbox for some kinds of lighting.
Memory in our digital cameras is from Hoodman USA

We use Hoodman CF cards in our Phase One P15+ with Hasselblad ELX and Zeiss lenses. We thank the Phase One dealer Global Imaging Inc. for providing the Phase One digital back (which we have used now for four years).

We thank John Lorusso of Parrot Digigraphic for providing the Canon camera and its lenses. We use Hoodman CF memory cards in this 21 megapixel Canon EOS 1Ds Mark III.

Our new 36 megapixel Nikon D800E is brand new and we hope to have a Hoodman new STEEL 64 GB CompactFlash 1000X memory card for this high-res system. A 26 megapixel camera, even when compressed, fills up a normal memory card too quickly. This is the advantage of a 64 GB CF card.

The Nikon gives an error message if you put in any card previously used by a Canon or Hasselblad camera (unless you re-format the card). So we need a dedicated card for this system.

Our new Canon G1X came with a SanDisk card; we hope to replace this with a Hoodman RAW STEEL SDXC card with enough storage GB to handle a long field trip. We use the G1X when we need quick photos at printer trade shows in China or out on ethnobotanical location shoots in the jungles of Central America (without the weight of lugging around our heavy professional cameras). Although very slow, the G1X offers remarkable quality for such a simple lightweight camera.

We have a Canon underwater point-and-shoot camera (PowerShot D10) and a Canon PowerShot S90 (since we often have several photo teams at work in different locations; each needs a professional camera but also a really portable simple backup camera for quick shots without the weight and hassle of setting up a 21 megapixel camera on a tripod).
Here are the front covers of FLAAR Reports on photography of plants and animals.

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