



Macbeth

color checker
for professional Color Balance



GretagMachbeth ColorChecker Color Rendition Chart

In the world of Video it is called white balance. In the world of many professional photographers it is called gray balance.



There are entire technical monographs on color balance and even more books on color management. You can find glossaries on both these topics also. But to make it easy and simple: if you desire accurate Reds, Blues, and Greens in your nature photograph then you need to balance by showing true gray. Gray is 33% Red, 33% Blue, 33% Green. 18% gray is the normal standard, but you can do acceptable color balance with white or gray slightly darker than 18%

These are cacao or pataxte seeds, Guatemala. The white pulp around cacao seeds is delicious, but you have to suck this delicious juicy tropical treat off the seeds just after you break open the pod with your machete.

For printing on inkjet printers

Color balance is NOT color management per se. Color management means managing (keeping track) of the color from start to finish. Color management equipment and software can only handle the colors in the original image. So if those colors are off balance, color management simply manages keeping the original color on the computer monitor, in the mixture of the CMYK or other ink sets.

So you need color balance FIRST; then color management tools and software will give you a printed giclee or fine art photograph which has theoretically perfect color balance.



Here we are photographing a special kind of chile, used to flavor cacao (so chile flavored chocolate, the kind consumed by the Maya and Aztec over a thousand years ago).

We raise these plants in our ethnobotanical garden in Guatemala.

The lights at top left and top right are SpiderLite TD5, from F. J. Westcott. These fluorescent lights are great for the studio since they are cool, so don't overheat the delicate plants.

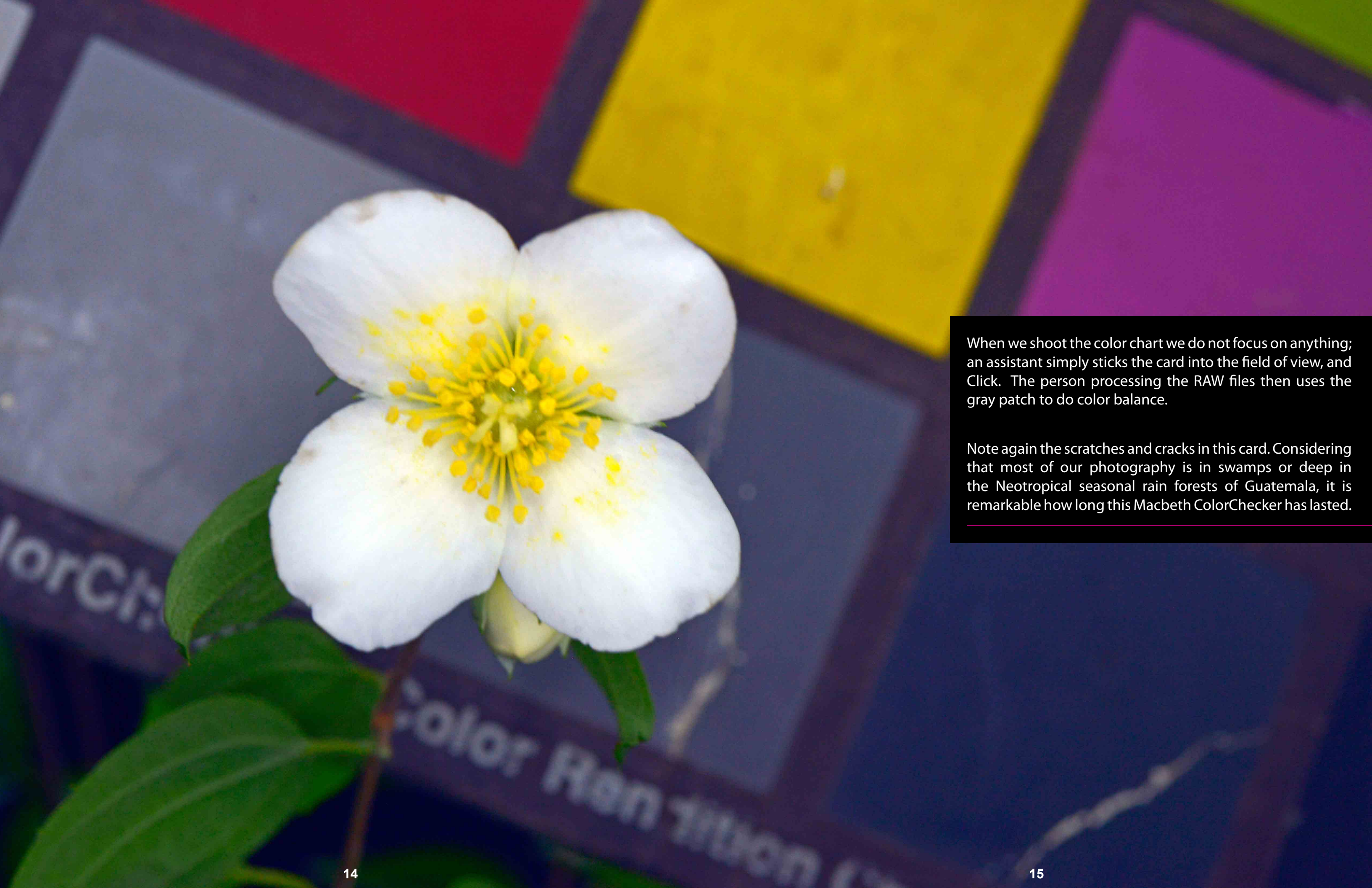








Ceiba aesculifolia and *Pseudobombax elipticum* both have very similar flowers and both are similar to the remarkable flowers of *Pachira aquatica*. All are potential sacred flowers of Mayan archaeology two thousand years ago (the "fleur de lis" flower on Mayan vase paintings).



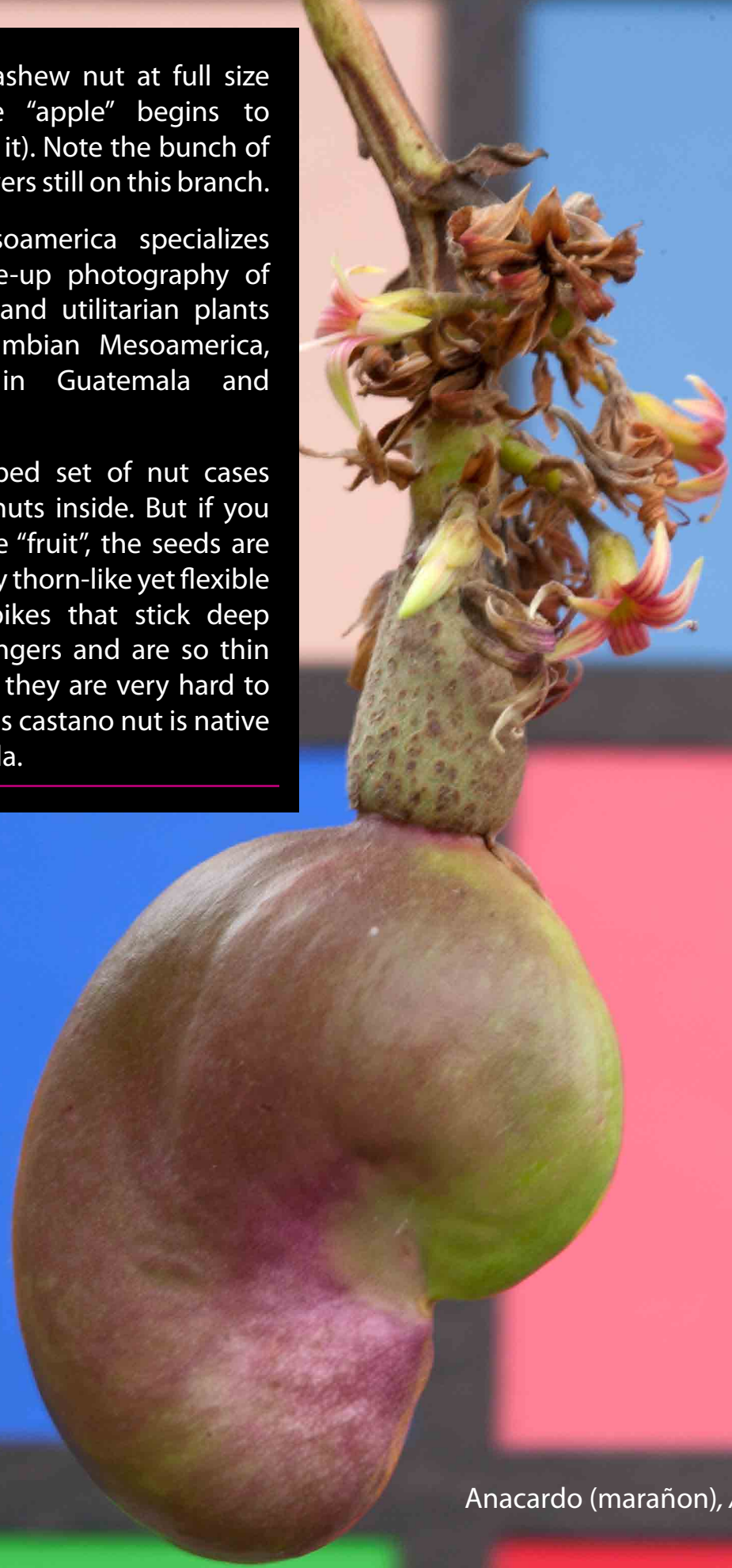
When we shoot the color chart we do not focus on anything; an assistant simply sticks the card into the field of view, and Click. The person processing the RAW files then uses the gray patch to do color balance.

Note again the scratches and cracks in this card. Considering that most of our photography is in swamps or deep in the Neotropical seasonal rain forests of Guatemala, it is remarkable how long this Macbeth ColorChecker has lasted.

Here is a cashew nut at full size (before the "apple" begins to grow above it). Note the bunch of cashew flowers still on this branch.

FLAAR Mesoamerica specializes in the close-up photography of the sacred and utilitarian plants of pre-Columbian Mesoamerica, especially in Guatemala and Honduras.

This five-lobed set of nut cases has edible nuts inside. But if you open up the "fruit", the seeds are protected by thorn-like yet flexible fiber-like spikes that stick deep into your fingers and are so thin and flexible they are very hard to pull out. This castano nut is native to Guatemala.



Anacardo (marañon), *Anacardium occidentale*





GretagMacbeth™ ColorChecker Color Rendition Chart

Conclusion

There are many kinds of targets to use for color balance (gray balance, or white balance). Most are cardboard.

The advantage of the Macbeth chart is because it is known and used worldwide.

Yes, you can use a pure gray version, but I must admit that I tend to use the Macbeth ColorChecker for so many years that I rarely use a pure gray version.



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