and its exotic flavorings (for the Maya and Aztec)



Looking at the origins of Cocoa and Chocolate





Chocolate is a beloved drink and food of millions of people around the world. Cacao drink was the royal beverage of the Aztec emperor and the Maya kings and High Priests.

But there are many fascinating aspects of cacao that would delight people in St Louis and neighboring states. For example,

- The words cacao and chocolate have over a thousand years of linguistic history. You can even write cacao in Mayan hieroglyphic writing.
- Cacao pulp is delicious (I eat it frequently). But there is no way to preserve this for shipment; you
 have to harvest the pod direct from the tree, and eat the pulp while you are still in the cacao or
 chard.
- The most frequent flavoring for cacao for the Aztec and Maya were hot peppers! We have lo
 cated two varieties; one of which is still used to flavor cacao beverages in rural Guatemala vil
 lages today.



The heart of this exhibit will be

- To show the growth cycle of cacao trees
- To explain the differences between regular cacao and other cacao species (such as *Theobroma bicolor vs Theobroma cacao*)
- We will also show all the other fruits of Guatemala which are visually similar in size and shape.
 There is even one fruit (same size and shape as a cacao pod) which even fruits directly from the
 tree trunk (as of course does cacao, but this faux cacao is not related to cacao in any way
 whatsoever).
- We will also reveal the over dozen flavorings which were used for cacao over two thousand years ago. We have spent the last several years identifying the flavorings and then finding each species in situ in Mesoamerica in order to do extensive photography.













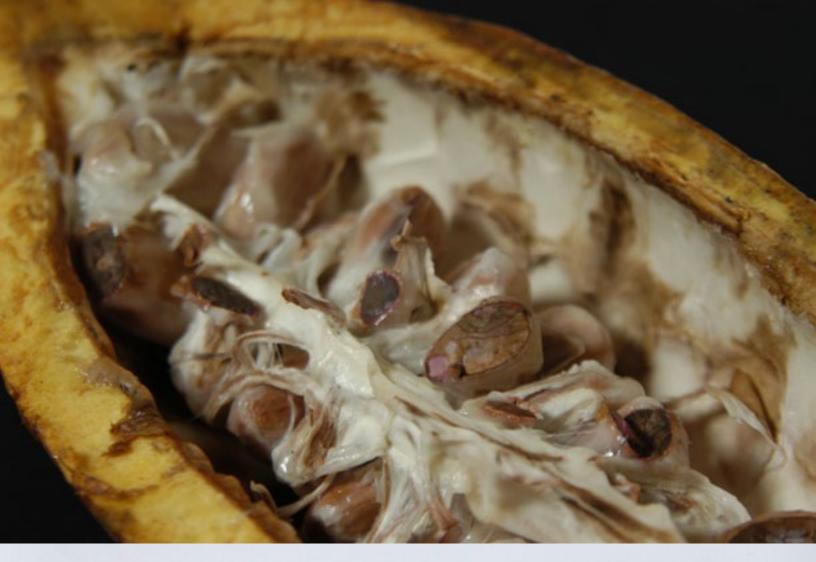


























Background: familiarity with cacao

This theme for a photography exhibit is based on decades of studying 4th through 9th century Maya representations of cacao in ceramic art and stone sculptures. Additional background comes from raising cacao trees from seed, and watching the entire life cycle of cacao.

Plus I have been in the cacao areas of Tabasco (Atlantic coast of Mexico), in the cacao areas of Soconusco (Pacific coastal areas of Chiapas, Mexico, and in the heartlands of cacao production in several key locations within Guatemala.

Photographs of cacao from FLAAR have been used by Dr Michael Coe and by Dr Yoshiho Yasugi in their separate publications on cacao.

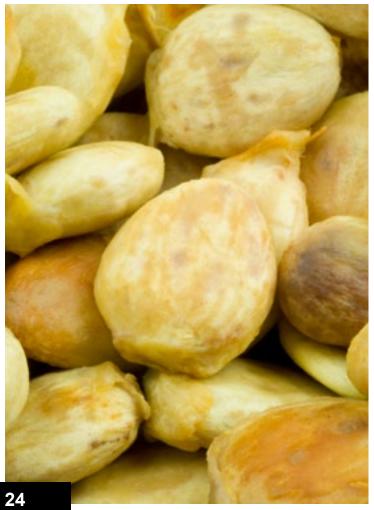








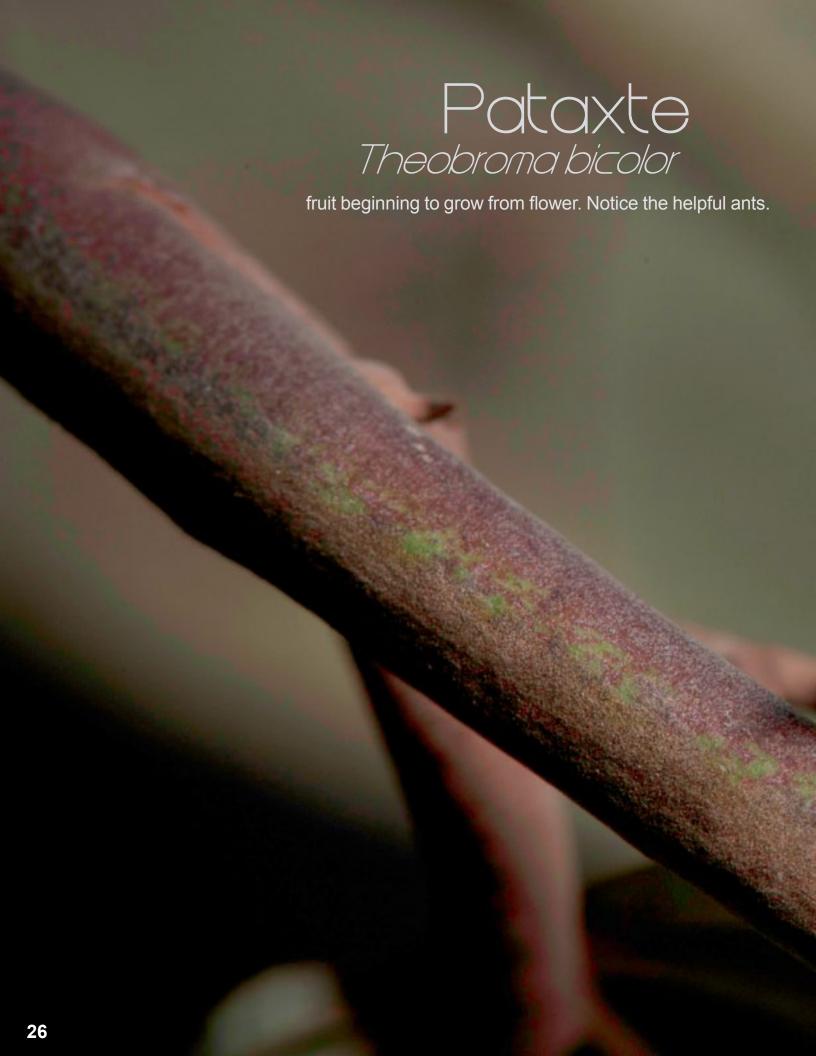








seeds development











Chile Chocolate

and its exotic flavorings





Cordoncillo



CACAO and its exotic flavorings









Manita tree canak chiranthodendron pentadactylon



Manita tree canak *chiranthodendron pentadactylon*Monkey's Hand Tree





Suggested budget for photography of cacao and its flavorings

photographs of cacao trees and cacao fruit Close-up (macro) photographs of minuscule cacao flowers

photos of pataxte trees and fruit Close-up (macro) photographs of minuscule pataxte flowers

photographs of all other native Guatemalan fruits which fruit from the tree

photographs of faux cacao (the three to five fruits which are similar size and shape to cacao, including one (cuajilote) which also fruits from the tree trunk).

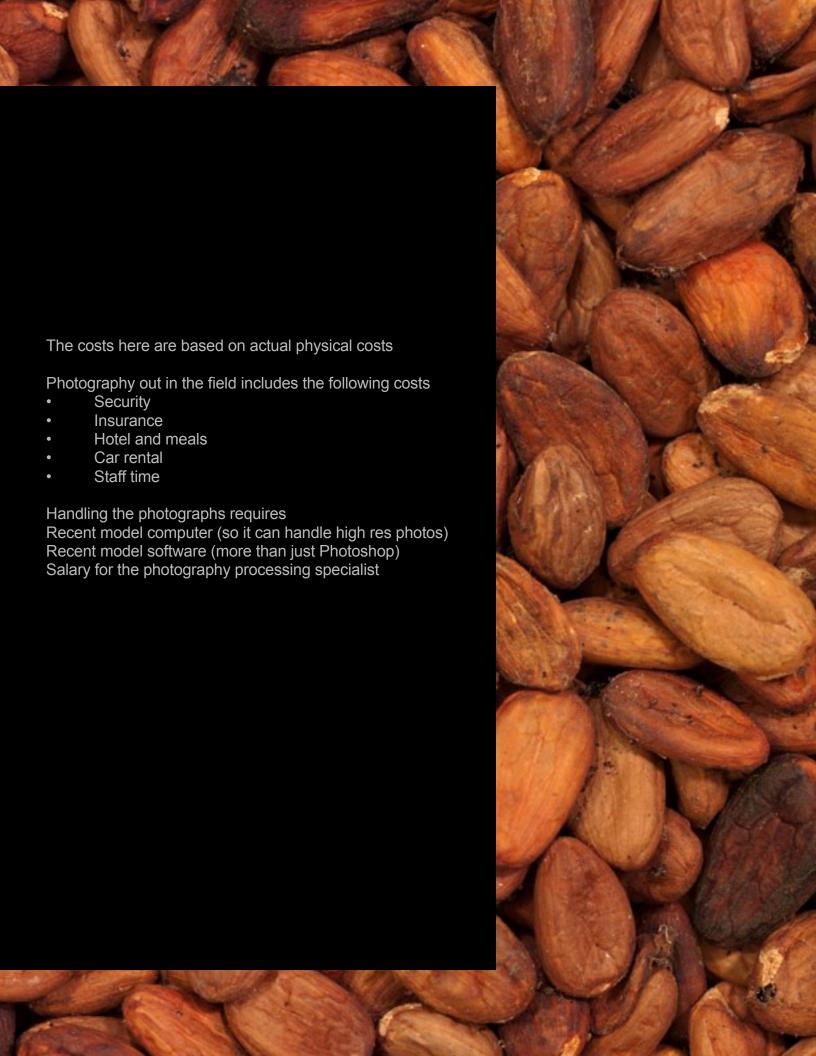
photography of 31 cacao flavorings

sending out botany scouts to physically find each species (botanical collections are woefully lacking info on where to find species). Our experience in eight years of doing botanical photography is that we have to network and usually we have to send our trained scouts out around the country to villages and nature preserves and find each species one by one. We know where about 30% of the plants and flavorings are; we are preparing our scouts to find the remaining 70%).

sending out photo team to photograph the plant when flowering (after the scouts find the tree, we learn when it flowers, and then send a photo team out to do the photography).

We prefer to avoid to use stock photos for several reasons:

- We need original digital photos; not photos scanned from 35mm pics taken years ago
- · We need high resolution original digital photos: not snapshots with point-and-shoot camera
- It helps to have good lighting equipment: many stock photos are poorly illuminated.



Printing the final photos
Ink and media and printing; rough estimate
Main cost is mounting
Shipping or moving the mounted photos to exhibit location
Our staff to set up the exhibit
Our staff to take down the exhibit

Botanist (we have two available locally)
Camera assistant (available locally)
Photographer (it takes more than Dr Hellmuth; available locally)
3D photography (available locally)

Operating overhead, Especially the manager and secretary to handle all this

Option:

Creating short animations for children

We can offer two levels:

First level would be characterization as an original cartoon character for children Second level would be characterization as an original cartoon character for adults

Characterization of cacao and pataxte for child visitors

Characterization of vanilla, pepper! and chile! as flavorings for cacao

Characterization of the especially photogenic flavors such as Manitas and puff

Characterization of the flavorings which specifically would be unknown to a North American audience.

Options:

3D photography and/or 3D scanning

It would be great to offer views in 3D. The technology becomes easier every year, and we have basic experience (already) in 3D scanning. We are perfecting our capallities now in 3D

Options: videos

Includes cost of sending video person to the field, and preparing a short video back in the studio.

These are not intended to be TV documentaries (we can do that, but that would be too expensive). These are intended to be short, since the average attention span is low.

Videos of cacao orchards Video of cacao production workflow Video of pataxte orchard Video of spices

Options

Books on Cacao and flavorings

With the high res photographs that will be available, we could produce a coffee table book on Cacao and its Flavorings. We can sign over to MOBOT all author's rights if the costs of this book would be covered.

Main costs are graphic design (yes, we can do a graphic design ourselves, as good as a publisher).

The primary expense is getting Dr Hellmuth away from projects which he works on on a regular basis and moving him to where he can write the book. With his background and interest he should be able to produce the book text in two months if he is removed from his other assignments. Easiest way to "remove him" is to have funds to enable other staff to take care of Dr Hellmuth's normal daily taks so he is available in seclusion to handle the book concept.

We would like to do two separate and different concepts: Coffee table book (for adults) Illustrated book for children

Both books in Spanish and English

It would also be greatly appreciated if funds were available to create one edition in K'ekchi' Mayan language, the language of the cacao growing area of Cajabon, Verapaz. We would prefer to do the children's version for this area, to help educate an entire next new generation.

Option app for iPad on the exhibit

We can do the preparation in-house (if budget is available) but would need a programmer, which is expensive.



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