

# JANUARY, 2006

Before the 2006 trip, we started the year with a gift of boots for farmers in the Daloa and Issia regions. Tom sent \$3,000 to Evariste to purchase hundreds of pairs of boots of three different sizes for the farmers that Tom had met during the voyage of 2005. Evariste left on his trip but before he reached Yamoussoukro, he was involved in a car accident. The roads in Côte d'Ivoire are dangerous because people drive way too fast and there are very few police to stop them.



# SUMMER, 2006

Thanks to the work of my partners, Eric Parkinson and Ernie Roide, we passed our first test! The IRS assigned us our 501(c)3 number!

INTERNAL REVENUE SERVICE  
P. O. BOX 2508  
CINCINNATI, OH 45201

Date: **AUG 28 2006**

PROJECT HOPE & FAIRNESS INC  
4104 VACHELL LN  
SAN LUIS OBISPO, CA 93401-8113

DEPARTMENT OF THE TREASURY

Employer Identification Number:  
20-3269307  
DLN:  
17053032010006  
Contact Person:  
ELIZABETH MARQUEZ ID# 95117  
Contact Telephone Number:  
(877) 829-5500  
Accounting Period Ending:  
December 31  
Public Charity Status:  
170(b)(1)(A)(vi)  
Form 990 Required:  
Yes  
Effective Date of Exemption:  
January 27, 2006  
Contribution Deductibility:  
Yes  
Advance Ruling Ending Date:  
December 31, 2010

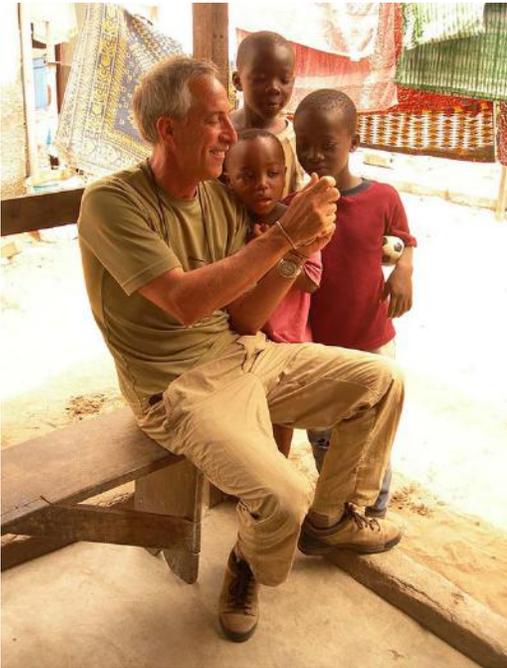
Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under 501(c)(3) of the Internal Revenue Code. Contributions to you are

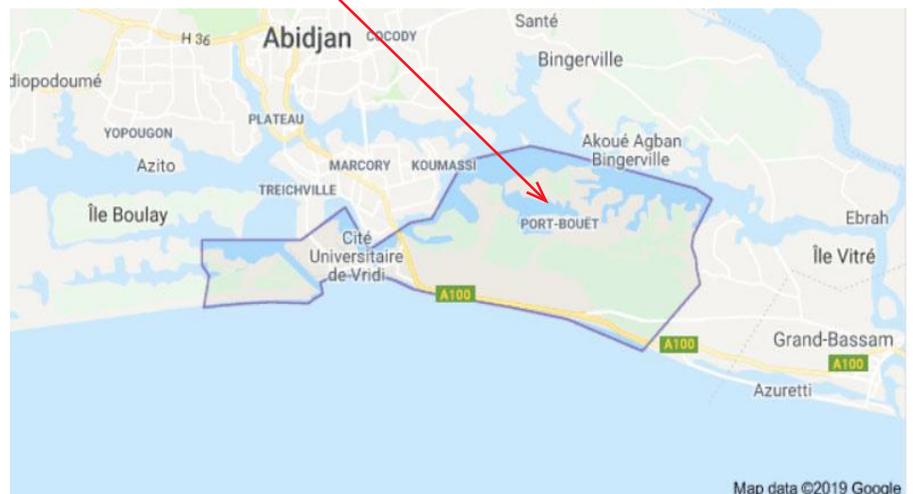
# AUGUST, 2006: the Trip

This year, I visited both Côte d'Ivoire and Ghana. In Côte d'Ivoire, I traveled with both Dale Landis and Evariste Plegnon. I met Dale for the first time that spring, when our local newspaper, the San Luis Obispo Tribune, wrote an article about my fundraising efforts in order to help fair trade cooperatives in Côte d'Ivoire, Ghana, and Cameroon. I had mentioned in the interview that I was looking for travel companions who'd like to learn about the realities of the cocoa business, which are so badly covered in the world media. Dale who was a general contractor, contacted me.

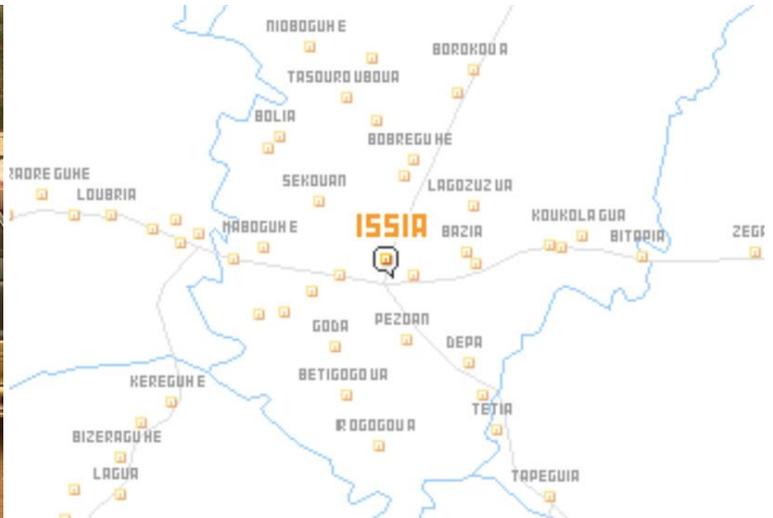
We started our trip in Port Bouët, a community situated just next to the airport and where Evariste lived with his mother, his wife, and their children.



Port Bouët extends the length of the A100. Originally most of its inhabitants were fishermen and the families of fishermen. But with the gradual disappearance of fish, the community's nature is changing. Now, many of the inhabitants are Dioula, which at one time referred to a single ethnicity but now just means "Northerner" and for that reason, one sees many small mosques.



## DEPA



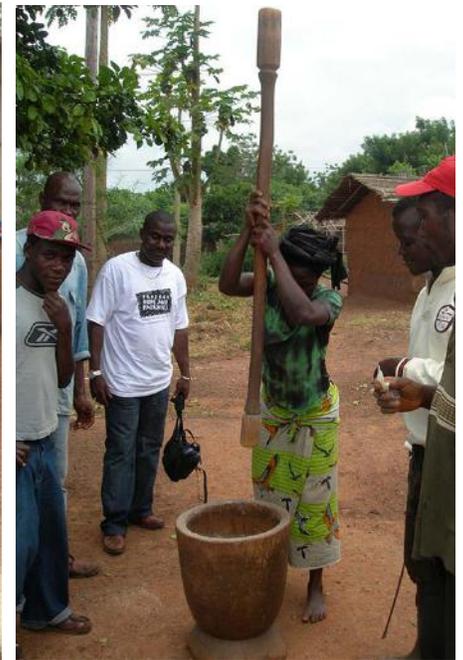
We rented a 4X4 complete with chauffeur. And then we bought \$2,000 worth of tools for distribution to the villages we were going to visit.

Depa is located about 5 km southeast of Issia (see above map). To get there, one must drive first to Yamoussoukro, the capita. This takes a little more than 3 hours. Then, one turns to the west and in 3 more hours, one enters Daloa, which is the biggest cocoa-producing city in all of Côte d'Ivoire. One then turns south and drives another hour and one arrives in Issia. The road between Yamoussoukro is very bad because the trucks grind it into bits.

## Children



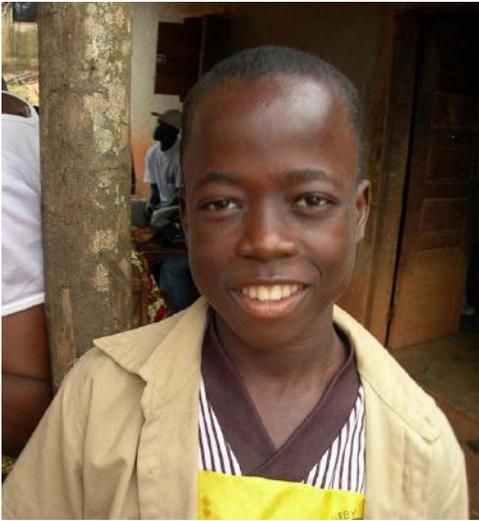
## Women



Depa is similar to all the villages in West Africa: the children all play together. One does not see the plethora of don'ts and limits that so commonly typify an American or a European community.

Women are always working, giving birth, and supervising children. This is certainly true of the women of Depa. The young women, below and left, are under constant pressure to marry young. Below, center, a woman is winnowing rice that she has pounded in a mortar; in the background of the photo is a chicken, waiting for the opportunity to eat bits of grain that inevitably fall to the ground. Chickens, pigs, goats, and sheep walk unhindered through the village to clean the ground and later serve as a source of nutrition for humans. Below, right, a picture of rice being pounded to loosen the hulls.

# The Young



Boys and girls have the right to go to school. In general, the closer they live to a city or the closer a village is next to the paved road, the more education they receive. This means the closer you live to a city or to a road, the more choice you will have about your future.

# Men



Most men in Depa are farmers. Each owns a piece of land near the village.



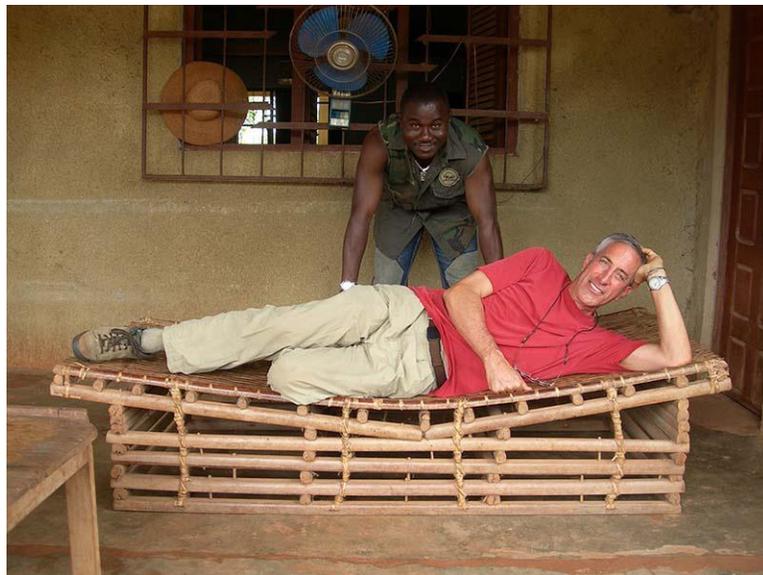
## Furniture and Homes

The forest and the ground provide sufficient materials for villagers to build virtually everything they need to live comfortable and healthy lives.



Above: the farther from a city, the more likely it is that a house is made from natural materials. Above is a traditional house--made with wood, with wood fiber, with leaves, and with mud.

Right: a chair. Obviously, this furniture is not part of the cash economy.



Left, Dale rests on a couch built of natural materials.

Wild Animals



Above, a pangolin, for sale by the side of the road. This is an ant-eater with scales. Its flavor is mild and its texture is moist and tender.

In the middle two pictures: a fisherman's net and the fisherman.

To the left, another fisherman with some sort of bottom-feeding fish.

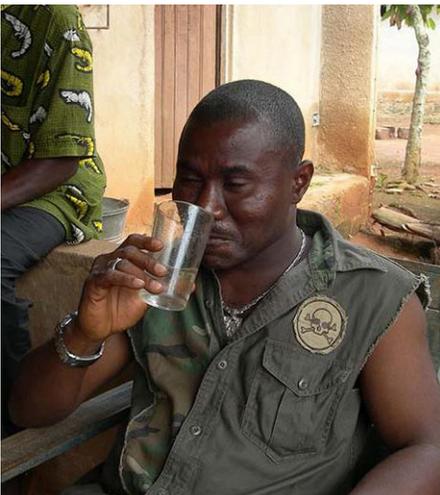
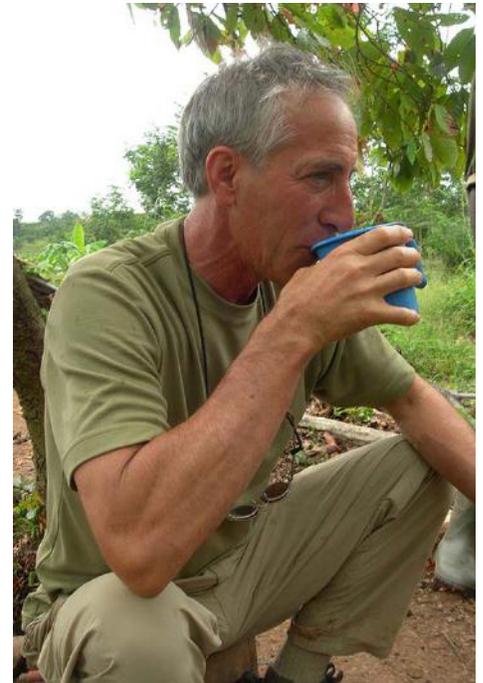
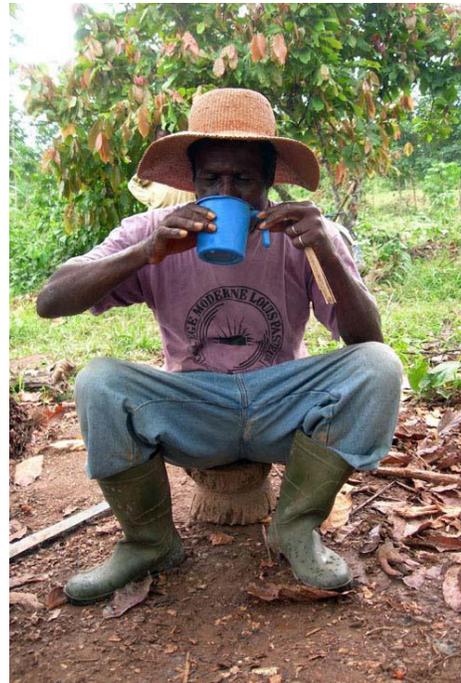
## The Mask Dance



The mask dance is a mystery--like freemasonry. In Depa's version, the dancer is accompanied by a man carrying a big stick. Of course, the mythological underpinnings are unknown to me but would probably make for a fascinating anthropological study. But it is probably true that the dance communicates with African gods and recalls for the villagers their relationships with their gods. Three men stand on the side and sing and beat out the rhythm. Those who participate in this dance are part of a secret society whose role is to maintain religiosity.

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## Banggi (Palm Wine)



*Banggi* is palm wine. To make it, you start by cutting the roots of an oil palm, you push it over, cut off the branches, and carve a channel in the heart. Top, left: to start the juices flowing, the farmer uncovers the heart and lights a fire (middle). Then he scrapes off the charred, sterilized flesh (right). Middle, left, the farmer drills holes in the channel and inserts hollow reeds that convey the juice into the sterile white container. To the right: the farmer and Dale sip on well-fermented palm juice, which is now wine (6 - 8% alcohol). Below, Evariste appreciates *koutoukou*, which is distilled *banggi*.

## Lunch: Chicken Kedjenou



Our first lunch in Depa--Chicken Kedjenou. Top left: the chicken's house. Top right: Miss Chicken. Middle left: the chicken in a pot. Middle right: good African rice that has so much aroma and a lovely texture goes with the Chicken Kedjenou. Bottom left: a plate of Chicken Kedjenou and African Rice. I love the little green chilies that are so hot and fragrant.

## Cocoa in Depa



We visited a cocoa farm belonging to Jean-Baptiste. Above, left: a young cocoa farmer has bought a young cocoa tree and is “driving” it to his farm. Right--drying cocoa after fermentation. Bottom, left: Jean-Baptiste shows how one sucks on a bean to extract the lovely sweet-sour juices, then puts the bean on a leaf. These are collected later to be added to the other beans for fermentation. Below, middle: pods ready to be picked. Note the brown area caused by fungi introduced when myrids (biting insects that live in the foliage) suck out the juices. Below, right: a pod that has been damaged by a hungry squirrel or monkey.



Left, the farmer shows the effects of a parasite, mistletoe, that sucks water and minerals out of the cocoa tree's sap. Right, a pod that has been eaten out by a monkey or a squirrel.

## Vegetables



Top, left: the fruits of the oil palm purchased to boil and press out oil for making stews. Top, middle: okra used to make stews. The local word for okra is “gombo” for which the American soup, gumbo, is named. Top, right: roasted corn serves as lunch for this farmer. Below, left and middle: Suzanne, a Depan, walks through the forest to find wild igname, the origin of the word “yam”. Right, a young man shows off his take of igname.

## PEZOAN AND ZEREGUHE



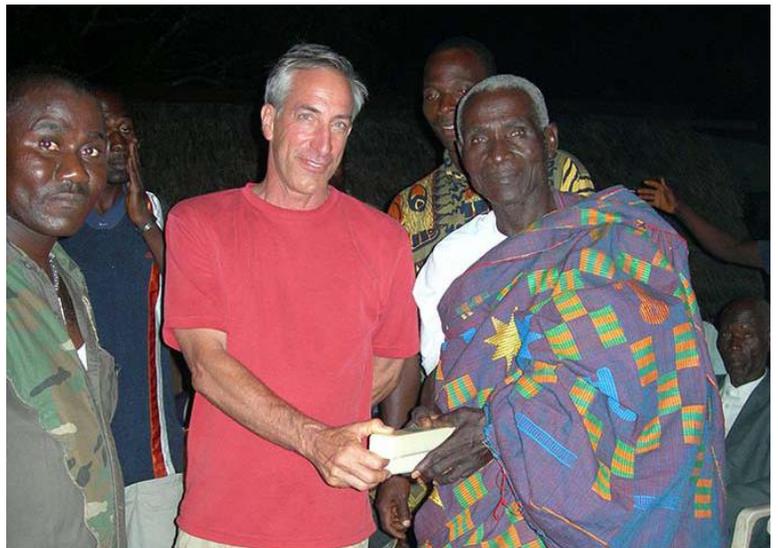
Pezoan is between Issia and Depa and Zereguhe is just 1 km farther down the road leading away from Issia. Top, left and right: scales that Evariste had delivered. Below, Evariste gives t-shirts and sharpeners to the chief of Zereguhe. Ernie Roide and his company, Promotion Plus, paid for the t-shirts.

# REGION DE DALOA

The region of Daloa produces approximately 10% of the world's cacao. We visited two villages in this region: Batteguedea and Broguhe. Batteguedea is on the A6 (see map below) which extends from Daloa to Duekoue--not too far from Liberia. Broguhe is about 8 km south of Batteguedea--on a dirt road.



## BATTEGUEDEA



It was night when we arrived in Batteguedea, a village we had visited the year before. As is our custom, we donate dozens of boots, knife sharpeners, and machetes.

# BROGUHE



Left, coffee drying. Right, coconut milk.



Left, fish for sale -- caught in the local river. Right, cocoa drying. This cocoa is obviously underfermented as it looks too pretty. It will produce a bitter chocolate. Well fermented cocoa is usually darker.

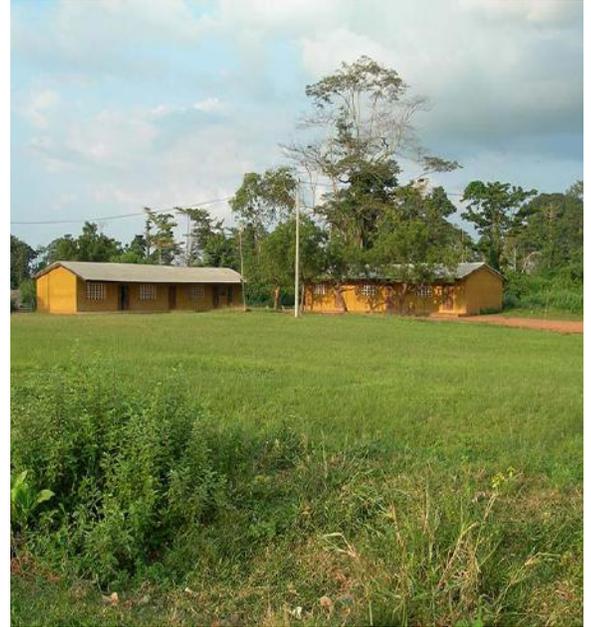


Left, rice freshly gathered. It is usually dried in bunches and then shaken to make the grains fall off the stems. Right, two kinds of rice: Carolina rice (*Oryza sativa*) and African rice (*Oryza glaberrima*). Carolina rice has a yellow hull and the African rice has a white hull. African rice has a perfumey aroma--not as strong as Basmati but very agreeable. African rice breaks more easily when hulled and this makes it stick together more when cooked because starch granules are released that cause the stickiness. The African rice is easier to ball up in the fingers so it's easier to eat without utensils.



We share some freshly roasted and brewed Robusta coffee. This species (*Kaffea robusta*) has less body, is more acidic and is less aromatic than Arabica coffee (*Kaffea arabica*). But when you roast and brew it right there, it tastes great! Robusta is used to make Nescafé and because that is heavily extracted and then powdered, it loses a lot in the processing.

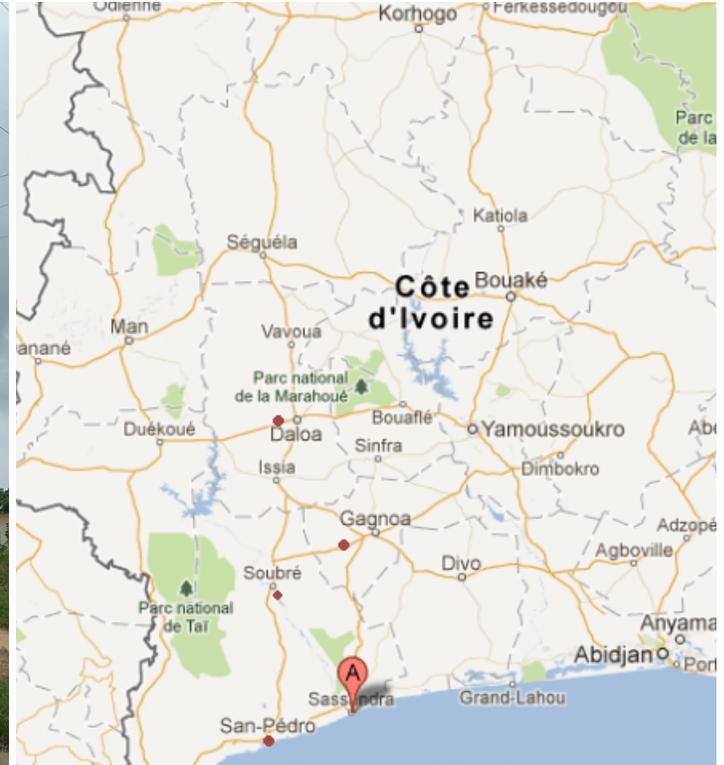
## Education



Top left: Dale inspects a classroom while students display their antics. These buildings were paid for by the village because the federal government did not have the funds (because of the World Bank's Structured Adjustment Program and the civil war. See ppg 3-4) Top right: school buildings. Bottom left, the village instructor. The village pays him by building him a nice house (nicer than most) and giving him land on which he can grow cacao. Bottom, right: a sewing room built by the chief for his wife. She teaches young women how to sew. The more independent a village is of the state economy, the more money it can use to purchase fertiliser, pesticides, and fungicides in order to increase yields.

From Broguhe, we turned toward the south to San Pedro. Along the way, we visited the Falls of Nawa, a rubber plantation, and a cocoa Fair Trade Certified™ cooperative, COOPAGA.

## THE FALLS OF NAWA



Left: a billboard for machetes. Note the three different kinds: left- cutting small trees, middle - harvesting and weeding, right - all-purpose. This is the cocoa farmer's most important tool. Right, a map of the region. Broguhe is the red dot west of Daloa. The Falls of the Nawa (red dot) are near Soubre on the Sassandra river. Below - the falls.





Left: the beach below the falls of Nawa. Right: a deep and still part of the river.



While Dale is lithely jumping from rock to rock, Evariste and I just walk around.



Right next to the road on the way to San Pedro, we found a couple rubber plantations. Above, a rubber plantation. Below, how one extracts the latex. You cut a channel across the cambium without cutting completely through and you peel off the outer layers so the latex flows into the channel. The latex drips into an aluminum or cast-iron cup. Once a week, you remove the ball of raw rubber that forms in the cup.



## RUBBER

# COOPAGA

We continue our trip. We stop at COOPAGA located in the town of Gabiadji. Coopaga is one of two Fair Trade Certified™ cooperatives in Côte d'Ivoire.



Left, an experiment for drying cocoa beans even when it rains. The building needs a solar-powered fan. Right, we are shown how moisture is measured in a bag of cocoa beans. In order to be shipped, cocoa beans must be dried to 7% humidity.

# THE CUT TEST



Above, how to measure the levels of each attribute when doing the cut test. First, separate out the flat beans (in this sample at 6%). Then cut the beans in half and inspect the insides and arrange in the 10X10 box.. Count up the germinated (Ger), the violets (11%) which indicates underfermentation, then ardoisés (slaty--means underfermented or too young), then "moisies" or moldy (indicated moldy interior). Mitées means mites or insects. G means "grains" or 106 beans per 100g. 1 bean should weigh one gram.

# Les Succès de COOPAGA

In the following pages are described some of the successes of this remarkable cooperative. See [coopaga.org](http://coopaga.org) for more details.

## Une coopérative distinguée

*Toutes nos actions menées depuis la création de la coopérative ont été vues et appréciées par tous ce qui nous a valu de hautes distinctions nationales et internationales.*



### Nos réalisations

Fidèle à son objet, la COOPAGA COOP-CA a réalisé plusieurs infrastructures socio-économiques pour ses membres en particulier et la population en général. Il s'agit entre autre de:

- La Caisse d'Epargne et de Financement Agricole (CEFA).
- La construction d'une usine de conditionnement.
- La construction d'un collège moderne.
- La construction d'un centre de santé entièrement équipé et doté d'une ambulance.
- La construction d'écoles primaires à:
  - ✓ Broukro (en partenariat avec CARGILL et CARE International).
  - ✓ Mathieukro par la COOPAGA COOP-CA.
- La construction d'un pont sur l'axe BRAZAVILLE-Niamkeykro.
- Le reprofilage de la voie de Mathieukro
- Le reprofilage de la voie de Bida à Broukro
- La création de 4 puits améliorés à Boignykro, Gnity-cailloux et petit-Bouaké.



Cargill gave the cooperative the \$400,000 it was owed for sales of UTZ certified cacao. With this premium, they were able to purchase some of the items that are listed in these pages.

Une coopérative compétitive se devant de faciliter les tâches aux planteurs afin d'une meilleure production. Nous sommes dotés depuis de moyens importants nous permettant de mener à bien nos activités de récolte, de transport, de séchage et bien plus encore. Ainsi nous disposons de:



7 magasins de stockage d'une capacité d'environ 1000 tonnes et camion de 10 tonnes pour l'évacuation des produits des magasins de section à l'usine de conditionnement.



1 pont bascule, 2 pèses palettes, 33 bascules, des sondes et des hygromètres pour assurer la pesée et vérifier la qualité des produits.



12 motos et 10 mobylettes pour le déplacement des délégués portes paroles, les administrateurs de groupes (ADG) et les paysans relais.



18 champs écoles (CEP) pour la formation des producteurs sur les bonnes pratiques agricoles.



2 remorques de 30 tonnes chacune pour la livraison des produits à l'usine (exportateur).



1 magasin de produits phytosanitaires pour l'approvisionnement des membres en intrants.

Items that have been purchased (above): two warehouses to store cacao waiting for drying; 1 truck scale; 12 motorcycles for use of office staff when visiting villages; 18 field schools for teaching best agricultural practices, 2 trucks for delivering cacao for export; 1 storeroom of chemical products (pesticides, herbicides, fertilizers).

## ACTIVITES SOCIO-ECONOMIQUES DE LA COOPAGA COOP-CA

L'activité socio-économique concourt à la réalisation ou à la transformation d'une région déterminée, c'est en marge de ce contact que la COOPAGA COOP-CA à travers ces actions a contribué au développement économique et surtout social de la localité de Gabiadjì cela se démontre par la construction de plusieurs infrastructures socio-économiques entre-autres:

### DON D'AMBULANCE



### DON DE L'ECOLE 2 DE GABIADJI



### DON DU COLLEGE MODERNE COOPAGA DE GABIADJI



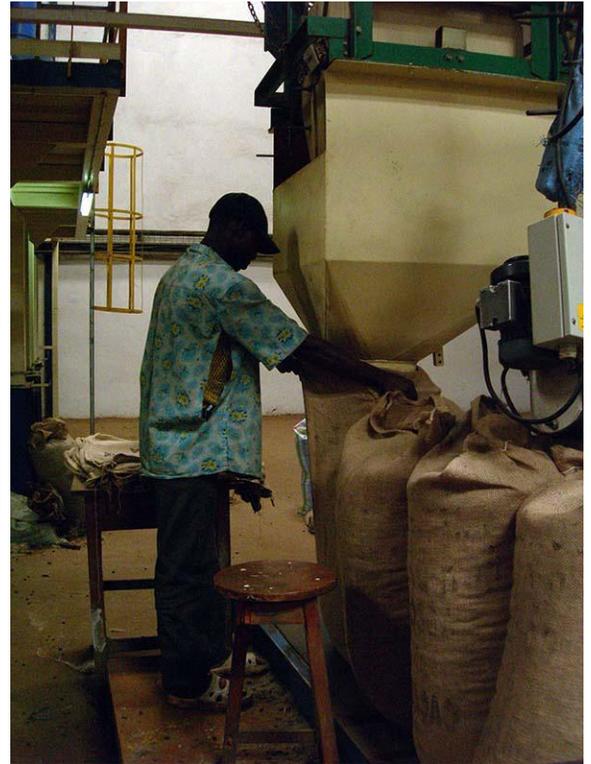
### DON DE CENTRE DE SANTE ENTIEREMENT EQUIPE



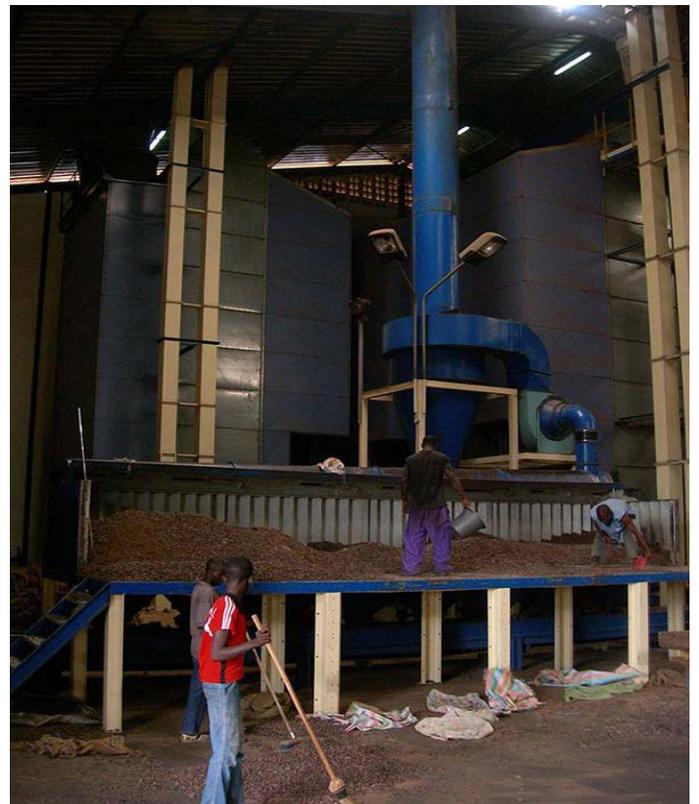
### LA CONSTRUCTION D'UNE USINE DE CONDITIONNEMENT



Items listed above: gift of an ambulance; primary school and high school for Gabiadjì, fully equipped health center, drying and sorting factory.



## SAF-CACAO IN SAN PEDRO



Our goal was to visit the port. But just on the outskirts, we stopped to buy fuel for the car. While it was being fueled, I peeped over the wall behind the gas station to look closer at this factory which obviously had something to do with cacao. A window in the building opposite me opened and some guy yelled out “Come in by the door! I have nothing to hide!” That was my introduction to Ali Lakiss who with his brothers had owned this family business for decades.

Above, left: the entrance to the central area. Right, a man fills export bags with treated (dried) cocoa beans. Below left: export bags. Below right: an oven for driving off excess moisture to the required 7%.



When the trucks arrive at the plant from the traitants (e.g. those in Issia or in Daloa), staff immediately starts taking 5 samples from each bag and putting it in the blue bucket, which gets taken to the laboratory (see below, left). In the lab, they test each bag (humidity and cut test). Lower, right, we see a picture of the humidity tester. The results are conveyed to the office where they determine whether to buy or not. If not, the staff piles all the bags back on and the truck continues down the road to another of the 60 exporters located in San Pedro. This is the control process at the foundation of the entire chocolate industry. Besides the attributes tested for, there are also the type of bean, the fermentation method, and soil and weather. If a truck is accepted, the bags are stacked according to moisture content--13%, 12%, 11% and so on. Each percentage requires a pre-set amount of oven time. Higher quality beans are 100% solar dried, as ovenizing drives off aromas and depletes flavor.



Ivoirian beans are known for specific flavor profile: fruit, lavender and roasty chocolate notes.

Our tour finished, we checked into a hotel for the night. The next morning, we visited the port of San Pedro, which was founded by the Portuguese in the 15th century.

## SAN PEDRO



This is a ship we found in port during our visit. At the time we visited, the Rokia Delmas contained mainly cocoa beans and trunks of trees. The beans were put in containers, which were treated with methyl bromide to kill insects and their eggs, and then stacked on the ship--often around the edges and the center filled with tree trunks. The Rokia Delmas ran aground during a storm three months later near the Ile de Re, France, on October 25, 2006 and the ship was declared a total loss and cut into pieces.



## GALEBRE

We left and travel Northeast toward Gagnoa in order to visit Kedesch for the second time. This year, we spent the night in a hotel in the community. And what better hotel than one dedicated to friendship?



Above, left: the hotel has a central courtyard around which the rooms are distributed. There's even a little restaurant in the courtyard. Above, right, two employees working on hair. The owner's little daughter, above and right, is very charming. Above, she shows me to my room, which is very basic: a blue 10 watt bulb for illumination, a fan to blow mosquitoes off your body so you don't get malaria, a chair and a table. Lower, right: this cute little girl is proudly displaying her gift, a flashlight, that was one of over a hundred donated by Ernie Roide, my partner.

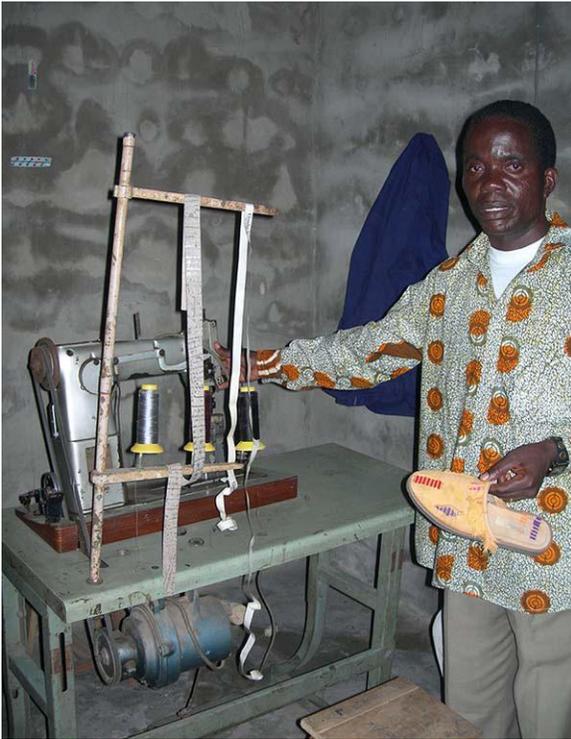
# REVISITING KEDESCH



Above, students learn the art of weaving. They are making pagnes. See page 68 for a photo of a pagne.



Left, a shirt made with African wax print. Right, womens' shoes.

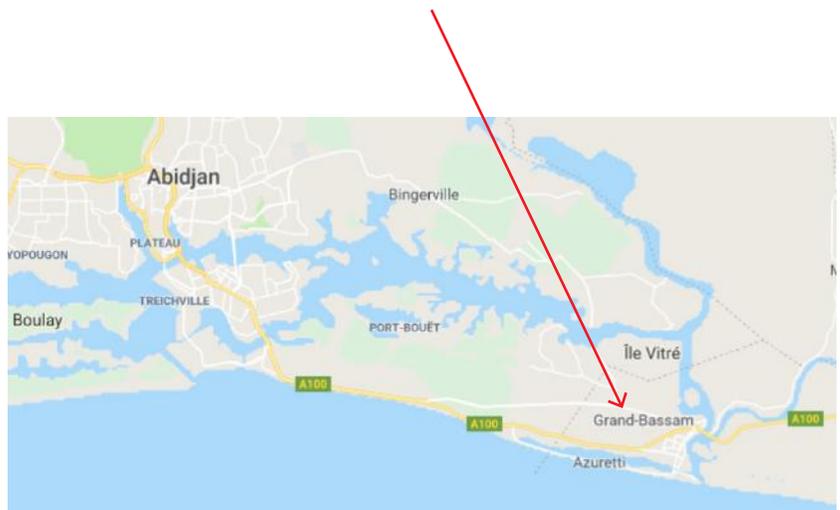


Above left: the machine for sewing shoes. Above right: each morning and evening, women and their children get water from the well. It is used for cooking, cleaning, washing clothes, and taking “showers”, which are described on page 60.

Below: along the road to Abidjan, we came across this woman selling a smoked, dried rat. Evariste bought it; rats are much appreciated. I ate it once in a restaurant in Cameroon. It was excellent.

When we arrived in Abidjan, we left Dale at the airport. He took a plane to Kenya, where he did a Safari and took a lot of very pretty pictures of wild animals.

We then continued to Grand Bassam.

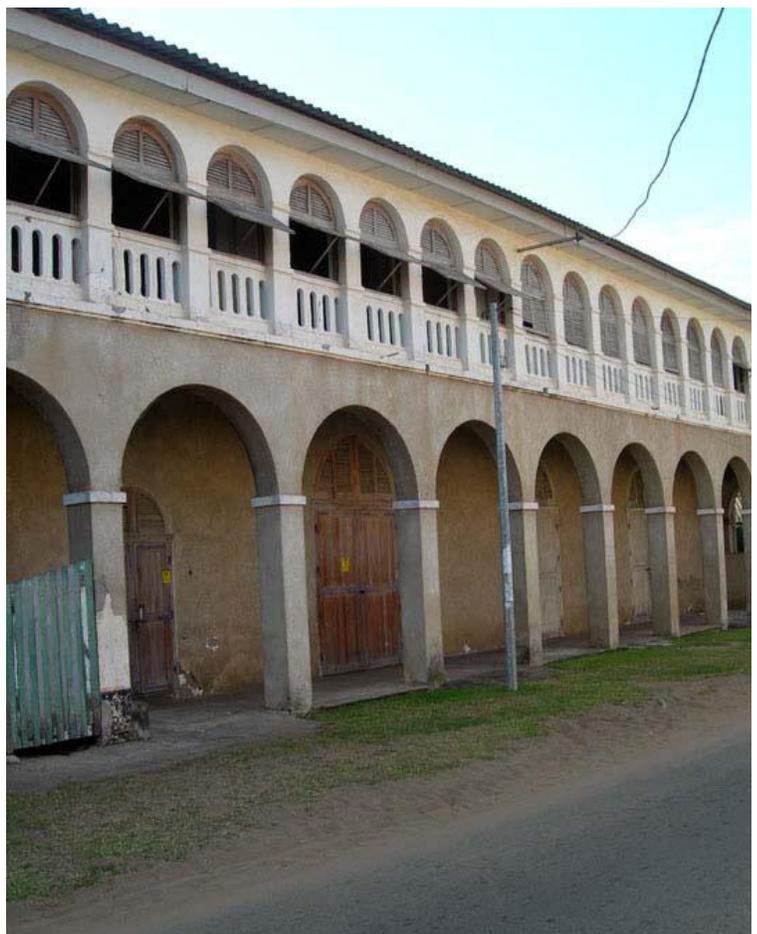
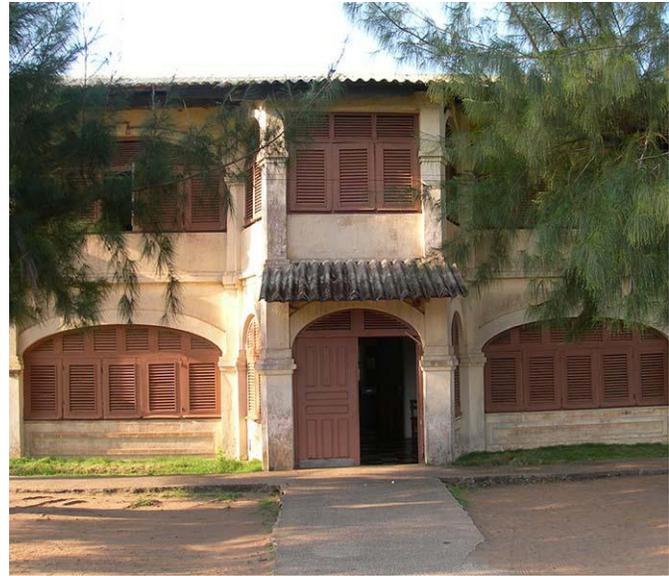


## GRAND BASSAM



Grand Bassam is situated between the ocean and the Ebrié lagoon (see map on previous page). Left, the beach on the Atlantic (Gulf of Guinea). One eats really good fish Abidjan style (right), which is grilled over wood and served with onions and tomatoes mixed with mayonnaise, then served with a harissa-type sauce. Traditionally, one eats the fish with *attiéké* (left, below), which is fermented grated cassava that has been pressed and dried. After eating, one can either walk along the beach or ride a horse (below right).





Grand Bassam became the capital when the French arrived in 1886. But the capital switched to Bingerville, 50 km north of there because of the mosquitoes that bred in the lagoon and caused a yellow fever epidemic in 1896. Grand Bassam functioned as a port until the 1930s. Toward the 50s, it lost all its federal offices when Côte d'Ivoire gained its independence. Lower left: a statue commemorating the French who died in the yellow fever epidemic of 1896. The other photos show colonial buildings that demonstrate the importance of this site as the capital, port, and administrative center.



Upper left: two pictures of a small offshoot of the Ebrié lagoon. Rich in fish, it extends 100 km in length--well past Abidjan and is 4 km wide on average. To the right, a church and a cemetery next to it. Bottom, left: centers of recreation on the beach. During the 60s-80s, when Côte d'Ivoire was called the African Miracle, Grand Bassam was a popular tourist site, especially for the French.



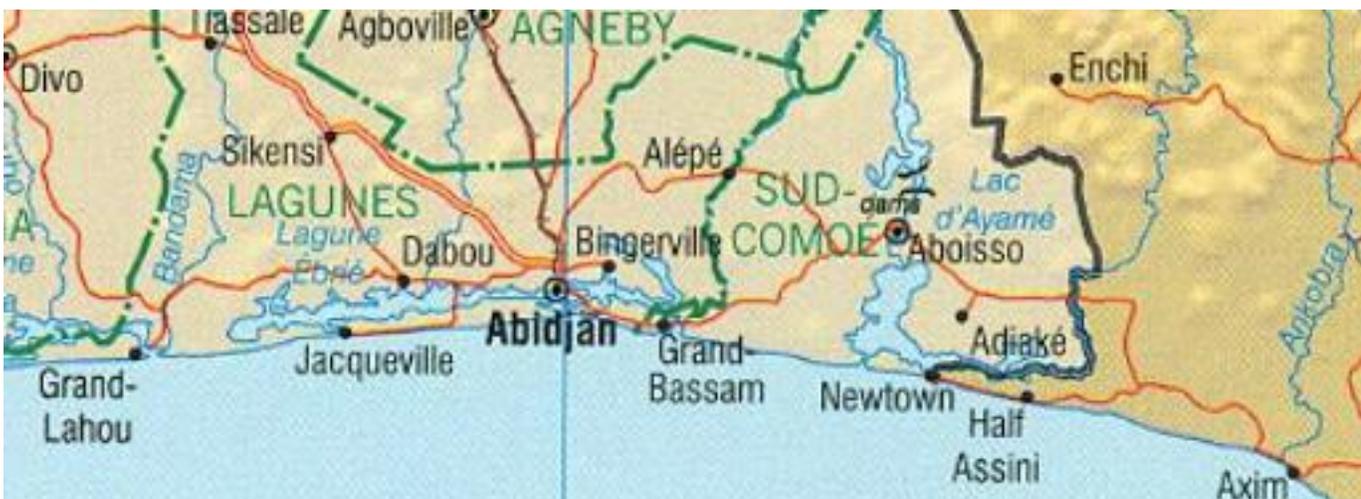
## DRIVE TO GHANA



After our visit to Grand Bassam, Evariste hired a car to drive us to Aboisso, where I hired another car to take me across the border to Takoradi. The length of the drive was 200 km. The road, as usual, was not good, with lots of bone-rattling potholes. Before starting the car, the driver wrapped his rosary around the steering wheel and prayed. The he started the car and, VROOM, off we went at 140 kph, careening wildly to avoid the potholes. I felt reassured that at least he'd offered a prayer.



Left, the Tano river, which forms the border between Côte d'Ivoire and Ghana. Right, my driver and his rosary.



# TAKORADI



I met Peter Sewornoo and Padmore Cobbina in Takoradi. I rented a car and driver to take us around. Takoradi (more accurately, Takoradi-Sekondi) has a metropolitan population of 400,000; its most important economic features are the port, the railroad connectin Kumasi with Accra, the manufacture of plywood, the grinding of cocoa, and the catching and processing of fish. Above, ships docked at the port.



After visiting the port, we treated ourselves to lunch at the African Beach Hotel, where I enjoyed Palaver Sauce with Boiled Igname (yam). The word palaver is said to stem from the Portuguese word *palava*, which can mean either “divine wisdom” or “quarrel”. In Ghana, “sauce” really means a stew. To make this dish, one starts by hydrating either smoked or dried fish. One dices it, adds water and then chopped green leaves, usually of cocoyam (taro). One then adds spices and cooks very slowly until the moisture has evaporated. Collard Greens or Poke Greens, which are Southern dishes in the US, probably stem from this mother dish. Next to the Palaver Sauce is boiled yam, which is as tasty as potatoes, although with a more floury texture.

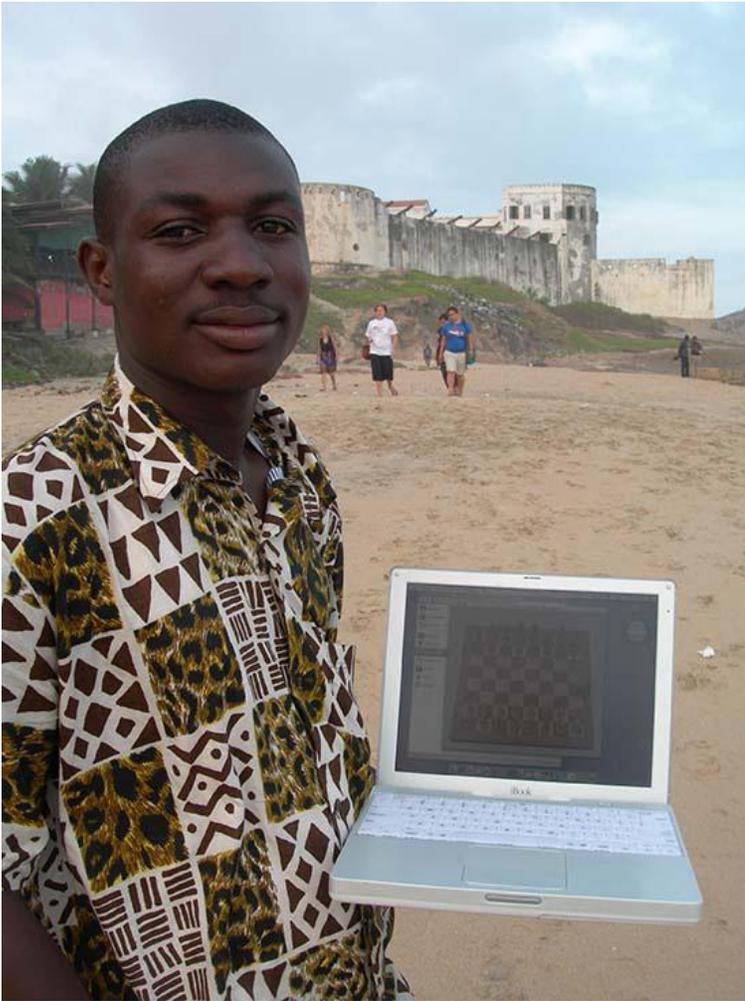
# CAPE COAST



This year was the only time I got to visit the annual ceremony and celebration of *Oguaa Fetu Afahye*. It's sort of a reset between the Oguaa and their 77 gods, of whom they request a benediction. The process takes a week during the first part of September. It starts with a benediction of the Omanhene, who is the chief of chiefs and therefore closest to the gods. Part of the ceremony involves the Omanhene throwing a net into the water three times. The size of his fish catch indicates to the local fishermen the size of their catch for the year. For more details about this festival, see <https://afrotourism.com/travelogue/oguaa-fetu-afahye-festival-cape-coast-purifying-the-new-year/>.

During the festival, which starts on the last Monday of August, there is a parade of all the local chiefs who are borne on palanquins by their subjects. They walk through the streets of Cape Coast while ceremonial warriors pound their drums.

# PETER AND PADMORE



Peter Joy Sewornoo was my primary contact in Ghana for a half dozen years. After the 2005 trip, I asked him to visit five villages that in the future I would put on my eco-fair-trade tours. I was interested in developing tours in order to teach Americans, especially university students, about the lives of Ghanaian and Ivorian cocoa farmers. Peter visited Adiyaw, Jukwah, Mmaniaye, Gyaware, et Ebekawopa, all in the Cape Coast area, and consulted with the chiefs and the elders about the possibility of setting up such tours. This year, we visited Jukwah, which was one of those villages.

Left: I donated a used Mac laptop to Peter to help him in his studies, as he was in his last years at Cape Coast university, where he was studying economics. He is standing on the beach next to the castle.

Right: now Peter works for ECOWAS (Economic Community of West African States) as a Program Officer in trade policy. He lives with his wife and son in Abuja, Nigeria. The mission of ECOWAS is to promote economic integration of 15 West African states.



In Cape Coast, Ghana



13 years later -- Malmö, Sweden

I met Padmore for the first time when I visited Elmina Fort with Peter in 2004. This year, I brought a used Microsoft laptop for Padmore. He is standing on the beach next to the Cape Coast castle.

A year later, in 2007, Padmore accompanied us and made the whole Ghanaian trip quite fun. A couple years later Padmore started a cellphone store in Takoradi, sold that, and then took courses in becoming a refrigeration and AC engineer.

Then about 5 years ago, Padmore decided to emigrate across the Mediterranean, becoming one of the boat people who actually did not drown. He ended up in Sweden and now lives in Malmö (see map at right). I do not know what he's doing; he dresses like a model. Padmore has changed his FB name to "Tims Jah Cure".



## JUKWAH



Jukwah is the one of the five villages we visited. It is located just north of Cape Coast. Above left the chief welcomed us with beverages, as is the custom. Middle, left: we visited cocoa plantations. Middle, right: farms in that area use bamboo for construction. Here we see a bamboo fence. Below left: a little goat standing next to a bamboo fence.



Above, left: the village well, pumped by foot rather than by hand. Bottom left: Peter inspects a little warehouse made of bamboo. Top, right: a little house for animals. Bottom right: a mother and her newborn.



Above: one of my favorite pictures.



Above: young boy learns to drive.

# PRODUCTION OF PALM OIL



Coming back from our visit to Jukwah, we found this little outdoor palm oil factory. Above left: a basket for holding the palm fruit. Bottom, left: to extract the oil, you have to boil the fruits in order to soften them and release the oil. Top right: cooking the fruits. Bottom, right: the palm nuts that remain after pressing the fruits.

Palm fruit oil is bright orange as it is rich in beta-carotene. It is an important fat in West African cooking. The Europeans, Americans, and Chinese fractionate the fat to make margarines and shortenings used by bakeries. The oil extracted from the nut is quite clear; it is perfect for frying and for making confectionery fillings. It is the closest fat to cocoa butter. Up to 5% of European chocolate's fat is palm kernel oil.



Two machines for extracting palm oil (back machine) and palm kernel oil (machine in foreground).