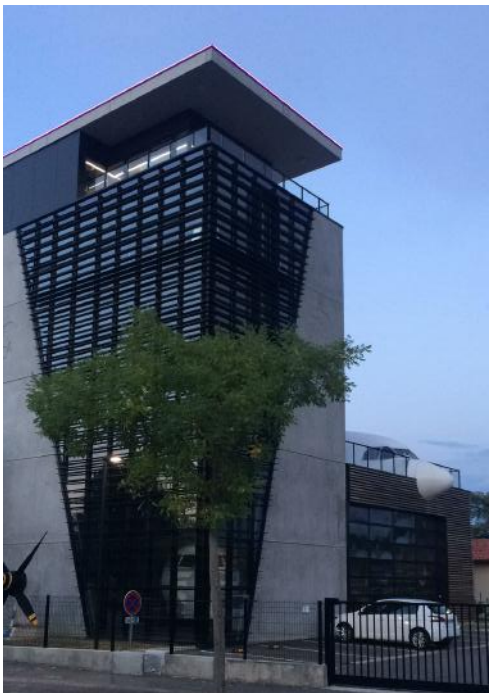
CHAPTER 15

2018: COTE D'IVOIRE

This is my thirteenth trip to West Africa. The last trip was in 2014, when I visited Cameroon, Ghana, and Cote d'Ivoire with Robert Peak. I was still hot on building chocolate factories in all three countries. Four years later, I have significantly pared my plans due to the complexities and costs, and I am now focussing on just two villages in the Issia area of Côte d'Ivoire. Ben Taylor, the young man (28) who bought Mama Ganache, joined me on this trip, as he is very interested in manufacturing chocolates (the Seven Villages Brand) using chocolate exported from the villages. Ben and I continue to discuss how we are going to penetrate the North American market. He carried 30 Kg of Depa chocolate back to California in his luggage.

My wife Eve and I sold everything and moved to France. We bought a small, south-facing house, in the medieval town, Cordes-sur-Ciel, an hour and a quarter drive North East of Toulouse, which has an international airport. I took the train to the airport in Blagnac, just outside of Toulouse, and checked into a small hotel.

Above: the valley across from the bedroom window our "new" (partly 13th / partly 19th century) house in Cordes. I am leaving this sheer beauty and comfort.



Right -- flying school near the Toulouse International Airport

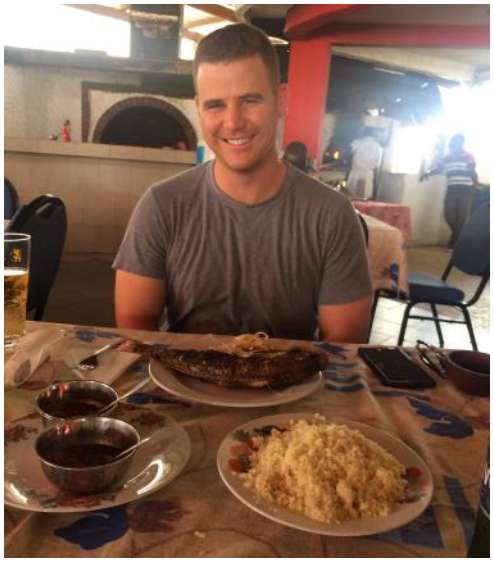
Above -- restaurant where I had dinner. "L'Esprit du Sud-Ouest" or "Spirit of the South-West", a restaurant dedicated to flying, especially a history of the Toulouse airport.

The flight landed in Lisbon, Portugal, where I had a five-hour layover. We took off from Lisbon that night and landed in Abidjan, Côte d'Ivoire a mere 3 hours late. David Logbo Zigro, his brother, and the driver Tanon met me at the airport at 2 AM. The next morning, we met in the hotel lobby and adjusted the trip plans that I had made the previous week. Since Ben wasn't going to arrive until 7 PM, we treated ourselves to a sumptious repast on the beach of Daurade (Red Snapper) Braisée Abidjanaise (sliced onions and tomatoes in a mayonnaise as a garnish to the fish), Alloco (Ripe plantains fried in palm oil), Attieke (Cassava Grits), and the usual two kinds of harissas. Ben's flight also turned out to be 3 hours late so we had to stand around quite a while, also at the wee hours of the morning.



Above: We had lots of hours to kill, so we drove along the ocean toward Grand Bassam and then enjoyed this sumptuous repast. We left Abidjan and drove north to Yamoussoukro for about 3 hours. The road's condition was excellent, so we made really good progress. Our plan was to arrive during lunchtime so there'd be enough tim to visit the Basilica and the Presidential Palace before 3 PM.

David and Tano asked a guy on a motorbike for the best restaurant in town. As I had recalled, it was on the lake near the basilica. I was right. Above, young men fishing.




Above: this restaurant is popular with the posh governmental types. It is full of Ivoirian wood carvings. The food was acceptable--not as good as the beach restaurant.




Above, left: Ben with a all-too-friendly crocodile in the lake next to the presidential palace. Middle: the basilica. Right: a wooden statue representing the traditional Baole costume. Yamoussoukro, the capital of Côte d'Ivoire was originally a large village of Baole. President Houphouët-Boigny was from this village. We set out for Daloa, which is normally a three hour drive west--toward Liberia. This time, it took 5 hours, because in the 4 years since 2014, the pavement has disintegrated into Swiss cheese. It's hard on the kidneys, the tires, and the air-conditioning refrigerant. By the time we got to Daloa around 8 PM, the air-conditioner was blowing warm air. My kidneys were still fine. Left, we stopped in Daloa for a bathroom break, and Ben got involved in a quick match of soccer with the local kids.

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It was dark by the time we arrived in Issia, so we couldn't see the giant Cargill silo that I wanted to show Ben. Cargill sells to all the really big chocolate companies. If you buy a chocolate bar at the supermarket, chances are part of it hails from Issia. And it would also hold a great percentage of the child labor/child slavery cocoa used to make American chocolate. Despite the fact that the Harkin-Engel Protocol was signed in 2001 and 17 years have passed, child labor and child slavery remain endemic.We arrived at about 9PM at the hotel in Issia, dropped our stuff, and immediately set out for Depa, which is a 10-minute drive from Issia. The chief, Justin Dédé, was anxious to meet us.

The next day, we went to the village at 9 AM, met with the chief again, and then embarked on a walk through various farms while the village prepared for the welcoming ceremony. Below, left, is the school that was just built by Alessane Ouattara's government. We walked to Jean-Baptiste Kipre's farm to learn about the making of palm wine. The middle and right pictures show the oil palms that had been cut down. Lower, left: lighting a fire in the cleft reduces spoilage and increases flow of the juices that are fermented to make palm wine. Lower, middle: a reed pierces the pith so the juices (bangee) drips into a waiting bucket. Lower, right: Ben learns to recognize Forasteros. Lowest, left: ants are attracted to the sweet juices of the cocoa fruit. Lowest, middle: an ant nest--in the tree!










Above, we harvested a papaya for consumption later (to go with lunch). Middle, a young man shows what a rubber seedling looks like and right, a seedling after a year in the ground. Below, left, these are coffee cherries of the Robusta variety. Middle, a millipede (not poisonous). Right, a house built on the farmer's land so his family can live near the crops during the harvesting period when all hands must be on deck, cutting open the pods, fermenting and drying the beans.



Below, left, vine grows over one of the field houses to provide shade and comfort. Middle, a young okra plant which is called gombo. The leaves and the pods are eaten. The leaves provide an excellent source of vitamins A and C. The Cajun soup, gumbo, comes from West Africn slaves. Right, ripe cocoa pods ready for the seeds to be extracted. The farmer or his older children cut the pods open with machetes.

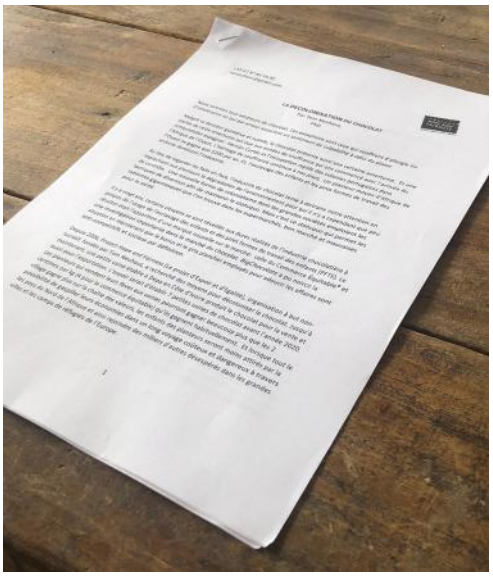




On our way back from learning about West African polyculture (growing of many crops together), we were met by the women of Depa, dancing and celebrating this joyful moment before the beginning of the village's mask dance. Middle, one of the mask dancers approaches. Right, close-up of a mask dancer.



Above left: the two mask dancers entertain everyone to rhythmic drumming in the chief's entertainment room. Ben and I are decked out in honorary regalia. The woman I am sitting next to is a reporter.



After the ceremony, I presented the chief with an article I had written in English and then translated into French entitled "De-Colonializing Chocolate." and then I presented him with some picture cards from an assortment of chocolates that I had developed using Depa chocolate. After exchanging "news" we enjoyed a very special meal of baked "machoiron", a local catfish typically found in African rivers and served dried or fresh. These were baked in ti leaves--just as in Hawaii.



That night, we enjoyed a dinner of Chicken Kedjenou, which was cooked in a pot over a fire on the street corner. This is a wonderfully flavorful stew spiked with the local chilis, which are green, small, and fiery. The next day, Tuesday morning, we visited the sous-prefet (middle picture), who has been so very helpful in getting David started with the authorities. After our visit to the sous-prefet, we drove to Pezoan, which is a couple miles outside of Issia. In the picture (right) we are sitting with the chief and exchanging news, which is the protocol.


Upper left, the usual alcoholic beverages as well as water offered to guests during the exchange of news ceremony. Middle, posing with chief and others in front of the building. Right, walking around the outside of the building. We still need to raise $35,000 to purchase the machinery necessary to hull rice in the left half and manufacture chocolate in the right half.



Left, standing with the chief (the man with the hat and the towel) in the rice hulling side. The two sides are separated by a wall to keep rice dust out of the chocolate area. Middle, standing in the right side. Chocolate processing generates a lot of heat, so proper air flow is important. Right picture, Ben standing with children at the front of the building.



Above left, virtual Gordian knot of electrical cables for the chocolate machines. Middle, ventilation window with chiefly stool motif. Right, posing with Evariste's aunt. She said, "I'm Evariste's mom. But I knew that his mother died a couple years ago." I met Evariste in 2004; he has helped PH&F in many ways.



Above left, children of Pezoan. Middle, our thanksgiving meal. Right, another version of that fabulous dish, kedjenou. Sometimes it's made with fish, sometimes goat, sometimes chicken and if you're rich, beef.



Above left, a child of Pezoan with Ben. Middle, girl with fancy do. Right, our intrepid driver/photographer, le grand Tanon!



The next day we speak to two young men who work for the Conseil de Café Cacao. We meet at the hotel, Versants du Rocher, which derives its name from a batholith that is locally called, The Rock of Issia. Above, left: Ben among the pretty houses that are so charming. Middle: the path toward the summit. Right: after our meeting, we go to Zereguhe, a village that is right next to Depa that we have been visiting since 2005.





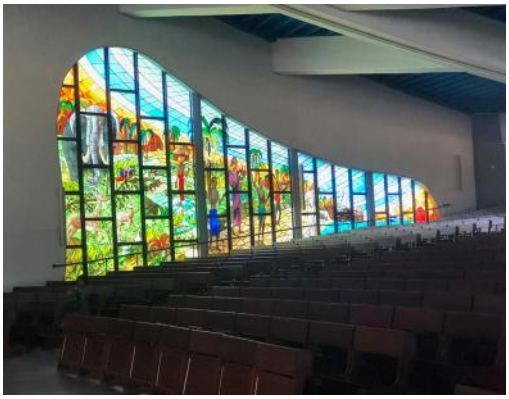
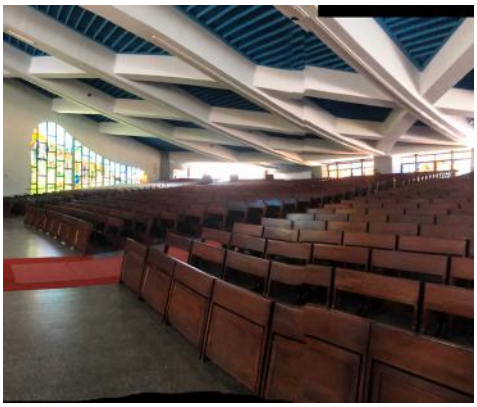

Above left: Tom and Ben drink palm wine offered by the chief of Zereguhe. While Tom spoke about the work of Project Hope and Fairness, Ben offered to play socker with some of the young boys. In the upper middle, Ben is standing next to the Chief of the Young People. Upper right, some of the young soccer players look on. Lower Left, Ben walked around the village by himself and made quite a few friends. Lower middle, tropical clouds. Lower right, a young man is pounding rice for the evening meal.

Left, this is the off-season for cocoa beans because total yields and bean size are diminished by reduced rainfall. This boy is showing off the small beans, which have significantly less value.

We drove about a mile to Tetia. Above, left: as usual, we were greeted by the chief and some of the village officials. Everyone seemed pretty somber and the reason became obvious toward the end of the meeting. We knew that the well that we had built had somehow disintegrated. But then the women asked if we could build aa rice hulling center in addition to fixing the well. I committed us to that, and all of a sudden, people broke out in song and dance. Middle, the sign recognizing the NGO's contribution. Right, the well. It is obvious that the well was not properly made. Left, below, you can see that the bricks lining the side have fallen to the bottom. Also, they put wood to hold the door hinges and within a year, termites had eaten the wood and the hole is no longer protected with a door. Below, middle, a woman of Tetia with a cocoa pod. We left Tetia and drove back toward Issia. On the way, we stopped at a market and Tom found a bottle of Obama Power rum.

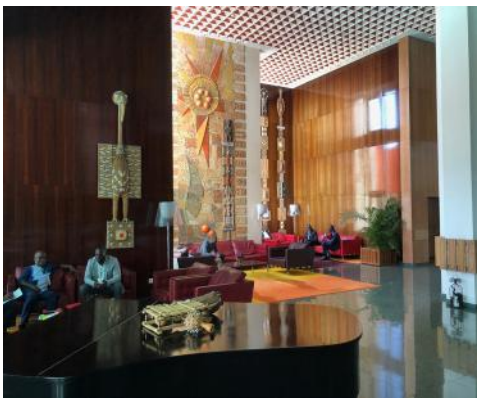
Left, we stopped at a bakery to check out what they were selling as croissants. These are more sweet buns than members of the Viennoiserie pastry family. We drove back to Depa to watch David process cocoa beans. Lower left, two young men of Depa are playing a game of checkers. Lower middle and right: Tom demonstrated how to temper chocolate as it comes out of the mélangeur.


Thursday morning, before we set out on the road back to Abidjan, we stopped at Depa just to take a few pictures of the rice hulling mill that we built in 2013. Many thousands of kilos of rice have been hulled in this facility, as have coffee beans as well. The facility has never required additional financial input since its inception, despite the $2,000 electric motors having been stolen on two occasions. Now, they take the machine apart at the end of every day and move the motor to a neighboring house that is surrounded by a high wall.

Left, a woman of Depa shows off all the bags of rice that have been hulled in the last 24 hours. We arrived back in Abidjan during rush hour. We had just enough time to stop by the central offices of the Conseil de Café et Cacao and talk to the Executive Assistant to the Minister. She told us to stop by in the morning. Friday morning we went straight to the Conseil. We were able to talk briefly with the vice-minister, who told us that the conseil only concerns itself with large orders. A single container is nothing they would trouble themselves with. Instead, we were told to consult someone who specializes in exporting small amounts.

Afterwards, we visited the Eglise St. Paul, which is truly a remarkable piece of architecture. The church holds about 3000. The stained glass window (middle) shows the first two missionaries to land in Ivory Coast in 1895. they quickly succumbed to malaria. The floor of the cathedral flows down the hill while the ceiling soars and is supported by 7 beams corresponding to the 7 sacraments of the Roman Catholic religion.




On Saturday, we spent much of the afternoon sitting in the same restaurant that we had visited the previous Saturday. Located right on the beach east of Port Bouët, the food is excellent and the beach is great fun to walk along. Surfing is lousy because the waves crash too far in. However, there are lots of horses for rent!

Ben and I separated at the airport, as we were on different flights. But it was a great trip, and for that, one must say ...

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DE-COLONIALIZING CHOCOLATE

We all love chocolate. If you don't, you're either allergic or you have mistakenly linked guilt with pleasure. As sweet as it is, however, chocolate does have bitter notes. And one of them is the intense human suffering that began with the Spaniard conquistador, Hernán Cortéz and quickly metastasized to Portuguese colonies in West Africa. The legacy of suffering continues to this day; the average West African cocoa farmer earns but $200 per year. Child slavery and Worst Forms of Child Labor dominate the industry.

Instead of facing the facts, the chocolate industry is now diverting our attention, blaming the poor cocoa farmer for environmental degradation over which he has little control. It's a new type of colonialism, where large corporations routinely engage in bait and switch tactics in order to maintain the status quo. It is the status quo that keeps one's mammoth supermarket and theater bars cheap for the pocket and bad for the health.

Twenty years ago, some consumers woke up to the ugly realities of the chocolate industry—that is, the use of child slavery and Worst Forms of Child Labor (WFCL). The result has been a significant investment in the Fair Trade™ logo and a significant penetration of the chocolate market. However, Fair Trade™ still remains a minor part of the chocolate industry. Big Chocolate was able to use obfuscations such as Fair Trade's premium and price floors being anti-competitive and socialist in nature.

Since 2006, Project Hope and Fairness, a charitable non-profit founded by an Oberlin grad, Tom Neuhaus, has investigated ways to de-colonialize chocolate. Currently, one factory established in Depa, Côte d'Ivoire, is producing chocolate for local sale and also for export. The hope is to establish a total of 7 chocolate factories by 2020. The farmers who sell their beans to such factories, who previously earned 1 cent on the retail dollar (2 cents under Fair Trade™) stand to earn far more and their children will have jobs in their own village instead of seeking their fortunes in Europe while ending up in camps where disease and despair dominate.

HISTORY OF CHOCOLATE COLONIALISM

Beginning in the early 15th century, Europeans worked hard to colonize Africa. Much of the impetus for this was the competition between European city-states such as the Byzantines, the Venetians, the Genoans, the Portuguese, and the Dutch to increase their control over land and trade routes. During the colonial period, foodstuffs with good shelflives—salt, sugar, molasses, rum, spices, tea, coffee, and cacao—that could be stored in the holds of wooden ships or packed onto camels were traded in the great commercial capitals throughout the Middle East, Europe, India, and China.

Cacao was one of the foods that lent itself to long transport with minimal spoilage. Unlike coffee, tea, and sugar, which began in the Middle East and Far East, cacao began strictly in the New World. The Amazon river basin features the greatest number of genetic variants of cacao, which is strong evidence that the Amazon is its botanical home. The fruit, resembling a diminished American football, was greatly appreciated by hunter-gatherers living in the basin. However, as the plant moved North into Central America, it gained in status—from fruit to currency. The inner seeds became the most valuable part and, fermented and dried, the seeds doubled both as enticing beverage (chokolatl) as well as currency for multiple civilizations throughout Central America.

Not only did cacao store well, but it was easy to grow on plantations and fit the Spanish encomienda system. It was developed in the early 16th century by the Spanish crown to create haciendas or plantations where Christianized Native Americans and later African slaves could produce items whose sale would enrich both the encomenderos and the king.

The Spanish colonial chocolate system consisted of a value chain that began at the plantation, where beans were grown, fermented, and dried. The next link in the chain was transport to the Old World, and finally the third link ended with production and consumption of hot chocolate. Solid chocolate as we know it today was developed in the early 19th century.

Hot chocolate is thought to have originated with the Olmecs more than 3,500 years ago. They made it with roasted, ground beans mixed with cornmeal and boiling water, then flavored with hot chilies. The result was a frothy beverage; for the commoners, hot chocolate was thick and just a little foamy, but for the aristocracy, it was thin and frothy.

Consumption of this beverage provided fat calories that lasted hours and, coupled with a caffeine derivative called theobromine, it had strong pharmacological effects. The Spanish, recognizing its value both for sustenance and pleasure, added milk, sugar, and vanilla and subtracted corn and chilies to make a beverage resembling the hot cocoa we enjoy today.

One of the main drivers in making hot chocolate commercially acceptable was the pronouncement in 1662 by Pope Alexander II "Liquidum non frangit jejunum," meaning "liquid does not break the fast." The papal edict allowed wealthy women to comply with the periods of fasting mandated by the church calendar while also enjoying life. Hot cocoa became a more genteel form of suffering for wealthy Spanish Christians.

The custom of drinking hot chocolate rapidly expanded all over the European continent. The best families had servants trained to make the beverage. And hot chocolatiers plied the streets with tools for roasting cocoa, grinding it, and whisking the beverage into a foam. In the more democratic England and Holland, where a large middle class thrived and competed with the aristocracy, hot chocolate joined tea and coffee on the menus of coffeehouses frequented by the burgeoning bourgeoisie. By the end of the 18th century, all three beverages were prepared from the beans or leaves of plants grown on enormous plantations and staffed by Third World labor.

THREE SOCIOCULTURAL EVENTS THAT SHOOK THE CHOCOLATE INDUSTRY

Beginning in the late 18th century, three sociocultural events shook the chocolate industry. The first was the French revolution. Based on the principles of the Enlightenment, it broke the stranglehold of the Roman Catholic Church on French society, which until then had imposed a hierarchy of white male domination. After causing the lopping off of 60,000 heads, the principles of liberté, égalité, and fraternité trickled across Europe, eventually leading to abolishment of slavery in England and then a generation or two later in the global sugar and chocolate industries.

But abolition could not have happened without a third event—the industrial revolution. It was the harnessing of water, then steam, and eventually oil and electricity that made it possible to design and manufacture machines that would increase production efficiencies to the point that slavery and other abusive labor practices were no longer needed. Even paid labor was greatly decreased. It is now possible for one person to run a chocolate bar line that starts with molten chocolate at one end and finishes with wrapped bars nestled in retail boxes and set into shipping boxes. Thus, a single well-paid worker can produce in one 8-hour day chocolate bars ready to ship and sell whose value is approximately tens of thousands of dollars!

CURRENT COCOA GROWING REALITIES

Such is not the case with the cocoa bean upon which chocolate is based. The producers of cacao, while not usually slaves, still work for wages that cannot support a family. Because the cocoa tree requires huge labor in terms of trimming, weeding, harvesting, fermenting, and drying, much of the labor involves the farmer, his wife, and their children. West African cocoa farmers now produce well

over 65% of the world's cacao, most of it belonging to the Forastero variety, also called the "bulk bean." It is grown by 2.5 million smallholders, farmers with less than 5 acres of land—mostly in Côte d'Ivoire and Ghana--which produce 61% of the world's cacao. Thus, when you bite into an inexpensive bar of chocolate, one purchased at the local movie theater or supermarket, you are consuming the labor of 2.5 million farmers and their children.

West African farmers plant their trees 1.5 to 2 meters apart, which means that between 400 and 485 trees grow per acre. A single tree produces on average 40 pods and each pod often contains about 40 beans. Because a dried cocoa bean weighs close to 1 gram, this means that a single tree yields about 1.6 kg of dried beans annually and an acre potentially yields between 640 and 776 Kg. This means that an acre of West African cocoa yields between 0.64 and 0.776 metric tons. Cocoa currently sells for $2135 per metric ton, so a single acre grosses between $1366 and $1656 annually.

That money must pay for chemicals applied to the plants and for the farmer's family. In Côte d'Ivoire, the average farmer grows 1 or 2 cash crops (usually cacao and coffee) and then 6-8 crops for sustainability (bananas, plantains, cassava, okra, corn, rice, sweet potatoes, and African yam). Clearly, this is no recipe for prosperity.

THE ELEPHANT IN THE ROOM

Until 2,000, the chocolate industry was content to ignore the elephant in the room—that is, the poverty of the West African cocoa farmer. But starting with a number of exposés such as The Dark Side of Chocolate (available on YouTube) concerning the prevalence of child labor in the cocoa growing industry, the large chocolate corporations such as Hershey, Mars, Barry-Callebaut, and Nestlé formed several non-profits, the most important being World Cocoa Foundation. Their efforts have focused mainly on biodiversity and environmental preservation, ignoring the elephant. Those with a cynical bent might suspect that large companies have but one goal in mind: keep cocoa cheap at all costs and keep the production of chocolate out of the Third World. In the short run, the companies seem to use diversionary tactics to deflect attention from family poverty and child labor issues while in the long term funding research into converting cocoa to a plant that can be cultivated on tens of thousands of acres. The long game, in this cynical view, is to remove the farmer altogether.

Blaming deforestation and loss of biodiversity on the cocoa farmer is especially hard to swallow when you've personally watched ships leaving San Pedro, the Ivoirian port that exports almost 40% of the world's cocoa. On those ships one sees cocoa-containing containers stacked 4 layers high rimming the sides of the deck with giant logs from the rainforest plunked down in the middle. Those logs are put there by various forestry corporations having nothing at all to do with cocoa farmers but having to do with furniture and flooring manufacturers throughout Europe, the U.S. and the Far East.

Meanwhile, the largest chocolate producers such as Hershey are purchasing UTZ-certified cocoa, which guarantees no price floor or premium. The fair trade market has stagnated at 15% of total cocoa traded, and the amount of money farmers earned through Fair Trade sales remains inadequate. Despite all the certifications and all the pretty and feel-good logos decorating chocolate packaging, the African cocoa farmer remains in the bottom quintile of global wage earners, unable to purchase anti-malarial medication to save his children from a very painful death.

So. Back to the elephant. What to do? How can we bring the African cocoa farmer out of poverty?

First, it's important to state that many world leaders act as if they see no future for small farms in Africa—or anywhere else for that matter. See "The Unholy Alliance" by the Oakland Institute; their report covers the ways that major donors pattern their contributions to make Africa more friendly for large corporations and more hostile for small farmers.

If we are to bring the African cocoa farmer out of poverty, we have to recognize that the emigration of so many sub-Saharan Africans (over 100,000 per year, of which 2,000 drown crossing the Mediterranean) is a bellwether of things to come. Just as forest fires sound the alarm for global warming. But to fix it, we must not think of this problem as the new normal.

HOW PROJECT HOPE AND FAIRNESS STRIVES TO FIND ANSWERS

Since 2006, Project Hope and Fairness has been striving to find answers. In the beginning, PH&F, a 501 (c) 3 was established to expose American university students to the realities of the cocoa business, to transcend so much of the disinformation spread by the news media and by non-profits with so many axes to grind.

For this author, much has been learned after 12 years of travel to 12 villages in Ghana, Côte d'Ivoire, and Cameroon. Most of it has centered around a single truth: development must occur at the local level and must not trickle down from on high. As Dambisa Moya said in her life-changing book, Dead Aid, most development does more harm than good because most of it focuses on the benefits to the giver rather than to the recipient. To be effective, rural development must target the individual farmer, not city folk, and certainly not corporations and those who wish to change the world must figure out how to maintain a continuing presence. This is the hardest part of it.

In the spirit of local development, PH&F purchased $11,000 of chocolate making machinery for the village of Frami, Ghana. The author spent better part of a week setting up the factory, meeting with the chief and all the village officials. But once back in the U.S., the entire project collapsed. Why?

To listen to the village officials, it's because PH&F didn't leave enough cash to run the thing. But anyone who has done such projects knows that successful development involves 90% cooperation and 10% cash. We had driven back and forth, purchasing machinery and solving production problems (such as electricity generation with a Honda diesel generator). The village supplied their best house—one with an actual concrete floor. We had met with village officials, including the chiefs of five villages, who had all agreed to work together to make a little chocolate factory and shop on the side of the Cape Coast-Kakum road that would cater to busloads of young tourists. Certainly a great idea! Lots of cash and cooperation. But not enough of the latter.

My takeaway is that much more than personal commitment of one, two, or three persons is required to ensure success. While the vice-chief of Frami had committed to it, that was not enough. While the big chief said, "We'll make you proud," that, too, was not enough. It is possible that petty jealousies between the villages led to ultimate failure. There simply was no governing structure to ensure that the project would survive. Otherwise, chaos reigns. Or, as Chinua Achebe said, "Things Fall Apart."

We have had much better luck in Côte d'Ivoire. This is due to one person: David Logbo Zigro, with whom we have successfully communicated since the beginning of the project. In 2012, after 7 years of annual visits to their villages, the author asked the chiefs and elders of Depa and Pezoan, Côte d'Ivoire to submit plans for a small factory in each. The factory would be split in half—part of it for hulling rice and the other part for manufacturing chocolate. The rice hulling portion would represent a direct cash benefit to each village. The forest peoples of the Southern half of Côte d'Ivoire all grow rice, which is planted in low spots in the jungle. Millions of women throughout all of West Africa spend hours each day in some rice-related activity, whether it is tending the rice fields, drying the rice, or pounding it in mortars and winnowing to remove the hulls. A village rice mill can save women thousands of hours associated with the time-consuming task of pounding and winnowing rice. And the fact that women from miles around will come spend money at the mill can add important cash to the village coffers.

The rice mill also doubles as a coffee mill, which means that it adds still more cash to the daily village economy.

The second half of each factory is the chocolate-producing area. This houses five machines that process cocoa beans and manufactures chocolate that can either be formed into disks and bars but also can be sold locally or exported as *Seven Villages Chocolate*. The five machines, which are designed and manufactured in Abidjan are:

1. Roaster: This measures about six feet in height, six feet in length, and about 4 feet in depth. A stainless steel cylinder rotates inside and a propane burner bathes the cylinder, producing a gentle roast in order to dry out the beans and to make them easy to crack and to winnow.

2. Cracker: breaks the beans into fragments called "nibs".

3. Winnower: vibrates the nibs while sucking air above them, thereby removing hulls.

4. Grinder: converts the nibs into a liquidy paste known as kakaomasse or masse de cacao or cocoa liquor

5. Mélangeur: grinds cocoa liquor, sugar, and cocoa butter into chocolate. This is the limiting step. Depa's mélangeur produces 40 lbs of chocolate every 48 hours, which means Depa's chocolate production is limited to 120 lbs per week or approximately 500 lbs per month.

The total cost of each factory is: $15,000 for the building, which measures approximately 900 ft2. The rice huller, which is a Chinese machine, costs $10,000. And the five chocolate machines, manufactured in Abidjan, amount to about $25,000. Finally, linking to the electric grid, which includes purchasing a meter for 220 three-phasea electricity, needs $3,000. Total cost is $53,000.

In the long term, our plan is to build factories in 7 villages and to brand their products as Seven Villages Chocolate or in French: Chocolat des Villages. One, there will be an air-conditioned store in nearby Issia, population 40,000, where chocolates will be sold. The store will feature truffles whose ganaches (fillings) are made with African ingredients. Two, we will introduce a line of African cocoa mixes. Right now, Nestlé has the monopoly for cocoa and sells its Milo to 1.2 billion people. We want to nix that monopoly! And three, we hope to sell Seven Villages Chocolate wholesale to American and European retailers.

Our hope is great. Our resolve is great. Let's be frank: It is time to de-colonialize chocolate!