

## Gathering Honey and Keeping Bees in Mali: The Old Way

*High on a cliff ledge in the dark of night, an enraged colony of African bees roar an arm's length away. At this point, the design of a torch is everything.*

Before starting my beekeeping assignment in the Farmer to Farmer program of Partners of the Americas in Senegal, I spent several weeks in Mali exploring, on a small scale, the relations between the African honey bee and the people. As a retired beekeeper from a small family business with only 500 hives at our peak, I was interested in small-scale operations typical of that country.

In Siby, a town about an hour southwest of Bamako, the capital, my guide and translator (for French and Bambara), 26-year-old Mallé Minamba and his uncle, Karashaw Camara, led me on about a 6-mile walk through a woodland of mango trees, over a rim of granite cliffs, out across a lava field to a small one-family settlement called Dèguèdè. Here, we met Adama watering a plot of onions while standing within his hundreds of acres of orchard (orange, lemon, fig, coconut, and banana). He had a gas-powered pump running at a shallow well. In his sixties, Adama—it was clear—was one of those people who works when it's time to work and works when it's time to relax. "He's done this all," Minamba told me, "for his children. But they don't want it. They want to go to school."

Adama's bees are *koralen*, that is, in Bambara, reared in the old way. He showed us three of his millet-stalk skeps. These conical skeps were lodged on their sides up in trees, where they posed less threat to livestock and people. Nevertheless, we had these aggressive bees striking our heads some 50 yards away from the skeps.

Using millet stalks instead of braided straw, Adama builds 4- to 5-foot-long teepee-shaped structures bound at the wide end around a metal plate (used for forming windows in their adobe homes); this plate is about the same size and shape as the lid for a 5-gallon pail. At the other end of the skep, the millet stalks are tied in a single fist-sized bundle. The millet stalks are layered enough so that the only bee-sized opening in the skep is a 3/4-inch hole that has been drilled or bent into the edge of the metal plate. A chunk of comb has been placed inside the skep to attract a wild swarm.

Adama has 40 such skeps distributed throughout his orchard. He harvests honey in March by setting the skeps on fire at night. He lets them burn until the bees are dead or have fled. Then he removes the honey, leaves some comb intact, replaces the burned millet stalks, and restores the skep to its place in the tree. According to Adama, the skep is quickly taken over by a swarm. A skep can be refurbished seven or eight times before it must be completely rebuilt.



Adama, Malian farmer, orchardist, beekeeper

I found this supposedly “primitive” system impressively efficient. With a minimum of labor and materials and with zero management, Adama and his helpers may harvest up to forty skeps in one night and take 5 to 20 pounds of honey per skep. And although the skep colonies are destroyed or decimated, a floating surplus of available swarms repopulates his system. For Adama’s purposes and interests, a change toward the Kenya top-bar hive or Langstroth might not constitute progress at all.

To my mind, the major shortcoming of Adama’s skeps is in maintaining an aggressive bee. By killing productive or more tractable colonies, there can be no selection process for improving the stock. In fact, a tradition of honey robbing over thousands of years may have shaped the special aggressiveness of the African bee.

Another beekeeper in Siby owned three Kenya top-bar hives. Minamba and I walked with Sidy Koné the several miles to his fields, where he had the hives lodged in separate trees. One hive was dead or abandoned, and the other two occupied. We could not inspect the colonies, because his smoker was broken. With these three hives, Sidy must cut and destroy the comb to extract honey, but he does not have to kill colonies or queens. Accordingly, he has the means to make splits for new hives and propagate queens with milder, more productive workers.

In Dogon country, the Bandiagara Escarpment, a big cliff of pale orange, yellow, and red, runs for well over a hundred miles. Over a hundred villages of stone and adobe occupy niches at the top and foot of the cliffs and slope. In clefts, under the large overhangs, ancient cliff dwellings are evident everywhere, remnants of the Tellum civilization, now extinct. In many inaccessible (and some accessible) cracks on the cliff faces are adobe urn-shaped structures or facings where the Tellum put their dead. Wild African bees colonize many of these ancient graves.

Honey gatherers regularly raid accessible colonies. In Begnemato, my guide, Bahini (Sékou Abou Kader Sanou), and I accompanied Andre Togo on one of these raids. First, I had to get permission from the chief of Begnemato, then pay 10,000 African francs (about \$20); some of this money went to Andre and the rest to the village, because these colonies are considered part of the village commons. Additionally, the chief wanted to be assured that this exercise was not a tourist demonstration but would serve instead as a basis for exchanging information on keeping bees and handling honey. Before the honey raid, we had visited from below four active colonies in the cliff.

An hour after dark, we met at Andre’s house. He had a leather or rawhide bag with a long shoulder strap and a 3-4 inch bundle of millet stems (pencil thin and bamboo stiff) about 7 feet long. We followed him to the cliff and climbed up a draw to a ledge near the bees. Lodging a flashlight between his jaw and shoulder, Andre tore limbs off a green shrub. Then he stripped lengths of the bark from the limbs. With each strip, he made a double wrap around the millet bundle and tied them with a double granny knot. He spaced the five of these wraps a foot or so



A skep of Adarna's



Sidy Kone, one of the Siby beekeeper



One of Sidy Kone's Kenya top-bar hives in a tree

apart. He slipped off his shirt and jacket, so that he was naked to the waist. Beneath the ledge where bees lived, he broke off the seed heads of the millet and lit them. In the fire, he ignited the stem ends of his torch. Then he climbed up a ten-foot face to a second ledge that extended well out over a 30-foot vertical face. Squatting on a small, sloping platform of stone, he pushed the flame to the rock-plugged hole of the adobe facing where the bees lived. After a few minutes of this, he pulled the two rocks out to expose a square hole about 4-5 inches on edge. He pushed the torch into the hole and held it there 15 sec or so, then pulled it out, blew it into flame and thrust it back in the hole. When a few buzzing bees crawled out, he mashed them with his fingers.

I could hear the roar of bees from below. I wanted to get closer, but I couldn't scale the face under the second ledge. I made several attempts but only succeeded in banging my camera against the rock. I asked Bahini for help, and he boosted me high enough to get a purchase and pull myself up. I was apprehensive about occupying a ledge where I would need help to escape, should the bees escape. The other nagging thought was how to see below for putting my feet. For that, I needed a butt lamp instead of a head lamp, and eyes in my feet. The roaring of bees also impressed me. The entire scene seemed ridiculously precarious. How Andre dealt with such misgivings, I hadn't a clue.

I crept up behind Andre, who continued blowing and thrusting his torch in bouts. After 10 to 15 minutes of this work, Andre succeeded in getting the torch in farther and farther, even though the bees sounded no farther away. At length, he pulled the torch out and slipped his arm in to retrieve a chunk of comb about twice the size of his hand. He put it in his bag and thrust the torch back in the hole again. I was grateful there was no other entrance from which the bees could spill. Andre remained fastidious about the torch; he attended to it constantly by blowing and by sliding the bark bands up toward the flame, where they kept the millet stems tight at the burning end.

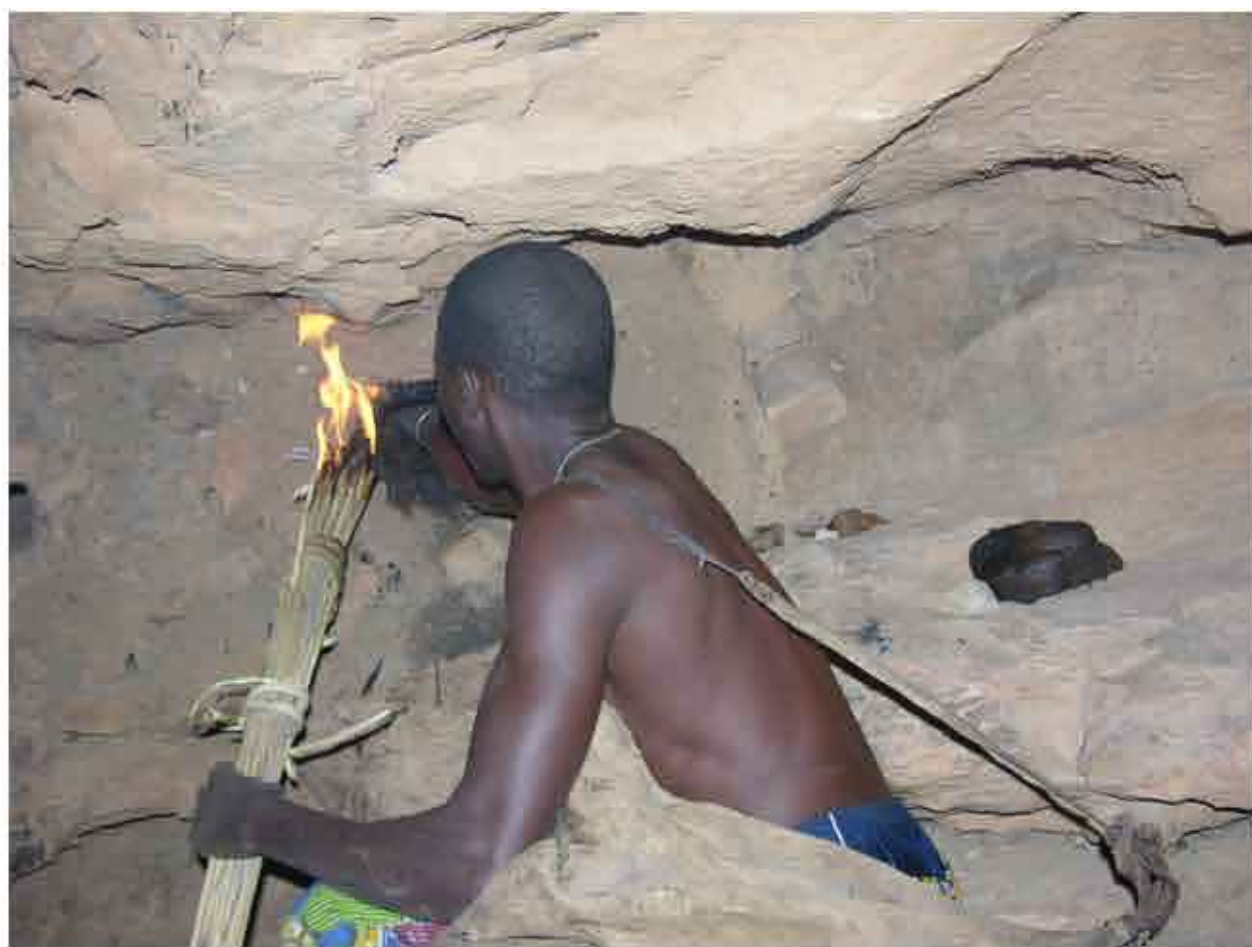
Methodically, he pulled out handfuls of comb; the empty comb he tossed off the cliff. Eventually, the bag was almost full with the whole process taking about a half hour. He replaced the rocks. I scurried back to the end of the ledge, lowered my camera to Bahini, and then had him help me slide down. Andre came down swiftly with his backside to the rock.

I took several photos of Andre with his treasure. Then we went back to his house, where he sat us at his courtyard table and served us big chunks of comb honey. Bahini ate two pieces as big as his hand. I had a small piece. The wax was dark, perhaps from exposure to the torch. The honey was mild and of a high quality, according to my palette. The pollen was bright orange. The brood was beautiful, a uniform array in every stage from to egg to capped worker brood with no drone cells or any imperfections.

I told Andre about the value of wax, and I think he saved what we had chewed. The idea of using wax to make polish for the wood sculptures and masks crafted there seemed to appeal to



Andre Togo with his torch in front of the colony entrance



Andre about to thrust the torch into the colony entrance



Andre pulling comb from the wild colony



Andre showing Bahini and me what he's gathered

him. Also, I queried him about his honey spoiling. He considered all flavor differences could be attributed to the nectar source. I told him about the dangers of fermentation, after he described his extracting process of adding boiling water and squeezing the resultant mass through cloth.

In the end and in sum, I found myself in Mali less an evangelist for modern techniques in bee management and more of a student. The most useful information I had for them, perhaps, came in relating how to save, use or sell beeswax and how to extract honey so that it does not ferment.