

Chapter 6. Lemurs and Rocs

Paul Martin asked if I wanted to come along on the trip to Madagascar. Of course. There was a matter of money and my job, but since I had not yet rented a place my salary would cover the expenses and it did not take much to convince the administration I would bring back worthwhile collections and do worthwhile research. We would go to the arid, desert-edge south end, a place I thought would be analogous to Sinaloa or southern Sonora, the dry end of tropical deciduous forest or thorn forest. The transition from tropics to desert was a strong focus of my work.

A quick look at some species lists and I saw friends, succulent species of *Aloe*, *Alluaudia*, *Euphorbia*, *Pachypodium*, and *Kalanchoe*. But many of the species weren't little plants to put in pots but full-blown trees the likes of which I had only seen in books. I got immunizations, film, a French-English dictionary, anti-malaria pills, and a disguised money belt.

Before leaving old Herbert Friedman, the museum director who prided himself on being an old Africa hand (I thought colonial and tired), called me down to his office and handed me a scroll tied in red ribbon. What is it? It's a "dago dazzler." A what? A dago dazzler. What's it for? Well, if you get into a sticky situation it might come in handy. It had legal-diplomatic-speak in elaborate large print on impressively thick paper of a golden glow like faux parchment embossed with County of Los Angeles seals, some Latin phrases, and a bunch of ribbons like the ones you see stuck on old soldier's breasts. I thanked him and never intended to use such a ridiculous thing.

Pierre, a recent Ph.D., Paul, and me. Pierre and I would meet Paul in Madagascar. I arranged for us to visit the Jardin Botanique Les Cèdres at Saint-Jean-Cap-Ferrat. Monsieur Marnier-Lapostolle's private botanic garden. He was a gracious host. Cap Ferrat is a peninsula on the Côte d'Azur almost surrounded by water and nearly frost-free. The enormous château was more elegant than anything I ever imagined. Impeccably tended gardens cascaded down innumerable terraces to the blue Mediterranean where a great white yacht moored at the private dock. Onassis and Jackie.

There were 25 heated greenhouses and 25 gardeners and specialists. A warm orchid house, an intermediate orchid house, a cool orchid house (for highland tropical species like *Odontoglossum*, *Dracula*, and their relatives), a rainforest bromeliad house, a

dry/tropics bromeliad house, several cactus houses, and the main object of our visit – the great Madagascar collection housed in a very long greenhouse. It was the first time I had seen a botanic garden that exceeded expectations. Marnier-Lapostolle was the largest liquor distributor in Paris. He was interested in obtaining information and additional sources of plants from Madagascar.

Curt Backeberg worked in the library at Les Cèdres, describing new species of cactus often based on not much more than enthusiastic intuition, much to the chagrin of card-carrying taxonomists. Backeberg knew virtually every species of cactus on earth and his intuitions and unconventional taxonomy was sometimes of merit. His six-volume, 4,000-page *Die Cactaceae*, 1958–1962, is a classic. When I went to check out all six volumes out of the University of Arizona library, the librarian asked if I was going to read all that German. No, not really, just the Latin.

We went on to Athens, made like tourists and the last evening in the plaza in front of our hotel the lights went out, steel shutters slammed shut on shops and cafés, and everybody disappeared. Gunshots rang out. My first insurgency. The next day we headed for Madagascar on Air France with a bunch of stops. Paul met us at the airport. The plane seemed bigger than the airport.

Antananarivo, the Malagasy capital, runs up and down hills of red rusted tin roofs and low French colonial buildings and an occasional small high-rise. Streets and roofs fresh washed in a late afternoon tropical rain of soft sunlight. Papayas and mangoes and straight-backed women carrying babies and baskets and chickens and Malagasy music and speech among the French. I wandered through the marketplace in the narrow streets below the hotel and lost count after more than two-dozen kinds of bananas of diverse sizes and colors. Antananarivo seemed like a magical post-colonial miniature. The new republic was still tightly gripped by France.

Food was French with enough Malagasy spices and tropical fruits to make it seem like heaven, and good wine was cheap. Next day was the herbarium, botanic garden, and zoological garden and researchers therein. The herbarium had a French inheritance of impracticality. The specimens were tied up in bundles and in open-air wire bins that went way up so you often needed a ladder. I remember there wasn't enough light (I later learned to carry a flashlight) and data on the labels was often scant and not very useful. Yet I got to see distinguishing features of a few key species. Many of the arid land plants that held my interest were not grown in the local botanic garden because it was too wet. Paul had long conversations with some of the zoologists and it was fun to see lemurs that we might see in the wild.

The flight to Tuléar in a prop-engine Air Madagascar (they recently changed their name from Mad Air) took us over red eroded land of no towns. It would have been 800 to 1,000 years ago that early settlers from Asia burned the forests and the topsoil slid into the sea. Tuléar is the only town on the southwest coast. (The name was later changed to Toliara.) We were transported in a Land Rover to the French research station at the edge of town. The place was nondescript and basic except the two-hour lunches. One time a ceiling gecko missed its fly and fell into the soup tureen.

Not far from the station a little low hill of whitish gravel revealed low clumps of several species of succulent *Euphorbia* species, some of them named and described by Backeberg. It was also my first encounter with *Euphorbia stenoclada*, one of the many leafless euphorbia trees, but this one has sharp spines that no matter how careful you get your clothes and sometimes flesh ripped. Paul pointed out the gravel was made up of *Aepyornis* eggshells. The first waves of immigrants about ten centuries ago feasted on these huge eggs. It must have taken a million or more meals to make this midden heap.

The American Museum of Natural History wanted an *Aepyornis* egg, the largest single cell ever, from the world's largest bird. A ratite, like an ostrich, but weighing up to 1,000 pounds and said to have inspired the biblical legend of the roc. The locals were using the eggs as water bottles as late as the nineteenth century. These were from *Aepyornis maximus*, the elephant bird, the largest of the perhaps dozen so species, known only from Madagascar and extinct soon after people arrived. Every so often shifting dunes expose a whole egg. One or two were available for around \$800, but the American Museum would only pay \$500.

For the next few weeks we drove around the arid south end of this miniature continent on dusty roads, often no more than narrow tracks across arid plains. Sometime driving all day and not seeing another vehicle. The villages had no electricity. We stayed at Muselmen "hotels," which were less than basic, and were the only guests. Narrow cots in one large room upstairs, plain unpainted weathered wood, windows without glass. Oilcloth covered a rickety table downstairs. Dinner was rice and sweet termites, and an occasional small chunk of meat. Sometimes we had to advance funds for the proprietor to purchase the rice. So dark after sunset that there was not much else except to try to go to sleep, which my usual insomnia prevented.

One full moon of late night insomnia I heard drums. I put on my shoes, crept downstairs, grabbed a big dog stick and headed out but didn't find the music. You carry a dog stick because their large dogs are not friendly. As dawn approached I sat wide-eye tired on a sandy bank with my back up against the thick trunk of a tamarind tree. By and by a troupe of about twenty *Lemur catta* ambled single file down an adjacent limb and

walked right in front of me in no particular hurry. Evenly spaced, these ring-tailed lemurs held long tails flag upright, banded raccoon-style black and white. Long snouts like a *coati mundi*. Every so often one would turn and play or swat a teammate. They weren't gone more than ten minutes when a troupe of more than ten sifakas came along the same route. Their routine was lively and dignified. The largest living lemurs, they walk upright. These robust animals have a long white tail, white body, and human-like faces and big eyes set in a black bandit mask. They tumbled and jumped and one leapt from above to land almost at my feet. I remained motionless as several of them gave me a close inspection and then bounded off to morning activities. I climbed in bed just as Paul admonished me to "get up, lazybones."

Red dust enveloped the Land Rover as we drove across the Betioky-Ampanihy plains of low scrubby vegetation dominated by rounded, succulent euphorbia bushes. For more than an hour we could see a tower on the horizon. It turned out to be a giant baobab. There were a few scrubby acacia trees nearby and colonies of a *Stapelia*, a member of the milkweed family that produces large, starfish-like fly-pollinated reddish brown fleshy flowers that stink like rotten flesh.

A young Mahafaly guy came out of the bushes with his big metal spear and wearing the usual loincloth and smile. Unable to exchange even a single word, I offered a few cigarettes, which made him smile even more. The government has draconian laws against growing tobacco, so it can get taxes. The locals crave cigarettes they cannot afford. I wish I could have talked to him about plants. He hung around for a while and I gave him the rest of the pack. (I had learned the cigarettes were the best friendship gift.)

The baobab had a straight, immensely thick bole unbranched about 85 feet tall, with thick stubby branches stuck on top of that gray-brown shaft. Leafless now in the dry season. At ground level on the north side was a hole, barely big enough to wiggle through. Once a door, but the softwood trunk had grown around the entrance making it smaller. The trunk was hollow like a cathedral all the way up to the branches. A hole near the top let in a shaft of light. Disk-shaped stones, each about 18 inches across, were set neatly and evenly against the wall all around the room. Paul thought he might find bones of extinct animals in the floor, animals that were alive when the tree was young. Hanging from the ceiling was a dung-bombing flock of megabat endemic flying foxes. Paul's mission to the island was to find evidence of human-caused extinction, to support his theory of Pleistocene overkill. Madagascar would be one of the best places to study, since people arrived here late and the megafauna extinctions followed soon after.

Paul was ever asking after fossils, old bones. At one Mahafaly village he asked one bright young man if there were any old fossils around the village. “Yes, and do you want me to take you there?” Through narrow alleys between high mud walls it seemed like we were backtracking but eventually he led us a hut. He took Paul inside and introduced a withered old woman who gave Paul a wide toothless grin.

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Once, at a small village we were hauled into the police station. It consisted of one not very large room, walls once white, windows too grimy to see through. The jail made up part of the station. A few plastic chairs and a gray metal desk with no papers. The overweight policeman wore a blue uniform shirt and a cap befitting his station. I tried not to be looking under the desk at his bare feet on the bare cement floor. He sat; we stood. He questioned us endlessly and was not satisfied with our answers. Maybe he was put off by Pierre’s Metropolitan French. We were in trouble and nothing was working. I had my briefcase and handed him the “dazzler” old Herbert Freidman gave me—“if you get into a sticky situation it might come in handy.” He held it for a long time, upside down, pretending to read and finally handed it back, shook our hands and wished us well in our travels.

Zebu cattle were Mahafaly wealth. Men spent lives accumulating herds of cattle for funeral sacrifices, to feed the guests. The richer the man, the more cattle and the longer the funeral. Later in the trip we met a man with cancer who had 64 wives—the whole village was his—and already they were talking about it being the biggest funeral in the west. It would go on for more than six months. He had a dozen or watches up and down his arms and rode around inspecting his village on a motor scooter.

As we headed back to Tuléar the vegetation became lower and more desert-like but I would not call it a desert, perhaps closer to thorn forest. To the north it was like the dry tropical deciduous forest of extreme southern Sonora of northwestern Mexico, but with a change in the species and many more succulents. Paul had said Madagascar does not have a thorn forest like dry tropics of adjacent Africa, most trees and shrubs have appreciably shorter spines, rather more like a prick forest because the original native animals were smaller and smaller spines were good enough.

There were some notable exceptions to the small-spine rule. *Pachypodium gayei* is a succulent pole with large spines in the same family as oleander with a head of large leaves present only during the hot summer rainy season. At other seasons this thick pole is leafless. At the time they were still rare in cultivation, although they

thrive in the intense full sun and heat of summertime Tucson. I was enthusiastic when I first saw *P. gayei* sticking up through the dense prick forest of dwarf tree aloes, ocotillo-like didiereas, strange euphorbia trees, fat-bottom adenias, and occasional pseudo-bulbed ground orchids, resembling orchids that usually grow on trees in the tropics. Botanical wonders I knew only from rare potted plants and photos. In my enthusiasm I got clawed by a *Euphorbia stenoclada* and pulling away I tripped and crashed into a bunch of *P. gayei*. For many painful hours I realized they have toxic spines to protect their succulent stems.

One day a dusty track brought us to Ejeda, a village with a Lutheran missionary hospital. Dr. Curt Stolee and his wife Peg, originally from Minnesota, ran the clinic and small hospital. They invited us for a fine lunch complete with canned peas, and then asked if we would care to have some homemade ice cream. That's when I realized what deprivation might mean to an addict. Like other missionary people I have met around the world, they were a lot of fun and hospitable, and offered fascinating local information. After an extended time we said goodbye and I thought about the strangeness of saying goodbye to new friends you will never see again.

I made vegetation quadrats to document species diversity, the numbers of species in an area, and the growth forms making up the vegetation (e.g., number of tree species, shrubs, vines, etc.). I found these numbers consistent with those of the Sonoran Desert region as one goes from tropical deciduous forest into increasingly arid places, and that the number of species towards aridity decline in a predictable manner. The quadrats were 20 by 10 meters and each plant counted or estimated. Some ecologists spend their lives doing quadrats and analyzing the data.

We returned to the French research station in Tuléar. I was contemplating seeing new places such as Andre Diome's lemur reserve, the lush tropics of southeastern Madagascar, and the rocky highlands so rich in strange endemic plants.

Among the botanical attractions of the Tuléar coast is the rich assemblage of seagrass species. Seed plants that grow on the shallow sea floor. We went out in a rowboat. With just a facemask I could see half a dozen species of seagrasses. The water pleasantly warm and crystal clear with bright green seagrasses on white coral sand. Pierre was picking up corals, which I did not approve of. While underwater he handed one to me, not knowing that a black long-spined sea urchin was on the backside. The spines long, thin, sharp, and brittle. I grasped the coral and the spines penetrated my hand. As painful as it was, the spines dissolved. I went on diving, holding my breath, discovering more seagrass. I have always been a good swimmer, having grown up by the ocean. But I was out of practice and should have been more cautious. As suddenly as those sea urchin

spines I felt the unmistakable stabbing pain of a collapsed lung. Unmistakable because I experienced the same thing less than a year earlier during exertion at high elevation in Colorado.

Back at the research station I told Paul I had a collapsed lung and needed immediate medical attention. After even such a short sentence I was gasping for air. Paul told me to calm down, that I was probably just out of breath from diving. I tried to explain that I knew what a collapsed lung was like, and it could be life-threatening. I asked Paul to take me to the local hospital but he and Pierre said I would be all right and not to worry, they would take me right after lunch. Every breath difficult. I knew you might get by on a collapsed lung for days, and sometimes it would heal itself, or it could be hours or minutes and you die. I again told Paul to get me to the hospital. After lunch they were finally about to drive me to town, but Pierre said he was hot and sticky and needed to take a shower. Finally we drive into town. It is a simple operation—insert a tube into the thoracic cavity, pump out the air that has leaked out of the lung, and the lung re-inflates. Depending how long it takes the lung to repair itself, air is kept pumped out of the thoracic cavity. The modern multistory hospital was staffed by Malagasy doctors. A surgeon was on duty but he would not perform the surgery. Not on a white man. What if something went wrong? No, I had to go elsewhere.

The only thing I could think of was to hire a plane to get to the missionary hospital back in Ejeda. I asked Paul to take me to the airport and find a pilot but instead he went back to the field station and said the people there would make phone calls to find a pilot. The pilot was out and would call back. I was experiencing difficulty I did not experience in the previous collapsed lung. I remember staggering, reminding myself not to fall, into the main area of the station where I found Paul and told him clearly that I might make through to the next day but that I could die if the pressure caused the *vena cava* to collapse. He had to find a plane. The afternoon was wearing on. This time it finally got through to him or maybe it was just luck, but a pilot and a plane was located and soon Paul and I were on our way to Ejeda. I repeatedly asked the pilot to fly lower; we were cruising way too high for my compromised condition.

Curt Stolle met us at the little landing field by the hospital and in as few words as possible I told him what happened and tried to explain the procedure. He wasted no time. Later he said he was concerned because my lips were blue. He had never performed such an operation. The last thing I remember was seeing a red fountain and then woke up with plastic tubes sticking out of me and happy to be breathing easy. Paul had returned with the pilot. In the following days I regaining strength and would soon be ready to go home. But my hosts had to leave Madagascar for a few weeks and said they could not leave me

there. The plan was to move me by air ambulance to the French military hospital in the capital.

The last thing I wanted was another plane ride and be stuck in a hospital. But I was in no shape to protest. Curt gave me morphine they put me on the floor of the plane. By the time I got to the hospital in Antananarivo I was only barely conscious with a thoracic cavity filled with fluid. Holes were poked through my back, excess fluid drained, and my lung was functioning. During the ensuing days I had unwanted reactions to large doses of intravenous antibiotics. My spirits and strength were draining. Paul paid me one last visit, said, “you’ll be OK here,” and took off for east Africa. About a week later I thought I was recovering. A young French doctor took me out for a real lunch, but the rich food and overdoing it set me back. I contacted the American embassy and asked them to arrange a private nurse but all they did was make sure I was able to pay my bill. Then an American minister came by with a Bible. I asked him to arrange a private nurse and he replied that Christ is the answer.

One night a barefoot nurse gave me a handful of strange pills. I pretended to take the pills and then got rid of them. I woke to someone in my room going through my belongings and was about to call for help when I realized the help was pilfering. The French doctors left at night. I kept quiet and felt smug that I had left a \$20 decoy in a pants pocket. I had money in a belt that did not look like a money belt.

Finally I managed to persuade hospital officials to let me go and had the foresight to get a few morphine suppositories called pink rockets to use in case of emergency. I think they take everything by suppository—anyway these work fast. A taxi to the airport nearing 11 pm on a rough bumpy road and I started leaking from the last incision and experiencing stomach cramps a la antibiotic toxicity. If I looked sick they would not let me on the plane so I managed a pink rocket in the taxi. At the airport the officials kept me for last and the plane was about to leave, when at the last stop before boarding, the customs agent says, your visa has expired. You have to get it renewed downtown tomorrow. When did it expire? Midnight, and it’s after midnight (12:20). But I am leaving (and the visa was not expired). Sorry. Regulations. C’est? Whatever you wish, Monsieur. All I had was a \$100 bill and I never looked back.

In Paris I was supposed to go to the American hospital but I knew all I needed was no more antibiotic and time to recuperate. I did not think I could make it through doctors’ test and X-rays and more hospital no matter how clean and wonderful.

Only one seat available—first class bargain standby nonstop to Los Angeles on Air France leaving in half an hour. Americans in the seats in front of me complained about the food. I was on my way to recovery.