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Chapter 4. The Guy Who Cuts the Tops off Plants

When my alligators got to be over five feet long they went to the zoo and I went to college. I had been to the tropical deciduous forest around Alamos, with my high school biology teacher^{1,2}. Palms, cycads, orchids, burseras, tree snakes and boa constrictors. I knew where the good stuff was and the University of Arizona in Tucson was as close as I could get. At first the desert held little interest, but then one day I went to Kino Bay and out to San Esteban Island with a friend from the University of Sonora, in Hermosillo. The newly paved road was blocked off, so Hermosillo to Kino was all day in clouds of powder dust enveloping my old Ford and seeping into everything. My camera didn’t work after that. The fishing village at Kino had eight bars but no school. My friend wrote an indignant article for the Hermosillo newspaper.

We went to San Esteban with Porfirio (Pilo) García, a tough fisherman also called “Prieto” because he was so dark. We went in his ragged little *panga* to the south shore of Tiburón Island, and then across open, rough water to San Esteban. I became fascinated with the plants and animals in desert ecosystems in primordial condition. I went back whenever possible, pressing samples of every species of plant in sight, returning to Tucson to identify them in the herbarium. One by one I identified each plant species new to me. Sometimes it was easy, for example if I already knew related species in the Arizona or California desert flora. We did not have many of the excellent identification manuals now available and at times I spent a day or more just figuring out the identity of a single species.

Pilo and his brother Emilio let me go along if I helped pay for gas. One place where we camped on the south shore of Tiburón was the arroyo leading a few kilometers inland to the Sauzal waterhole³. When we started off for the waterhole, Pilo took off his shoes and hid them under a bush behind the beach because he didn’t want to wear out his shoes. We took water bottles to fill and he said this was where the Seri Indians got their water. The trail was littered with pottery sherds, and I noticed they were amazingly thin⁴.

The Kino Bay fishermen told stories about the Seris, and I read and heard other things, much of which I found out were false. On San Esteban, the fishermen pointed out the steep slope high above a sea cliff where long ago Seri men played a game of chicken, careening down the scree on an upturned sea turtle shell. Later I learned that Seri oral history included the same

story. If a guy waited too late to bail out, the first one to yell “your wife is mine” could take her as a second spouse. Of course this story is about the long-extinct San Esteban people whom the other Seris regarded with a bit of prejudice⁵.

A few years later I met Jean and Ike Russell in Tucson and started going to Sonora in Ike’s airplane. Wow! Just a few hours to get to Tiburón⁶. Ike would fly low enough for me to identify plants. On one trip we landed at Palo Fierro on the east side of the island and hiked up to the mountains. I got a lot of new plant records for the island. I carried a small pair of pruning shears or clippers in my pocket and put the samples I collected in plastic bags to keep them fresh until I got back to camp. At the end of the day I would work on my notes and press the specimens—often a rather lengthy affair. This time when we got back to the plane, Ike said we should go to the Seri Indian village of Desemboque. He seemed surprised that I hadn’t been there and didn’t know Ed and Becky Moser.

We flew over to Desemboque in about 10 minutes. Becky claims that the first thing I said when I walked into their house was, “Where can I press my plants?” I suppose I was rather single-minded in those days. Soon after, on another trip to Desemboque, Becky showed me some plants and asked if I knew what they were. Of course I did. She had Seri names and some uses for about 50 species of plants. I thought it would be interesting if I added scientific names and other pertinent botanical information, and we could write it up for publication in about three weeks. Twenty-five years later we finished our book on the ethnobotany of the Seri⁷ although we published various papers along the way⁸.

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I thank the organizers of this symposium for inviting me to participate and share some of my experiences. I want to pay tribute to Ed Moser, Becky Moser, Ike Russell, Jean Russell, and so many other friends who helped change my life and make it possible to record a slice of history, and of course especially to the Comcáac, or Seris as they are known to outsiders, who likewise enriched my life and career.

I am sharing some of my experiences working with Seris—work that culminated with our book on the ethnobotany of the Seri—and some of the people and events that influenced and made that work possible. I am using the first person here since I am telling you a bit of what I did—but please keep in mind this work of course centered around the years of work with Seri elders, and was a fully collaborative effort with Mary Beck “Becky” Moser, and closely involved her husband Ed Moser. Their daughter Cathy contributed numerous illustrations. Certain specific studies also involved others researchers. For example the marine algae (seaweeds) were worked on by James Norris of the Smithsonian Institution⁹.

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I started asking Seri elders about plants, often together with Becky. I asked where certain species can be found, and then more and more detailed questions about plants and local natural history. It did not take long to realize that there was a vast unrecorded knowledge about to vanish. And that the elders knew a lot about plants that no botanists knew.

The kids were interested in pickup trucks and pop culture like teenagers anywhere and there was a truncation of knowledge. Most of the older people spent their earlier years, in some cases the first half of their lives, living off the desert and the sea. They seldom went to a store. They had almost no way to buy things. They could sell a few baskets but that was about it. Then around World War II a road, buyers for fish products, and then fresh fish and sea turtles. They were changing from a semi-nomadic hunting and gathering way of life to the modern world, and settling in the village of El Desemboque del Río San Ignacio and later also at Punta Chueca. Some of the Seris said it was coffee, others said it was sugar, and others said it was outboard motors and gas and oil. Just like anywhere else. No reason they should not want what we want.

So here were these fun-loving people I came to know, and it was fun to fly to Desemboque and Tiburón with Ike Russell, or drive from Tucson to the Sonora coast. It was fun to work with the Mosers, it was fun to go places with the Seris, it was fun to go to the islands with Kino Bay fishermen and Seri fishermen. I made countless field trips to the Seri region, including a total of more than 160 days on Tiburón Island.

I was still a student when I embarked on collaboration with Becky Moser on the Seri ethnobotany, and then tried to keep at it through various distractions including a few academic appointments¹⁰ until I moved back to Tucson. At that time I supported my various research projects on grants and whatever else came along. Ed Janss saved the day. I wrote a grant proposal to the Janss Foundation in Los Angeles after visiting him. Nothing happened and I forgot about it. All other sources of funding dried up and I just about decided that working on Seri ethnobotany was economically impossible.

One day I stopped by to see Tom Bahti¹¹ and he had a fantastic Apache burden basket and I bought it. I brought it home and Mahina said, "It's beautiful. How much did it cost?" I told her and she said, "Now we don't have worry about money because there's none left." As I was opening the usual rotting pile of bills there was a letter from the Janss Foundation with a magnificent check "for Seri ethnobotany." Later, two generous grants from the National Science Foundation, a salaried position at the Arizona-Sonora Desert Museum and the Desert Museum's Roy Chapman Andrews Fund, Jane Ivancovich, and many others helped make it happen.

The noted ethnobotanist Richard Ford of the Museum of Anthropology of the University

of Michigan encouraged me as did Bernard “Bunny” Fontana of the University of Arizona, and Julian Hayden, Jane Ivancovich, Ike Russell, and Jean Russell of Tucson, and many others. You need encouragement, especially when you are young and not sure of yourself. Beatriz “Tita” Braniff of INAH, in Hermosillo, and other colleagues in Mexico likewise provided help and encouragement¹². And of course the Seri elders were the primary encouragement.

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It is important to keep in mind what it was like on the Seri coast only a few decades ago. There was no electricity, no running water, and the outside world was far away. (Later in the story there was running water of sorts in Desemboque. But when Ed Moser was not around, someone had to remember or bother to put diesel in the pump.) The road to Desemboque was rough and slow. But you could stop and camp anywhere, and personal safety was scarcely an issue.

The Mosers’ shortwave radio brought news, usually from Los Angeles. In their little Shangri-la house we heard of traffic delays on Los Angeles freeways and commercials for television sets and dishwashers. From Tucson I communicated with Ed and Becky by sending letters in care of a friend of theirs in Hermosillo who received their mail, and every few weeks they made the eight-hour drive from Desemboque to Hermosillo. Try as they would to explain that they were in Desemboque to work on Seri linguistics—to make it a written language, teach reading and writing in Seri and Spanish, and translate the New Testament into Seri¹³—there was the belief by the Seris that the real reason was that they were working on a gold mine or getting pearls. When they made the infrequent several-day trip to Hermosillo to purchase provisions, it was rumored that they were really checking on the their gold mine or collecting pearls.

Initially I thought that anthropologists working among the Seris must have recorded ethnobotanical information. But I soon learned that they generally skipped over knowledge of animals and plants. Apart from the serious scholars and authors, many of whom are participating in this symposium, it seemed that misinformation about the Seris was the usual situation. I often heard of politically incorrect stories, and even lurid tales of superhuman Seri sexual practices. In fact I learned that they were rather prudish. Bride prices were steep and a girl’s reputation was highly guarded.

The poverty and related problems of the Seris came to the attention of various people who tried to help them. One-on-one mutual help often made a difference, such as Ike Russell’s friend Dr. Bob Thomas and others who from time to time provided medical help. Medical help was also available from the Mexican government but the people had to travel to clinics in Hermosillo or the highway between Kino and Hermosillo. Ed Moser often drove people to one of

the clinics or hospitals, and on occasion I did too.

One of the early efforts to help the Seris—before I arrived on the scene but still being talked about—was an American Friends Service Committee project¹⁴. This project involved a self-help scheme for the Seris to raise chickens, but they regarded chickens as unclean animals and that part of the project went nowhere. Fried chicken in Hermosillo was OK—they just did not think much of chickens at home, scratching about in filth and trash. The Friends project also involved a school at Desemboque. The teacher, Leo Sandoval, was a kind and intelligent man who I am sure contributed to the people in a positive manner. Ed and Becky arrived in Kino Bay in 1951.

The Seris gave creative names to the outsiders that they came to know. Even among themselves there were nicknames only used behind one's back—one Seri woman was known as “Hips-a-meter-wide.” In the early 1970s an anthropologist came to Desemboque and claimed there was a genetic disorder among the Seris that would cause imminent and widespread blindness. They named him “You're Lying to Me.” I was named *Ctam Hehe Iyat Ctaamtim* “The guy who cuts tops off plants,” Ed Moser was *Moósní Ilit* “Turtle Head,” and Becky is “Singing Woman” or “Blue-skirted Woman” (she often wore blue denim skirts) or just plain Rebecca. The Seris called Ike Russell *Mericaana Cacösxaj* “Tall American.” There was a gringo who brought candy to the children and as they grabbed for the goodies he would say “Uno, no mas.” He was called *Unonomas*. A semi-reformed drug-addict thief was called “Dead Flesh.”

The Sonoran islands and most of the Seri coast were unscathed, pristine desert, as if it were still the nineteenth century¹⁵. The warm sea teemed with sea turtles although it pained me to witness their populations plummeting¹⁶. We could camp on uninhabited beaches and as far as you could see there was no sign of anyone else unless you looked down at the pottery sherds.

I remember early one morning in Desemboque, looking out at Seri huts along the beach, upturned wooden fishing boats, the crumbling old ice house, and thinking how fast all this is changing. I realized I had a unique opportunity to record fast-vanishing knowledge. I also knew some changes would be OK and that people are not museum specimens, and tried not to romanticize too much about “the old ways.” On a trip to Desemboque with Ike Russell in his airplane, in 1973, Carl Hodges and a real estate developer friend of his were with us¹⁷. We were standing in front of Desemboque at low tide, the shallow reef exposed at sunset reflecting on the rippled wet sand, the air pungent with the smell of exposed sea life, and squawking seabirds. As I was admiring the glory of it all the developer said, “All this land and so few people.” I knew what he had in mind and a chill crept up my spine.

The question of the Seris holding onto their land, not becoming second-class citizens in their ancestral homeland—I thought about that a lot. Income from fishing and the sale of arts and crafts such as ironwood sculpture and baskets allowed them to earn income—without working

for someone else, which they would not do—and remain on their land. But there were political struggles and sometimes I had a difficult time to avoid being drawn into the fray. I realized if I wanted to complete my work, work I felt nobody else would or could do, that I better stay out of politics. It was not my country and there was not much I could accomplish anyway. I had learned from the Seris to mind my own business. Who am I to make decisions for them? It was easy to rationalize that they had not yet attained enough exposure to the outside world to be fully effective. But every time I stood back and looked at what the situation was just a few years earlier, I saw enormous changes. The Seris were still there and their numbers were steadily growing. Things worked out and the Seris tended to come out on top.

The Seri population had sunk to less than 200 in the 1920s and 1930s, but had more than doubled even before I began my studies there. As I mentioned before, a number of earlier reports tended to treat the people in a negative manner and contained substantial misinformation. For example McGee's late nineteenth-century tome is full of blather and racist prejudice although it also contains useful information, especially the photographs and other illustrations¹⁸.

In the 1930s Dane and Mary Coolidge wrote the "Last of the Seri"¹⁹. They stayed at the rather substantial but ramshackle American sports lodge at Kino Bay, which was largely an escape from the Prohibition era in the United States. The Coolidges' visit was still a part of oral history when I began working among the Seris. Ed and Becky Moser learned that the Seri consultant who Dane Coolidge worked with told things to another Seri who spoke Spanish. And he related the information to a Mexican who translated it into English for the Coolidges. The Coolidges then put together their book on the "exotic" Seri. According to Seri oral history they would get together and talk about what would be fun and interesting to tell the gringos. The amazing thing is how much of it is right on, but it's also interesting to see what the Seri men invented in the 1930s. In contrast, two other early works stand out for their honest observations—Kroeber's report based on his brief field work in 1930 and Sheldon's journal from his December 1, 1921 to January 10, 1922 trip²⁰.

It was an accident of history and geography that so much of the environment and traditional culture was still extant in the latter part of the twentieth century. Mostly it was the lack of fresh water and the hostilities that went right through the early 1930s and smoldered for decades that kept most everyone else away. In the wake of the Díaz regime and the hardships of the Great Depression, racism was in, political correctness had not been invented, and minorities in Sonora such as the Chinese²¹ and Indians including the Seris suffered unspeakable prejudices.

The paucity of fresh water created a unique situation. One summer in the early 1980s there was a time when there was no water in the village of Punta Chueca, along the desert coast opposite Tiburon Island. A Mexican truck driver was hauling water from Kino. He charged some Seris the equivalent of \$10 U.S. for a drum of water and laughed about how he gypped the

Indians. But the Seris thought that was downright cheap. One of the most poignant Seri song-poems has the line “We walked all day and the waterhole was dry.” It was a calamity if a man carrying drinking water back to camp stumbled and fell, and broke the clay water vessels²². The advent of 5-gallon metal cans in the early part of the twentieth century was a great boon²³. Once I found a waterhole just by following a trail littered with pottery sherds. Hiking about on Tiburón Island, the Pinacate, and elsewhere along the Sonora coast, but especially on Tiburón, I often thought that the greatest luxury would be to have all the water I wanted to drink.

It really surprised me to find out that many of the well-known, life-sustaining waterholes were so dinky. I read about the famous waterhole at Tecomate at the north end of Tiburón. The whole bay is called Agua Dulce, as is the whole, wide central valley, which is perhaps 20 kilometers long. The waterhole is shown on the maps, even the oldest ones. The water was so dependable, and right at the shore, that the Seri camp there was essentially permanent. When the Seris told us about plants on the north end of island, it was often in terms of the distance or direction from Tecomate. So when Ike said it’s easy to land there I was really looking forward to seeing this famous waterhole. We landed at the airfield, one of the better ones, and walked over to the waterhole. We took our canteens to fill, came to a broad depression and walked down to the bottom. I don’t know what I was expecting, but here was a little mud puddle covered by a long-dead pelican.

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The late 1960s and 1970s were heady times. As students and young academics we were busy questioning authority and war, opposed to the stupidity of nuclear weapons, and thought we could change the world. Native values were being “rediscovered.” Sometimes there was an unrealistic utopian worship of anything native, anything Native American. I was at a student gathering where a hipster said to a Navajo friend, “How wonderful to be an American Indian” and she said, “Of course, unless you have them as parents.” Sometimes I had to hide the fact that I was working with native people in order to avoid having to bring along enthusiastic followers. I grew weary of armchair idealists interpreting other people’s cultures and even deciding what’s good for someone else. The Seris were just like anyone else but with a different background, some were wonderful and fun to be with, others jerks and obnoxious, some were brilliant and creative and others dullards.

I learned from Tom Sheridan that the ideal in any fast-changing culture is to try to keep the best from the old while taking what you want from the new. But sometimes it didn't work that way. Even so, the hunter-gatherer, water-limited traditional culture of the Seri provided the people with an interesting background for dealing with their fast-changing world. In traditional

times it was water that determined how many people could stay in a place, and when they would have to move on. Often it was only weeks or even less before a waterhole was exhausted. Sometime it would be months. I think people also moved when a place started to stink. Just think, you have endless clean sandy beaches to camp on. You can live by the seashore, move whenever you want, and have all the fresh seafood you want.

But there were downsides to the old way of life, and sometimes there probably were food shortages. More than once we would be out in the desert, or at sea in wonderful weather, in paradise really, and someone is showing how a certain plant is gathered, or we are hunting sea turtles. And so often someone would say, “We were so strong and healthy then, the food was healthy.” (There was no diabetes when I started my fieldwork—or none that I knew about²⁴.) On a number of occasions I asked, ‘Would you want to go back to those times?’ “Certainly not! Those were hard times!” When one got too old to keep up with the group when it was time to move camp, the elder was left behind with some water and a dog.

Outside diseases could be devastating and were greatly feared. In the nineteenth century when people returned to their coastal homeland after being in Hermosillo or in contact with the outside world, they would fumigate their huts with the black, oily smoke that came from burning *Koeberlinia* wood²⁵. Until recently there was little resistance to measles, which from time to time had taken a terrible toll. Once, in the early 1970s, I was in Punta Chueca and there was a boy who developed a skin problem. It was feared that he had measles. The news spread like wildfire and within minutes all the Seris except the stricken boy’s family were packing and fleeing. There was terror in the air and in less than 15 minutes every Seri boat and pickup truck had left, every Seri family was gone (except the boy’s family). I managed to get medical help for him. It was not measles and his problem was readily cured.

People so limited by drinking water had to discourage gatherings, and neighbors could not always be welcome. There was not a strong reward for cooperation that would foster people gathering together. And even in traditional culture a price was paid for any service. Even a child leading a blind man on a stick was given some small token. So when we went somewhere, did something, when people spent time, I was expected to pay something. When I came to Desemboque or Punta Chueca there were things I was expected to bring. Yard goods, certain tools, and the men always admonished me to bring .22 caliber cartridges. Guns were really illegal. The men kept their old rifles carefully wrapped up and buried in the sand in their huts.

The Seris abhorred stinginess and even traditionally it seemed that no gift or price paid was ever enough. They would laugh about it, but instead of thank you, it was *xo*, which means “but...” Once I brought Chico Romero²⁶, then old and blind, a huge expensive canvas tarp to cover his house. It cost me a lot. His response was “*xo*, I need a knife [also].” I suppose if I am asked to give one characteristic of my experience with the Seris, it is that they were always

direct. In their traditional culture there was no word for hello or goodbye, you were either present or not. And please and thank you were equally superfluous.

If someone specifically asked me to bring something, and even if they would offer to pay me what it might cost, I learned not to do it unless I was prepared to bring the item as a gift. (But when I brought a gift I would get something in return, such as shell necklaces, which had become popular items of sale to tourists.) I was obligated to turn over the goods but getting paid was sometimes a different matter. There was an amusing attitude about overdue payments—those were called “*cuentos viejos*,” and “nobody pays old bills.” So while the acculturation was sometimes difficult, the Seris were fast learners.

Various aspects of social organization commonplace among other cultures were often not readily apparent among the Seris—people of such a small and dispersed population had no need of political structure except a war captain when necessary. The Seris hated authority. You were supposed to mind your own business. You didn’t tell someone else what to do—that was the cultural ideal. There were strict speaking taboos, for example a son was not supposed to speak directly to his father or father-in-law, and just think how much conflict that can avoid²⁷.

Sometimes people would tell me that the Seris really did not have any religion—probably because traditional Seri religious beliefs were not organized as a visible church and were not known or understood. Traditional beliefs and practices were intertwined; they did not exist in isolation. Vision quests, creation stories, various aspects of oral history, face-painting, song-poetry and much more were variously intertwined with religion²⁸.

Most of the traditional religion did not function after the people settled in villages. The old social systems were breaking down and sometimes there were unpleasant public fights stemming from drunkenness. For many reasons the Catholic church did not appeal to the Seris in modern times, and the Seris were not a practical objective for the Catholic church from Hermosillo—there were cultural, historic and logistic reasons. But the rather conservative Apostolic Church, which began missionary work among the Seris in 1953, had strong appeal.

Armchair academics often condemned the arrival of the Christian religion—but my non-involved observation was that it filled a gap, and helped curb some of the most serious drinking problems and violence. (In recent years the incidence of alcohol abuse among the Seris has been significantly lower than among many other Native American groups.) Much of the service included singing so church members came to be called the “Singing Ones.” I remember observing the service one hot summer night—in the middle of the sermon someone got up to stomp on a scorpion crossing the dirt floor.

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When we sat down to eat at the heavy wooden table in the cement floor dining-kitchen-everything room in the Moser's beach-damp house, some of the Seris pressed around the windows staring at us, watching us eat. At first it was kind of unnerving. One American visitor said, "Those poor people, they are so hungry," but in reality we were the best and only show in town. Becky prepared meals for some of the old people. Once, by the back door, old man Burgos grabbed my arm and said he was hungry and had not eaten in three days. He had just finished his breakfast of eggs, toast and coffee at the front door. But if I confronted him, he would just laugh. Becky once told me that if she had enough money she would open up a seniors' home in Desemboque.

Old, infirm and blind Catalina lived in a little hovel in front of the Moser's house. Becky fixed meals for her, cleaned her up, brought and emptied her plastic toilet bags. The poverty and troubles were sometimes heart wrenching, which stimulated tourist to bring piles of used clothes. Much of the time the Seris knew these were just old clothes and tossed them out. There was a lot of dignity and laughing and fun.

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Sometimes I would tag along on a sea turtle hunt. As I said, it really bothered me to see the turtle populations crashing. And I got involved with Kim Clifton, Dennis Cornejo, and Phil Regal in a broader view of sea turtle biology and conservation¹⁶. During the summer the men often hunted turtles at night, sometimes following a phosphorescent trail in the water. They had great knowledge of sea turtles. (Ed Moser was keenly interested in Seri knowledge of sea turtles and helped with the summary of sea turtle information in our ethnobotany book, and I still have an unpublished manuscript on our sea turtle work.) The men were proud of the way they could turn their wooden boats in tight circles following a turtle. The boatman responded to a complex series of signals from the hunter standing on the prow. The harpoon was thrown with great accuracy. Adrenaline surged as a great beast was harpooned and hauled over the gunwale. The excitement was thrilling and I wanted them to be successful even though I felt sorrow for these declining animals.

One night after harpooning several big turtles, we beached the boat on the east shore of Tiburón. The men wanted to rest and smoke cigarettes. It was a hot humid summer night, and I started to go up the sandy bank. One of the guys grabbed me and warned me to stay on the open beach, that the dunes are full of sidewinders. That was a turning point—no Seri had ever expressed a concern for my well-being. Little things like that came up from time to time, reminding me that they cared but just didn't talk about such things.

When I started my work with the Seris I was still a student and a biologist very much influenced by academic tradition. Anthropology in those days was suffering from accusations of not being precise and scientific. So I tried to fit the Seri information into a more standardized system of data gathering, and devised an academically suitable information form. One afternoon five Seris piled into my 4-wheel drive vehicle and we drove out of Desemboque and up the dry Río San Ignacio canyon bottom past Pozo Coyote. The palo verde trees were in blazing yellow flower and the women were filling buckets with juicy orange berries of lycium shrubs²⁹. It was a magnificent spring day in the desert.

The usual method of operation was for the Seris to show us plants they thought we should know about and then show us how the plants were used, and so forth. Or sometimes there were things they wanted to collect, we would take them where they wanted to go, and observe and record the action. But this time I got out my clipboard and started systematically running down my standardized questionnaire. The Seris at first tried to accommodate me, but then Rosa Flores turned to me and said, “Do you want to do this your way or our way.” I threw away my questionnaire and went back to pencil and paper. I once tried a tape recorder but I would get stuff recorded and have no way to check it. With a pencil and paper, if there was something I did not understand, I would ask again until I understood what was going on. I filled multitudes of pocket notebooks.

I did a lot of fieldwork with Jesús Morales³⁰. He was a kindly and tough little old man, but had a reputation of being rather wild in his youth and having killed a few men. He was leathery, wrinkled and skinny, and wore oversized dark glasses. His knowledge was vast, he knew songs and history unknown to anyone still living. His knowledge was greatly respected among the Seris. We worked well together. One day in November 1969, he promised to show me some important places and plants on Tiburón. I would pay for the boat trip to the island, and also pay for a young Mexican to help carry water and camping gear. I showed up at Punta Chueca at the agreed-upon time. Jesús was not ready. I waited, and finally asked when, and he just said “soon.” There was not much else to do except wait for him to get ready. I went away and came back many times—it would have been too rude to sit there and wait. The next morning, same thing, etc, etc. Three days later he was ready.

I had a hard time dealing with the three-day wait, but it was worth it. On the island I filled one notebook after the other. I carried a full backpack and Jesús and the Mexican helper each carried a *palanca* (carrying yoke) with plastic water bottles, sacks of food, a coffee pot, and blankets suspended from each end. We crossed the long bajada on the east side of the island and up into canyons at the base of the mountains. One night we slept on a solid rock ledge by a waterhole. Jesús cut two large bundles of cane, or *carrizo*, to make model *balsas* (reed boats or rafts) to sell, and showed me the intricacies of the process³¹. That was one of my most productive

field trips.

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We had long heard about a certain bean, called *haap*, from the middle of Tiburón Island. The beans were one of the major harvests, but the region seemed too arid for any ordinary bean. There was a campsite, called *Haap Caaizi Quih Yaii* or “Haap-bean Users’ Place”³², and I made several futile trips to the island to find it. Once I even went to the right place, but the Seri man who took me there could not locate the plant—it was too dry. On the final trip to locate the elusive bean, on December 11, 1976, Rosa Flores³³ was our guide. Rosa, Cathy Moser, and I climbed into Ike Russell’s airplane in Desemboque and went to our rough little landing place near the middle of the island. It was a hot at midday and Rosa wore the jacket I had given Jesús Morales the previous winter and it had somehow ended up in her possession³⁴. She wore a long, full skirt and flip-flops and headed straight east to the *haap* bean site. The rest of us had a hard time keeping up with her as she marched between the creosote bushes, mesquites, ironwoods, and palo verdes—she did not stop until reaching the site several hours later. She had not been to this place for more than 34 years, not since the early 1940s when she was about 25 years old.

We found only part of one vine, one dried stem with a few shriveled leaves and one dry, intact pod. It was a wild tepary bean³⁵, no doubt about it, and the descriptions we had been given were indeed accurate. It was just that no tepary had ever been documented from such an arid habitat, so I was uncertain about what to expect. We were about two weeks too late; all of the other tepary vines had dried up. Before I picked that one intact pod, I reached over and pinched it together and carefully placed it in a small brown paper seed envelope. When I let go it went “pop.”

The place where this tepary grows is a huge, nearly barren, north-facing hillslope of large, rough, black lava rocks—really just a big rock pile. The beans grow up through the rocks, which seem to act like giant mulch. I knew that if I even touched the pod without firmly holding it together that it would explosively separate—the valves would elastically and violently twist apart, flinging out the seeds with no hope of recovering them. There were five, small, gray and blackish mottled seeds. I brought them back to Tucson and grew them, eventually getting a good seed stock. The next year I brought Rosa a full bag of *haap* beans, and also gave a seed stock to Native Seed/SEARCH to grow and distribute.

* * * * *

One of the National Science Foundation grants included funds to study historic, museum collections. I scoured photo archives and collections at the University of Arizona and various

museums and libraries in California, the Smithsonian Institution, the Heye Foundation, the Museo de Antropología in Mexico City, the Amerind Foundation, etc.³⁶ Most of the artifacts were from the early to mid-twentieth century, and the Smithsonian had artifacts and photographs from McGee's 1895 expedition¹⁸. Having once worked as a curator at the Los Angeles County Museum of Natural History I knew my way around museum collections.

I was generally welcomed at the various museums and was able to identify artifacts, the plants and animals involved, provide uses, and correct misinformation. Everyday items, sometimes stuff that obviously had been thrown away as trash, were now labeled and curated. Usually I had to sign forms and put on white cotton gloves to touch trash that was now an artifact.

Much of Edward Davis' collections from the 1920s were at the Heye Foundation in New York³⁷. Davis was a rather flamboyant collector of American Indian arts and artifacts. He visited the Seris in the 1920s and made a significant collection. He bought a balsa boat, a one-man turtle-hunting balsa or raft, apparently the last one and the one he photographed³⁸. Some of the older Seris remembered or knew of Davis. Roberto Herrera³⁹ told me that I could see that balsa "at The University in New York."

The Davis collections were in the Heye Foundation's warehouse in a remote industrial area. I got there with the help of a New York native as a guide. We rang the bell by a little door in one corner of a gigantic warehouse. A guy with a long beard who lived inside and looked as if he had never been outdoors answered and let us in, triple-bolting the door behind us. In the dim light I stood in awe of a dazzling vastness of Amerindian treasure. I didn't find the balsa but I located a pile of Davis' artifacts.

WJ McGee visited the Seri lands in 1895 but the people fled their camps before he could approach them¹⁸. He "collected" a large Seri balsa, hauled it in a wagon across the desert, shipped it to the Smithsonian Institution, and had it photographed sitting on the lawn in front of the museum⁴⁰. I was able to study McGee's collections, to actually touch links to the Seris in the nineteenth century, to see physical objects that had been vividly described by Seri elders. The balsa, nearly 30 ft (9 m) long, sat on the top rung of a series of catwalks in the attic of one of the Smithsonian museums. Deep piles of silent gray dust covered everything like moon dust and poofed out at each step and rolled back over my shoes. There were all sorts of boats and other oversize artifacts. None seemed newer than the nineteenth century.

Over the years the balsa had collapsed like a deflated whale. I knew it was formed of three huge tight bundles and could picture what it once looked like. I examined the frayed, broken cordage that once held it together, and it indeed looked like it was woven from mesquite root fiber⁴¹. When I wasn't being watched I snatched a few rope fragments that had fallen on the floor, and back in Tucson I examined them under a microscope to confirm that it was mesquite

root.

Descending from the dust palace I was shown the cabinets with Seri artifacts. There was a *Jacquinia*-flower necklace also picked up by McGee⁴². The Seris liked necklaces made from the dried orange flowers because whenever you put them in water the flowers swelled up, the orange color brightened, and they looked fresh and lifelike. I was curious to see if the flowers would still perform. I was sure that the nobody would readily let me try it without a lot of red tape, so I asked where I could get a glass of water because I had a sore throat. I got my glass of water and the sore throat threat was enough to be left alone long enough to dunk part of the necklace in water—the flowers dutifully swelled up and looked as fresh as the day they were picked.

* * * * *

Our ethnobotany book project was just plain open ended. Every sentence, every paragraph brought up another question and there were people who could provide answers. So I often went to Desemboque or Punta Chueca with specific questions and those opened more questions and vast knowledge. We were constantly adding new information. I got so tired of being asked when the ethnobotany book would be done that I would say “soon.” While visiting the herbarium and botanical museum at Harvard I met Margaret Towle, who wrote “The Ethnobotany of Pre-columbian Peru”⁴³—a work that I held in awe. I was lamenting that it was now nearly twenty years and our book was still not published. Dr. Towle replied, “Only twenty years? My book took 35 years.”

When I set about to organize the thousands of jumbled pieces of information I searched about for a model ethnobotany. But I didn’t find one that suited the information we had. So one—day I sat down and tried to make an outline, discussed it with Becky Moser, and after many drafts we finalized a workable format. It all seems so matter of fact now, but at the time I felt a real dilemma about how to organize and present the diverse information.

Finally one day I said no more field trips to work with the Seris, no more entries, no more information. Whatever we’ve got—that’s it. If something new shows up I will ignore it—of course that’s like telling a kid to look at the candy but don’t eat it. I worked on a section, gave it to Becky and she worked on it, we worked on it together, we checked with Seri elders, I sent parts out for review to colleagues, and piece by piece it came together. If I came to an unresolved question I tried to force myself to erase the offending text. Before I left the Desert Museum I spent almost half of my annual salary on a gigantic word processing computer: I got the expanded memory of 90K and a service policy because it kept breaking down; it had 8-inch floppy disks and each file held about two pages. With that monster the book was finished.

When we submitted the first proposal for the Seri ethnobotany book to the University of Arizona press, the director sent us his usual 18-page single-spaced letter that basically said that you should remove as many illustrations as possible, and then look through the few final selections and wheedle those down in number. Then Steve Cox took over as the director and most of the illustrations remained. And then started the long process of working with a copy editor. Sometimes I had to fight to retain the most important images and concepts. I seldom gave in and am glad that I held to my convictions. But there is one thing that I truly regret giving in to: Just as the book was going to press I let the editors remove a carefully worded paragraph in the preface that said that this book is only a fragment of the traditional knowledge, and we encourage further work to record and preserve traditional Seri knowledge. But the editors said that our book was a definitive work and wanted the paragraph removed.

We knew we had only scratched the surface. So many times, and this is one of the things that kept me going even during some of the trying times, a Seri elder would say we needed to write down this information. They knew most of it would go with them, and that the young people were not interested. But in reality the full span of the traditional way of life was no longer feasible—and the young people did not have the luxury of activities that were not practical. The economic situation was hard.

The University of Arizona Press did a magnificent job on the production. Harrison Shaeffer's design is elegant. But when the book first came out at \$64 in 1985, I was devastated by the high price—would I be an author of another rare book? We had to give away copies, and the Seris loved the photographs, especially of relatives and friends, many of them deceased.

I was beseeched for freebie copies—even at author's discount we were not able to hand them out like hotcakes. I tried to explain my predicament to some of the Seris, and one guy said, “Look Ricardo, don't tell me that you are not making a big profit on an expensive book like that. We know you can't be that stupid.” Then I got trounced by some do-good idealists who chided me for not publishing the book in both Seri and Spanish. Yikes, it took over twenty years to do it in English. I told them that was a wonderful idea, and asked if they would finance the translation and support the publication? They accused me of being a capitalist pig. We would love to have the Seri ethnobotany book published in Spanish, and this is an open invitation for anyone who wants to take it on.

I am pleased to see Becky Moser, Gary Nabhan, and others continuing works that will be of benefit to the Seris. Times and conditions have changed and new challenges have arisen, and the time is also here for the Comcáac themselves to record and interpret their own heritage.

One spring I worked with Tita Braniff on arranging a conference on cultural and biological investigations in Sonora¹². It was a long conference, held in Hermosillo. Just about everyone doing cultural and biological research in Sonora was there. We ate a lot of good food

and had a great time. After it was over, Mahina Drees and I rode with Ed and Becky from Hermosillo to Desemboque. We arrived in Desemboque late in the day, and got out of the car to the familiar scene of the sparkling sea beyond the garbage⁴⁴ and plastitrash blowing all over the place. Becky exclaimed how beautiful it was to be home.

* * * * *

NOTES:

1. My high school teacher, Nancy Thomas Neely, encouraged my interest in natural history. Together with other budding ecologist, we often went on field trips in the Los Angeles area. Her husband, Peter Neely, was working on his Ph.D. at U.C.L.A. Peter was part of a group of graduate students associated with Prof. Raymond Cowles, who was also one of my mentors, even though I was still in high school. The trip to Álamos with Peter and Nancy was during Christmas vacation.
2. *See* Martin et al. 1998.
3. The Seri name for this waterhole is *Xapij*. *See* Felger & Moser, 1985, pages 34 and 82 & 83.
4. Seri water-carrying vessels are among the largest and thinnest in the world. This ceramic style is called Tiburon Plain or classic Seri “eggshell” pottery, and averages 3 mm in thickness. *See* Bowen & Moser 1968; Felger & Moser 1985, page 81.
5. Bowen 1976, pages 33–34; Bowen 2000; Felger & Moser 1985, pages 162–163; Moser 1963.
6. *See* Felger, pages 2–14 *in* Bowen 2002. I describe some of my adventures doing fieldwork in Mexico with Ike Russell.
7. Felger & Moser 1985.
8. Felger & Moser 1970, 1971, 1973, 1974a, 1974b, 1976; Felger, Moser, & Moser 1980, 1983.
9. Norris 1985.
10. For example: Assistant Professor, Department of Biology, University of Colorado, 1966–1967; Senior Curator of Botany, Natural History Museum of Los Angeles County, 1967–1969.
11. Tom Bahti was the proprietor of an Indian arts store in Tucson near the University of Arizona. Tom was a friend, and an advocate for American Indian art work and social causes. His son Mark continued to run the business.
12. Braniff & Felger 1976.

13. Ed and Becky Moser worked under the auspices of the Summer Institute of Linguistics.
14. The Friends service project for the Seris was initiated about 1950, mostly under the leadership of Norman Kreckler.
15. *See* Borillón-Moreno 1988; Braniff & Felger 1976; Felger & Lowe 1976; Felger & Moser 1985, pages 20–35.
16. *See* Clifton, Cornejo, & Felger 1982; Felger, Clifton, & Regal 1976.
17. The trip was paid for by Carl Hodges, Director of the Environmental Research Laboratory (ERL) of the University of Arizona, and Carl invited the businessman who was the developer for the Las Conchas project at Puerto Peñasco, and builder of the large house that was donated to the Centro Intercultural de Estudios de Desiertos y Océanos (CEDO) and is now their headquarters. I was a research scientist at the ERL.
18. McGee 1898; Fontana & Fontana 2000. Although McGee’s 1898 report is largely “racist claptrap and junk about unilineal cultural evolution” in his diary he “tended to put in only what he observed” (B.L. Fontana, personal communication, 2000).
19. Coolidge & Coolidge 1939.
20. Kroeber 1931; Sheldon 1979.
21. *See* Valdés 1985.
22. “Trails leading from shoreline camp sites to major water holes were strewn with potsherds (Quinn & Quinn 1965:153). There were tragic tales of men who walked long distances only to stumble and fall, breaking the water jugs. It was also lamented that sometimes they walked all day only to find that the waterhole was dry.” (Felger & Moser 1985, page 79).
23. A photograph by Edward H. Davis in 1929, of men and women carrying water in metal cans and buckets is shown in Davis & Dawson 1945, page 198; Quinn & Quinn 1965, page 163; Felger & Moser 1985, page 81.
24. Adult diabetes began to appear as a serious problem among the Seris in the 1970s and 1980s.
25. Felger & Moser 1985, page 318.
26. Chico Romero, 1888–1974, was well known in relations with outsiders and was a consultant to Alfred Kroeber and others. *See* Felger & Moser 1985, page 413.
27. Speaking taboos, or “non-speaking relations” are summarized by Bowen 1983. Also see Griffen 1959, Kroeber 1931.

28. For discussion and information on traditional Seri religion, *see* Bowen 1976, 1983; Bowen & Moser 1968; Felger & Moser 1985, pages 100–108; Griffen 1959; Xavier 1941.
29. *See* Felger & Moser 1985, page 88. The photograph of Angelita Torres picking *Lycium* berries was taken on that day in March 1983.
30. Jesús Morales, 1904–1975, was an important consultant for Thomas Bowen, Edward Moser, and others, and was especially well known among the Seris for his repertoire of traditional knowledge and songs. *See* Felger & Moser 1985, page 413.
31. A photograph of Jesús Morales with the bundle of cane at the waterhole is shown in Felger & Moser 1985, page 307.
32. The *Haap* campsite is described by Felger & Moser 1985, pages 332–333. The Seri terms are pronounced like Spanish words, the “h” is silent.
33. Rosa Flores, 1916–1993, was an important consultant for a number of researchers and contributed significantly to our ethnobotanical work. *See* Felger & Moser 1985, page 412.
34. The photograph of Rosa Flores on the end cover of Felger & Moser 1985 was taken on the afternoon of the *haap* trip.
35. The tepary, *Phaseolus acutifolius*, is a species of bean native to southwestern North America. There are wild populations as well as cultivated, domesticated varieties. Tiburón Island is the most arid place where the tepary bean occurs wild. (Nabhan & Felger 1978).
36. *See* Felger & Moser 1985, xiii, acknowledgements.
37. *See* Quinn & Quinn 1965. The Heye Foundation collections are now incorporated into the Smithsonian Institution collections.
38. Davis’ 1922 photo of a one-man balsa is shown in Bowen 2000, page 22; Dawson 1944, page 132; Davis & Dawson 1945, page 196; Felger & Moser 1985, page 133.
39. Roberto Herrera M., 1916–1988, was a primary consultant for Edward Moser, as well as other Seri scholars. *See* Felger & Moser 1985, page 413.
40. McGee 1898, plate 31, opposite page 217; Felger & Moser 1985, page 132.
41. Mesquite cordage is described by Felger & Moser 1985, pages 335–337.
42. The tree and necklaces are described in Felger & Moser 1985, page 372.
43. Towell 1961.
44. During traditional times the Seri trash was generally biodegradable and they simply tossed

refuse out the door. But after they acquired the same stuff as everyone else, much the trash lasted for a long time.

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