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THE SHAME OF ESCOBILLA BY TIM CAHILL

Acknowledgment

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(Photographs for the article have not been included.)

People often speak of holy places—areas that are awesome or harsh or tranquil—but you seldom hear of a place that is evil. I know of one. It is located on several acres of low tropical hills, in the Mexican state of Oaxaca. The hills are green and there is a view of ocean, and these acres represent evil in a very pure form.

Here the senses are assaulted. An odor of death and putrescent meat rises up from these hills. Animal bodies are piled four and five deep, left to rot and dry under a blazing sun. As many as 50 vultures pick at the purple and black meat. They work with a joyless efficiency, steadying the carcasses with their talons as they yank at the soft flesh with their powerful beaks. The weight of all those bodies rotting generates an intense heat, so that when a breeze springs up, the air becomes artificially warm, heavy with death and decay. Standing in the path of such a breeze, one is left feeling fouled, hopeless, unholy

Everywhere there is the constant droning of flies. The air is black with them. Working among the vultures and the flies in the awful stench are the most unfortunate people of the local villages: there is one man with a horribly contorted spine, another whose right eye is a mass of scar tissue. These men stumble over the rotting reptilian bodies like sinners confined to some virulent lower level of hell.

The final evil is there also. Not only are mature animals slaughtered and left to rot in the sun, there is also an immense pile of eggs—the next generation—and these, mixed with the entrails of their mothers, are rotting too. The entire pile is covered with maggots, a heaving mass of hissing malevolence.

That pile and those rotting bodies may signal the last time sea turtles will mass on the beach at Escobilla to lay their eggs. The carnage is being carried on despite the good intentions of the Mexican government. The motive is simple and timeless. It is sheer greed.

Two hundred million years ago reptiles owned the earth. There were turtles then as there are turtles now. It is thought that they developed from a marsh-dwelling lizard that hunched its shoulders forward, protecting its head with hard scales, in case of attack. Over millions of years these animals developed a shell, called a carapace, and a horny undershell, called a plastron. The body itself twisted into a strange configuration to conform to the confines of the shell.

About 90 million years ago, several species of turtle took to the sea. The stumpy, cylindrical legs became thin, flattened flippers. It was the last radical move these living dinosaurs ever made. As the stem reptiles gave rise to birds and to mammals, as the last brontosaurus thundered to earth, the turtles plodded on, survivors.

Today there are seven generally recognized species of sea turtle. One, the Pacific or Olive Ridley, an 80-pound animal with a shell the size of a manhole cover, is found in the warmer waters of the Pacific from southern Japan to Baja California. Like nearly all reptiles, the Ridley lays eggs, and these the females deposit in the sand on certain small stretches of isolated beach. In many places, nesting females are slaughtered out of hand, even before they can lay their eggs, and in other spots locals may collect nearly 100 percent of the eggs laid. For this reason, the 1975 reptile *Red Data Book* lists the Pacific Ridley as endangered: "In danger of extinction and whose survival is unlikely if the causal factors keep operating."

In Mexico, the government has established an enlightened program of turtle conservation. Beaches are patrolled, egg poaching is illegal and reasonable quotas have been set for harvesting the animals. On the beach at Escobilla, about 200 miles south of Acapulco, nesting female Ridelies come up out of the surf between the months of July and November. The massings occur about once a month, on certain star-swept nights when the moon is entering its last quarter and when the winds blow inland from the sea. Local people call this an *arribazón*, and some say that as many as 200,000 turtles have laid their eggs on one four-mile stretch of beach in previous years. If this estimate is even close, Escobilla is the site of the largest *arribazón* in the Americas.

On Saturday, October 18th, 1977, I stood on the beach at Escobilla in company with an ABC Sports TV crew filming an *American Sportsman* segment. The show concerns itself with celebrities and their adventures with and reactions to animals. The *arribazón* was fine meat for *Sportsman*. One of the celebrities was *Outsides* Jack Ford, who had informed me of the expected October *arribazón*. The ABC crew was gracious enough to make room for me on their charter flight from Acapulco to Puerto Angel, an hour's drive from the beach.

No one lived on the sand itself-no fresh water- but nearby there was a compound composed of a palapa and several red tents housing 11 Mexican marines who patrolled the beach to prevent egg poaching.

We arrived in time to see the morrina, the hatching of eggs laid during a previous arribazón. The beach was pocked with small depressions. As I watched, the sand would suddenly collapse into itself and, miraculously, a small black flipper would appear, the black dot of a head would emerge and finally the hatchling-not quite the size of a quarter and all black like some child's toy stamped out of hard rubber-would move off resolutely toward the sea. Ten, 20, 30 and more would dig their way out from the same spot.

The eggs were about the size of ping pong balls. When I found one hatchling struggling to break the shell, I peeled it away. The turtle was curled over a bright, yellow-orange yolk to which it had been connected by a kind of umbilical cord. The hatchling pulled away from the yolk- the little mark on the bottom of the plastron is called a yolk scar-and crawled off toward the water.

All up and down the beach, tiny turtles were making their way out to sea. There were half a dozen men walking the beach with white styrofoam boxes, collecting the hatchlings. I saw dozens of boxes containing about 200 animals apiece, and was told that the men were doing something scientific that had to do with the preservation of the Ridley. No one seemed willing to tell me any more than that.

Later, I sat under the palapa watching the sunset with Juan José de la Vega and Bob Nixon. De la Vega, 29, is director of the Cosmographic Society, a Mexican conservationist group. He wears his hair to his shoulders, sports a wide gold bracelet and speaks good English in a relaxed, offhand fashion. Nixon, the writer for the *Sportsman* segment, is blond, crisply efficient and, at the moment, he was clearly unhappy with Juan José for what appeared to be good reason.

De la Vega had proposed the segment to Nixon, indicating that the turtles of Escobilla were in danger, that a man named Antonio Suárez, owner of a company called PIOSA, was slaughtering the animals out of hand. "Soon," Juan José said, "there will be no more arribazones at Escobilla."

The problem was that Nixon and I had just learned that the men with the styrofoam boxes worked for Antonio Suárez, that this same Suárez had footed most of the bill for a new laboratory for the study and preservation of the turtles, and that this lab was supposed to put hundreds of thousands of hatchlings into the sea each year. The next day, Sunday, officials from the Mexican Department of Fisheries and the governor of Oaxaca would be on hand at a ceremony to dedicate the lab and, incidentally, honor Antonio Suárez and his contribution to the conservation of the Pacific Ridley turtle.

I'm pretty sure Nixon felt as I did: Juan José had attacked Suárez out of sheer lust for publicity. I told de la Vega as much, to his face.

Oaxaca was in the midst of a terrible drought, but dedication day, Sunday, dawned pale and cold, and a wet wind howled in from the sea bringing torrential rains. The important visitors would first inspect the PIOSA slaughterhouse, then move on to the nearby lab. Official cars bogged down on the muddy road from Puerto Angel to the slaughterhouse and a large banner welcoming the governor wrenched loose from a tree and whipped itself into tatters.

People dashed from the cars to the shelter of the slaughterhouse. Workers, dressed in green T-shirts and shorts, stood nervously about, surreptitiously ogling the important visitors. There was a pile of live turtles, helpless on their backs, in one corner of the room. They barely moved. Occasionally a flipper would jerk in a sad, spasmodic gesture.

In the center of the room was the killing table. It was a long, wooden affair accommodating ten turtles, and the front was canted down at a slight angle. The turtle was lifted onto the sloping surface, and the neck was placed in a semicircular scoop on the ledge at the downside of the table, so that the head was held stationary, in midair. The weight of its body against the ledge prevented the animal from moving. The turtles had lost their green sea color and looked as gray as the sky outside. The eyes were solid black and without expression.

One of the workmen drew a curious, silver gun with a wide red-skirted barrel. The Mexican camera crew moved in for a close up. The gun was placed on top of the turtle's head. We heard a muffled thump. The animal's head jerked up, the black eyes bulged, a great lump formed at the throat, formed again, the mouth opened wide, snapped shut, and the eyes turned fluid and pale. Great gouts of dark blood burst from the turtle's head. Another man carried the dying animal to a spot near a short conveyor belt. A grooved tube caught the blood and carried it out of the slaughterhouse and about 20 yards down the beach into a cove.

"On killing days," Juan José whispered, "the cove is red with the blood of these turtles."

"Sure, Juan," I said.

The conveyor belt carried the turtle to another room where it was placed on a slaughtering table. Every turtle I saw gutted that day was a female, and all of them had eggs in their oviducts. The eggs and entrails were placed in a large plastic bucket. Later, I was told, the eggs would be taken to the new lab and buried in the sand and new turtles would grow from these eggs.

It was not, all in all, a very pleasant hour. When one of the ABC cameramen expressed some disgust with the carnage, a young Mexican biologist who spoke fluent English blistered him with an eloquent torrent of words. She was a plump, darkly attractive woman wearing very thick glasses. Mexico, she said, is a poor country. These turtles are a natural resource. They graze on their own, in the sea, at no expense to the people, and return every year for the slaughter. She and the other biologists would help set quotas so the turtles would survive, even prosper. "But you don't want us to harvest these animals," she said. "Then what will we eat?"

She referred not only to the 12 pounds of meat recovered from each turtle, but also to the money made by the fishermen, by the people who worked in the slaughterhouse and by those who fashioned the turtle leather. Even the bones of the slaughtered animals were left to dry, then ground into fertilizer. "Why don't you go back to your own country," she concluded bitterly, "and film your own turtles?" Her eyes glittered angrily behind her glasses.

Monday we went to see the lab. It was a sterile, newly constructed building only half a mile north of the slaughterhouse. I counted 96 small sea-water tanks containing about 200 hatchlings apiece, and ten larger tanks holding 500 hatchlings apiece. About 25,000 turtles in all, exactly the same size as the ones we had seen at Escobilla, and all, I was told, hatched at the lab.

We couldn't find a biologist in charge, but the workers said the hatchlings would be kept a week or two, maybe three, then released at sea, beyond the breakers. At Escobilla, I had seen the surf pound in and watched as the tiny hatchlings had been tumbled back onto the sand for hours. I had seen some eaten by crabs and was told that certain fish massed beyond the breakers and fed on the hatchlings as they swam out to sea. The turtles in the lab would be spared many of the usual causes of infant mortality.

On the beach, in front of the lab, there were eggs buried in the sand, and these were penned to discourage such predators as dogs and coyotes. In another area I saw a large, open-sided building containing hundreds of the styrofoam boxes.

Each was filled with sand and held over 100 eggs. There were two kinds of eggs buried in the sand and contained in the boxes: those laid naturally and taken from the beach at Escobilla and those taken from the oviducts of slaughtered females.

Two large tanks, containing mature males and females, had been constructed for the study of mating behavior.

A plaque on the front of the main building said that the lab was dedicated to the preservation and study of the turtles and that it was built by the government, by the fishing unions— called *co-operativas* and by private enterprise. That last meant PIOSA— *Pesquera Industrial Oaxaqueña Sociedad Anónima*— and Antonio Suárez. PIOSA had put up most of the money for the lab. Even Juan José admitted that. The lab seemed a perfect example of enlightened self-interest.

It wasn't until much later that night that certain things began bothering me. Some of the men working at the lab were the same men I had seen collecting turtles at Escobilla for that unspecified "scientific" purpose. Many of the men working at the lab were the same men I had seen gutting turtles at the slaughterhouse the day before. They all wore the same green T-shirts and shorts.

We had come to the lab unannounced. When we got there the men were taking the hatchlings out of the tanks and putting them in the boxes. We asked why. The tanks, we were told, were dirty, and since the pipes weren't working, they had to be emptied, cleaned and filled with new sea water. This made sense. Except ... looking back on it, not one of the tanks was refilled until it became apparent to the workers that we meant to stay for some time.

It was Monday. The governor and the officials had left. Was it possible that the turtles we saw —the ones supposedly hatched at the lab — had been brought in from Escobilla? For a day? For the governor's visit and the dedication? No, it hardly seemed possible. I was thinking like Juan José. Still, it seemed worth another visit to the lab.

Slaughterhouse cove is a shove-off point for the turtle fishermen. They leave in shifts, two men to a 30 foot skiff powered by a 40-horsepower Johnson outboard. It is a 40-minute run north to Escobilla and, during nesting season, when the females are massing a mile out for the *arribazón*, there are turtles everywhere, as far as the eye can see. As many as 100 animals may be contained in an area the size of a city block.

Like all reptiles, the Pacific Ridley is dependent on external stimuli to regulate its body temperature. Primarily vegetarians, they feed on sea grasses in the early morning, then pull to the surface to bask in the warmth of the sun. As their body temperature rises, metabolic activity increases, digestion occurs more rapidly, and the stomach is emptied in preparation for another meal. When basking, the turtles are very nearly somnambulant. And easy prey.

I watched as a fisherman grabbed the loose end of a long rope tied to the gunwale of the boat and plunged into the water, a foot and a half behind a turtle. He grabbed the top of the shell with one hand and pushed down on the back of the shell with the other, forcing the animal's head and front flippers out of the water. Quickly, he slipped a noose over one flipper. His partner grabbed the rope at the gunwale and pulled the animal to him, heaving it up into the boat and flipping it onto its back.

Fishing this way, I was told, at woman team can catch 25 turtles in an hour and make two runs a day. There are a score of boats working on the best days.

The fishing itself seemed almost too easy. Certainly it was a good deal easier than in previous years, the fishermen told me, when turtling had been banned during the nesting season and the animals could only be found far out at sea. Now they were massing for their own slaughter, and many more were being killed — killed during nesting season, in most cases, before the females could lay their eggs. Still, as a high official in the Mexican Department of Fisheries pointed out, the new lab was putting so many new hatchlings into the sea that, in effect, "less were being killed."

I spent some time diving with the Mexicans. The turtles, I found, were virtually harmless when approached from the rear. They made no effort to escape or dive until literally touched. I came on them like the Mexican divers and rode them along the surface for several yards. The leather on the back of the neck felt surprisingly "dry," like the skin of a snake or lizard that you always expect to be slimy. Their faces, even while basking, had a pinched, disapproving cast and their mouths were turned down, like a child's drawing of a scowling person. They seemed unimaginably ancient.

I was joined, during one dive, by half a dozen dolphins. They frolicked, undulated beside me as I swam. The turtles, by comparison, seemed joyless, dreary beasts, altogether too intent on brute survival. I thought of them as the constipated accountants of evolution, and was, in turn, thoroughly and contemptuously ignored by them. On one occasion, diving with a fleeing turtle, a dolphin actually buzzed the slower animal in a silly, playful manner. We —the dolphin and I— were the mammals: fast, giddy, intelligent. In evolutionary terms we were children teasing our elders.

An unsettling thing happened when we returned to slaughterhouse cove after the first day of diving. The manager of the slaughterhouse asked us all to leave, and he threatened force if we didn't. Why had they been so anxious to have us film the dedication on Sunday, but wanted us out of there on Tuesday? Looking back on it, I should have connected it with our visit to the lab on Monday, and my misgivings about what I had seen.

Back at the hotel Jack Ford and I talked about our dive over a beer. Ford had happened upon a pair of copulating turtles, and had a story to tell.

The male of the species is the worst sort of opportunist. Knowing, instinctively, that the females must mass for nesting, he lies in wait. Intercourse takes place in the water. The male secures himself to the top of the female's shell with two curved nails, each located on the inside of a front flipper. Turtles have five fingers, and that curved claw, located about halfway up the appendage, corresponds to our thumb.

Having nailed himself on at the top, the male curves his longer, heavier tail under the female's shell. The penis is housed in the tail and extruded from the anus.

"They weren't moving," Ford said, "they just sort of wallowed there in the swells. They really didn't look like they were having any fun. I watched them for about 40 minutes, but they may have been connected for hours. . ."

"They're turtles," I said, "they do everything slowly."

"When the male pulled out," Ford said, "I got a look at his equipment." Jack spread his hands the full width of his chest, then described the diameter of a baseball with the thumb and forefinger of both hands. "They are very well equipped animals," he said.

Local fishermen are equally impressed, and their stories of bizarre copulatory feats among Pacific Ridleys bugger the imagination. It is thought that sperm is stored in the female's genital tract and can continue to fertilize eggs for years, and that a nesting female may mate several times a day on the way to a nesting site. A female crawling onto the beach may exhibit scratches on the neck and her shell may be broken near the head where the male has held her.

But it is the size of the male equipment and the long copulatory periods that the fishermen expand upon. And this has led to the myth that eating turtle eggs is good for the human male. The eggs are said to put lead in the old pencil.

In Spanish eggs are *huevos*, and egg poachers are called *hueveros*. Poaching is a crime and the *hueveros* of Escobilla were not delighted with the idea of an interview. I had rented a Volkswagen bus and a driver in the town of Pochutla and was trying my luck at the *cañinas* along the highway near the beach. No one, at three *cañinas*, believed that people actually poached eggs. They asked where I had ever heard of such a thing. A surprising number of people I talked to didn't even live in the area. Some citizens expressed great amazement when told that less than two miles from where they sat turtles occasionally came up on the beach by the thousands.

My driver for the day, a slick young Mexican with shiny hair and a moustache, lost his patience after a few hours. In his capacity as a public driver, he said sadly, he had sometimes picked up people whom he believed might have been carrying eggs. He had seen one such man walking on the highway and, if I wished, he would drive back and ask him if he wanted to talk. The young man in question wore a straw hat with an extravagantly folded brim and a shirt which was cut off below the pectorals to reveal an elaborately muscled brown stomach. For 50 pesos he agreed to talk for an hour.

The man, whom I'll call Alfredo, said he had already heard that a gringo was asking questions. He chose to ride on the floor of the van and directed us onto a dead-end road shielded by rows of corn.

Alfredo said that a number of local people poach eggs, but that the *hueveros* are not organized as such. On a moonless night people just seem to gather at the Escobilla bridge; and, after much discussion, about ten are chosen to work that night. They split up into pairs and walk through the jungle, off the trail, finally crawling up over the cactus dunes. One man lies in the dunes, near the cover of the jungle. The other creeps out onto the beach.

Even on moonless nights, the star glow on sand and sea makes it light enough to work. Poking into the sand with a sharp stick, the *huevero* feels, more than hears, a muffled pop when he hits the first egg in a nest. Digging with his hands, he empties the nest of its hundred or so eggs, filling a small sack that he takes to the man in the dunes, who places them in a large sack.

If the soldiers come—you can usually see them flashing a light—the man in the dunes fades into the jungle with the large sack. The *huevero* on the beach drops his small sack and runs for the jungle at top speed. The soldiers wear boots and carry heavy rifles. The odds are pretty good that the *huevero* will make the jungle.

Working this way, two men can steal as many as 8000 eggs in one night. Eighty nests. His share of the take, 4000 eggs, Alfredo could sell to a driver for 1500 pesos, about \$75. He was chosen to go to the beach four times a year, tops. His poaching income came to \$300 in the best of years. His annual income from growing corn, Alfredo said, was \$500. He was responsible for a family of ten and the temptation to steal eggs was very great.

Alfredo was not proud of night work. He wanted me to know that many of his eggs were given to the poorest families, to widows, for instance, with starving children. In the past, Alfredo said, when there was a drought like this year, hungry people could go down to the beach and the soldiers would let them dig up a limited number of eggs to eat. Now, PIOSA was killing all the turtles and the soldiers would not let starving people dig for eggs. Everyone, Alfredo said, knew that the turtles would soon be gone. He had lived near Escobilla all his life, and he thought he had a right to earn some money from the eggs before PIOSA killed all the turtles.

Later, over beer and mescal at a *cañina* far from Escobilla, I talked with my driver. He wanted me to understand that he had never done such a thing, but that he had heard how the business worked. A driver with a legitimate load makes a space and caches 40,000 eggs or more. There are checkpoints along the major highways, so egg smuggling is a sweaty affair. In Acapulco or Mexico City the eggs are sold under cover of darkness to a man in the marketplace. The driver can make as much as two pesos per egg, so a single 40,000 egg load can bring a driver about \$4000 tops.

In the more cosmopolitan cities, a turtle egg sold in a restaurant can cost as much as nine pesos. The eggs are said to be somewhat oily and they are often served fried, five or six at a time, and covered in chili sauce to mask the taste. Some-times eggs are served raw, in the shell. The top is peeled off, a squeeze of lime is added and the entire mess is dumped into the mouth. The eggs are eaten, primarily, by wealthy and ignorant men who cannot sustain an erection.

The second visit to the lab was a revelation. All the tanks were empty. There were no hatchlings. There was no sea water. Nothing.

The large tanks outside, containing the mature turtles, were empty. One misshapen adult female lay on her back, dead beside the tank. She had been left there to bake in her own shell.

Ten styrofoam boxes, like the ones we had seen at Escobilla, were stacked by the side of the building, apparently forgotten. There were 200 hatchlings in each box and all were dead or dying.

The only person at the lab, an old man eating his lunch under a tree, explained that all the hatchlings had been dumped at sea. As for the styrofoam boxes, somebody must have forgotten them after they brought the hatchlings in from the beach at Escobilla on Saturday, the day before the dedication. Sure, he said, it would be okay if Juan José put the hatchlings out to sea. Somebody had just forgotten to do it. The mature adults the man said, had been taken to the slaughterhouse.

That night I apologized to Juan José de la Vega.

Had all 25,000 hatchlings been brought in from Escobilla? To impress the officials and the governor? To put on a sideshow for the Mexican TV cameras and the Mexican people?

Hunting was now allowed during nesting season, and if officials at the Department of Fisheries can be taken at their word, it was this lab that they expected to compensate for the carnage. But it was apparent that the lab wasn't functional.

Even if the lab were functional, a good argument can be made that it might have been worse than useless; that some projects would yield an incredibly poor rate of return and that others might actually contribute to the extirpation of the species. From reading, I had learned that there were similar labs all over the world, and some interesting work has been done at them. For instance, there was the matter of burying eggs taken from the oviducts of slaughtered females: experiments conducted on Green Sea turtles, with similar nesting habits, showed a 14 percent hatch rate among replanted eggs from slaughtered females compared with a 63 percent rate in

eggs from undisturbed nests. More to the point, Juan José had opened ten boxes at the lab and examined ten eggs, all from slaughtered females. In all cases the yolks had turned milky and had begun to disintegrate. Few, if any, eggs from the slaughtered females would ever hatch.

As for dumping the hatchlings at sea, the authorities are divided, but according to Dr. Archie Carr, one of the world's foremost herpetologists, it may be a useless endeavor. The struggles of the first day may be an integral part of the life cycle. Hatchlings in tanks may become pen happy and find themselves unable to feed at sea. Dumping could put the hatchlings in an unnatural current. Finally, whatever mechanism it is that tells females to return to the beach of their birth must surely be implanted at birth. It is quite possible, even probable, that none of those 25,000 dumped hatchlings would ever see the beach at Escobilla.

Time was running out for the ABC crew. Their original concept - 100,000 turtles on the beach - was scrapped in favor of good footage of at least one turtle laying her eggs in the sand. Walking the beach each dawn, I was able to count an average of 12 new tracks and nests a night. Twelve nests, separated by four miles of beach and 12 hours of darkness. Even with a wooden sled towed by a burro and several hired men to carry equipment, the crew was very lucky to get good nesting film. As it happened, the turtle that was finally filmed came up onto the beach no more than 400 yards from our campsite.

She arrived unseen, riding a breaker, then crawled over a strip of wet sand and up the gently sloping beach. Adapted to sea life, she moved laboriously on land. Her flippers were spread out to their full extent on the sand, and they made awkward semicircular patterns in the sand as she dragged the weight of her body the 40 or so yards she needed to get above the tide line.

Every few minutes she stopped. Her lungs, designed for breathing in the buoyancy of the sea, were compressed by the weight of her body. She exhaled. The throat pumped and she inhaled. It sounded, eerily, like the amplified breathing of a man surfacing after two minutes underwater.

It took her 20 minutes to select a nesting site. Settling herself into the sand, she curled one of her back flippers and flung sand almost directly over her head. Within minutes, her head and carapace were covered in thick, clinging sand. She stopped to draw a few ragged, tearing breaths. Her body was tilted down at a slight angle, the backside sunk into the hole.

The television lights exploded in the night, but the turtle, driven by instinct, was oblivious. The body contracted, the head sunk into the sand and two strong cords strained in her neck. She was scratched and raw there where some male's claws had dug into her during copulation. The cloaca contracted and a moist white egg dropped 18 inches into her nest. Another followed, then another. She lifted her head to draw another breath and then the contractions began again.

"She's crying," someone said. Tears were rolling out of her eyes and tracking down the sand that clung to her face. No matter that the tears are only a way of eliminating salt from the system: the mother's labored breathing, the seemingly painful contractions, her tears had turned the filming into a wrenching emotional experience.

A hundred or so eggs were laid, two or three at a time. The back flippers curled more delicately than one would have thought possible, and the mother spread sand over her eggs in a gentle, loving gesture.

At this moment, the Mexican biologists approached the lights. Producer/director John Wilcox shouted to a translator, "Tell those people to please stay out of her track." The plump woman exploded. "We speak perfect English," she said.

"We are biologists. We have a right to study this animal!" Bob Nixon jogged over to talk to her.

Having covered her nest, the turtle lifted herself up onto the tips of all four flippers and fell on the sand, packing the eggs and disguising the nest. She repeated this ludicrous dance a dozen times or more, then, backing away, she flung more sand over the area with her front flippers. Satisfied, she started back out to sea. I followed her down with a flashlight. When the first wave hit her, she seemed to relax. The sand came off and her sea color shone in the light. The backwash pulled her out a few feet, a second wave hit her and she was gone.

The question of how many turtles there were out there haunted me. The biologists - the people who were supposed to know - had been willing to argue over one animal.

ABC's charter plane was ready at the Puerto Angel strip when word came in from Escobilla that there were turtles in the breakers. It was a sign that had preceded other arribazones. I elected to pass on the flight and stay another night on the beach with Bob Nixon, assistant cameraman Gordon Waterman and Juan José de la Vega.

The night was mild, a gentle breeze blew in from the sea, and the moon was in its final quarter. This had to be the night. That day there had been turtles in the surf.

Our group built a fire. The marines built one of their own and another was started by the biologists. They were measuring out ropes which would be used to encompass a certain area. Stakes had been driven into the ground all along the beach to divide the area into like sections. The biologists would count the number of turtles nesting between the ropes and multiply by the number of stakes for an estimate of the total number of nesting turtles. Clearly they expected the arribazón.

A few marines stopped over for a drink of mescal. We had filled several soft-drink bottles with that white, searing liquor at the nearest cantina. The marines were happy. This would be the night. We sang some songs.

We shared our mescal with a local man who had lived 150 yards from the beach for ten years. As little as five years ago, he said, each arribazón took seven or eight days. There were four a year and the beach was black with turtles. Now, he said, there were fewer turtles. Too many had been killed by PIOSA. He thought there would be no arribazón.

I ate some sandy peanut butter on Bimbo bread, drank more mescal and walked the beach. It was seven, eight, nine o'clock. In previous years the turtles had begun coming in directly after sunset. Still, there were songs from the campfires.

Our group talked with representatives from the Department of Fisheries and with fishermen from the co-operativa Reforma Portuaria. I was able to piece together this version of the events at Escobilla:

There are seven co-operativas, or fishing unions. PIOSA pays the fishermen by the turtle, and the fishermen are licensed by the Department of Fisheries, which also checks the union records to see that the quotas are not exceeded. Each co-op has an equal number of turtles it can catch each month. When José Lopez Fortillo assumed the presidency of Mexico, he promised to develop industry. Last year fishermen from five of the co-ops, seizing the opportunity, went to a Mexican court and asked that the traditional ban on turtling during the nesting season be lifted. During other times of the year, they said, the turtles were too far out to sea and it was difficult to catch many in the small skiffs. The ban on fishing during the nesting season, they said, was depriving them of their livelihood. The judge agreed with the fishermen. The ban was lifted and the Department of Fisheries raised the yearly quota for Oaxaca.

Victor Valdez, of the co-operativa Reforma Portuaria, said that two of the co-operativas, including his own, had opposed the lifting of the ban, arguing that such untimely hunting would decimate the turtle population. Most fishermen, Valdez said, know this. But everyone is poor and now, for a few years, a fisherman can nearly double his yearly wage, and with less work. Another fisherman said that he knew that leaders of the five co-ops, bringing suit to lift the ban, received money from Antonio Suárez and that Suárez had pressured them to bring the suit.

Juan José nodded. "Last year," he said, the Cosmographic Society made a film about these turtles. We interviewed the judge who lifted the ban. We asked him how many turtles there were at Escobilla. It was very clear that he knew nothing of the situation here and it was a very embarrassing piece of film for him and for PIOSA. Antonio Suárez later invited me to lunch. He wanted to buy our film. He offered me 80,000 pesos." De la Vega refused and the film was shown on Mexican television.

I passed him the mescal and stumbled through my fourth or fifth apology to him in the last few days. He waved it off with good grace. "I knew if people came here," he said, "they would see for themselves what is happening."

The business of lifting the ban and raising the quota is an experiment. The lab is a safety valve for that experiment. Even if the biologists decide that the *Ridleys* are being extirpated, officials can rest easy because the lab is supposed to put some huge, astonishing, number of turtles into the sea each year. I have that statement directly from a high source at the Department of Fisheries.

We talked, finally, with some of the biologists. They had their own mescal and were excited about the *arribazón* and the discussion was not as bitter as it had been earlier in the week. None of them, to a person, would answer my questions, but we talked enough for me to form some impressions. They were, I think, sincere in their desire to set reasonable quotas: ones that would eventually increase both the harvest and the number of turtles as a whole. They had been hostile because foreign conservationists put pressure on the government and the government responds by firing biologists. I felt that they truly believed that if they filed a strong enough report, the government would reinstate the ban on turtling sometime during the next few years.

I thought about the Mexican TV cameras and all those officials whose only taste of Escobilla had been seeing 25,000 hatchlings at the lab. It had been very impressive. I had no great confidence that the ban would be reinstated.

It was 10 o'clock and still we had seen no turtles. I wondered if the local people were right, that there would be no *arribazón*. The *Ridley*, I know, is the only turtle to nest in such great numbers, and I wondered if it could be the numbers themselves that triggered the *arribazón*.

If that were so— and this theory is a layman's guess— it might explain why there had been normal *arribazones* July through September, but not in October. Each of the seven co-operativas was allotted 1500 turtles per month, for a total of 10,500 animals. In July 10,500 turtles were taken, but by August the cumulative total was 21,000, and in September that number rose to 31,500. Now, in the first week of October, the count was rapidly approaching 40,000 animals, and nearly all of them females, laid across the killing table at PIOSA.

By midnight there were still no turtles. The songs from the campfires became louder, more brittle, drunker. There were the sounds of voices raised in anger.

I took another four-mile walk. Bob Nixon spoke with the woman biologist. She had been drinking, he said, and seemed to be very depressed, almost near tears. "If you want to see the

arribazón," she said, "go to the dump." In the firelight, behind her glasses, her eyes glittered, wetly.

The dump is located on several low hills just south-east of the slaughterhouse. When the turtles have been slaughtered, when the 12 pounds of good meat have been stripped from the bone and the leather has been stripped from the head and chest, the remains are dumped onto these hills like garbage and left to dry in the sun before the bones and shells are ground into fertilizer.

The stench there—the odor of death—was unholy. It clogged my nostrils and sent bile rising in my throat. Vultures retreated reluctantly as I approached. Here and there I saw flippers stripped of their flesh, their five fingers, like yours and mine, jutting up out of black putrescent meat.

There were eggs there too, where no eggs should be. Mixed with the bowels of their slaughtered mothers, they were heaped into a sprawling pile and covered with maggots. I suspect someone will tell me that PIOSA only chooses the finest eggs to go bad in the sand or in those styrofoam boxes, and that these were rejects. But I saw that pile with my own eyes. There were thousands upon thousands upon thousands of eggs, all rotting in that evil heap.

I was, quite literally, sick to my stomach.

On the telephone, Antonio Suárez is a very persuasive and charming man. He is proud that, in his capacity as director general of PIOSA, he employs some 1000 persons who fish for turtle, shark, red snapper and lobster.

He denied that he ever offered Juan José de la Vega money for a film.

He denied that he offered the leaders of some co-operativas money, or that he pressured them in any way, to bring suit against the ban on turtling during the nesting season.

He said that it was not true that he was responsible for depleting the species.

"It is my opinion", Antonio Suárez said, "that the turtle is a resource we ought to take advantage of, but that we ought to protect the species, that we ought to have quotas, and that we ought not to protect a bigger quantity than the species can support, and that we may always repopulate the species."

Suárez was proud of the new lab and said that it was true, that he had paid for most of the construction costs. He said the lab had dumped 20- to 30- million hatchlings into the water in the months of July through September! He said that the Department of Fisheries had checked on this number.

It is possible that Suárez misspoke himself. Officials at the Department of Fisheries said they had no such data. And, in late November, one high ranking biologist involved with the lab admitted that it had not been functioning when I was there. He said he expected it to open by February or March.

Suárez was quite specific about the October *arribazón*. He said that while *arribazones* are always larger from July through September, some 50,000 *Ridleys* had laid their eggs on the beach in October. Again, this is somewhat at odds with information received from the Department of Fisheries. In late November, officials there said there had been no October *arribazón*.

People I know and trust were on the beach at Escobilla during the entire month of October. The moon entered its last quarter twice and the winds blew in the sea and, for the first time since anyone who lived near the beach could remember, there was no October *arribazón*. Only 90 million years of evolution going to waste on the beach at Escobilla.