# As they sow...

## The Amazon Indian suffers with the rest of the ecosystem from environmental depradations in which he has a hand

by Christopher Weathersbee

The Indian of the Amazonian rain forest is the meeting point for most of Amazonia's ecological problems.

He is a man, and so he tends to victimize his environment when there is some profit to be had.

He is also a member of the Amazonian ecosystem, just as much as an orchid or a jaguar, so he tends to be a victim in the destruction of his environment. He is victimized because the habitat into which his life-style fits is being destroyed. And, like so many primitive people overrun by civilization, he is victimized by being sucked into a life-style he is not equipped for.

A popular image of the South American Indian is of a little fellow sitting in a tree with a blowgun charged with curare-tipped darts, ready to puff silent death at invading whites, then shrink their heads. There are still aboriginal Indians, some of whom hunt birds with curare and occasionally kill intruders. But while there are more than 7 million people in South America classed as Indians, less than half a million live in the rain forest and only a tiny portion of these live as their ancestors did.

The larger part of the forest Indians by now have had extensive contact with the European way of life, and even though they may live in some semblance of tribal fashion they seem no more primitive than the settlers who increasingly are displacing them.

Though at first glance they seem alien as Martians, the Coreguaje of Caqueta Province in Colombia, for instance, after short exposure emerge as charming, humorous people owning a great degree of self possession. They are intelligent and surprisingly aware of the forces bearing down on them.

The chief of one village, for instance,

finds a new cinder-block school built among the thatched huts of the village a great boon: "Now what we need is a supermarket." Yet the same man says sadly that in a way it was a shame to have the school, because educated young people will leave the village.

It would not be surprising if they did want to leave. The only thing in the past that held the forest Indian in the forest was the force of arms of more advanced neighboring tribes. The only thing that keeps him there now is conservatism or ignorance of anywhere else to go. The Indians live a life that is incredibly hard by North American standards, hard and boring.

The hardship is not so much in the amount of work required as it is in living on what is available. At this time of year Caqueta Province is in its so-called dry season, characterized by a torrential downpour only every third day. At this time of year the Indians can farm their manioc and pineapples, fish, or hunt for the few remaining game animals. This is the time of plenty. Yet even now there is barely enough to eat, and what there is often is nutritionally poor. In the rainy season, on the other hand, the Indians can do little but sit in their huts and starve. Half the year they must live on the almost nonexistent surplus of the other half's production.

Human beings often can put up with a hard life if they are rewarded by its being also interesting. Yet the almost completed erosion of the Indian way of life has robbed most forest Indians of the kind of cultural framework against which they can measure themselves, in which they can excel and with which they can be involved in more than a daily round of subsisting.



Cash hunt: selling a birthright.

Aboriginal culture located outside the main rain forest disappeared on contact with the first European settlers. The forest proper never has supported more than a very thin population which has always been the most primitive. And because of the difficulty encountered in reaching and developing the deep forest, these primitive cultures have survived the longest. The Spanish in Colombia, for instance, moved in on the well-developed cultures of the Chibcha Indians in the fertile highlands and put the Indians to work on their haciendas. Even until recently the Colombian provinces of Caqueta, Amazonas, and Vaupes were considered agriculturally useless, and there more primitive Indians survived. Among them are the Huitotos, who until a few decades ago were cannibals.

It was the tapping of wild rubber that spelled the end for so many deep forest cultures. Traders reaching upstream tribes offered many items of hardware the Indians wanted—such things as knives, pots, axes, machetes, cloth. But in return they wanted rubber, one of the few cash-value items the Indians can offer.

At first the Indians journeyed from their tribal villages to the gallery forests along the streams to gather the small amount of rubber they needed for barter. But as the use of trade items expanded, a debtor-creditor relationship grew up between Indians and trader. One by one the Indian families moved out of the villages and built houses in the gallery forests where they could gather rubber full time to pay for the trade goods on which they had come to depend.

Thus those Indians were converted from a tribal, communal culture to a

314/science news/vol. 95/march 29, 1969



Some primitive customs survive: an age-old technique to drive a stake.

single-family, cash-economy way of life. In the process knowledge of native culture was lost.

Other Indians, among them the Coreguaje now living in Caqueta Province, were induced to move in large numbers to work on rubber plantations. Subsequently, as most of these plantations failed because of a virulent leaf disease, the Indians went back to forest living.

In the move, however, and in the period of close contact with European culture, much of the aboriginal culture has been lost. The Coreguaje, for instance, still live in large communal houses holding several families, a distinctly tribal feature. But they use trade cloth, wire, aluminum cooking pots, machetes, axes and many other items of trade goods. Some of the women even wear brassieres. They are as aware of what is going on in the outside world as any of their settler neighbors.

Coreguaje aboriginal religion appears to have all but disappeared. And when a village chief was asked how one became chief, he replied, "By telling everyone else you're chief."

There have been corrosive influences on the Indians besides rubber. One has been the pet industry, another has been hunting.

The Indian men love hunting. Formerly they presumably got their fill of hunting for the pot. Now, in many areas, they hunt for furs or as guides for whites, on a cash basis. Formerly in some kind of balance with the game supply, the Indian in many cases has converted his hunting, with little diminution in skill, to a harvest-for-market proposition. The result often is depletion of game populations which leaves the Indians with no furs, no guiding and no hunting for the pot.

The trade in live animals, both for the pet market and for scientific research, has more impact than sport hunting. The sport hunter and the fur buyer pass up the most numerous animal species, species which can well serve as food for the Indians. The pet industry and animal researchers concentrate on just these species, however: monkeys, turtles and parrots, among others. Even though many village chiefs see the danger and discourage the practice, a few Indians spurred by the cash incentive can in a short time clean the animals out of their neighborhood jungle.

Left undisturbed, the rain forest Indians are at the top of the pyramid of the jungle ecosystem. But the jungle, though cleverly disguised, biologically is almost bankrupt. It can support only very thin animal and human populations, and these only on a subsistence level. There is no possibility of the kind of surpluses that can support ruling classes, specialists, war, harvest without replenishment and all the other foundation stones of civilization as it developed elsewhere.

Therefore the rain forest Indians became stabilized culturally at the subsistence level, where they could do very little environmental manipulating and thus very little damage. Enter the white man, culturally powerful enough to draw the Indians into his system. Suddenly the Indians become the lowest members of a market economy which is in no manner of speaking in stable equilibrium with the ecosystem. The Indians' skills are used to exploit the forest; when this is done, they are forgotten and become another piece of the ecosystem threatened with cultural, if not actual extinction.





SEE MIRACLE OF BIRTH

POST PAID WITH

\$498 POST PAID WITH

\$1X QUAIL EGGS

(\$3.25 Without Eggs.)

You get the new clear plastic dome CHICK-BATOR with 6

Bobwhite Quail Eggs (available year-round) and Egg Hatchers

Guide Book, Complete — nothing else to buy. Send check or Money Order today

G.Q.F. MFG. CO., DEPT. CL, BOX 152, SAVANNAH, GA.

#### SIZE STILL KITCHEN



Research Products Co., Inc. P.O. Box 1047, 1415 3rd St. So. St. Petersburg, Fla. 33731

## FREE

SCIENCE NEWS

### WE WILL SEND THE NEXT ISSUE of SCIENCE NEWS to one of your friends With Your Compliments. SEND US THIS COUPON.

Washington, D.C. 20036
Please send the next issue of <code>\$Clence news</code> , FREE, as a sample, to:
Name
Address
City
StateZip Code
Send it with my compliments.
Send it with my compliments.
, ,
Name
Name
Name Address Occupation