



Photo by E. C. Migliazza

A Yanomamo family

side encroachments over the past 50 years.

The Indians are now threatened by mining interests—substantial deposits of uranium and cassiterite (for tin) were found on their lands in 1975—and by construction of the northern arm of the Transamazon highway. Highway construction has been temporarily halted as the difficulties of imposing agriculture and resettling coastal residents in the Amazon have become evident. But the highway has already caused considerable damage, mainly in the form of diseases which have been brought by workers and which decimate Indian populations that have no immunity even to the common cold. Furthermore, deforestation accompanying highway construction is said to encourage the population of blackflies which bring onchocerciasis or river blindness—a phenomenon documented by Robert Goodland of the World Bank and Howard Irwin in their book *Amazon Jungle: Green Hell to Red Desert?*

Anthropologists believe the proposed park could successfully isolate the Yanomamo from outside influences. At 16 million acres, it comprises about 50 percent more land than the government's plan. It could become the only area in Brazil where Indian populations are flourishing outside the famous Xingu National Park in the southern Amazon.

Preserving the Yanomamo has considerable support in Brazil. The Brazilian Society for the Progress of Science (like the AAAS) held a conference on it that was attended by some 2000 people. The Brazilian Anthropological Association and the National Conference of Brazilian

Bishops, as well as groups of Brazilian scientists, artists, intellectuals, and journalists support the proposal as attested by a recent petition to the government that bore 5000 signatures. In a larger context, Brazilians have the support of the growing movement of indigenous peoples throughout the Western Hemisphere.

The leaders of the international campaign to save the Yanomamo compare the situation in Brazil to the situation in the United States a century ago in the Dakotas. When gold was discovered in 1868 in the Black Hills, miners and prospectors gathered in Rapid City waiting for word from the government for permission to invade the Great Sioux Indian reservation. They got it, and General George Custer was killed trying to protect miners from Indians. Now, 3000 miners are waiting in a nearby town to invade Yanomamo territory and, says Robin Hanbury-Tenison of SI, Brazil is faced with the opportunity to learn from American mistakes and not go down the same road.

In their haste for development, the Brazilians have already made many costly mistakes. According to Davis and

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many other critics, the goal of taming the Amazon for large-scale agriculture and cattle ranching has already proved a fiasco in many places, because deforestation causes soil erosion, and without forest cover soil nutrients are not replaced. So many ranches have already had to be abandoned. Flying in the face of ecological reality, ranch grasses continue to be imported from Texas and New Zealand.

But despite the political and economic obstacles, many believe the tide is turning in time for ecological as well as human realities to prevail. Says Davis: "The Indians of the Amazon are the only ones who know how to develop the region. Their destruction may mean the loss of the ability to develop the Amazon without destroying it." Howard Irwin concurs that "the only people able to live in Amazon conditions are the aboriginal Indians. . . . There is no known management strategy for tropical rainforest by Western people anywhere in the world that doesn't result in its decimation."—CONSTANCE HOLDEN

Ex-Official Scores GM for Lack of Innovation

A new book by a former insider at the world's largest automobile company, if true, goes a long way toward explaining why American automakers have habitually trailed their foreign competition in fuel economy and product innovation. The book, titled *On a Clear Day You Can See General Motors*, is a collection of the thoughts of John Z. De Lorean, who quit GM in 1973 as a top executive with overall responsibility for its cars and trucks. De Lorean's bleak portrait of a modern corporate giant may have important consequences in the current controversy over American technological innovation and productivity.

Though the book was written mostly in 1974 and published recently by his ghost writer, J. Patrick Wright, without his authorization, De Lorean has recently told reporters of its accuracy and said that the GM of today is much the same as it was when he resigned. The picture he paints is of an overgrown, slow-moving centralized bureaucracy that would rival any agency in Washington, D.C. Top corporate managers are said to be obsessed with the minutiae of day-to-day governance, a problem that some have thought to afflict President Jimmy Carter. Loyalty, particularly at the top, was valued above creativity and business acumen. As a result, De Lorean says that GM was plagued by indecision, and caught in a spiral of constant reactions to events initiated elsewhere. "It seems incredible but sound, long-range and comprehensive business planning were almost non-existent at GM when I was there."

The problem existed throughout the company, as incredible logjams of work piled up, much of it relating to model changeovers and parts problems. "As each manager tried feverishly to just meet the obligations of a day's work schedule, he didn't have time to innovate or sit back to think how he could better run his organization." As a result, the corporation frequently missed consumer trends, says De Lorean, including the move to smaller, more fuel-efficient cars, and the increasing share of the U.S. market occupied by foreign manufacturers. "The decision [ultimately] to go

small is based on costs and government actions, pure and simple. Nothing else." Consumer demand was either ignored or unnoticed, he says, in part because for a long time the larger cars turned a proportionately higher profit.

"My concern was that there hadn't been an important product innovation in the industry since the automatic transmission and power steering in 1949. That was almost a quarter century of technical hibernation. In the place of product innovation, the automobile industry went on a two-decade marketing binge which generally offered up the same old product under the guise of something new and useful. As a company, we were kidding ourselves that these slight annual alterations were innovative. They were not. We were living off the gullibility of the consumer combined with the fantastic growth of the American economy in the 1960s. Salting away billions of dollars of profits in the process and telling ourselves we were great managers because of these profits."

De Lorean, who was with GM for 17 years, says that success was measured in dollars earned per share. Just as car dealers were judged on sales, not service, so too were the corporate managers: "The undue emphasis on profits and cost control without a wider concern for the effects of GM's business on its many publics seemed too often capable of bringing together, in the corporation, men of sound, personal morality and responsibility who as a group reached business decisions which were irresponsible and of questionable morality." De Lorean gives as examples the corporate decision to build the Corvair, a car whose engineering problems were documented internally in advance of its sale, and also a variety of other engineering defects whose repair under warranty eventually cost GM millions of dollars.

De Lorean says such decisions were abetted by corporate financial managers, who gradually assumed control as the new managerial elite. "What was happening was a predictable result. . . . Short-term profits are dramatically improved, but a lack of sensitivity for product, for markets, and for consumers also sets in." Fealty to short-term gains has been blamed before for lack of innovation (*Science*, 19 January, p. 246).

All of these remarks can be taken seriously, because De Lorean earned the respect of his peers as a solid businessman, albeit something of a maverick. A GM official, in the only public comment to date on the book, said, among other things, "He obviously was a good employee. He certainly won recognition in the company." De Lorean himself has said that he stands behind the manuscript, although the "tone was harsher and more aggressive than I remembered it." Currently, De Lorean is working on the start-up of his own auto company, intended to build expensive two-seater sports cars.

Nuke-Speak

The hands-down winner of the 1979 Doublespeak award is the nuclear power industry. The award, which is granted annually by the National Council of Teachers of English, was given for meritorious performance by industry spokesmen before, during, and after the nuclear power accident at Three Mile Island.

William Lutz, an English professor at Rutgers University and chairman of the Doublespeak committee, says the spokesmen there outdistanced all other contenders in a tough year by inventing "a whole lexicon of jargon and euphemisms used" throughout the incident, or rather, in the words of the spokesmen themselves, the "abnormal evolution," the "normal aberration," or the "plant transient." The term "explosion" was chucked for the less obtrusive "energetic disassembly"; "fire" was replaced by "rapid oxidation"; and rather than speak alarmingly of plutonium contamination in the reactor vessel, spokesmen delicately acknowledged that plutonium had "taken up residence" there.

An honorable mention went to Colorado state representative A. J. Spano, who apparently attempted to improve Denver's rating as the city with the second dirtiest air in the nation by altering the definition of dirty. The Council cited a story in the *Denver Post* that told of Spano's bill, passed by a legislative committee, to change the federal designation of hazardous pollution to "poor," dangerous to "acceptable," very unhealthy to "fair," unhealthy

to "good," and moderate to "very good."

A special award for the most conspicuous Doublespeak by a foreign source was granted to incoming Brazilian president Joao Baptista Figueiredo, who announced on his election that "I intend to open this country up to democracy and anyone who is against that I will jail, I will crush."

Lutz commented that "unfortunately, this has been a good year for Doublespeak."

Postscripts

- On hospital cost containment (*Science*, 3 November 1978). The House killed, on 15 November, any chance of enacting even mild controls on the spiraling costs of health care in hospitals. The vote was not close, and the President, along with health subcommittee chairman Henry Waxman, lost 234 to 166.

The bill, which was shucked in favor of legislation supporting a voluntary cost-cutting effort, would have applied only to half the hospitals in the country and gone into effect only if voluntary targets were exceeded. The vote was considered an out-and-out victory for the medical and hospital lobby, traditionally one of the largest funders of congressional campaigns.

Carter is said to have pushed the vote through, even though he knew it lacked necessary support, out of a feeling that delay would only worsen things. Press secretary Jody Powell described the President's reaction as "unprintable."

- On Agent Orange (*Science*, 24 August). The General Accounting Office has concluded that more Army and Marine Corps soldiers were close to the areas in Vietnam where Agent Orange was sprayed as a defoliant than the Pentagon has previously admitted. After reviewing the GAO report, the Department of Defense said, "A basic conclusion that a large number of U.S. ground troops were in close proximity to herbicide Orange is probably correct." Previously, the agency said that soldiers had not been exposed until after the herbicide had decomposed.

No illnesses have been traced directly to the exposure, the GAO concluded, however.

R. Jeffrey Smith