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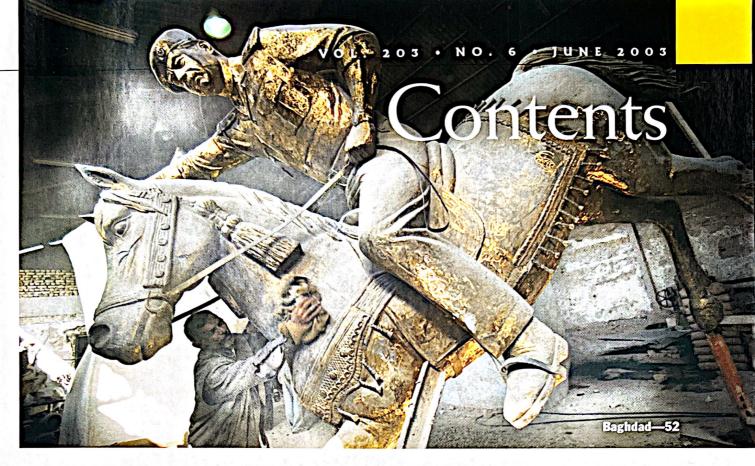


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Final Edit On Assignment Flashback

THE COVER

The tomb of a noble Scythian couple in the Russian Republic of Tuva yielded this stag—part of a man's headpiece—and a hoard of other gold treasures.

BY SISSE BRIMBERG

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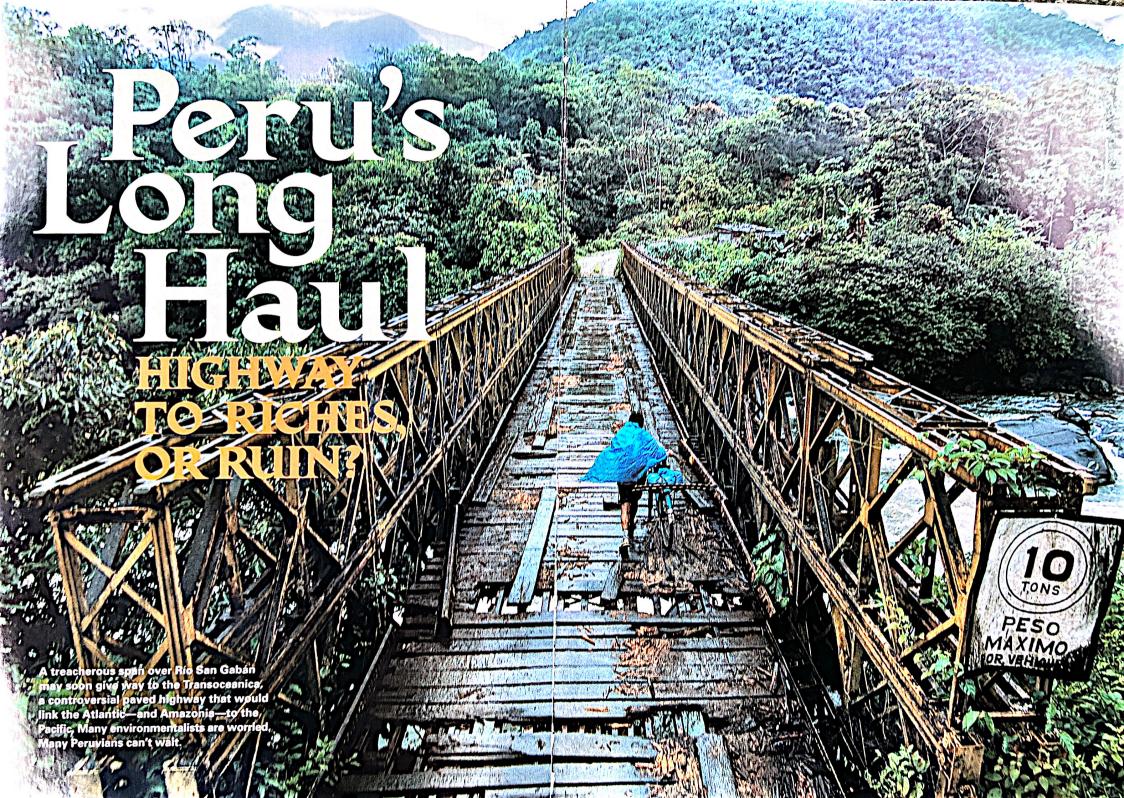
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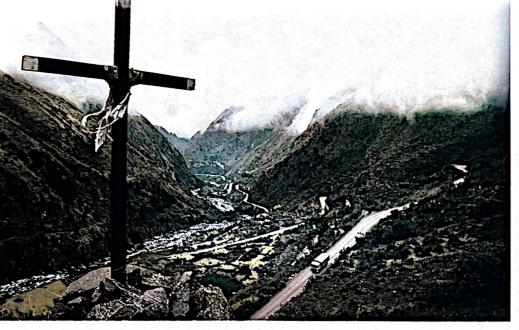
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BY TED CONOVER PHOTOGRAPHS BY MARIA STENZEL

A dream of Peru's leaders since the 1950s, the Transoceanica consists of hundreds of miles of roadway, much of it unpaved.

Crosses mark the human toll where trucks—de facto buses of the road—have gone over the edge. For passengers, fixing potholes is part of the fare.

ith a gasp of brakes, the truck nears the rickety, one-lane bridge on a hot Amazon afternoon. As it slows, the cloud of dust in its wake rolls toward the truck and then washes over it, enveloping the 17 people riding on top with fine red dirt. The truck is a cisterna—a tanker—carrying a load of fuel from Cusco up over the Andes and down to the Amazon Basin, but the top of the tank is flat, with low wooden rails around it. Up here, just above the large letters that warn PELIGRO—COMBUSTIBLE on the side of the tank, the passengers close their eyes and hold their breath.

Among them are Mary Luz Guerra and her son, Alex, 14, and while Alex seems to be enjoying himself, this is not Mary's idea of a good time. The nursery school teacher and single mother had flown from her home in Puerto Maldonado, in the rain forest, to Cusco, high in the Andes, to begin her month-long vacation and pick up Alex, who had been visiting relatives. The flight, full of tourists and a handful of more prosperous locals, had taken 37 minutes. On her return, however, she discovered the fare had risen, and she could not afford seats for both herself and Alex. So the two of them were forced to come home via the service entrance, as it were—a 72-hour trip atop this truck, on a narrow dirt road that curves like an earthworm held by the tail over a 15,585-foot pass and then down, down into the humid rain forest.

It's a memorable spectacle, falling from the

steep and wrinkled Andes into the endless, green, two-dimensional Amazon Basin. The truck stops for lunch in a settlement called Libertad. I join Mary, Alex, and some of the other passengers for a swim in a nearby creek; as I emerge, free of dust at last, a toucan bobs across an adjoining field and disappears into the forest canopy.

One of the two roadside restaurants is serving paca—a large rodent that is remarkably tasty fried. Mary sighs with disgust as another truck blows through town, and dust settles onto our plates. The truck belongs to a beer distributor making deliveries. When it pulls up next to us, I point out its logo to the others: Transoceanica. That word, shorthand for a proposed transcontinental highway, is all the rage here.

Mary dabs her forehead with a thin paper napkin. "I can't wait till they build that highway!" she says.

ike many in the developed world, I am enchanted by roadless places. The Earth has so few of them left, and glorious creatures like toucans depend on them. Many thoughtful people believe that the fate of the Earth itself depends on keeping nature unpaved.

But Peru is mad for new highways. Just as the north-south Pan-American Highway was the infrastructure project of the 20th century for South America, many people see an east-west Carretera Transoceanica—a road joining the Pacific to the Atlantic—as the project of the 21st.

One might assume that when people use a phrase like "transoceanic highway," they have







Río Los Amigos snakes through a newly designated 340,000-acre conservation area, part of a chain of reserves that arguably contain the highest recorded biodiversity on Earth. Just across the border, rain forest becomes rangeland along Brazil's Transamazonia Highway. Three-quarters of the deforestation of the Brazilian Amazon has occurred within 30 miles of a paved highway.

a route in mind. But when I went to take a look at the future road, I discovered that wasn't necessarily so. The eastern part, everyone agrees, will pass through Brazil, which, as South America's economic powerhouse, has done a lot of paving already: Two or three of its highways are poised to connect the Atlantic to the Andes.

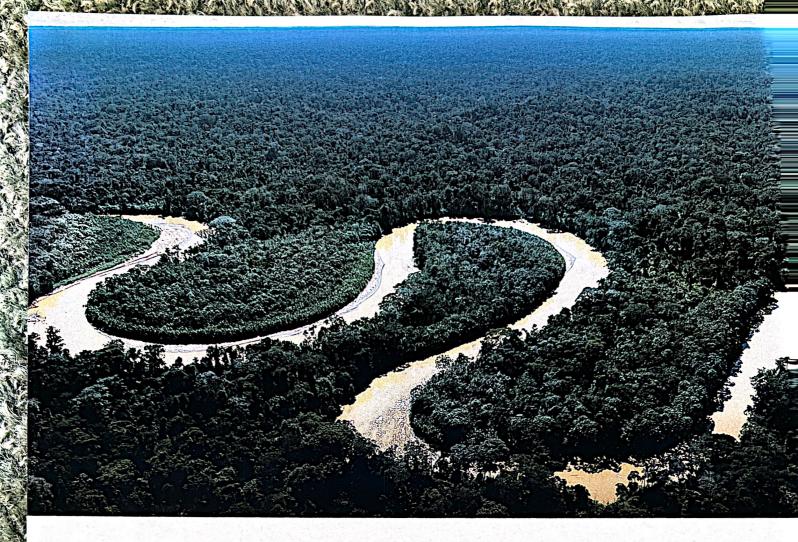
The future is murkier from the Andes west. One link, which may be finished first, reaches the Pacific via Bolivia. In Peru two main routes are being contemplated, but a third is a distinct possibility, and all have details that remain to be worked out. As much as "transoceanic highway" suggests something concrete to us, to Peruvians it also evokes a holy grail, an elusive public works project that has been talked about for years, but seems only to inch toward completion.

Which is not to say that people are blasé about it. Few appreciate this more than President Alejandro Toledo, whose administration—barely two weeks into his presidency, in August 2001—

announced a study to decide the best route. There was an immediate uproar: Residents of both the state of Puno, next to Lake Titicaca, and its rival state of Cusco felt the study might ruin their chances of getting the road. Thirty thousand demonstrators shut down Cusco for a day, while in Puno, highway partisans battled police and held two legislators hostage.

Transportation Minister Luis Chang, trying to defuse matters, later said what experts have believed for years, that ultimately there will not be one route but many. And in fact gradual improvements are taking place all along these roads. But still untouched for the most part are the great passes over the Andes, and when that work will be finished is anyone's guess.

Cusco and Puno agree on one thing: The highway's route to the east of them will cut directly through the large piece of Amazonia that is the state of Madre de Dios. This causes environmentalists great concern. Cloud forests



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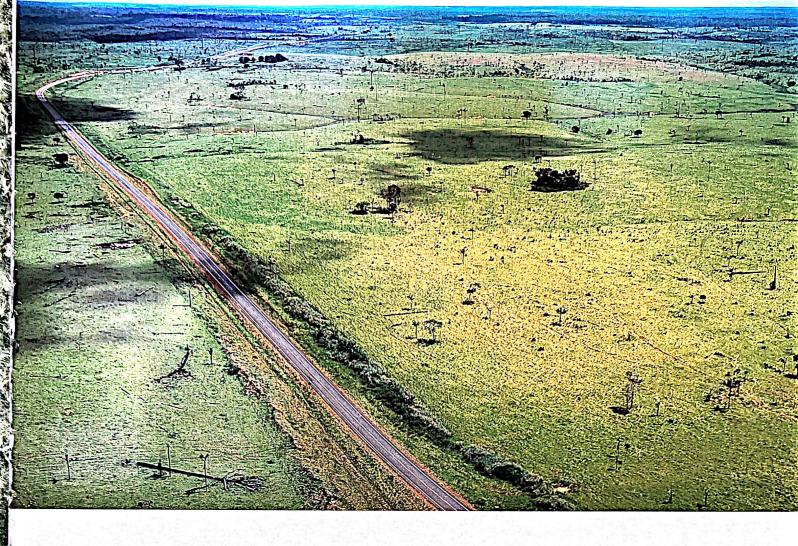
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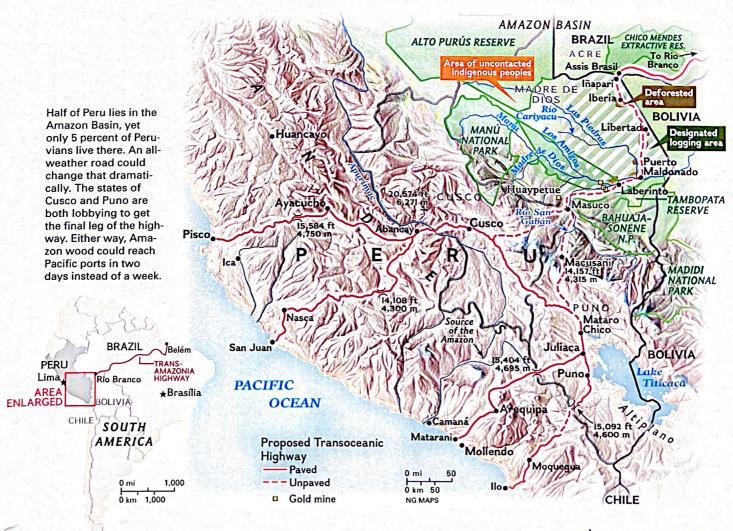
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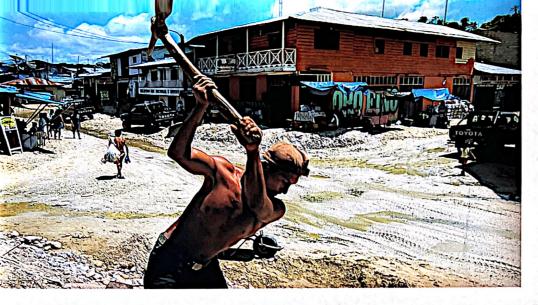
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Bars line the main street of Huaypetue, which grew to 15,000 people before the gold rush largely ended in 1998. Entrepreneurs like Eleanor Dea and family (right) now head up Río Las Piedras to harvest red gold: big-leaf mahogany.

in the mountainous western edge of this state, according to a Peruvian government study, have the greatest biodiversity of any place on Earth, and vast tracts of the rain forest below remain in pristine condition. This humid, verdant land is home to macaws, tapirs, and numerous tribes of indigenous people who remain uncontacted by the outside world. It is a place where the best roads traditionally have been rivers, which for millennia provided the least impeded access from one area to another.

Highways, of course, alter everything. They change patterns of human settlement, hasten the destruction of natural habitat, transmit disease, set the stage for clashes of cultures.

speaks the mountain language now, they replied, because so many people had come down to work. They themselves were headed up the river, to cut mahogany.

Mahogany wasn't always such a big deal here, Braulio explains as he gets back on the road and accelerates through several gears; in the late 1980s and '90s it took a backseat to gold. But since the plunge in world gold prices, the harvest of the wood has driven the economy of Madre de Dios. And with more than half the state federally protected—through biosphere reserves and conservation reserves—and another quarter owned by indigenous communities or Brazil nut harvesters, there is not a lot of legal

"One part of me wants it," says a local innkeeper. "But another part knows it's the beginning of the end."

A dirt road already exists through Madre de Dios, and a transformation is under way. The driver of our tanker truck, curly haired, energetic Braulio Quispe Guevara, 35, has seen the change in his passengers. For 17 years he has hauled people and petrol over the Andes from Cusco to Puerto Maldonado and hauled people and wood back to Cusco. Many of his passengers are emigrants from the impoverished highlands. Amazonia is where the work is now, and mahogany is the reason.

A couple of hours outside Puerto Maldonado we pull over near Laberinto, a town on the giant Río Madre de Dios, to let off four young men. Earlier, I'd heard them speaking Quechua and asked about it. Everybody in the jungle mahogany to go around. In their search for the tree, woodcutters invade the federal lands, where forests are full of illegal logging camps. Though the sale of this wood is illegal, the money involved is huge, and the few environmental enforcement officers in the area have proved easily corruptible.

We pull into Puerto Maldonado at dusk and stop across the street from the depot where Braulio will unload his fuel. It's the end of the line. I say goodbye to Mary and Alex—school started four days ago, so she's eager to get home—after helping load them into one of the three-wheeled moto-taxis that ply the city streets.

Though it's the capital of Madre de Dios, Puerto Maldonado has the dusty feel of a frontier

Spacebreak here





"You need to produce something the world really wants, and what the world really wants now is mahogany."

town. Built at the confluence of two rivers, it has been a center for rubber tappers, Brazil nut harvesters, gold miners, and, now, loggers.

As in many such locales, there are only a handful of big players. I climb on the back of a motorcycle taxi one evening and go to ask one of the biggest, mill operator Alan Schipper Guerovitch, what he thinks of the proposed highway, and, incidentally, who is buying and cutting up all that illegal mahogany?

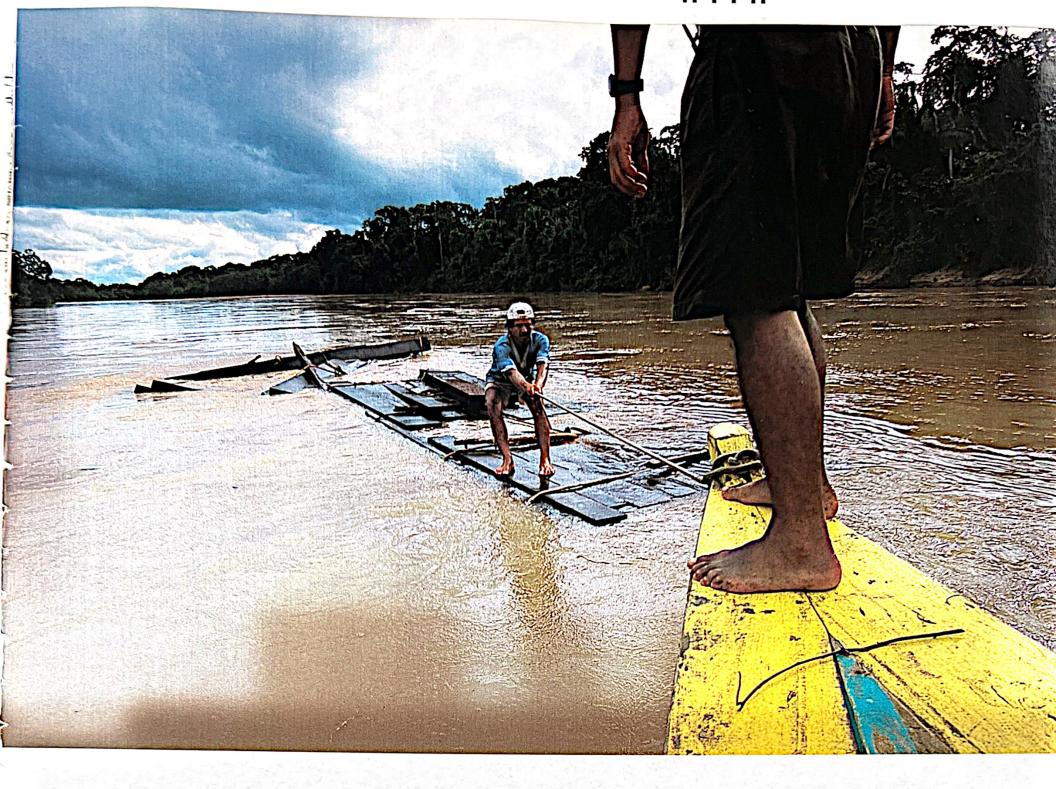
Schipper's mill sits on the edge of town, surrounded by wooden walls, with an observation tower that lends the impression of a stockade. Empty trucks idle outside. Passing my business card through a slot in the gate, I am admitted by guards and pointed toward the boss's office.

Schipper, 31, is blond and wears jeans and a polo shirt. Scion of a famous lumber family, he has a degree from Peru's leading forestry school. We sit at a massive table in a one-story house overlooking the open-air mill. The table, he

confirms, is made of solid mahogany, as are the giant doors, and the desks. He does not, he repeats several times, mill mahogany himself, and he doesn't know who does—too controversial, too much of a headache. Rather, the mill processes other red hardwoods: cedar, tornillo, and a tree called *shihuahuaco*.

The Transoceanica, Schipper asserts, could only be good for development. It would lower shipping costs and allow the wood to be brought to market much sooner and in better shape. Opposition to it is shortsighted, he feels, because it leaves his country in a position where there is "no way to develop, no possibility of growth."

Referring to the chunk of Madre de Dios that is officially unavailable to logging, he says, "I ask you, what nation in the world can sustain its people on only 20 percent of its available resources? In a less developed country you need to produce something the world really wants, and what the world really wants now is mahogany."



Heartwood of the rain forest, mahogany planks dry in the Río Cariyacu watershed, an area rife with illegal logging despite a crackdown. The planks, bundled into rafts (above) and floated to waiting trucks in Puerto Maldonado, are worth \$100 each on the river and \$1,500 at Lima. Peru's mahogany exports have risen twentyfold since 1991—most of it to U.S. furniture and coffin makers.

We leave the office so he can show me the mill. It is getting dark. A worker approaches Schipper, literally with his hat in his hand. "Please, sir, would you mind if I took some of those extra mahogany pieces?"

"Excuse me?"

"Some of that extra mahogany, by the gate."

"There is no mahogany by the gate!" his boss replies, glaring at him.

The man pauses for a moment, apparently not comprehending. "Yes, you know. That mahogany we cut."

"There is no mahogany. You can have some of that tornillo that's by the gate, if that's what you're thinking of."

"The tornillo?"

"Yes. That is all that's by the gate."

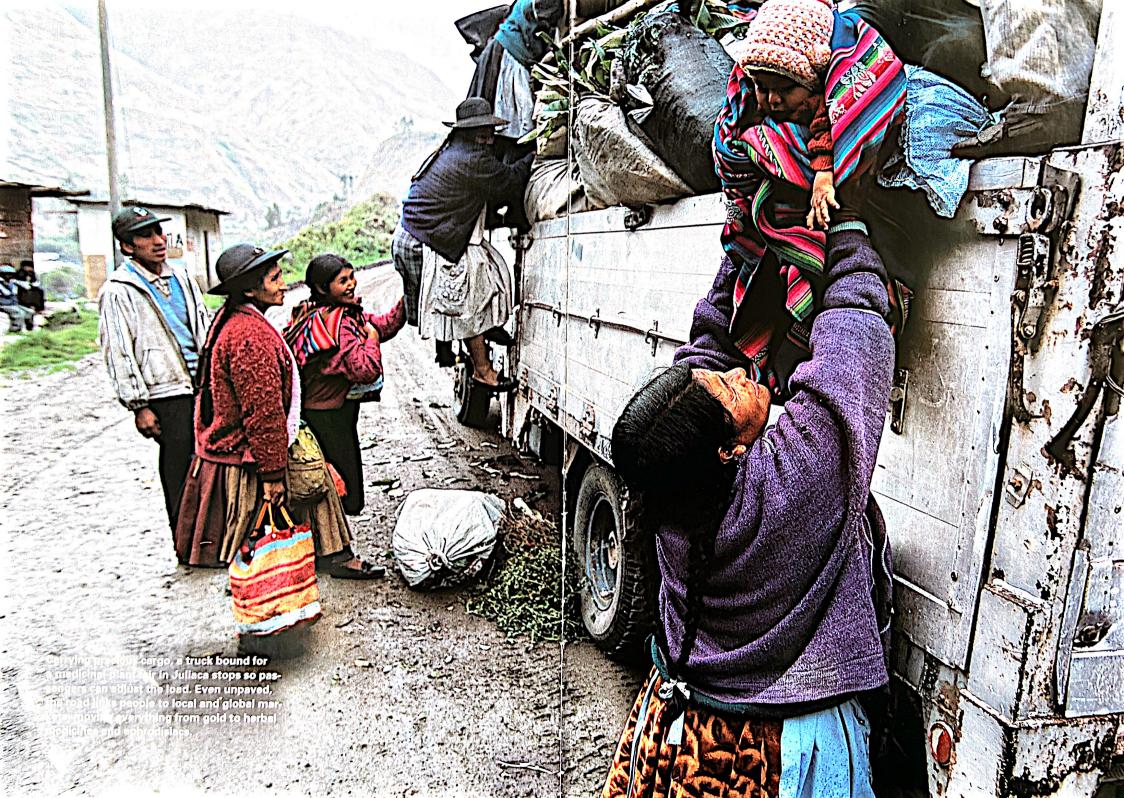
The man looks confused. I can see he is not bound for a management post. "Thank you, sir."

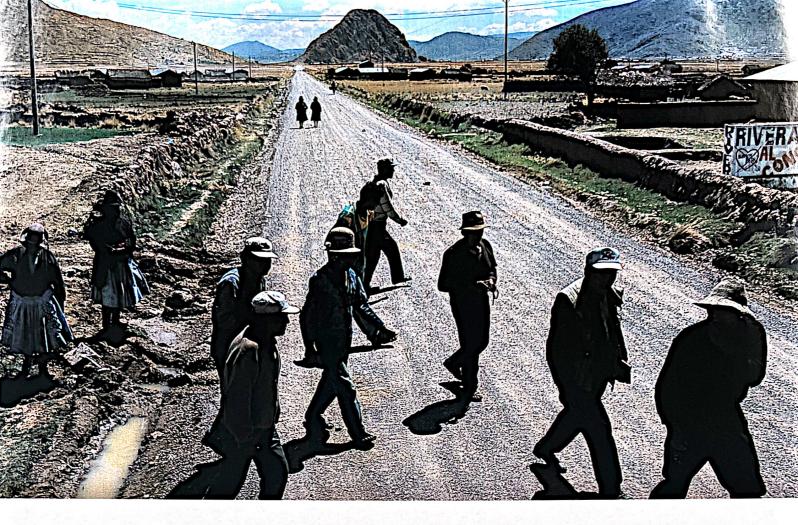
Much later Schipper would admit to me that he does mill mahogany "sometimes."

n a traffic circle across town a sculpture is rising, seven or eight stories high, resembling a tree trunk—a monument to biodiversity. As I pass it in a bus headed to a wilderness lodge, the guide next to me notes ruefully that this celebration of nature is made of concrete.

The contradiction mirrors others in Puerto Maldonado. A commercial town, it is also thick with offices of non-governmental organizations, including Conservation International, World Wildlife Fund, the Amazon Conservation Association, Pro Naturaleza, and the Frankfurt Zoological Society. Here one can find advocates of ecotourism and indigenous rights, of public health, river otters, and Brazil nut harvesters —scores of people worried about the advent of the highway.

I wanted to see firsthand the rain forest that they fear losing, and so got off the highway to visit Posada Amazonas, a lodge run by an ecotourism company in partnership with the





Fearful that the Transoceanica will intrude into their fields, farmers from Mataro Chico trail a federal highway engineer (above, second from right) as he measures the right-of-way of the soon-to-be-paved highway. Five months later not a disparaging word could be heard about the smooth new ribbon of asphalt, though livestock occasionally become roadkill.

indigenous Esa'eja community that controls the land. There, on a trip to the garden of a local healer, we learn of leaves that just might cure impotence, toothache, snakebite, and fright. The healer, Don José Mishaja, recently discovered a rare pair of nesting harpy eagles on his land and is negotiating with the ecotour company over tourist access to the nest. He wants a one-time fee of \$300. That seemed a reasonable plan for protecting wildlife.

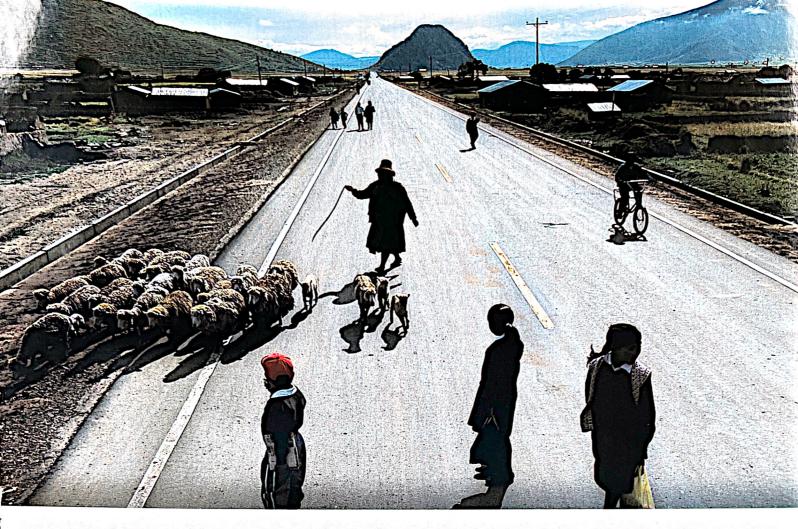
Later we spend two hours at twilight atop a 115-foot-high tower that allows guests to experience the world above the forest canopy. My fellow visitors are all birders, and they help our guide identify a staggering array of winged creatures, from the fat and clumsy Spix's guans that crash through branches en masse, to a pair of scarlet macaws gorging on the fruit of a passion fruit tree, to the brilliant yellow-rumped caciques that soar by, and the white-throated toucan, one of the world's largest.

The lodge's administrator, Jorge Ricaurte, had just moved to the jungle from a job at the Lima Sheraton—huge cut in pay, he says, huge improvement in lifestyle. He has a background in biology but is also a part of urban modernity. What does he think about a new highway?

"One part of me wants it," he says, "the side that worries about food not getting through in the rainy season. But another part knows it's the beginning of the end."

Alfredo García, an anthropologist back in Puerto Maldonado, shares his concern. The costs of highway construction will go beyond environmental loss, he tells me. Indigenous peoples will suffer from disease, displacement, and acculturation. Black-market drug activity is likely to increase, along with prostitution and other social ills. Almost certainly, he fears, construction will precede the necessary planning for the highway.

García sighs the way some small-town



He walks down a new paved highway. He bends down, kisses his hand, and touches the pavement: Life is better now.

Americans do whenever they think of Los Angeles. "Just look at Brazil. That's the future we're worried about."

Puerto Maldonado made me glad not to be on the ground: It looks wet down there, the jungle pressing close on the muddy track for mile after mile. There is evidence of recent road drainage projects, and a new bridge at the town of Iberia, but otherwise the route to the border looks neglected on Peru's side.

To arrive in Brazil from Peru is to feel the development calendar being moved ahead two or three decades. Not only does Brazil have two roads under construction to connect Peru with parts east, but it is here that the modern roadbuilding movement was challenged by Chico Mendes and his followers.

Mendes was a rubber tapper who witnessed the disruption wrought by the building of Brazil's highway BR-364 across parts of Acre state in the 1970s. Awarded many prizes by other countries for organizing peaceful resistance to roadbuilding, Mendes was murdered in 1988 on the order of two landowners.

Among the many results was the rise of a green political party in Brazil that has governed Acre for several years now. Governor Jorge Viana hopes to dissuade residents of the notion that deforestation is synonymous with civilization. One of his goals is to demonstrate that "development does not depend on the destruction of the forest but rather on its survival."

This does not mean that Acre has stopped building roads, however. The first thing I notice, upon crossing the border in the air, is that the road from the town of Rio Branco is paved almost to the Peruvian border at Assis Brasil, and construction vehicles are massed for the final push. The second is that, unlike in Peru, the forest recedes for hundreds of yards from either side of the highway, and sometimes for miles, having yielded to logging and ranches; cattle scatter under our low-flying plane. Ten percent of Acre is now deforested, though more than 30 percent is also now protected, in conservation areas such as the 2.4-million-acre Chico Mendes Extractive Reserve.

In Rio Branco, I ask the state's secretary of science, technology, and the environment how continued roadbuilding squares with the administration's green goals. "In Acre we are very far from anything," Carlos Edegard de Deus explains; one of the state's only strategic advantages is its location "on the border of countries with access to Pacific markets."

Linking to the Pacific is so important that Brazil has offered Peru help in financing the Transoceanica. The goal, the secretary says, is to export to Asia: beef, forest products—especially wood—soy beans, and, down the road, manufactured goods.

And, he says, roadbuilding could actually enhance environmental protection. The idea

down, kisses his hand, and touches the new pavement: Life is better now, he says.

had arrived in Puerto Maldonado via Cusco—one of the proposed routes for the Transoceanica. A competitive route crosses the mountains south of Cusco and links to the coast a different way, via the town of Puno. That's the way I wanted to go back.

It's the more direct connection—750 miles, compared with about 1,000 for the Cusco route. But parts of the road are much worse, only half of it is paved, and there is correspondingly less traffic. I leave Puerto Maldonado for Masuco, in the foothills, and after two days find myself atop a truckload of mahogany.

The driver is on top of the truck fairly often, as well, leaving the wheel to his assistant while he flirts with two Indian sisters who are among the passengers, or looks for spare tires, or wakes us at 2 a.m. to say we'd better climb down—the truck was stuck in mud and had nearly tipped over. None of the passengers carry much food, nor adequate clothing for

Many thoughtful people believe that the fate of the Earth itself depends on keeping nature unpaved.

here, voiced to me by other conservationists as well, is that mahogany smugglers often have knowledge about trails and back roads that police do not.

I ask Joaquín Vial, a Chilean who was once his country's budget director and later directed the Andean Competitiveness Project at Harvard's Center for International Development, about the idea that roads can help in managing conservation areas. "Well, maybe," he says, with a laugh. "But every new highway I ever saw back home, the land around it was deforested [he snaps his fingers] like that."

The paving of streets in Rio Branco was proceeding at a fever pitch: Elections were coming up, and people hated their dusty dirt streets during the dry season. A government-produced campaign commercial featured an aging rubber tapper recalling how tough life was in the old days. Then he walks in the twilight down a new paved highway. He bends

the nights at 15,000-plus feet that lie ahead.

For the first two days the road is the worst I'd ever seen: a steep, winding, truck-trapping mudhole. Often we are stuck for hours on the steamy shoulder. At one of the longer delays 15 to 20 trucks are stacked up in either direction, waiting for one with a broken axle to be moved out of the way. As I watch workers tie a tow cable to the nearest truck, a mammoth iridescent blue morpho butterfly lands on my knee. Slowly I take my camera from my knapsack and photograph it. A moment or two later a very poor-looking man, a passenger on another truck, sits down next to me.

"You know, if the Shining Path had seen you doing that five or six years ago," he offers, unbidden, "they would have hung you up by that tree over there." His tone is not friendly.

"How about now?" I ask.

He shrugs.

The Maoist Shining Path guerrillas, I knew,



Llamas and alpacas once carried salt in caravans across Peru's high desert plain. Now they ride in style along this leg of the Transoceanica. "People crave roads," says Peruvian ecologist Enrique Ortiz. "They bring a sense of modernity, new goods, and the temptations of the modern world. But they can also break down communities and the environment. They change everything."

hated educated elites and had murdered thousands before being largely quashed in the '90s. But terrorists remain: A car bomb exploded in Lima the week before my arrival, killing ten. And two days ago we drove by a teenager, maybe 16, wearing a T-shirt emblazoned with the face of Osama bin Laden. Among other things, the incidents recall the extreme poverty of Peru, the alienation of huge numbers of people in the hinterlands. Desperation feeds political extremity; development that increases opportunity may be one cure.

I sit and watch the spectacle of the stuck truck. At first the driver refused to unload. But two attempts to pull him out failed when the pulling truck, itself, lost its traction. And now, with so many truckers waiting, he is under a lot of pressure. He and his assistants unload. They shovel mud and wedge branches under the wheels. I think about a comment by an economist who had wondered aloud to me why

Peruvians needed another big highway "when they can't even take care of the ones they've got."

The chubby, middle-aged driver emerges from under the cab, shirtless, wearing only one flip-flop, and covered head-to-toe in mud. But then, instead of having a heart attack from the stress, he sits down in the stream that runs across the road, laughs loudly, and starts splashing water over himself. It is no longer enough simply to watch. After he rinses, I join a score of other men and push while two trucks, linked by a cable, strain to pull the one truck from the mud. With a sucking sound, amid clouds of

diesel smoke and the roar of engines, it is finally dragged clear.

I am filthy now too, and somehow that clarifies everything: These people, I thought, need a better road. □

WEBSITE EXCLUSIVE

How can the benefits and costs of a highway through Amazonia be balanced?
Share your thoughts and find a photo gallery at national geographic.com/ngm/0306.