Panamericana: Natural Obstacles and Environmental Impacts along the Long, Unfinished Pan-American Highway

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My current research project, tentatively entitled "*Panamericana*: Natural Obstacles and Environmental Impacts along the Long, Unfinished Pan-American Highway," investigates the environmental consequences of road building in the developing world with the Pan-American Highway, which has never been finished, as case study.

From 2010 to 2050, based on current trends, global road mileage will increase by a dramatic 60 percent, some 40 million kilometers of new automotive infrastructure. As much as 90 percent of this growth will be built in developing nations. Automotive infrastructure is global civilization's principal production in both extent and scale, and possibly its most expensive. Even after 120 years of unrelenting expansion, automobility continues to grow at a rapid clip. The automobile's past in Latin America, much of it still unexamined, may help us understand what that future may look like? My research takes the Highway as a case study that highlights the impacts that automotive roads have had on the ecologies of developing nations. Arguably, nothing explains human reach into every global niche better than roads, and conservationists argued as early as the 1930s that the most secure way to protect nature was to keep it roadless, ideas that were implemented in the US in the creation of the Wilderness Act of 1964. My hope is that an accessible history of a celebrated road will help us clearly see a ubiquitous infrastructure that has essentially become invisible, to help society fully consider the essential role that roads have played in human migration, resource extraction, and species extinction. Roads that penetrate new frontiers are the major proximate cause of habitat loss and fragmentation. Without automotive roads, however primitive, there can be no modern agriculture, no housing sprawl, no tropical deforestation, and no oil or gas exploration. Man's power to shape the earth remains relatively puny without motorized, wheeled access.

Historians have long taken an interest in grand infrastructural projects. More than 600 books have been written about the Panama Canal. Remarkably, until last year, not a single book had been published on the Pan-American Highway's history. Failures fail to impress us. The recent book in question, Eric Rutkow's *The Longest Line on the Map*, deftly narrates the highway's origins and construction, but very much as an American idea, designed by American engineers, and paid for with American dollars. But the highway had broad, international participation, not only in its construction and financing, but in its use. The first

person to drive much of the route was Italian. The first individuals to walk it were Peruvian Boy Scouts. The first crews to attempt to survey the highway's route consisted not of Americans but Brazilians who invested ten meticulous years.

I intend to examine not just the Pan-American route, which is an aortic trunk, but the arteries and capillaries that branch off of it, many of them built not by international dreamers and national boosters but by very local interests seeking their own wealth. This unregulated kind of road building has built a fair proportion of the network and can often be the most consequential ecologically. But such roads are almost entirely dependent on major road projects, whose construction is driven not just by the cheerleaders of economic growth but by individuals and corporations who stand to make money in the construction. In fact, in Latin America, most initial domestic construction companies were founded by politicians and military figures who grasped that the opportunities for profit, both honest and corrupt, were unprecedented.

I am also interested in the honest and well-intended discourses used to promote automobility. For the road boosters, whether those who promoted the Pan-American Highway or China's Belt and Road Initiatives, all roads lead to some promised, utopian future. Many have turned out to be ecological dead ends. And the Pan-American Highway's particular failure, a gap of unpaved terrain between North and South America, a gap that exists in part because of the environmental movement and ecological concern, holds out the possibility that more roads in more senstive places is not global civilization's inevitable future.