

The Ecology of Oil: Bringing Workers into Environmental History and Nature into Labor History

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Myrna Santiago
Associate Professor of History
Saint Mary's College of California

What I want to tell a story about the consequences of oil extraction in Northern Veracruz, the first site of oil production in Mexico during the period when the oil companies were owned by Americans and Europeans, 1900-1938. In March 1938, the Mexican President Lázaro Cárdenas nationalized the industry and all but one foreign company had to leave Mexico. This is a local story. It merges the social and environmental effects of oil extraction, explicitly advocating for scholarship that includes workers in the writing of environmental history and that incorporates nature into labor and working class history.

I start from a more inclusive paradigm that argues that oil production produced a specific set of changes: a). a shift in land tenure patterns, b). changes in land use, and c). a transformation in local social composition and social structures. Within these overarching processes, I locate additional changes described below. The package of relationship among human beings, between humans and/in the local environment, and the historical processes everyone was involved in is what I call the ecology of oil.

The area of study is the Huasteca, which used to be the northernmost tropical rainforest in the Americas and the first to experience oil development. In 1900, the local population of the Huasteca included the families of old Spanish stock (the hacendado elite), mestizo ranchers, and the Teenek, distant cousins of the Maya, also known as Huastecos, who owned land communally.¹

¹Antonio Escobar Ohmstede, Historia de los pueblos indígenas de México: De la costa a la sierra: Las huastecas, 1750-1900 (Mexico City: Centro de Investigaciones y Estudios Superiores en Antropología Social, 1998), 48, 115.

The first change the oil companies brought to these communities and the Huasteca rainforest was a shift in land tenure patterns. The companies introduced a new concept to the area: the commodification of land. That is, the rainforest and all its creatures had a price and could be leased, bought, or sold. The local inhabitants reacted to that proposition differently. The hacendados jumped at the opportunity to sell or lease, happy to make money from “land” they considered, quite appropriately from a contemporary environmental viewpoint as it turns out, inappropriate for their main economic activity: cattle ranching.² The Teenek were not so sure. They did not want to lose their forest and turn it into a checkerboard of individual plots. Among the latter, heads of household refused to sell, so the companies raised the prices, unleashing a land grab and speculation never before seen in the history of the region. Those men who would not commodify the rainforest, suffered the consequences. They were ambushed and killed by strangers; or stabbed or shot by mysterious characters in bars and brawls. The widows were then pressured to sign on the dotted line. Most were illiterate, so the most they could do was put an “X” on the line, but they knew they were losing the land they depended on to support their families and culture.³ In this manner foreign oil companies ended up controlling more than 24 million acres all over Mexico by 1938. That’s about the size of South Carolina or Virginia. In

²Gabriel Antonio Menéndez, Doheny el cruel: valoración histórica de la sangrienta lucha por el petróleo mexicano (Mexico City: Ediciones Bolsa Mexicana del Libro, 1958), 76.

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Myrna Santiago, The Ecology of Oil: Environment, Labor, and the Mexican Revolution, 1900-1938 (Cambridge: Cambridge University Press, 2006) 80-82.

northern Veracruz itself, the companies controlled about 46% of the territory.⁴ That shift in land tenure had no precedent in local history.

Control over the rainforest led to a second radical transformation: the change in land use patterns. Before 1900, the hacendados raised cattle with great difficulty; they were not wealthy like hacendados in other parts of Mexico. The Teenek planted corn in small patches, and exploited the forest for most of their needs. All that changed with oil. The industry required infrastructure: roads, pipelines, pumping stations, storage tanks, refineries (14 in total by the 1920s), factories to make fuel cans, and wharves for shipping.⁵

The infrastructure alone meant great deforestation. Along the coastline, that meant the flattening of sand dunes. There were also the wells—and spills. It rained oil. Forests, mangroves, swamps, sand dunes and marshes were covered in heavy black crude. The oil companies did not lay out pipeline until the oil spurted out of the ground, so expanses of deforested land became open oil pits, or dams, that collected the spilled oil. The dams were anywhere from 7 to 30 feet deep. By 1918, there were 66 such dams in the Huasteca.⁶ The result was dramatic pollution. By 1920, for example, the Tampico Chamber of Commerce complained about,

The absolute loss of both the best promenade in this city and the most acclaimed beaches... [because] they are totally covered with *chapotote* and one can neither walk one step without one's shoes

⁴*Ibid.*, 68-69.

⁵*Ibid.*, 104-113.

⁶Boletín del Petróleo (BP), 2:2 (August 1916) 101; BP, 6:1 (July 1918) 84-92.

getting soaked by such bothersome and sticky object nor take a bath without one's body being totally tarred.⁷

Rivers, streams, lakes, lagoons, and much of the Gulf coast were all contaminated by spills.

Numerous wells also caught fire. The worst was well #3, at San Diego de la Mar, which spurted a black column of oil and then burst into flame on the 4th of July, 1908, while American drillers were drinking beer in celebration of the independence of the United States. The explosion was so large, the earth sunk and swallowed the derrick and all the tools. Two big holes opened up, like “Dos Bocas” and that became the name of the place. The fire lasted two whole months (57 days), nothing could put it out. The black cloud of smoke could be seen from miles away; sailors at sea in the Gulf of Mexico could read by the glow of the column of fire. In the port of Tampico, about 65 miles north, people thought it was raining black ink, as the cinders dissolved and fell on the city.⁸

This was the largest oil spill and fire ever in history—about 420 million gallons (the 1989 Exxon Valdez spill was 10.8 million and did not catch fire; the 1991 Gulf War spills and fires lost 240 million gallons).⁹ More than 30 sq. km. of forest, swamps, mangroves, and marshes were completely buried in oil. When the fire burned itself out, there was a lake with poisonous gas rising. In

⁷Chamber of Commerce to Municipal President, 1920, Archivo Histórico del Ayuntamiento de Tampico (AHAT), Exp 38, no 32.

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Everett Lee DeGoyler, “Mexican Petroleum Industry,” Southern Methodist University, The Papers of Everett Lee DeGoyler, Box 107, Folder 5220; Juan Manuel Torrea and Ignacio Fuentes, Tampico: Apuntes para su historia (Mexico City: Editorial Nuestra Patria, 1942) 285.

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Miles O. Hayes, Black Tides (Austin: University of Texas Press, 1999) 29.

1913, an American geologist, Charles Hamilton, reported that the lake covered 40 acres. He wrote,

The potent hydrogen sulphide [sic] gas had killed everything. What had been lush *monte* was now a gaunt specter of dead trees. The air stunk with the smell of rotten eggs. There was no sign or sound of animal, bird or insect life. Nothing stirred in the breeze. The silence was appalling. It was eerie and frightening. The great bowl had a high side flanked by a forest of dead trees and a low swampy side. Through this swamp poured the overflow of hot salt water, forming an oily stream without any vestige of either plant or fish life... The entire surface of the dark fluid in the crater was in constant motion of currents and eddies, whirlpools and blows of oily mush, hot salt water and evil smelling gas. It was evident that the high banks were undercut and could slough away into the heaving, seething, liquid cauldron. It was an awesome sight. It smelled and looked like I imagined hell might look and smell.¹⁰

The lake, which I visited in 2006, is still there, smelly and oily, with a forest of dead sticks on one side. The area has not recovered, 100 years later.

The rainforest of the Huasteca disappeared as the years went by, in fact. By 1938, it was all but gone. Today it is a savannah for cattle ranching in patches; a booming citrus industry made possible by petroleum-based fertilizers in most parts.

As the oil industry grew, so did the port of Tampico. It became the most important oil port in Mexico through 1938. Urbanization was thus another important change in land use the industry brought about. Tampico grew enormously: from 17,000 people in 1900 to 23,000 in 1910, reaching a peak of 95,000 in 1921, a fivefold increase in 20 years. By 1921, the port was the 5th

¹⁰Charles W. Hamilton, Early Day Oil Tales of Mexico (Houston: Gulf Publishing Company, 1966) 76.

largest city in Mexico.¹¹ The marshes, swamps, mangroves, sand dunes, and even streams disappeared as the city grew and grew.

The labor force to make all these changes did not exist in the area, so the oil companies had to import it. This is how the oil industry brought about the third major change in the Huasteca. The oil barons changed the social composition of the Huasteca, introducing workers to a tropical rainforest environment in order to eliminate it. The companies recruited Mexican men by the thousands between 1908 and the height of employment, 1921, when there were approximately 40,000 men on the payroll.¹²

The great influx of men to fell the forest, flatten the sand dunes, chop down the mangroves, and work in the camps, the refineries, the pumping stations, and the wharves, meant that the local population, particularly the indigenous Teenek, were totally marginalized socially, economically, and politically. If they had been important, if repressed, local actors before the advent of the oil industry, they were now dwarfed by the sheer numbers of migrants.

The oil companies also introduced new social hierarchies to what used to be agrarian societies. The American and European oil barons organized the labor structure according to contemporary notions ruling color/race/nationality. The top layer, the executives, professionals, and managers, were

¹¹Marcial E. Ocasio-Meléndez, *Capitalism and Development: Tampico, Madero 1878-1924* (New York: Peter Lang, 1998) 81, 173.

¹²

Informe, November 18, 1921, Archivo General de la Nación (AGN), Departamento del Trabajo (DT), Caja 326, Exp 3.

white/Americans/Europeans. The drillers and highly skilled craftsmen were foreigners too. Those positions were forbidden to Mexicans.¹³

Mexicans did manual labor. Skilled Mexican workers (mechanics, carpenters, blacksmiths, for example) were hired as assistants to foreign/white workers only. Formal discrimination was inscribed in the social organization of the oil industry. Likewise, the companies established the same system of formal segregation that existed in the United States or the European colonies at the same time and was legal there. It was not legal in Mexico, but no matter. The companies built whites-only housing, whites-only dining halls, whites-only wings in infirmaries, whites-only social clubs, whites-only pools, golf courses, and the rest. Similarly, their Mexican workers lived in company housing located as far away as possible from the foreign employees, depending on the size of the plot of land each company owned at any given location. All were quite open in their racism towards Mexicans, arguing Mexicans “didn’t know a drill from a tamale shuck,” and too dumb to learn.¹⁴ As the Americans and Europeans saw it, Mexicans were “more effective for the rough labor.”¹⁵

The segregation, discrimination, and racism the oil companies utilized as organizing principles throughout the industry also had an impact on the relationship between men and nature, the nexus between labor and environmental history. The executives hunted, fished, collected “exotic”

¹³Santiago, *The Ecology of Oil*, 149-154.

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Quoted in Paul F. Lambert and Kenny A. Franks, *Voices from the Oil Fields* (Norman: University of Oklahoma Press, 1984) 46.

¹⁵

Pioneers in Texas Oil, Oral History of the Oil Industry, University of Texas, Austin, Tape 31, p. 7.

rainforest plants and animals—that is, they fancied themselves as masters of nature and men alike.¹⁶ The workers, however, felt the full brunt of an inhospitable environment. Mexican migrants saw the Huasteca as the “devil’s collection of plagues.”¹⁷ They caught malaria, yellow fever, smallpox, tuberculosis—all the ailments of the poor and the crowded living in unsanitary conditions. In addition, they were routinely exposed to toxic chemicals and suffered numerous accidents. Oil was the second most dangerous industry in Mexico (after mining). In 1934 alone, the Anglo-Dutch company El Aguila reported 1,224 accidents that required hospitalization, an average of three serious accidents per day.¹⁸

At the same time, the system of segregation the companies used in building housing insured that Mexican working class families lived in toxic neighborhoods. Their houses were built up against the refineries or next to the wells, so that chemical emissions drifted over the houses with regularity, making men, women, and children dizzy; during really bad episodes, women and children came out of their houses vomiting, while “all the birds died” that flew overhead, dropping right out of the sky from hydrogen sulfide poisoning.¹⁹ Thus, the ecology of oil meant that the human experience of nature and environment depended on the class people belonged to. The lower in the social

¹⁶Santiago, *The Ecology of Oil*, 179-183.

¹⁷

Cruz Briones Rodríguez, interviewed by Lief Adleson, Tampico, Tamaulipas, November 28, 1976, Proyecto de Historia Oral (PHO), Instituto Nacional de Antropología e Historia (INAH) 4/52.

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Summary of statistical data on accidents, 1937, AGN, Archivo Histórico de Hacienda (AHH), Legajo 1857-119.

¹⁹

El Mundo, February 1, 1927.

hierarchy the person was, the higher his/her risks of facing adverse environmental effects.

All this begs the question: did anyone object? Did anyone challenge the changes, the discrimination, segregation, racism, the exposures to danger the companies introduced to the Huasteca? The answer is, of course. The challenges came from different actors, but the most consistently rebellious over the period of foreign oil was labor. The oil workers became one of the most radical segments of the Mexican working class. They positioned themselves on the most left wing of the revolutionary movement that swept the country beginning at the turn of the century and that exploded into violence in late 1910.

It is not exaggeration to say that Mexican oil workers waged class war against the companies almost non-stop between 1911 and 1938. They developed a scathing critique of the oil barons and capitalism in general. They accused capitalists of being “parasites... that produce nothing useful for humanity, ...who fill their treasure chests by the sweat of the brow of the poor...”²⁰ Strikes alone tell the story of just how militant and determined these men were: between July 1911 and March 1938 (27 years), there were over 120 strikes.²¹ The oil workers, in fact, began discussing the possibility of taking over the industry if the companies left Mexico because they became tired of such demanding “proletarians.” One union local specifically asked President

²⁰Tribuna Roja, September 1, 1916.

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Santiago, The Ecology of Oil. 232, 301.

Cárdenas in early 1938 to nationalize their oil camp and they would run it as a cooperative.²²

Workers did not use a language of environmentalism in their struggles, but they made a connection to the natural environment through a lens of health and safety. Although wages and hours topped the lists of demands in most strikes, health and safety issues were also a top priority. Workers fought hard to have the industry and the state recognize a variety of ailments as “occupational diseases” among oil workers, including anemia, heart anomalies, chronic stomach discomfort and intestinal irritations, impaired respiratory systems, “benzenitis,” asphyxia, nausea, ulcers, vision problems, and skin lesions and eruptions.²³ They were also keenly aware of the danger inherent in an industry that was by definition flammable and toxic. If they could not impress upon the companies the need for prevention, Mexican workers tried time and again to increase the cost of working in such dangerous conditions. They demanded compensation for the loss of body parts incurred in their daily tasks, double or triple wages for work in enclosed spaces that exposed them to poisonous gases, and full health coverage for them and their dependents. They went even further in tying the natural environment to work through a health lens: the men demanded the oil companies recognize malaria as an occupational disease since the 1920s.²⁴ The logic the workers followed was

²²Mario Román Del Valle and Rosario Segura Portilla, “La huelga de los 57 días en Poza Rica,” *Anuario V* (1988) 77-83.

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Sindicato de Trabajadores del Petróleo de la República Mexicana to Jesús Silva Herzog, June 25, 1937, AGN/AHH, Legajo 1857-117, Legajo #1.

²⁴

Ley sobre Riesgos Profesionales, *La Gaceta Oficial* 13:58 (August 14, 1924).

straight forward: the oil industry was located in a region where malaria was endemic (and, in fact, the industry increased its prevalence through deforestation and the creation of additional mosquito habitat), therefore the disease was intrinsically tied to the work site. The companies, of course, differed in their viewpoint, willing to compromise on wages and hours, but leaving many health and safety issues unresolved.

Between 1936 and 1938 the union and the companies fought hard over the first collective bargaining contract that would cover the industry in its entirety. It was a violent confrontation, with street fights, company guards shooting workers, workers attacking strike-breakers (tarred and feathered), and soldiers and union members throwing punches. The workers paralyzed the entire oil industry in the country for the first time ever. Long lines to get gasoline appeared in all major cities. People took sides: the majority supported the workers despite the inconveniences; the business elite demanded state action and a return to business as usual. The contract went to the Supreme Court for resolution.

Again, a long list of health and safety demands showed how workers understood the link between work and environment. The union's proposal had 175 legal-size pages, 24 chapters, and 250 clauses.²⁵ Chapter VIII alone, "of illnesses and medical care in general," had 43 separate clauses, while Chapter IX focused solely on "compensation, safety and industrial hygiene."²⁶ The union

²⁵Collective contract proposal, AGN, Departamento Autónomo del Trabajo, C 154, Exp 4, 1937

²⁶*Ibid*

made linkages between the work, home, and natural environment through specific demands. These included the following: double wages for working in the rain (nine out of twelve months) or mud, in “swampy locations,” underwater, and along coastal waters; having the companies “cooperate” with campaigns against tuberculosis and “tropical diseases;” recognition of malaria and tuberculosis as occupational diseases; providing “comfortable and hygienic” housing, free of charge; 7 kilos of ice daily per worker; and providing medical service for “themselves and their families in view of the unhealthy nature of the region, which is very marshy.”²⁷ This time, it would be the state who would decide whether the workers’ environmental and other concerns were justified.

The Supreme Court decided in favor of the workers on March 1, 1938. Five days later, the companies announced to the world that they would not comply with the ruling—Mexican law did not apply to them. The workers decided to organize for a strike in response, with the potential for a national strike joined by all organized labor across Mexico. Nearly 20,000 oil workers and their families were waiting for the clock to strike midnight to unfurl their red-and-black strike flags on March 18, 1938, when at 10 o’clock the radio interrupted its regular programming for an important message from President Cárdenas. Because the companies refused to obey Mexican law, the workers were getting ready to strike, and because “in those conditions it is urgent that

²⁷*Ibid*, Clauses 53-55, 58, 76, 205; Armando Rendón Corona, Jorge González Rodarte, and Angel Bravo Flores, Los conflictos laborales en la industria petrolera y la expropiación, 1933-1938, Vol 2 (Mexico City: Universidad Autónoma Metropolitana, 1997) 185; John S. Littell, American Vice Consul to State Department, Mexico City, June 11, 1934, Record Group 59, General Records of the Department of State, Records of the Department of State Relating to Internal Affairs of Mexico, 1930-1939, National Archives, College Park, Maryland, 812.5054/168.

the public administration intervene with measures [that are] adequate to prevent... grave internal disturbances,” said the president, the “machinery, installation, buildings, pipelines, refineries, storage tanks, means of communication, tankers, distribution stations, ships, and all other properties” of the foreign companies were thereby expropriated.²⁸ At 12:01 on March 19, 1938, the industry became Mexican.

That decision made Lázaro Cárdenas the most popular president in Mexican history to date. But, I argue, he did not make that decision alone. The oil workers, the ordinary men of Mexico, deserve credit too. Their militancy over three decades had made that decision possible. And that is why when they heard the president read the nationalization decree, they were “euphoric,” “jumping” for joy in the Huasteca and elsewhere. As soon as Cárdenas finished speaking, thousands of oil workers and their families began marching from their union halls towards their work sites. Yelling “¡Viva Cárdenas!” they rolled up the red-and-black banners and, upon reaching their destinations, hoisted the Mexican flag on the installation.²⁹ It was their victory.

The historiography on Mexican oil is extensive, but very little of it addresses labor issues.³⁰ Even less has been written from an environmental

²⁸Decreto de la Expropiación de la Industria Petrolera, International Labor Organization Historical Archives (ILO), Box 335, C 41/1938-1941, Bundle C 41/1938, File C 3303/34.

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Interview with Mr. Mario Ortega Infante, conducted by Lief Adleson on February 18, 1974, in Tampico, Tamaulipas, PHO/ INAH, 4/28.

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See: Lorenzo Meyer, *México y los Estados Unidos en el conflicto petrolero* (Mexico City: El Colegio de México, 1972); Lourdes Celis Salgado, *La industria petrolera en México. Una crónica, I: de los inicios a la expropiación* (Mexico City: PEMEX, 1988); Jonathan Brown and Alan Knight, eds., *The Mexican Petroleum Industry in the Twentieth Century* (Austin: University of Texas Press, 1992); Jonathan Brown, *Oil and Revolution in Mexico* (Austin: University of Texas Press, 1993); Armando Rendón Corona, Jorge González Rodarte, and Angel Bravo Flores, *Los Conflictos Laborales en la Industria Petrolera y la Expropiación 1911-1932*, Vol 1 (Mexico City:

history perspective. Yet both approaches, separately and jointly, hold much promise for both fields and a more comprehensive and inclusive historical narrative. It is not always easy for researchers to find the necessary evidence that allows for making such linkages, but I hope that the Mexican example shows that it is worth a try.