

A Geologist in the Jungle

DR. LEONARD R. WILSON FINDS UNEXPECTED DANGERS
IN OIL-RICH VENEZUELA

Dr. Leonard R. Wilson could have emerged from the wilds wearing a few appropriately placed Motilone Indian arrows—if events had run true to form in the Venezuelan jungles this summer. He didn't, and no one will ever know why, least of all Dr. Wilson.

The University of Oklahoma geology professor had been taking trips into the interior every weekend of his two-month stay in oil-rich Venezuela where he was serving as a consultant for Creole Petroleum Company. Only after he returned from one of these excursions did Dr. Wilson discover that he and his three companions from Creole had wandered unwittingly into the country of the Motilone Bravos, the most savage of the Venezuelan Indian tribes.

"Quite a few white men have gone into Motilone country," Dr. Wilson says, "and quite a few have never come out."

But Dr. Wilson's exploit does not end with visiting this forbidden area and living to tell the story. He brought with him a photograph of a Motilone woman and her child—perhaps the only one ever taken.

The woman was standing by the side of the trail with the child on her shoulders. The party's jeep passed within three feet of her. She only smiled when Dr. Wilson turned to snap her picture.

Although the woman and child were the only Motilones Dr. Wilson actually saw, he is certain that the party was observed by others of the tribe. Later inspection of aerial photographs revealed that the white men had traveled between two neighboring Motilone villages. Dr. Wilson thinks it highly improbable that the jeep could have passed unnoticed.

His encounter with the Motilone woman was on a Sunday. The next day in the same vicinity, a government malaria inspector



This photograph, taken from a moving jeep by Dr. Leonard R. Wilson, may be the only one in existence of a Motilone Indian woman and child, members of Venezuela's most hostile tribe.

and his helper were attacked by Motilones. The inspector escaped, but his helper was dragged from their jeep and unceremoniously hacked to pieces.

Short in stature, less than five feet tall, the Motilones are primarily a farming people with some occasional hunting and fishing. They live in small villages or isolated houses and are nearly as distrustful of each other as they are of the encroaching white man—with whom they want no contact.

But despite the Indians' wish to be left alone—a desire granted by the Venezuelan government—Dr. Wilson learned that the Motilones are not untouched by the white man's technology. Motilone arrows were originally made of bamboo tempered with fire. Today the bamboo remains as the arrow's shaft, but the tip is often made from the metal of empty oil drums stolen from more civilized villages.

A young Chaké Indian sold Dr. Wilson an assortment of 4-foot Motilone arrows and the 3-foot bow which fires them—an all-too significant reminder of the geologist's colorful jaunt into the jungle.

While the brush with the Motilones was probably the most exciting of Dr. Wilson's Venezuelan experiences, some of his other excursions held even more fascination for him as a scientist. The Oklahoman explored the coastal desert country and for contrast climbed to the 15,000 foot level in the Andes. Of special interest to him were the rain forests in the foothills of these gigantic mountains.

"The descendants of plants that lived in Oklahoma and along the Gulf Coast about 15 to 20 million years ago are to be found growing in these rain forests," Dr. Wilson explains. He brought back leaf specimens from Venezuela that have been discovered in fossilized form in the southwest corner of Arkansas.

The assignment which brought Dr. Wilson to Venezuela is every bit as interesting as the excitement he found there. His work in modern Maracaibo, a city of 300,000 on a huge lake visited by the largest oil tankers in the world, was to supervise the installation of Creole's micropaleontology laboratory—or more correctly, a laboratory equipped for work in palynology, a method of determining the age and environment of rock samples recovered in oil drilling.

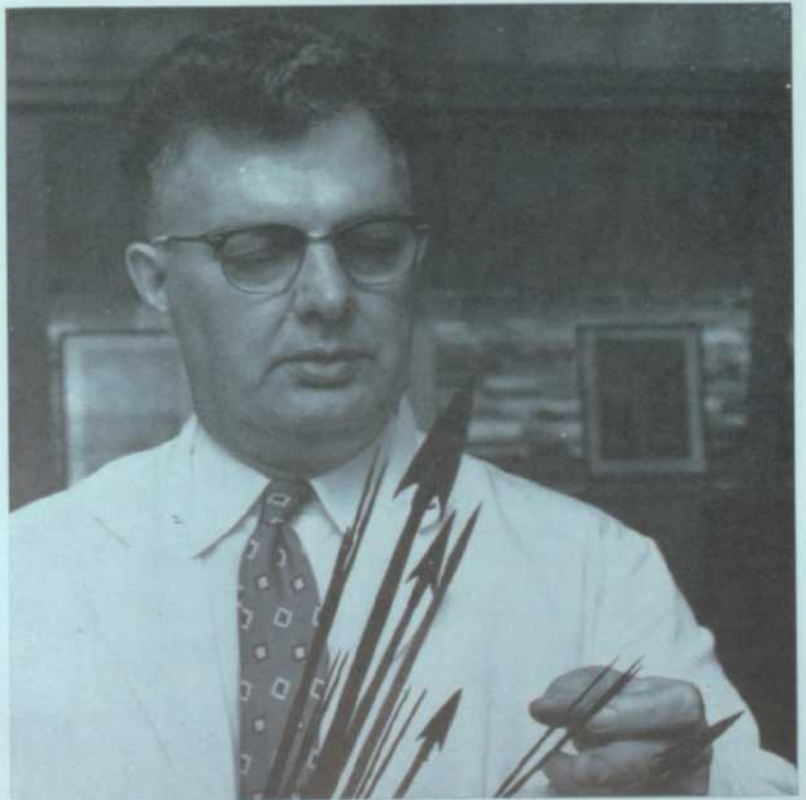


The white man who values his life travels no farther into this untamed region of Venezuela. From here on O.U. Geologist Leonard Wilson and his companions were in the country of the savage Motilone Indians, where outsiders are usually greeted with a shower of deadly arrows.

Credited by his profession as being the first man to perceive the commercial uses of this process, Dr. Wilson has watched all the major oil companies accept this method and set up palynology laboratories. He himself has been a consultant for Standard Oil of New Jersey for the past 15 years and has worked in the same capacity for Union, Standard of California, and Petrobras of Brazil oil companies.

Palynology operates on the theory that in the approximately 500 million years that plants have been producing spores and pollen, the wind has been transporting the spores and depositing them in rivers and lakes. There the spores settle out in sedimentary layers and become fossilized.

By examining the fossil samples taken in oil well drilling, the palynologist can identi-



These Motilone Indian arrows bring back what-might-have-been memories to Dr. Leonard Wilson, who bought them after his return from Motilone country from a young Chaké Indian.



Trees such as the 120-foot specimen above are common in the jungles of the Perija country of Venezuela, home of the Motilone Indians. The man pictured is one of three Creole Petroleum employees who accompanied Dr. Wilson.

by the spores and pollen and determine the age in which the mother plant existed. He can also tell whether the fossil was formed in a coastal area (where oil is formed), in deep sea or further inland. When the formation area and the age are right for the existence of oil, the geologist knows he is more likely to find the black gold.

In addition to teaching micropaleontology in the School of Geology, Dr. Wilson is a member of the Oklahoma Geological Survey. Of the total \$53,000 received by the University last year for fossil-pollen studies, \$37,000 was in the form of a National Science Foundation grant to Dr. Wilson.

Dr. Wilson's exploits have not been restricted to the tropics, however, or even the Oklahoma oil fields. In 1953, sponsored by the American Geographical Society, he led an expedition of 35 men to the center of the Greenland icecap to do research on snow and ice conditions relative to the landing of airplanes.

Though his was primarily an administrative job in Greenland, Dr. Wilson was never content in camp and constantly was devising tasks which would take him out into the field. And the field is where you are most likely to find this geologist—whether in the Arctic ice, Great Plains dust or the jungles of Venezuela.



Dr. Wilson came upon this native hut high in the Andes, southwest of the picturesque town of Merida, Venezuela, near St. Christobal.