

CLEMENCIA AND DR. BONET

Dr. Federico Bonet (pronounced *Bonette*) was one of Spain's highly regarded and honored zoologists. He was a "profesor de catedra", a title assigned, according to Spanish custom, to the highest-ranking academic individuals at the head of their profession nation-wide. In the late 1930s Dr. Bonet, along with a number of other Spanish professors of like rank, came to Mexico to escape Franco's rise to power. The Mexican government gave them citizenship (something very difficult to attain in Mexico) and appointed these respected authorities to teach at the Polytechnic Institute in Mexico City. This provided an extraordinary opportunity for students who were fortunate enough to study and train with them. Eventually José and several of his friends found themselves in Dr. Bonet's class — Advanced Zoology.

Dr. Bonet proved to be an extremely demanding professor. Tough and difficult, he tolerated not the slightest deviation. Instead of buying laboratory animals and jars of specimens, he got the school to permit him the use of their bus. This he equipped as a traveling laboratory, organizing class excursions to various parts of Mexico, where he assigned his students to work in the fields collecting, fixing, and bottling varieties of insects and animals. These collected items were later used as specimens to equip the museum he established at the school.

By analyzing drillings of sands obtained from oil fields, Dr. Bonet developed a theory that helped him estimate in which sites more drilling for oil should be done. He had noticed remnants of dead insects in the drilling dust where they had already located oil. Observing these remains, he concluded that here might exist the most likely spots for uncovering more oil deposits. Since chitin, a cellulose-like hard-biopolymer derived from glucose, is a principal component of the exoskeletons of many marine invertebrates and arthropods, its discovery in these areas suggested to Dr. Bonet that these insect remnants might lead to the main pool.

He took this idea to a large petroleum company, where they hired him to research this further. After José's close friend and classmate Clemencia Tellez-Giron (later married to another classmate Pepe Alvarez del Villar) graduated from the Polytechnic, Dr. Bonet brought her over to work with him. Their results confirmed what he had suspected, saving the company a great deal of money by pinpointing the specific locations where they should continue drilling for oil.