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The importance of trenching in paleoseismic studies in Venezuela: brief historical summary

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Paleoseismic studies have proved to be a powerful tool in seismic hazards assessment by he contributing to asses the seismogenic potential of a given fault by expanding the time window o seismic activity beyond the limits of historical and instrumental seismicity. Trenching has been an essential tool for paleoseismic studies in Venezuela.
The first paleoseismic trenching project in Venezuela goes back to 1968 when Compania Shell de Venezuela retained the services of Woodward Clyde and Associates,(WCA), USA to asses the seismic integrity of the earthen dikes of Costa Oriental of Lake Maracaibo Protection System (COLM) in western Venezuela. The study was carried out under the general coordination of this author. An important part of this project included a seismology and seismic geology study under the direction of Geologist L.S. Cluff. This was the first ever study undertaken in Venezuela and included two excavations across the Oca Fault north of the city of Maracaibo.
After several years of inactivity, FUNVISIS (The Venezuelan Foundation for Seismological Research) carried out in 1980 a seismic hazard (SHA) for the Uribante Caparo Hydroelectric Project southwest Venezuela.
In 1989, MARAVEN, an operating company of PETROLE0S DE VENEUELA S.A. (PDVSA) undertook the project of a products pipeline form Maracaibo to El Vigia, south of Lake Maracaibo. Again, FUNVISIS was contracted to carry out a SHA, which included the digging of 5 trenches, which were supplemented with five more trenches for the COLM project.
Trenching activity contined in Venezuela in the framework of SHA project, under the direction of Dr. Audemard.
In 2001 Venezuelan trenching experience was exported to the neighboring Colombia as e Dr. Audemard t undertook a palaoseismicity project which included the digging of five trenches.
In conclusion, paleoseismicty studies have given us the possibility of extending the scope of both instrumental and historical seismicity by some 10,000 years, trenching has proved for paleoseismic studies to be a valuable to.