



Ancient seismic record of the Tarascan (Purhepecha) Empire. Preclasic Period (3000 Yr B.P.). Jaracuaro Island, Patzcuaro Lake. Michoacan, Mexico

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The Pátzcuaro lake is located in the Mexican State of Michoacán in the Transmexican Volcanic Belt. The Jarácuaro island is formed by Holocene lake sediments highly deformed by active faults (Morelia-Acambay Fault System, MAFS, more than 200 km long). MAFS is an E-W strike-slip fault with a transtensive component in the Pátzcuaro Lake zone. Several paleoseismic studies were carried out in the island. Four trenches were made in the active faults that cross the island and it is possible to observe that there are two andesitic blocks (>4 m³) over two different faults with surface rupture. The archaeological evidences (pottery, idols, etc), founded in the soils affected by the fault, implies that the age of the events concern to the Pre - Classic period (3.000 years B.P.).The Tarascan (or Purhépecha) Empire supported this earthquakes and put the blocks close both faults on the hanging wall block. The andesitic blocks are carved and polished and the quarry where this blocks were extracted is 1.5 km long out the lake. This cultural behaviour was profusely used by the Tarascan related to natural disasters but not documented before related to earthquakes. Maybe this is one of the oldest human seismic manifestation, and is the first time that is connected a fault with a seismic movement.