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IMPACT OF A HISTORICAL LAND SLIDE CAUSED BY AN EARTHQUAKE (Mw7.7) ON THE ARCHAEOLOGICAL SITE OF MITLA, OAXACA.

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The state of Oaxaca presents the highest seismic activity in Mexico. For some reason, the Cocos plate is more active at its subduction with the North-American plate. Oaxaca is addi-tionally affected by shallow quakes, which have been scarcely studied but are nevertheless important due to their impact on the environment and the peoples settled in the area. Because they lived in this region of Pre-Columbian Mesoamerica, these peoples knew the zone's geo-logical dynamics, and the codices drawn by the tlacuilos (codex painters) acknowledge the occurrence of quakes and the existence of volcanos. One famous example is the 1507 quake of intensity VIII which triggered a lahar that caused the death of 2,000 warriors in the Mix-teca region.

Located in the central zone of the Oaxaca Valleys, more specifically in the area of Mitla, is a collapse that will be the focus of the present research. It was triggered by a quake of Mw 7.7-7.8, causing a monolithologic landslide of 0.546 km3 of huge blocks. Both the quake and the landslide took place during the Postclassic period (before 1521 AD) and practically caused the disappearance of Mitla, which at the Spanish arrival counted very few inhabitants. The geophysical survey and the age of the landslide both indicate that part of the settlement could be located under the landslide deposits. This is further supported by the knowledge that Pre-Columbian Mitla's population was of more than 10,000 people.

So far, Mesoamerica has been studied without accounting for the fact that the zone is con-stantly affected by seismic activity. This particular case involves Mixtec and Zapotec cul-tures, but the complete scene of the active faults and the Cocos plate dynamics includes southeastern Mexico and the Yucatan peninsula, which are Mayan territories. On the other hand, this seismic activity and its effects on one segment of the Tehuacan-Oaxaca fault sys-tem must have left evidence of recent coseismic ruptures and secondary effects of past quakes, or landforms and hydrothermal systems linked to this shallow intra-plate activity.