



Archaeological research at the Ta'kalik Ab'aj site has not only found vast amounts of information on different aspects of daily life, but had also come across masterpieces of art and architecture that capture the imagination of popular audiences. For archaeologists, the long settlement sequence in the area is of particular interest, as the site came into existence around 800 BC and includes many examples of Olmec style sculpture, which was then replaced in archaeological material by Maya sculpture, including a number of as of yet undeciphered Maya inscriptions. Habitation continued in Ta'kalik Ab'aj until around 1200 AD, and lasted long after the so-called collapse of Classic Maya civilization and abandonment of other ancient Maya settlements. This research aims at understanding the processes behind the creation of the vast area of this site. All buildings and monuments in the central area are located on artificially created terraces, delineated by high stone-masonry retaining walls. Landscape modification was not limited to the central, ceremonial areas of the site. In the peripheral zones of the complex, where no remains of monuments, structures and any larger archaeological finds have been found, archaeological excavations continue to register great amounts of constructional fill, soil layers mixed with ceramic fragments.

The proposed research aims to measure both the natural relief and amount of transported soil. This will be done in great detail with using so-called auger survey. The second part of investigation will consist of laboratory analysis of collected soil samples. Various methods of geochemical analysis will be applied here, determining among others phosphorus concentration (which provides information on the scale of human activity in the area) or the presence of clay minerals (which would among others help to identify whether soils were transported from fluvial areas).

Such research has not yet been conducted in Guatemala and other Maya regions. Similar research at the Olmec site of San Lorenzo (Mexico) suggests that 8 to 16 million working days were needed to construct the artificial plateau on which the settlement was located. For this reason, such research is an important way of reminding us about the forgotten great accomplishments of ancient cultures.