

Geological Danger for the Horseman of Madara and the Aladja Monastery (NE Bulgaria)

MATOVA, M. Geological Institute, Bulgarian Academy of Sciences, Sofia 1113, Bulgaria, e-mail: matova@geology.bas.bg.

Two very important historical monuments from the First Bulgarian State of the VIII-IX centuries, like the Horseman of Madara and the Aladja Rock Monastery, are situated on unstable Plateau slopes of NE Bulgaria and in the surrounding of the first Bulgarian capitals Pliska and Preslav. That is also a region with considerable seismic activity.

The Horseman of Madara is protected by UNESCO. The monument was carved in the Upper Cretaceous sandstone of the intensively eroded Madara Plateau's slope. The foots of the western slope of the Plateau are covered by some generations of landslides and rockfalls. The hydrogeological situation of the locality is complicated. The region is of moderately tectonic, including seismic activity.

The Aladja Rock Monastery was mainly carved in the Upper Tertiary limestone slope of the Frangen Plateau and partially placed in the natural caves. Numerous rockfalls and some landslides are well presented in the locality. The monument is situated in tectonically, including seismically active boundary of the Moesian Platform. The sea erosion has a big influence in the region.

The geological environment creates a significant danger for the both monuments.