



Fish tank as evidence for modern coastal uplift at Diu, Saurashtra Peninsula, India

Miklós Kázmér (1), Nilesh Bhatt (2), Vishal Ujay (2), Siddharth Prizomwala (2,3), Danko Taboroši (4), Balázs Székely (5,6)

(1) Eötvös University, Department of Paleontology, Budapest, Hungary (mkazmer@gmail.com), (2) Department of Geology, The M.S. University of Baroda, Vadodara-390002, India, (3) Institute of Seismological Research, Gandhinagar-382009, India, (4) Island Research and Education Initiative, Palikir, Pohnpei, F.M. 96941, Federated States of Micronesia, (5) Department of Geophysics and Space Science, Eötvös University, Pázmány sétány 1/c, H-1117 Budapest, Hungary, (6) Research Groups Photogrammetry and Remote Sensing, Department of Geodesy and Geoinformation, Vienna University of Technology, Vienna, Austria. A-1040 Wien, Gusshausstr. 27-28/E120, Austria

India – except the Himalayas – is considered to be tectonically stable region, with an occasional intra-plate earthquake here and there. The Saurashtra Peninsula in Western India had earthquakes less than Mw 5.7 during the last fifty years. Search for evidence of preceding major seismic events is ongoing. There is a ~16th century fish tank hewn in coastal Pleistocene limestone near Diu city, Saurashtra Peninsula, western India. The 3×4 m basin is connected to the sea by an 1 m deep channel. Today the tank is inoperable: not even high spring tide can fill the basin. We suggest that the tank, the tidal platform and the whole Diu coast have been uplifted by ~0.5 m shortly after the tank was constructed by early Portuguese colonists in the 16-17th century. Coastal karst dissolution – active in the spray zone above sea level – left deep marks on carved surfaces since uplift. We suggest that uplift of Diu Island occurred in the 16-17th century, during a major seismic event, connected to active faulting offshore along the Narmada Fault.