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Coastal uplift and structural damage on Guerbes Roman site (Eastern Algeria) induced by strong earthquake

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Damage on Archaeological structures have been reported to be probably related to seismic activity on various sites in the Tell Atlas of Algeria. According to different types of disorder we can detect pathologies that have direct or indirect relation to earthquakes, as it seems to be the case in the site of Gerbes-Azzaba (Skikda) which is located approximately 65 km west of Annaba in the eastern part of Algeria, near the ancient harbor of Gaveto.

This archaeological site is considered as a former protective fortress used as shelter for travelers passing along the southern part of the Mediterranean sea.
A total collapse of the city is widely apparent with significant offsets and openings in the walls of the structures. We could link these disorders, to the coastal uplift, characterized by notches observed in the lower part of the cliff, and to the existence of important breccia zones located in the quaternary levels.

In this work an approach has been adopted that involves assessing and examining the potential of sites that have the ability to record earthquakes traces and highlight damage.