Holocene evolution of Dahab coastline – Gulf of Aqaba, Sinai Peninsula, Egypt

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Dahab was a little Bedouin-village in Sinai Peninsula at the mid-western coast of Gulf of Aqaba approx. 90 km north of Sharm-el-Sheikh City and it means “gold” in Arabic language. But in the past 20 years ago it becomes one of the most tourist sites in Egypt. The basement complex is composed mostly of biotiteaplite-granite, mica-aplitegranite, granodiorite, quartzdiorite, alaskite, and diorite. Based on correlation with similar igneous in the most southern part of Sinai and the Red Sea area. Wadi Dahab composed of igneous and metamorphic rocks and the coastline is formed of the fragments of its rocks, mixed with fragments of coral reef and fluvial deposits of Wadi Dahab. The morphology of Dahab coastline is characterized by hooked marine spit, which composed of fluvial sediments carried by marine current from wadi Dahab mouth, this spit encloses shallow lagoon, but the active deposition on the lagoon bottom will evaluate it into saline marsh. This paper dealing with the evolution of Dahab spit and lagoon during the Holocene in addition to the recent time for last 100 years, and it impacts of the future management of the coast area. The coastline mapping during the period of study depends upon GIS technique for data were collected during field measuring by using total station, aerial photo and satellite image interpretation as well as soil sample dating. Suggested geomorphological evolution of Dahab area during the Holocene depending upon geomorphic investigation of the sedimentological process into 6 stages.