

Aharon OREN, 2014. Two and a Half Thousand Years of Navigation on the Dead Sea. *Acta Geologica Sinica* (English Edition), 88(supp. 1): 432–433.

## Two and a Half Thousand Years of Navigation on the Dead Sea

Aharon OREN

*Department of Plant and Environmental Sciences, The Institute of Life Sciences, The Hebrew University of Jerusalem, Edmond J. Safra Campus, Givat Ram, Jerusalem 91904, Israel*

Today there is a single ship on the Dead Sea: a vessel that makes monthly research cruises. But in earlier periods many kinds of boats sailed the waves of the saltiest of all lakes. Stone and wooden anchors found on the newly exposed shore of the shrinking lake and dating from the 5<sup>th</sup> century B.C.E. onwards and the remnants of a 1<sup>st</sup> century B.C.E. shipyard are witnesses of extensive navigation on the Dead Sea in antiquity.



Fig. 1. 3<sup>rd</sup> Century B.C.E. Stone anchors (110–134 kg) found on Ein Gedi beach.



Fig. 2. Khirbet Mazin, a 1<sup>st</sup> century B.C.E. shipyard on the shore of the Dead Sea.

There is written documentation of a naval battle fought on the lake in 312 B.C.E. and a letter from 134 C.E. mentioning a ship loaded with fruit anchoring in the harbor of Ein Gedi. The 6<sup>th</sup> century Madaba mosaic map depicts two sailing boats on the Dead Sea. Legal deeds from the crusader period prove that a cargo ship was operated on the lake by the Knights Hospitaller of Jerusalem.



Fig. 3. Cargo ships on the Dead Sea depicted on the Madaba mosaic map, around 560 C.E.

The 1848 exploration of the Dead Sea by Lt. William Lynch of the US Navy and the earlier unsuccessful ventures by Christopher Costigan (1835) and Thomas Molyneux (1847) used small rowing boats, but a French expedition of the Duc de Luynes in 1864 brought a custom-built luxury sailing yacht.



Fig. 4. The boat used in the 1847 Thomas Molyneux expedition on the Dead Sea.

\* Corresponding author. E-mail: [aharonoren@mail.huji.ac.il](mailto:aharonoren@mail.huji.ac.il)

In the middle of the 19<sup>th</sup> century a navigation route to India via the Dead Sea was even considered as a possible alternative to the Suez Canal. A great variety of vessels sailed the Dead Sea in the 20<sup>th</sup> century. The first motorized ship started service in 1908, and a large fleet of vessels of different kinds maintained the connection between the operations of the Palestine Potash Company at the southern and the northern ends of the lake. Among the unusual crafts seen on the Dead Sea in the last century were a Martinsyde bomber plane equipped with floats instead of wings used as a weapon during World War I, BOAC hydroplanes that landed on the Dead Sea in the 1940s on their way to Australia, and the yellow submarine that in 1999 explored the bottom in search for the biblical cities of Sodom and Gomorrah.



Fig. 5. The R.V. Taglit, serving Dead Sea exploration today.

## References

- Abel, F.-M., 1909/1910. Une croisière à la Mer Morte. *Revue Biblique*, 18: 213–242, 18: 385–411; 19: 216–233.
- Gavish, D., 2006. A British hydroplane on the Dead Sea. *Cross & Cockade International Journal*, 37: 109–115.
- Hadas, G., 1992. Stone anchors from the Dead Sea. *'Atiqot* 21: 55–57.
- Hadas, G., Liphschitz, N., and Bonani, G., 2005. Two ancient wooden anchors from Ein Gedi, on the Dead Sea, Israel. *International Journal of Nautical Archaeology*, 34: 299–307.
- Heidet, L. (Abbé Heidet), 1908/1909. Eine Badekur in Kallirrhöe und die Dampfschiffahrt auf dem Toten Meere. *Das Heilige Land*, 52 : 123–131, 149–164; 53 : 3–11, 65–80, 121–135.
- Duc De Luynes, H.T.P.J.d'A., 1871-1878. *Voyage d'Exploration à la Mer Morte, à Petra et sur la Rive Gauche du Jourdain. Oeuvre Posthume Publiée par ses Petits-Fils sous la Direction de M. le Comte de Vogüé. Vol. I, II, III, and Atlas*, Arthus Bertrand, Paris.
- Jampoler, A.C.A., 2005. *Sailors in the Holy Land*. Annapolis: Naval Institute Press.
- Kreiger, B., 1997. *The Dead Sea. Myth, History, and Politics*. Hanover: Brandeis University Press.
- Lynch, W.F., 1849. *Narrative of the United States' Expedition to the River Jordan and the Dead Sea*. Lea and Blanchard, Philadelphia.
- McGregor, A., 2001. Flying the furrow. *Saudi Aramco World*, 52: 24–31.
- Nissenbaum, A., 1991. Shipping lanes of the Dead Sea. *Rehovot*, 11: 19–24.
- Rosen, B., 1986. An incorrect representation of a sailing boat in the Madaba mosaic. *Israel Exploration Journal*, 36: 97–98.
- Spafford, J.E., 1912. Around the Dead Sea by motor boat. *Geographical Journal*, 39: 37–40.
- Sutherland, L.W., 1936. *Aces and Kings*. London: John Hamilton.