

Numerical Modelling of an Ancient Harbour, Phaselis **Yasemin Özgen⁽¹⁾, K. Gökhan Türe⁽²⁾ and Atila Uras⁽³⁾**

*⁽¹⁾ DOLFEN Engineering and Consultancy Co., Ltd., Kıbrıs Sokak 28/1
Kavaklıdere, Ankara, Turkey*

Tel +90-312- 4681489 Fax + 90-312-4271924 e-mail: info@dolfen.com

⁽²⁾ SAD, Underwater Research Society Tel and Fax +90-312-2316501

e-mail: nekton@superonline.com

⁽³⁾ Society for the Protection of Nature, PK 971 Sirkeci 34436 Istanbul, Turkey

Tel +90-212-5282030 Fax +90-212-5282040 e-mail: atila.uras@dhkd.org

Abstract

Anatolia, with her thousands of years of recorded history, has resided many important coastal settlements on her coasts. With more than one hundred ancient harbours and coastal cities, it had been the motherland of the first known maritime works in the world. From the 10th century BC onwards, harbour constructions took place in Anatolia.

Among these, Phaselis, with its three harbours, was one of the most important harbour cities of its time. These harbours had helped the city to develop significantly.

In this study, a numerical model for the three harbours of Phaselis was developed. The wave climate of the area and the tranquillity in the harbours were analysed. As the result of the modelling studies, the port operation efficiency of the city due to different direction storm conditions has been determined, the design and the layouts of the harbours were discussed.