

## **Port Engineering Aspects of the Magnus Portus in Alexandria**

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### **Abstract**

The present paper goes into the details of the following issues and ends up with some new ideas about the way harbour structures were built in ancient times:

*Choice of site.* A port is not built simply anywhere. It forms an interface between the land and sea and its location depends on traffic in these two areas and on certain natural conditions.

*Overall layout.* The layout of a port depends on navigation conditions (winds and waves) and on the types of ship that use it (sailing ships, galleys). The size of the ships defines the acceptable wave-induced disturbance and the possible need to built a breakwater providing protection against storms. The number of ships using the port defines the length of quays and the area of the basins required.

*Harbour structures.* The ships' draught defines the depth at the quayside and thus the height and structure of the quay. Locally available materials (wood, stone, mortar) and construction methods define the specific structures for a region and historical period.