عنوان مقاله:

Concrete Caissons, fiom simple retaining structures to integrated components for Ports

محل انتشار:

سومین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1377)

تعداد صفحات اصل مقاله: 16

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خلاصه مقاله:

Construction of any structure just in water and more precisely in water subject to waves and current has obviously been a challenge for mankind. A reason to construct such structures is in fact to protect seagoing vessels against waves and current and to provide a safe heaven for debarking of men and goods. This ambivalence of working in a rude environment, to provide protection against that environment, has been solved not only in a practical way, but in a theoretical supported way already 2000 years ago. The Roman architect and engineer Vitruvius has in book 5 fiom his ten books on architecture dedicated chapter 12 to the subject of the design and construction of harbors, breakwaters and shipyards. We would today consider such a book as part of a quality assurance system at the level of product and construction manual. The book is essentially a very well observed summary of proven construction practice in a wide sense, as it deals with esthetics, structural design, fbnctional aspects and construction of a wide range of buildings. Temples, theaters, houses, irrigation systems, roads, harbors and bridges are some of the subjects dealt with. It would be nice when such an integrated approach to building could be practiced today. For the construction of breakwaters and quay walls Vitruvius describes three essentially different methods. The first method proposed by Vitruvius is in fact a conventional cofferdam, made of oaken stakes driven in the bottom and completely filled up with mortar. The second method is an ingenious way of constructing and placing solid concrete blocks on the bottom of .thesea

کلمات کلیدی:

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