In the past years several interdisciplinary projects have been developed using geoarchaeology for better understanding the geomorphological process and human impact in Mediterranean harbours. Over the last three years a team of scholars from the Universities of Murcia and Cartagena has been developing a research project led by professor Sebastian Ramallo that seeks to understand the evolution of the peculiar topography of the city of Cartagena. The use of geoarchaeological techniques, geomorphology, underwater archaeology, archaeological data and other kinds of archaeometrical techniques, has allowed us to recover significant information overcoming traditional theories about the evolution of the harbour, the coastal lagoon and the city itself. The filling process of the lagoon, the human intervention to control this process and the relative sea level change have been factors that have regulated the rise or fall of urban life. Through this paper we present our methodological approach and some of the very preliminary results.