

# ABSTRACT

From far-off times, silos have been employed as subterranean warehouses for groceries conservation and especially for saving cereals, like wheat. Many examples have been documented in the international, national and local scope; as they have been the aim of archaeological prospections and diverse studies. In the majority of cases, these analyses pursued determining the origin of their construction, the evolution of their structures or their operation; however, few of them go deeply into the systematization of their execution and in their materialization.

This research focuses on Los Silos of Burjassot, an architecture and civil engineering work that represents the ancient grain warehouse of the city of Valencia, which was built after famine periods, at the end of 16th century. During long time, it exerted a valuable function as reservoir for the wheat that was consumed in the Kingdom's capital and nearby villages, providing in shortage periods and keeping in prosperity times.

In order to determine the circumstances and the causes that gave rise to its construction, the historical context is analysed. The relation between the granaries and their urban conditions, the main elements and the general characteristics are also under consideration.

As many other heritage ensembles, Los Silos has suffered modifications which have resulted in the alteration of its original configuration. From 1573 until now, numerous events have caused its structure's evolution, either because the allocation of new uses or due to architectural interventions.

The clayey ground makes up the frame of the subterranean bottle-shaped tanks; this fact turns this enclave into a suggestive subject of investigation. That is the reason why the soil characterization and the interpretation of its behaviour was so necessary, as well as to analyse the origin, application and function of the rest of materials (stone, mortars, metallic elements, etc.). This is an unprecedented performance on the building, which is completed with the constructive analysis carried out on walls, pavement and silos. In this process, the archive historical documentation was fundamental; and it was also very important the application of Ground Penetrating Radar (GPR), a non-destructive technique used to explore the subsoil and other elements.

Despite the excellent constructive quality that has made possible its preservation until current days, the presence of damages is unavoidable in an architectural ensemble with more than 440 years of history, especially, considering the carelessness in maintenance tasks. Therefore, the analysis of its current conservation state constitutes a first stage for the future architectural interventions that may be hold in the building.