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# REPORT ON THE CONSERVATION AND RESTORATION OF THE WALLS OF ASSERIA 

Summary

After conservation-restoration interventions to the present at the archaeological site of Asseria, conservation began of the eastern city gates, part of the late Republican rampart and staircase, and the remains of excavated sections of urban architecture. The conservati-on-restoration also encompassed the reconstruction of walls at the western city gates.

A narrow gate 80 cm wide was discovered in a section of the eastern defensive rampart, with a barrel arch of radially arranged narrow worked stones covering the entire width of the rampart. The entire exterior façade of the arch section and part of its structure were missing, and were reconstructed in an identical manner using broken stones stored at the site. The walking surface of the rampart was washed repeatedly with abundant water under medium intensive pressure to clear soil and vegetation from it, until we had reached a durable surface of the original lime mortar and broken stones. The protective layer consisted of smaller broken and worked stone submerged in a lime mortar, with coarsely ground brick added to increase the water resistance. In this manner a total of $56 \mathrm{~m}^{2}$ of the walking surface of the ramparts was conserved.

Reconstruction was also performed at the ramp with a staircase of monolithic stone steps on the inner side of the rampart. The surface of the steps was washed, blown clean, and consolidated with a new lime bed, and 6 new monolithic steps were carved from local stone, identical in type and manner of working to the original Roman steps. The dimensions of a single step are $150 \mathrm{~cm} \times 50 \times 25 \mathrm{~cm}$, with a weight of 500 kg . It is very important to note that stone was found in a local quarry that had been extracted and stored more than 25 years ago, so it was possible to avoid the necessity of incorporating recently quarried stone of unverified quality and with a large quantity of quarry moisture and mineral salts.

The right side of the outer wall of the ramp was also reconstructed, composed of skillfully worked elongated blocks, and the interstices of the wall were filled with lime mortar and quarried rounded stone aggregate with an admixture of finely ground brick of a pale brown colour, in accordance with the original fill preserved in the lower part of the wall. The remains of walls from residential architecture were conserved to the preserved height,
and the upper rows of stone were documented and their positions recorded. They were then set aside in order to remove soil deposits with the aid of jets of water and compressed air. The removed stones were placed back in the wall, and a coating layer was added to prevent precipitation from penetrating into the fabric of the wall. The interstices were cleaned and filled.

After investigation and excavation had been completed in the area of the western gate of the city, it proved necessary to consolidate the remains of the lateral walls flanking the entrance ramp on both sides, or rather the road with preserved original curb stones. The accumulated soil and overgrown vegetation threatened to cave in further and damage the discovered remains of the lateral walls, hence it was necessary to remove them to the firm layer of the stone bedrock. In arrangement with the project director, the lateral walls were reconstructed with layered coarsely worked stone with courses of various heights. Stored stone that had been discovered in previous excavation campaigns was used to build the walls, and it was chosen to be identical in size and manner of working.

The same procedure of washing and removal of remains of soil from the fabric of the walls and gaps was also used here. A total of $26 \mathrm{~m}^{3}$ of new wall was built in a total length of 36 m . The average thickness of the wall was 60 cm , with a height of 120 cm . The interstices of the walls were filled with a water repellent lime mortar in a technique of covering the edges of the masonry blocks with a mortar of $2-5 \mathrm{~cm}$ thickness.

The threshold of the western gate was completely conserved. Its foundations were consolidated by underpinning and injection of lime mortar, and the insertion of plastic pipes below the foundation level enabled drainage from the ramp surface. The surface of the ramp has been protected by a layer of medium sized river gravel.

