

Intervention on the Retaining Wall in Unit J5

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Introduction

The heavy rainfall that occurred during the spring of 2019 caused damage to the retaining wall in Excavation Unit J5, located in the Temple area. As a result, immediate intervention was required at the time to address the situation. The stones were repositioned in a manner intended to protect the temple terrace from further damage. In addition, soil-filled sandbags were placed around the stones to provide additional support to the temple terrace (Fig. 1). For further information, please refer to the previous report:

<https://urkesh.org/MZ/A/MCV/TEXTS/C2/reports/ZE529%20The%20maintenance%20works%20in%20the%20area%20J1.htm>

Approximately seven years later, the sandbags deteriorated and became weathered as a result of exposure to environmental factors, particularly in their lower sections (Fig. 2). Consequently, there was a continuing concern that the deterioration could lead to the erosion and loss of the soil contained within the damaged sandbags, which could, in turn, result in the collapse of the upper sections. In addition, some of the stones in the upper sections (Fig. 3) were also at risk of collapsing in the future if they were exposed again to adverse weather conditions, particularly given the conditions experienced during the past year, when rainfall and snowfall reached exceptionally high levels compared with previous years.

Accordingly, further intervention was required to address this deterioration. Carrying out this work would also contribute to improving the overall appearance of the unit.

Work Process

As is standard practice, any emergency intervention must take into consideration the archaeological environment and ensure that the intervention is compatible with it, does not conflict with the archaeological remains, and does not detract from the overall appearance of the site. Accordingly, as in the previous intervention, soil-filled bags were used.

Initially, the upper sandbags were carefully emptied in order to prevent any sudden collapse that could damage the stones or cause them to fall (Fig. 4). In fact, the upper sections appeared to be more coherent and stable than the lower sections, although some of the bags on the left-hand side had deteriorated. This was also the side where the largest number of sandbags had been placed.

After reaching the base and removing the deteriorated sandbags, the ground was carefully levelled (Fig. 5). We then began filling new sandbags using the same soil that had previously been contained within the removed bags (Fig. 6), after first removing any remaining fragments of the deteriorated bags from the soil. The bags were subsequently placed on top of one another (Fig. 7) until the upper section was reached (Fig. 8).

At this stage, one of the sandbags was positioned beneath one of the aforementioned stones, with the bag placed directly against the stone. This was intended to ensure that, in the event of any future settlement or downward movement of the stone, the sandbag would act as a supporting element (Fig. 9).

During the course of the work, as mentioned above, we observed that some of the sandbags remained stable. Therefore, it was not necessary to remove them, and a completely different approach could be adopted: leaving them in place and applying a layer of mud plaster over them (Fig. 10).

The same approach was applied to the right-hand side of the retaining wall, which appeared to be in relatively good condition and structurally stable (Fig. 11). This section was plastered in order to fill the deteriorated areas with mud and strengthen them.

In this case as well, we used soil that had previously been brought to the site for use in plastering the storeroom wall. This soil was used to prepare the mud required for the plastering process. Although transporting the soil was somewhat difficult, a handcart was used to move it to the work area, after which the workers carried it manually in order to avoid causing any damage to the visitor pathways or to areas containing archaeological excavations (Fig. 12). Nevertheless, we avoided using the soil that had collapsed from the section opposite the retaining wall, due to the potential for mixing materials and losing archaeological information associated with their original context. Instead, we used soil that had previously been brought to the site and designated for restoration work.

It should also be noted that, as is the case with certain tasks that occasionally require physical effort beyond the capacity of our three workers, two of the site guards kindly assisted us with the work. Their assistance was greatly appreciated and reflected their commitment to protecting the site and their concern for its preservation.

As a protective measure that could contribute to increasing the durability and preservation of the completed work, the area can be covered with a protective plastic sheet (*Shader*) during the winter season. This would reduce its direct exposure to rainfall and other environmental factors and, consequently, minimize or prevent potential damage as far as possible. I intend to implement this measure during the current year as an additional preventive step to help preserve the overall appearance and condition of the completed intervention (Fig. 13).

Figures



Fig. 1: General view of the retaining wall in 2019.



Fig. 2: General view of the retaining wall before the intervention.



Fig. 3: Stones at risk of future collapse.



Fig. 4: Emptying the upper sandbags.



Fig. 5: Levelling the ground before placing the sandbags.



Fig. 6: Filling the sandbags with soil.



Fig. 7: Placing the sandbags on top of one another.



Fig. 8: Reaching the upper levels.



Fig. 9: Placing a sandbag beneath the stone.



Fig. 10: Plastering the upper levels of the wall



Fig. 11: Plastering the right-hand side



Fig. 12: Mud transportation



Fig. 13: The completed intervention