# RESTORATION OF THE TALL ZAR'Ā MOSAIC 2014

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### Introduction

Tall Zar'ā has a strategic location that dominates the ancient trade route across the northern Ghor to Palestine, which connected ancient Egypt, Syria and the Mediterranean hinterland.

The site is located 40 km west of the city of Irbid and is 17 m below sea level. It has an ancient artesian well that is thought to have been the reason for the original occupation of the site, which is closely linked to Umm Qays.

Tall Zar'ā was occupied during the Early, Middle and Late Bronze Ages, the Iron Age and the Persian era, as well as during the Classical periods and into the Islamic era. Schumacher (Bakar 2013: 5) noted that the area of Wādī al-'Arab has plentiful water resources, which would have benefited both archaeological and modern sites.

The site is one of the closest archaeological sites to Umm Qays. It is thought that the original Persian- and early Hellenstic-era inhabitants of Gadara originated from Tall Zar'ā. It is also believed that the inhabitants of Tall Zar'ā moved to Gadara towards the end of the Iron Age, which would explain the absence of earlier domestic architecture at Umm Qays, as well as a break in occupation at Tall Zar'ā itself. The tall has many surface architectural remnants that indicate occupation in different periods.

After restoration, the glue residue was not properly removed from the mosaic, which again caused a change in colour from white to yellow when exposed to sunlight (see Fig. 6). Additionally, the mortar used was not the correct colour.

### Tall Zar'ā Mosaic

Through the work of the German archaeological team, a mosaic was discovered at Tall Zar'ā. It consists of medium-sized tesserae and displays six lines of text, some of which are missing (Fig. 1).



 Following the discovery of the mosaic, permission was sought from the Department of Antiquities (DoA) for it to be conserved by the restoration team at the DoA Bayt Ras office. As the site is unprotected, the team removed the mosaic to the restoration laboratory in order to start conservation and put it on a new base with fresh mortar.



2. After the restoration process was complete, some problems emerged. For example, a yellow instead of a white glue was used to paste the fabric on to the surface of the tesserae, which resulted in their colour changing from white to yellow.



 Another problem was that new mortar was applied before the old mortar had been fully removed, which resulted in loose tesserae. Also, the mosaic was placed inside an untreated iron frame, which could have had serious consequences for the mosaic in future.



4. The restoration team placed a metal mesh within the new mortar, which can lead to rust forming on the surface of the mosaic.



During the restoration process some tesserae were added or removed, which led to changes in the text.



6. Moreover, a second line of black tesserae was added to the lower part of the right side of the mosaic, which wasn't present in the original.



7. At the outset, the mosaic was in an iron frame measuring ca 1.2 x 1.5 m.

## Restoration of the Tall Zar'ā Mosaic

On learning of the problems that had appeared after the initial restoration, the director-general of the DoA, Dr Monther Jamhawi, asked me to carry out additional work using appropriate materials in order to rectify the problems.

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8. Dust and the remnants of glue on the surface of the mosaic were removed for the purpose of re-documenting it.



11. The fabric was allowed to dry.



 $9\,.\,Fabric\ and\ diluted\ white\ glue\ were\ then\ applied.$ 



12. The mosaic was then inverted.



10. and pressed on to the surface of the mosaic to ensure adhesion of the glue and fabric to the tesserae.



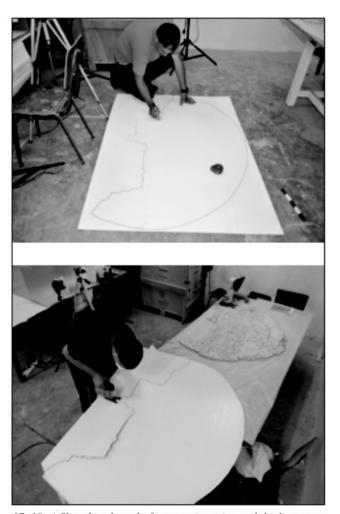
13. The process of removing the mortar started with the use of a grinder to create small squares.



14. which were then gently removed with a hammer and chisel so as not to damage the tesserae.



15. After removing the mortar, a scalpel and air compressor were used to clean between the tesserae.



17, 18. A fibreglass board of appropriate size and thickness was designed and then cut to size.



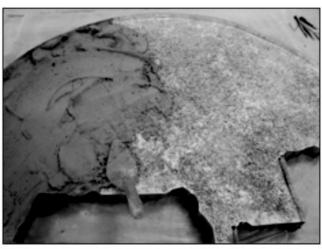
 An electric air-blowing device was also used to remove the mortar residue.



19. A metal bridge was designed to hold the fibreglass, which was attached with screws.



20. The surface of the fibreglass was then roughened using epoxy and beads in order to provide grip for the mortar.



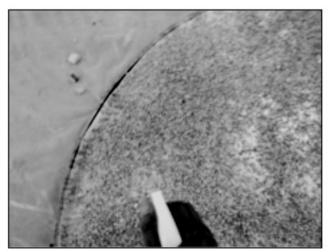
23. The new mortar, which was applied to both the fibreglass and the tesserae, was prepared using lime, marble powder and water.



21. The next stage was to attach the fibreglass board to a wooden board in order to facilitate the temporary attachment of a metal border around the mosaic using bolts, so as to delineate its edges.



24. Once secure within the metal border, the mosaic was turned.



22. Before applying the new mortar to the fibreglass, both fibreglass and tesserae were wetted by spraying water.



25. The fabric removed after being wetted first with water and then with a substance known as Americana. A heavy, flatted, rectangular piece of iron measuring 12 x 17 cm, with an upper handle, was used to press the tesserae into the new mortar, thereby encouraging the mortar to penetrate between them.



26. The mosaic was left to dry and then rinsed with water. A rough brush was used to remove glue and calcination; the remnants of the old glue used in the first restoration were removed mechanically using a scalpel.



27. The metal border around the frame was then removed.



28, 29. Finally, diluted Paraloid was then applied to the surface of the mosaic to protect it from dirt and dust shows the mosaic after the first and second restorations.



30. The restored mosaic was placed in Dar AL-Saraya museum in Irbid province.

## **Bibliography**

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