

PRELIMINARY REPORT ON THE 2017 SEASON OF THE MADABA PLAINS PROJECT: TALL JALŪL EXCAVATIONS 2017

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Introduction¹

Andrews University conducted archaeological excavations at Tall Jalūl between June 25 and July 28, 2017. This season, the excavation was directed by Paul Gregor. Robert Bates, of the Institute of Archaeology at Andrews University, served as field archaeologist and Field B supervisor. Seven faculty, students and volunteers were joined by more than 20 Jordanian workers during the excavations this season.

Excavations at the site of Tall Jalūl (**Fig. 1**) began in 1992, with excavations in the Jalūl Islamic Village beginning in 2008. For background information on Tall Jalūl, the Jalūl Islamic Village and the history of excavation at the site, see Gane *et al.* 2010; Gregor 2009; Gregor and Gregor 2009 and 2010; Gregor *et al.* 2011, 2012 and 2017; Herr *et al.* 1994, 1996 and 1997; Younker *et al.* 1993, 1996, 1997, 2007 and 2009; Younker, Gane and Shqour 2007; Younker and Merling 2000; and Younker and Shqour 2008.

Results of the 2017 Season at Tall Jalūl

Field B

Field B was originally opened in 1992 on the eastern side of the *tall* in the hope of finding the city gate. By the end of the season two superimposed flagstone pavements were found. The lower pavement extended through Squares

B4, B6 and B8 and sealed against a revetment wall (B4:13=B6:13=B8:06), while the upper pavement included Squares B2, B3-5, B7 and B9. The gate for the lower road was found in Squares B7-10. The lower pavement was initially dated to the early 9th century BC, and the upper pavement to the 9th/8th century BC. In 1999, Squares B11-19 were added further to the southwest to explore how the roads entered into the city. Square B15 revealed that the upper pavement had some additional paving throughout the Iron Age, with the latest dating to Late Iron Age II. In 2005 four new squares were excavated. Square B20 was opened to determine the full length of the upper road north of Square B1 and Squares B21-23 were opened to determine the full width of the upper road. In Square B20 a 2×3m area of the upper road was exposed, but in Squares B21-23 no further evidence of either the upper or the lower road was discovered (**Fig. 2**).

In 2016 two probes were opened to provide firmer dates for the construction of the upper and lower pavements, one in Square B2, where the upper and lower roads were superimposed, and the other in Square B6 where only the lower road was exposed. The probe in Square B2 revealed the continuation of the lower pavement (B2:21=B6:15, B4:10) from B6 as well as the revetment wall (B2:12=B6:13). However,

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Jordan, who served as our department representatives in 2017 season.

Staff for the 2017 season included director Paul Gregor and field archaeologist Robert Bates. Jacob Moody served as object registrar, photographer and oversaw GPS readings on the tall. Square supervisors for Field W included Jacob Moody and Trisha Broy in Field W, while Rebecca Bates served as square supervisor in Field B. Volunteers for both fields were Dorian Alexander, Aleksandra Jovanovic and Hala Ajilat.

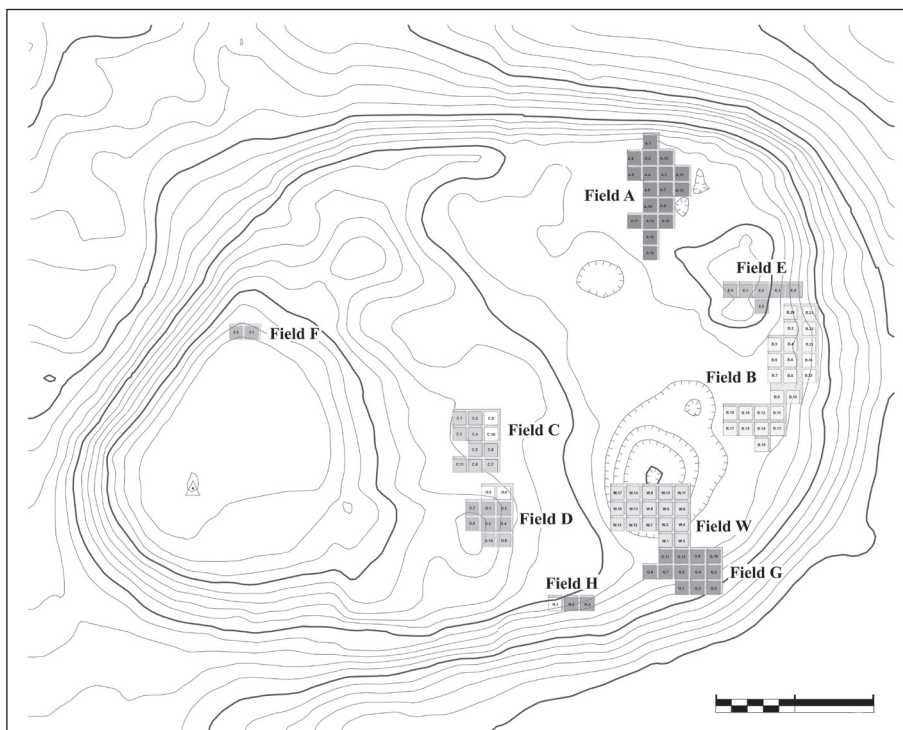
in this Square (B2) the lower pavement was located 0.40m below the revetment wall instead of sealing against it as in Square B6 (Fig. 3). The probe in B6 showed that the revetment wall (B06:13) was two courses below the lower pavement that seals against it.

Following the 2016 season, questions still remained regarding the stratigraphic sequence of the architectural features in Field B as they relate to the lower pavement in particular. Since the revetment wall is below the lower pavement in Square B6, but above the lower road in Square B2, the question that must be asked is: when was the revetment wall built in relation to the lower pavement? Was the lower pavement already in place when the revetment wall was built, forcing the original builders to dig part of it up in Square B6 to lay its two foundation courses? Or was the revetment wall built before the lower pavement and then modified after both walls fell out of use? Since the lower pavement is located under the revetment wall in Square B2, at what point does its slope separate from the foundation of the revetment wall? The purpose of the 2017 excavation in Field B was to address some of these questions and to try to determine where the lower pavement and revetment wall separate, forming the gap found in Square B2 (Fig. 3).

In 2017, a probe was opened on the north

balk of Square B4, in a section which had not previously been excavated. The purpose of this probe was to trace the lower pavement (B4:10) in Square B4 as it enters the north balk, in order to determine the point at which it no longer sealed against the revetment wall (B4:13=B2:12). An area approximately 2×3m was opened, the flagstones of the upper pavement (B4:05) removed and the soil excavated. The area closest to the east balk had washed out during previous seasons, so care was taken to ensure that no contamination from later periods affected the stratigraphic interpretation. Interseasonal debris was removed and sifted, but was not included in the analysis.

In the process of the excavation, a stone-debris field (B4:27) consisting of 12 medium to large boulders was found at the same elevation as a similar stone-debris field found in Square B2 (B2:16). These stones may have provided the initial foundation for the upper pavement (B4:05=B2:05). It was also discovered that the upper course of the revetment wall that enters into the north balk was not fully supported by the course below it. One of the stones of the upper course of the revetment wall was offset laterally outward by 0.10-0.15m, and was only supported by soil and chink stones (Fig. 4). When the supporting soil was excavated, it was found that revetment wall (B4:13) changes



1. Tall Jalul topographical map showing fields excavated to date.

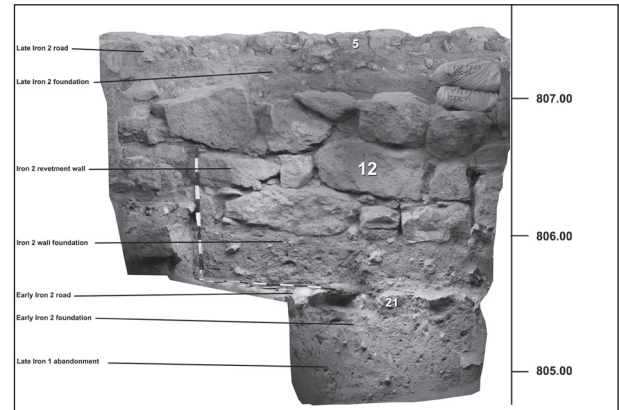
direction by *ca* 10 degrees east, causing it to pass over the lower pavement (B2:21) in Square B2 (Figs. 5 and 6). As for the lower pavement itself, it was determined that from the south balk of Square B4 to the north balk of Square B2, it continued to slope downward at approximately 6.5 degrees, that is to say at an 11% grade. In addition, the upper and lower pavements also

pitched from west to east between 9.5-10 degrees (Fig. 7). Although the overall width of the lower pavement could not be determined, the currently exposed area suggests that it was between 3.0-3.5m wide (Fig. 8).

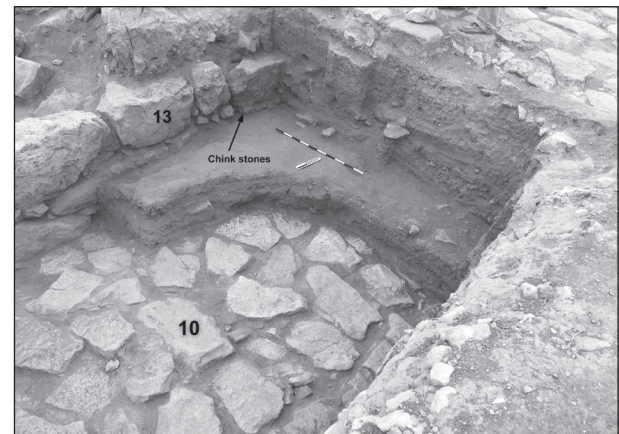
As in Square B6, it was found that the new section of the lower pavement in Square B4 seals against the revetment wall, suggesting



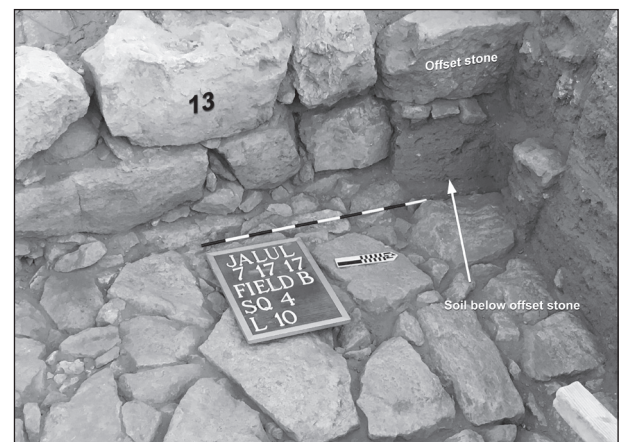
2. Tall Jalūl, Field B 2017.



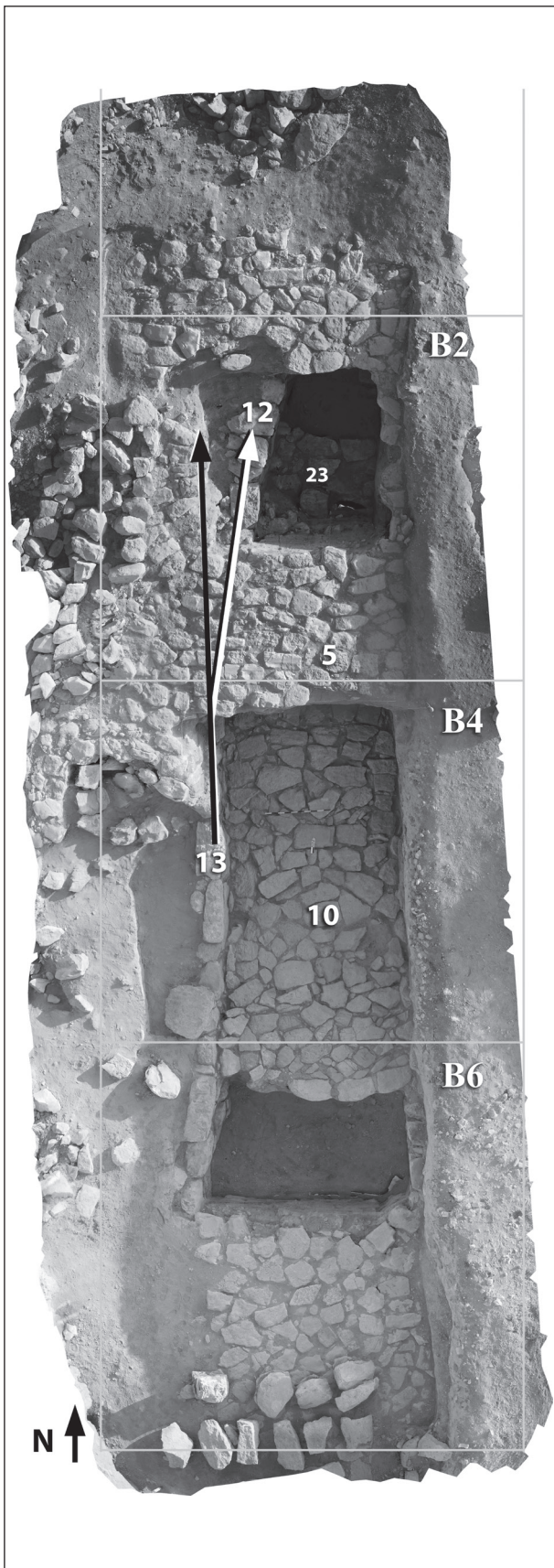
3. Square B2 facing west. Wall 12 lies 40cm above the lower pavement.



4. Facing northwest, showing chink stones supporting the offset stone from Wall 13 that changes the direction of the wall.

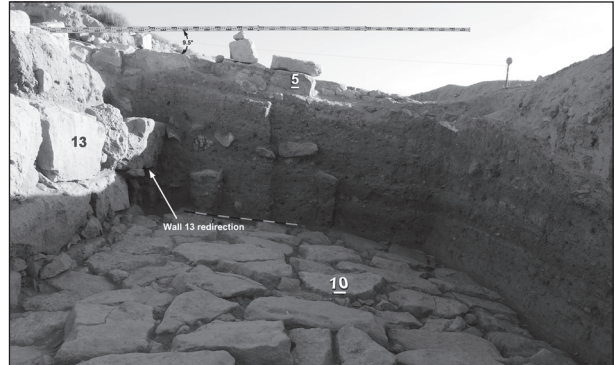


5. Facing east, showing the soil below the offset stone.



6. Field B, showing the path of the revetment wall from the offset stone.

their contemporaneous construction. A re-examination of the 1992 excavation photos also suggested that some stones from the lower pavement (B4:10) may have been used as the foundation for the revetment wall (B4:13) in this area, since they appear to go under the pavement (Fig. 9). In addition, sherds found in the soil between the flagstones of the lower pavement consist of bowls, cooking pots and jars,



7. North balk of Square B4, showing the slope and pitch of the upper and lower pavements with the redirected Wall 13.



8. Square B4 facing west, showing the excavated lower pavement and exposed revetment wall.



9. The 1992 photo of Square B4, facing east. Locus 10 appears to go under Wall 13.

consistent with those found below it - in Square B6 - in 2016. If this scenario is correct, it would also suggest a later phase of construction, with the revetment wall being diverted from its original path over, rather than parallel, to the lower pavement in Square B2 (**Fig. 6**), possibly during the mid-Iron Age II. Alternatively, it is possible that the revetment wall (B2:12=B4:13, B6:13) was added slightly later - following the construction of the lower pavement - to deal with erosion, with the westernmost part of the section in Squares B4 and B6 being pulled up to accommodate the wall construction. If so, it would seem that only some of the lower pavement (sections found in parts of Squares B4, B6 and B8) would have been exposed at that time, while in Square B2 it would have been completely covered with debris.

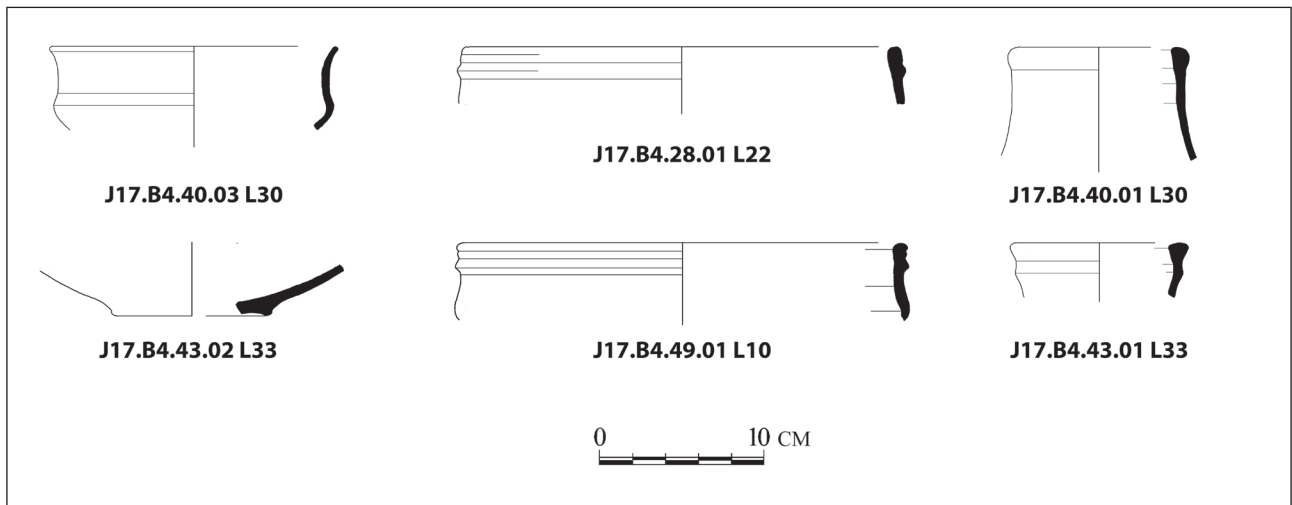
In terms of dating, the ceramic evidence suggests that the lower flagstone pavement (B4:13) was built in early Iron Age II, a date consistent with the material found previously (**Fig. 10**). In addition, no evidence of hard-packed surfaces

or possible dirt roads, as suggested in 2016, was found in Square B4 in 2017.

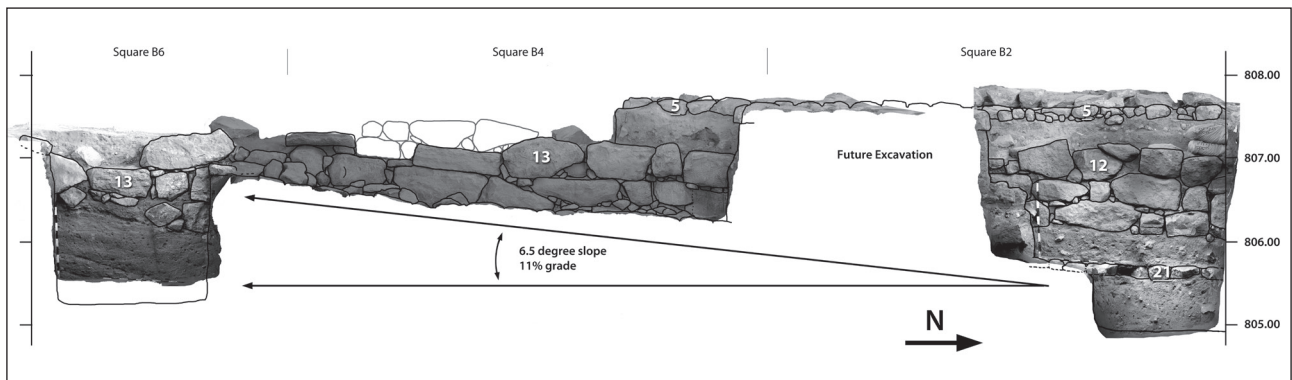
Some questions still remain regarding the relationship of the revetment wall to the lower pavement in Square B2. At what point does the lower pavement actually deviate from the revetment wall? Further excavation is needed on the west side of the revetment wall in Squares B2 and B4 in order to determine the relationship between it and the lower pavement. Additional excavation on the south side of Square B2 could also help clarify at what point the lower pavement separates from the revetment wall (**Fig. 11**).

Field W

Field W was carefully laid out on the southeastern ridge of the large depression on the southeastern side of the *tall* (see **Fig. 1**). Through the end of 2017, seven seasons of excavation in Field W have been completed, with 17 squares excavated (**Fig. 12**), although Squares 16 and 17 are not yet completed. During the 2017



10. Ceramics: Square B4 ceramics from the 2017 season.

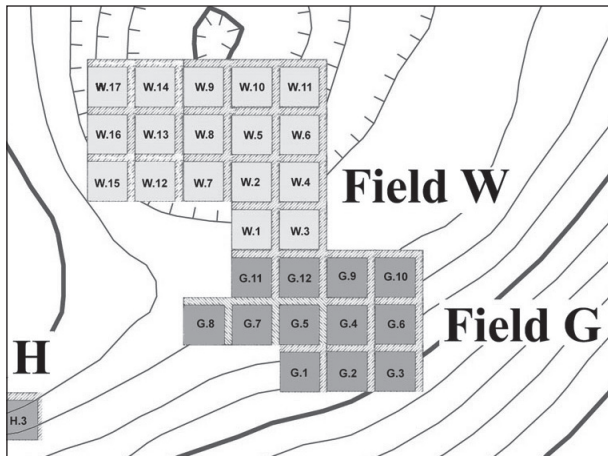


11. Squares B2-6 facing west, showing the slope of the lower pavement and its relationship to the west face of the revetment wall.

season work continued in Squares 15 and 16, which were opened during the 2016 season of excavation. Excavation in the water reservoir in Field W was begun in 2010 and is now almost half completed. The goal of this season was to reach the floor of the reservoir in Squares 16 and 17.

10th Century BC Occupational Phase

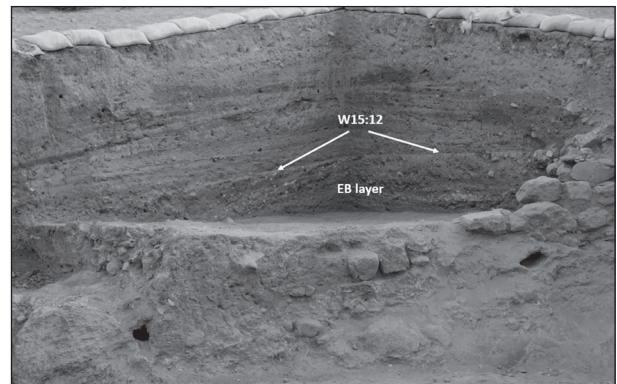
This occupational phase is represented by the reservoir wall located in Squares W15 and W16, and the surface or floor in Square W15. The reservoir wall (W15:17=W16:8) sits on bedrock which was carved for *ca* 2m to create the floor of the reservoir. The wall consists of several courses of medium-size limestone blocks. There is no sign of plaster due to the fact that only a small fragment of the wall is still preserved. The wall was mostly robbed out during the periods after the water reservoir ceased to serve its function, that is to say during and after the Persian period. Plaster (W15:19=W16:10) was found under the wall on a section of carved bedrock (Fig. 13).



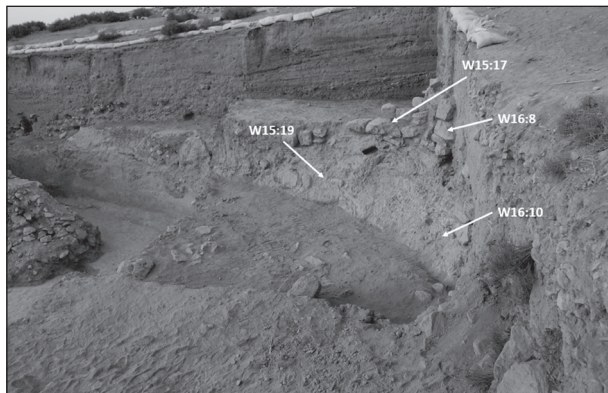
12. Field W squares excavated to date.

A surface/floor (W15:12) consisting of a beaten-earth layer was revealed outside the reservoir. The floor itself and earth layer above it contained significant amounts of pottery fragments belonging to Iron Age IIA (10th century BC) (Fig. 14). This is consistent with a similar floor revealed in earlier seasons of excavation in Squares W2 and W11. The floor sits on debris filled with Early Bronze Age pottery. It seems that this area of the reservoir was cleared of earth debris, and the bedrock was carved to a depth of 3m in the western section and up to 1m on its eastern side to create a level floor. The wall was then built on the bedrock to level the sides of the reservoir. The builders also created a walking surface outside the reservoir. It is at that time that all the layers that presumably accumulated during the Middle and Late Bronze Age were removed and dumped elsewhere.

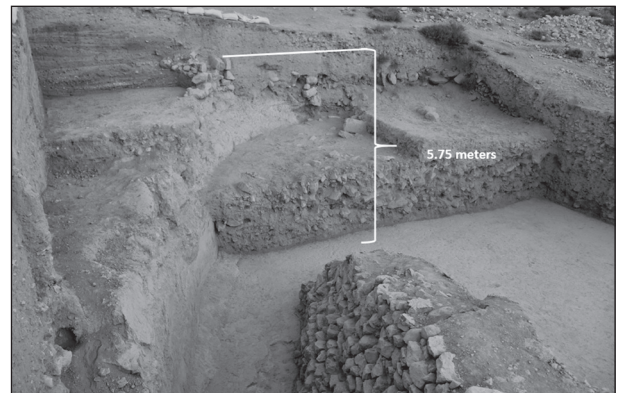
The reservoir is about 25m wide, 35m long and almost 6m deep. When full it could have contained *ca* 6,000 cubic meters of water (*ca* 2 million gallons). The size of this open-air reservoir would appear to make it the largest structure of this type so far encountered in the entire Middle East, that dates to this time (Fig. 15).



14. 10th century BC floor.



13. Wall and plaster of reservoir.



15. Depth of reservoir.

Bibliography

- Gane, C.E., Younker, R.W., Ray, P.J., Borstad, K., Burgh, T., Gane, R.E., Gregor, P.Z., Groves, J.L. and al-Shqour, R.
2010 Madaba Plains Project: Tall Jalul 2009. *AUSS* 48: 165-223.
- Gregor, P.Z.
2009 A Tripartite Pillared Building in Transjordan. *ADAJ* 53: 9-19.
- Gregor, P.Z. and Gregor, H.
2009 Preliminary Report on the Tall Jalul 2007 Season: Field A. *ADAJ* 53: 21-26.
2010 Preliminary Report Tall Jalul 2009 and 2010 Seasons, Field G and W. *ADAJ* 54: 493-98.
- Gregor, P.Z., Younker, R. and Ray, P.J.
2012 Preliminary Report on the 2012 Season of the Madaba Plains Project: Tall Jalul Excavations 2012. *ADAJ* 56: 201-5.
- Gregor, P.Z., Ray, P.J., Younker, R.W. and Gane, C.E.
2011 Preliminary Report on the 2011 Season of the Madaba Plains Project: Tall Jalul Excavations 2011. *ADAJ* 55: 351-62.
- Gregor, P.Z., Gane, C., Gregor, H., Younker, R. and Ray, P.J.
2017 Preliminary Report on the 2014 and 2015 Seasons of the Madaba Plains Project: Tall Jalul Excavations 2014 and 2015. *ADAJ* 58: 691-95.
- Herr, L.G., Geraty, L.T., LaBianca, Ø.S. and Younker, R.W.
1994 Madaba Plains Project: The 1992 Excavations at Tell el-‘Umeiri, Tell Jalul, and Vicinity. *ADAJ* 38: 147-72.
- Herr, L.G., Geraty, L.T., LaBianca, Ø.S., Younker, R.W. and Clark, D.R.
1996 Madaba Plains Project 1994: Excavations at Tell el-‘Umeiri, Tell Jalul, and Vicinity. *ADAJ* 40: 63-81.
1997 Madaba Plains Project 1996: Excavations at Tell al-‘Umayri, Tall Jalul, and Vicinity. *ADAJ* 41: 145-67.
- Younker, R.W. and Merling, D.
2000 Madaba Plains Project: Tall Jalul 1999. *AUSS* 38.1: 45-58.
- Younker, R.W. and Shqour, R.
2008 Madaba Plains Project at Jalul. *Munjazat* 9: 76-78.
- Younker, R.W., Gane, C.E. and Shqour, R.
2007 Tall Jalul Excavations/Madaba Plains Project (MPP) *Munjazat* 8: 82-83.
- Younker, R.W., Geraty, L.T., Herr, L.G. and LaBianca, Ø.S.
1993 The Joint Madaba Plains Project: A Preliminary Report of the 1992 Season, Including the Regional Survey and Excavations at Tell Jalul and Tell el-‘Umeiri (June 16 to July 31, 1992). *AUSS* 31: 205-38.
- Younker, R.W., Gane, C.E., Gregor, P., Groves, J. and Ray, P.
2009 Preliminary Report on the 2009 Season of the Madaba Plains Project: Tall Jalul Excavations 2009. *ADAJ* 53: 27-34.
- Younker, R.W., Geraty, L.T., Herr, L.G., LaBianca, Ø.S. and Clark, D.R.
1996 Preliminary Report of the 1994 Season of the Madaba Plains Project: Regional Survey, Tall al-‘Umayri and Tall Jalul Excavations (June 15 to July 30, 1994). *AUSS* 34: 65-92.
- 1997 Preliminary Report of the 1996 Season of the Madaba Plains Project: Regional Survey, Tall al-‘Umayri and Tall Jalul Excavations. *AUSS* 35: 227-40.
- Younker, R.W., Merling, D., Ray, P., Ziese, M., Gregor, P.Z., Gane, C.E. and Koudele, K.
2007 Preliminary Report of the 2000, 2004, and 2005 Seasons at Tall Jalul, Jordan (Madaba Plains Project). *AUSS* 45: 73-86.