

# Excavation at Jabal Juhayra, June/July 2015

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## 1. Introduction

The Jafr Basin Prehistoric Project (JBPP) started in 1997 with a view to tracing the process of pastoral nomadization in southern Jordan. For this objective, we have investigated more than a dozen archaeological sites varying in both date and character. The series of research outcomes has recently been synthesized in the form of *the Jafr chronology*, which has enabled us to roughly sketch the process of pastoral nomadization in the region (Fujii 2013). Phase 5 of the long-term research project aims to develop the details of the Jafr Chronology and, in so doing, provide further insights into the socio-cultural correlation between sedentary farming communities to the west and pastoral societies to the east. Jabal Juhayra is among several sites that were selected to approach the issue.

## 2. The Site and Excavation

Jabal Juhayra is located in the hilly terrain that fringes the northwestern edge of the Jafr Basin (**Fig. 1**). The site occupies the eastern flank of an isolated volcanic hill of the same name, commanding a small gully flowing down eastward from the hillside (**Figs. 2, 3**). It was found for the first time during our general season survey in 2002 and tentatively registered as JF-0116 (Fujii 2002; Fujii and Abe 2008). The test-sounding, taken place in August 2014, suggested that the site contains two distinct cultural layers: Layer 2 dated to the LN/early Chalcolithic transitional phase and Layer 3 dated to the LPPNB (Fujii 2014; Fujii, Adachi *et al.* n.d.). The second season excavated the Layer 2 (LN/Chalcolithic) settlement. This season scrutinized the Layer 3 (LPPNB) water-use system in Area 3.

## 4. Investigation results

*Structural remains:* A barrage-like masonry wall was partly exposed on the northern slope of the small gully. The excavation in Area 3 has shown that the wall is constructed by a rubble core dry walling technique using undressed basalt/scoria cobbles and boulders as major building materials. This elongated masonry wall - *c.* 16 m in preserved length, *c.* 1-1.2 m in width, and *c.* 0.8 m in maximum preserved height - began with the middle of the steep slope and was interrupted, probably due to past washout, *c.* 5 m short of the present gully bed (**Fig. 4**). Of significance is the technological difference between the upper and lower halves of the wall. The upper half used smaller cobbles, being inferior in construction quality and slightly incurving toward the upstream. Thus it is thought to have functioned as a training wall for guiding runoff surface water to the barrage. In contrast, the lower half, or the main body of the barrage, was more elaborately and robustly constructed using larger stones. Unlike all other wall alignments including those in Layers 2, only this robust wall

was located immediately beside the gully (more precisely, a point slightly downstream of the confluence of two tributaries) and stretched orthogonally across the converged gully (**Fig. 3**). Thus, its use is evident. Although its southern extension is yet to be confirmed in Area 4, there is no doubt that the wall was used as a small-scale barrage to collect seasonal runoff water flowing down on the scoria slope.

*Small finds:* Small finds around the barrage wall were limited to hundreds of flint artifacts and a few grinding implements converted to construction materials (**Fig. 5**). Although they occurred in secondary contexts, it is important to note that the wall was buried with the deposits including many PPNB artifacts.

## 5. Discussion

The excavation has proved that the barrage was constructed in the PPNB layer and, at the same time, covered with a LN/Chalcolithic deposits. Thus, it undoubtedly dates back to the PPNB. The adjacent Layer 3 settlement was probably involved in its construction and management. This finding revalidate our dating of barrage systems previously investigated in the Jafr Basin (Fujii 2010).

## 6. Conclusion

The third season at Jabal Juhayra has proved that the Layer 3 settlement (LPPNB) was equipped with the small-scale stone-built barrage. Our previous investigations have located similar structures in the Jafr Basin, and Jabal Juhayra would be the third case of the barrage-equipped PPNB settlement after Wadi Abu Tulayha and Wadi Ghuwayr 17/106. Subsequent excavations are expected to clarify the overall picture of the unique settlement.

## References

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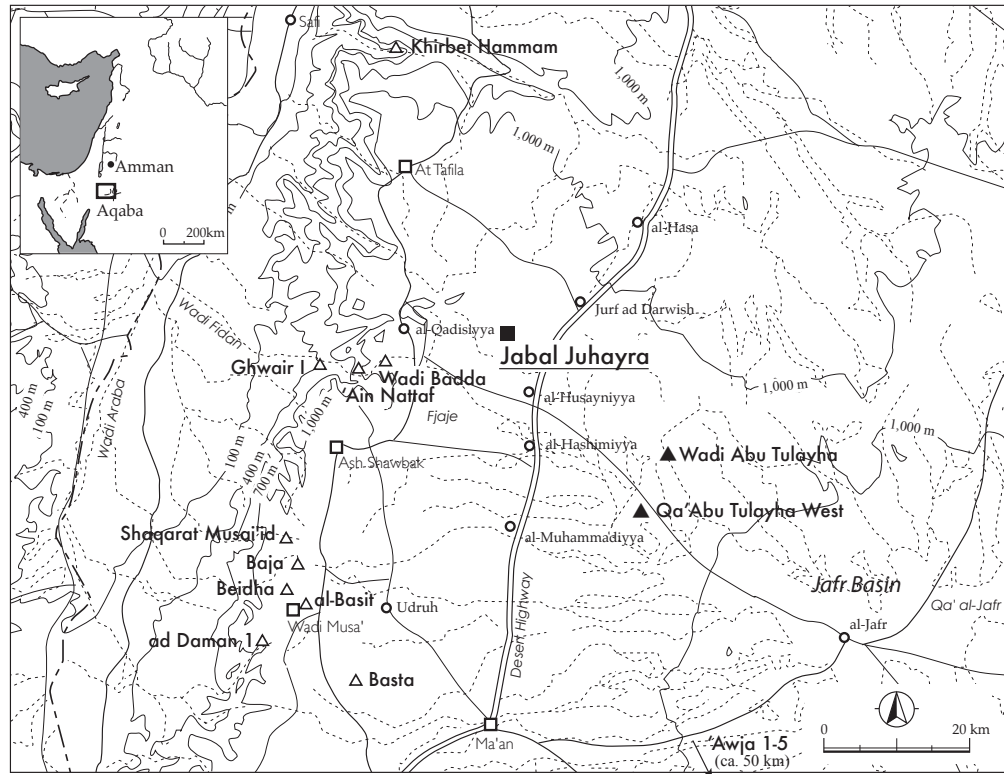


Fig. 1 Jabal Juhayra: site location.



Fig. 2 Jabal Juhayra: general view (looking W).

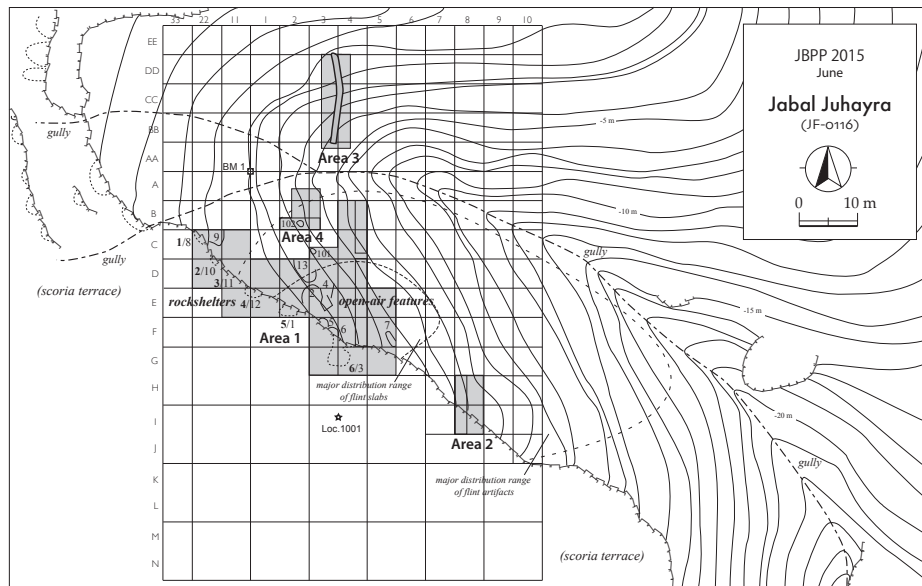


Fig. 3 Jabal Juhayra: site plan (as of June 25, 2015).



Fig. 4 Jabal Juhayra: Barrage wall in Area 3 (looking NW).



Fig. 5 Jabal Juhayra: small finds around the barrage wall.

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Fig. 6 Jabal Juhayra: site endangered by industry-level scoria mining.