

# Investigations at ʿAwja 1-3 and Wadi Nadiya 1 in southern Jordan

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## 1. Research Background and Purpose

The Jafr Basin Prehistoric Project, headed by the author, was organized in 1997 with a view to tracing the process of pastoral nomadization in southern Jordan. Since then, we have continuously investigated more than a dozen archaeological sites varying in both date and nature from Neolithic agro-pastoral outposts to Early Bronze Age cairn fields. This field season focused on two small Neolithic sites: ʿAwja 1-3 and Wadi Nadiya 1. Both of these were excavated to provide further insights into the post-PPNB burial practice and the PPNB barrage system, respectively.

## 2. ʿAwja 1-3

The site of ʿAwja 1 is located ca. 90 km SE of Maʿan, in the middle of sand desert near the Jordan-Saudi border. The site contained several rectangular structures characterized by two-rowed upright slab walls, which were laterally connected to form four short complexes ca. 7-10 m long, respectively (Fig. 1). Due to time constraints, our excavation focused on the southern half of Complex I. The limited excavation showed that the complex contained at least three connected structures, and that they were equipped with a few small compartments along the left wall and a circular feature ca. 1 m in diameter in front of the façade wall, respectively (Fig. 2). They bear a close resemblance to the Northeastern Complex of Qaʿ Abu Tulayha West (Fujii 2001), suggesting a Late Neolithic date and the site function as a pseudo-settlement, namely, a laterally-connected body of empty cairns associated with a pseudo-house. No artifacts were found, but this makes sense when considering that the site represents a cemetery of symbolic secondary interment, a unique burial custom common to early pastoral nomads.

In addition to the main operation at ʿAwja 1, we briefly examined two nearby sites.

ʿAwja 2 was situated ca. 1 km SW of ʿAwja 1 and consisted only of a Juhayra I type pseudo-house cairn (Fig. 3). Thus the site can probably be dated to the PPNC (Fujii 2005). ʿAwja 3, located ca. 0.5 km SE of ʿAwja 1, included a unique feature comparable with a pseudo-wall cairn in the Chalcolithic complex of QaʿAbu Tulayha West (Fig. 4) (Fujii 2003). Here again, both sites yielded no surface finds except for several undiagnostic flint flakes.

### 3. Wadi Nadiya 1

The barrage site of Wadi Nadiya 1 is located ca. 70 km NE of al-Jafr, near an outlet of a semi-open playa system extending on *Hamada*. The site consisted of two stone-built barrages ca. 130 m distant from each other. The upper barrage (Barrage 1) was a U-shaped structure ca. 140 m long and ca. 0.3-0.5 m in preserved height, spreading both wings upstream (Fig. 5). Of interest is the construction of the central part, which not only protruded in a semi-circular shape so as to diffuse the strong sideways water pressure, but also was carefully protected with a robust retaining wall more than 30 m long and ca. 1 m high (Fig. 6). The wing walls, on the other hand, were devoid of such device, being put on the contemporary ground surface or a low anthropogenic bank. Barrage 2, on the other hand, was less strengthened in terms of construction, being equipped only with a single course of protection wall. This is probably because it was relieved of sideways water pressure to a large extent owing to the existence of the upper barrage. The barrage system produced two large grooved stone-weights and a diagonally-notched stone bar, both of which are a chronological indicator of the Jafr pastoral PPNB (Fujii 2007).

### 4. Summary

The ʿAwja sites have demonstrated anew that the process of pastoral nomadization in southern Jordan can be traced within the framework of the Jafr chronology established by our previous investigations. On the other hand, the barrage site of Wadi Nadiya 1 has shed new light on the high level of civil engineering technology in Neolithic Jordan. Jordan should be proud of the world's oldest, highly sophisticated barrage system.

### 5. References

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Fig. 1 ʿAwja 1: general view of the site (looking NE).



Fig. 2 ʿAwja 1: close-up view of Complex I (looking N).





Fig. 3 ʿAwja 2: general view of Structure 1 (looking SE).

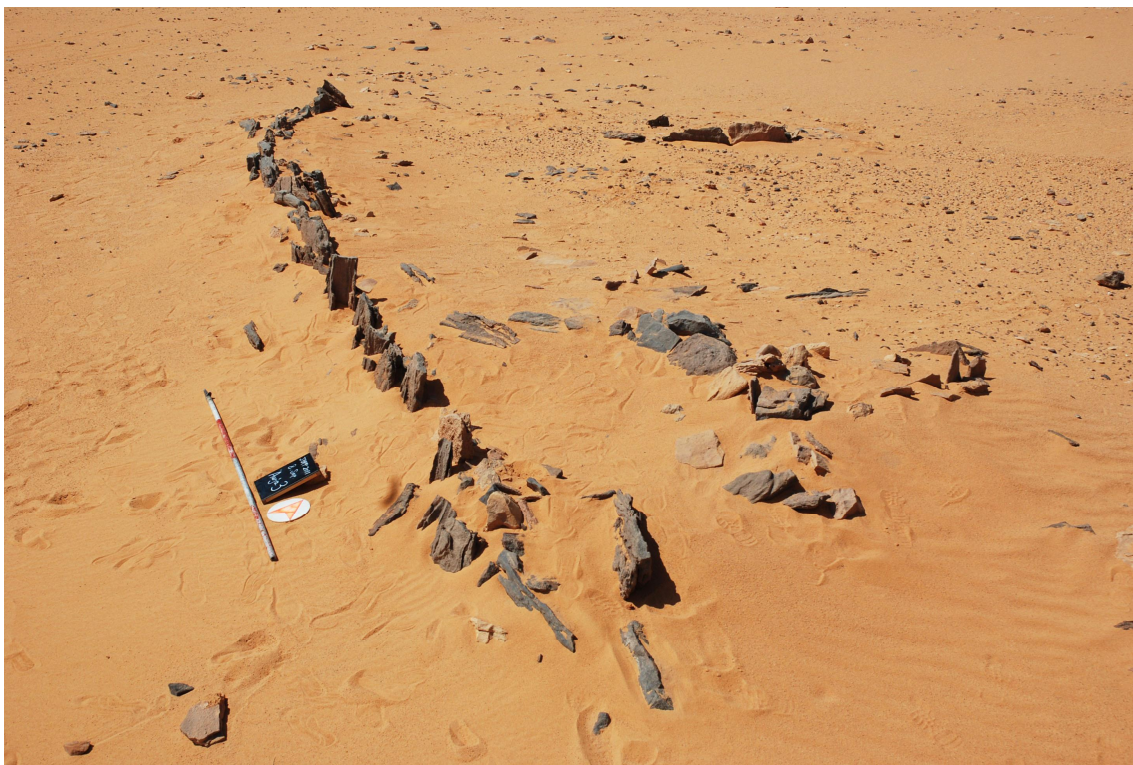


Fig. 4 ʿAwja 4: general view of Feature 1 (looking N).





Fig. 5 Wadi Nadiya 1: general view of Barrage 1 (looking SW).



Fig. 6 Wadi Nadiya 1: close-up view of the central part of Barrage 1 (looking NE).