

EASTERN BADIA ARCHAEOLOGICAL PROJECT: MAITLAND'S MESA, JORDAN

Yorke M. Rowan

The Eastern Badia Archaeological Project examines late prehistoric land and water use in two study areas in the eastern desert of Jordan, referred to as the *badia* (badlands), or the Black Desert. These two study areas are situated along the edge of the *harra*, the rugged extensive series of lava flows from Damascus to the northern edge of the Nafud Desert in Saudi Arabia. Co-directed with Gary Rollefson (Whitman College), the project focuses on Wisad Pools and the Wadi al-Qattafi/Maitland's Mesa (fig. 1). Both areas include remarkable concentrations of basalt structures in the hundreds, most collapsed and unidentifiable to function or period, and both unexamined archaeologically.

Wadi al-Qattafi is a broad, shallow drainage running roughly north-south, about 60 kilometers east of Azraq (fig. 2). On either side of the wadi approximately thirty mesas capped by basalt rise about 40–60 meters above the drainage bottom, creating dramatic vistas. The mesas, remnants of eroded Miocene flood basalts, range in size from 60 × 75 meters to about 1.2 × 0.4 kilometers. One of these, Maitland's Mesa (M-4), was first noted in 1927 and photographed by RAF pilot Percy Maitland while flying the Cairo-Baghdad airmail route. From the air, the mesa reminded Maitland of an Iron Age fort in Wales, drawing a parallel between the basalt structures along the southern edge of the mesa and a crenellated parapet (the site thus



Figure 1. Location of Wisad Pools and Maitland's Mesa in eastern Jordan (courtesy of Google)

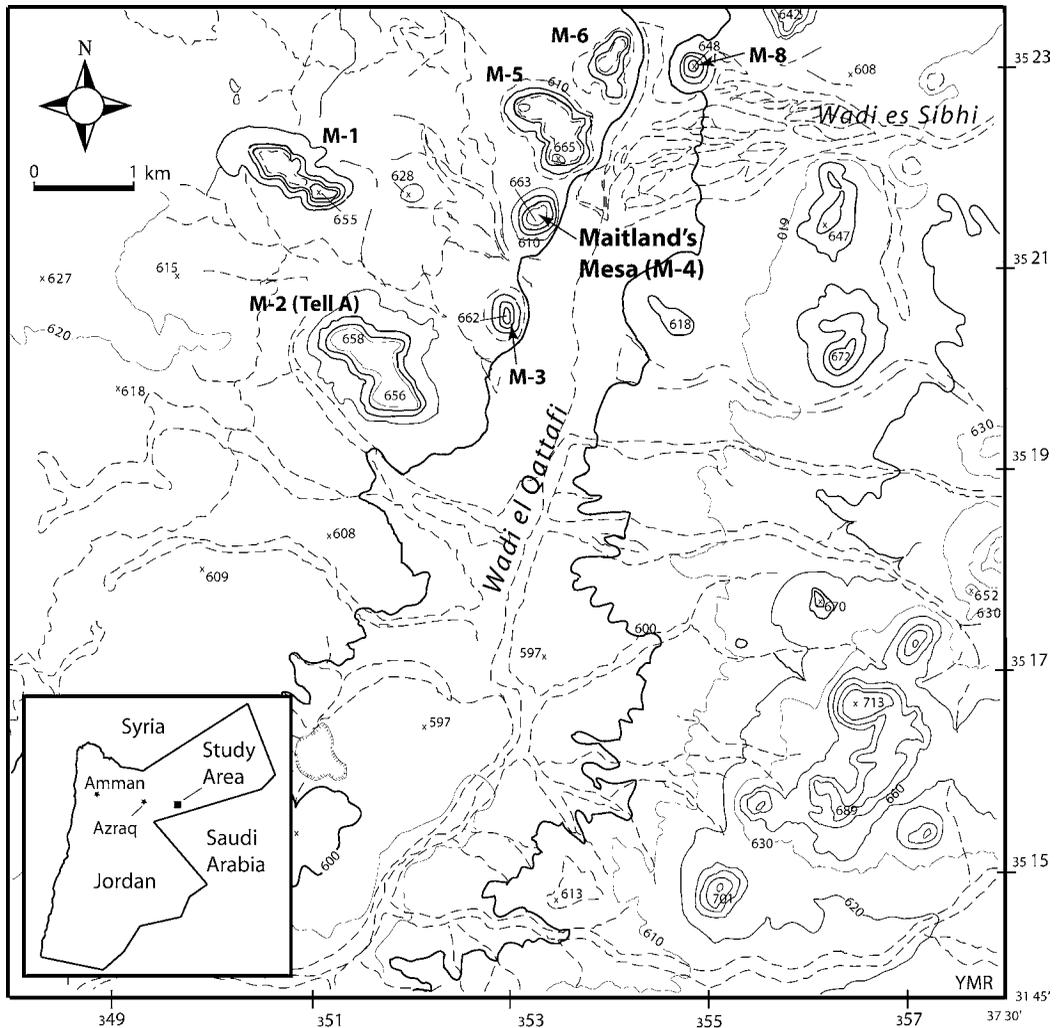


Figure 2. Map of Wadi al-Qattafi with Maitland's Mesa (M-4)

became known as Maitland's Hillfort). The site was largely unremarked until Alison Betts mentioned visiting the site in the 1980s.

Starting in 2008, several exploratory seasons of survey and documentation in the area revealed that most mesas have at least one basalt tower tomb on top (most looted), with perhaps a few collapsed structures atop the mesa and a few animal pens on the lower slopes. Maitland's Mesa, however, stands out among the mesas due to the large number of structures on top, ranging from animal corrals to small basalt elliptical or circular cells. The most striking feature is the long, linear feature along the southern edge of the mesa noted by Maitland, which consists of over fifty rectangular to oval chambered cairns, many collapsed or looted (fig. 3). These seem linked to a large tower tomb, repeatedly looted. Similar features, known from our research at Wisad Pools, and on the Arabian Peninsula, are known as "tomb tails" in some publications.

During these seasons, nearly 500 structures and features were identified on the summit and slopes of Maitland's Mesa. Atop the oval-shaped mesa, approximately 200 structures are

EASTERN BADIA ARCHAEOLOGICAL PROJECT



Figure 3. Aerial photograph highlighting tower tomb “tail” of chambers (image courtesy of D. Kennedy and APAAME)

documented, including not only the cairn chain, but also corrals, single- and double-celled structures, and a few U-shaped features, all constructed of the locally available basalt cobbles, boulders, and slabs (fig. 4). In addition, ten flint tool and debitage concentrations dated to the early Epipaleolithic, pre-pottery Neolithic, and Late Neolithic were recorded along the slopes. Also along the southern slope is a concentration of collapsed structures similar in appearance to the *nawamis*, the fourth-millennium BC roofed, stone-masonry form of burial structure known from the Sinai and the Arabian Peninsula.

Dating any of these structures is extremely difficult. Parallels are rare, and the contours of many structures are obscured by the collapse. Material culture is limited, with only a few non-diagnostic pottery fragments. Stone tools primarily represent two different technological complexes, Lower/Middle Paleolithic Levallois and late prehistoric flake and blade technologies. As surface finds, these artifacts cannot definitively date the structures, but Late Neolithic, Chalcolithic, or Early Bronze seemed most likely.

In 2012 we excavated two small, circular stone features atop the mesa. One was a single-cell structure (165) and the other a double-cell structure (14). Basalt cobbles, haphazardly piled on each other, form low circular to oval walls only a few courses high; these were not intended to be walls that stood very much more than a few courses in height. Possibly these served to hold down roofing of skins or some other material as basic sheltering huts. Structure 165, for instance, was oval (1.7 × 1.3 m) with two standing stones defining the threshold on the southeast. Excavation revealed very little depth (10–15 cm) in sediment before the basalt bedrock was found. In the double hut (14), one cell with a broad opening and possible paving (B) leads into a second cell (A) with more constricted entrance (fig. 5). Both cells had low walls ranging between 30 and 40 centimeters in height; cell A (1.8 × 1.4 m) was smaller than cell B (1.95 × 1.70 m). The only material culture found were non-diagnostic lithics on the surface of Cell A. Similar to many other cells atop the mesa, many cells are connected

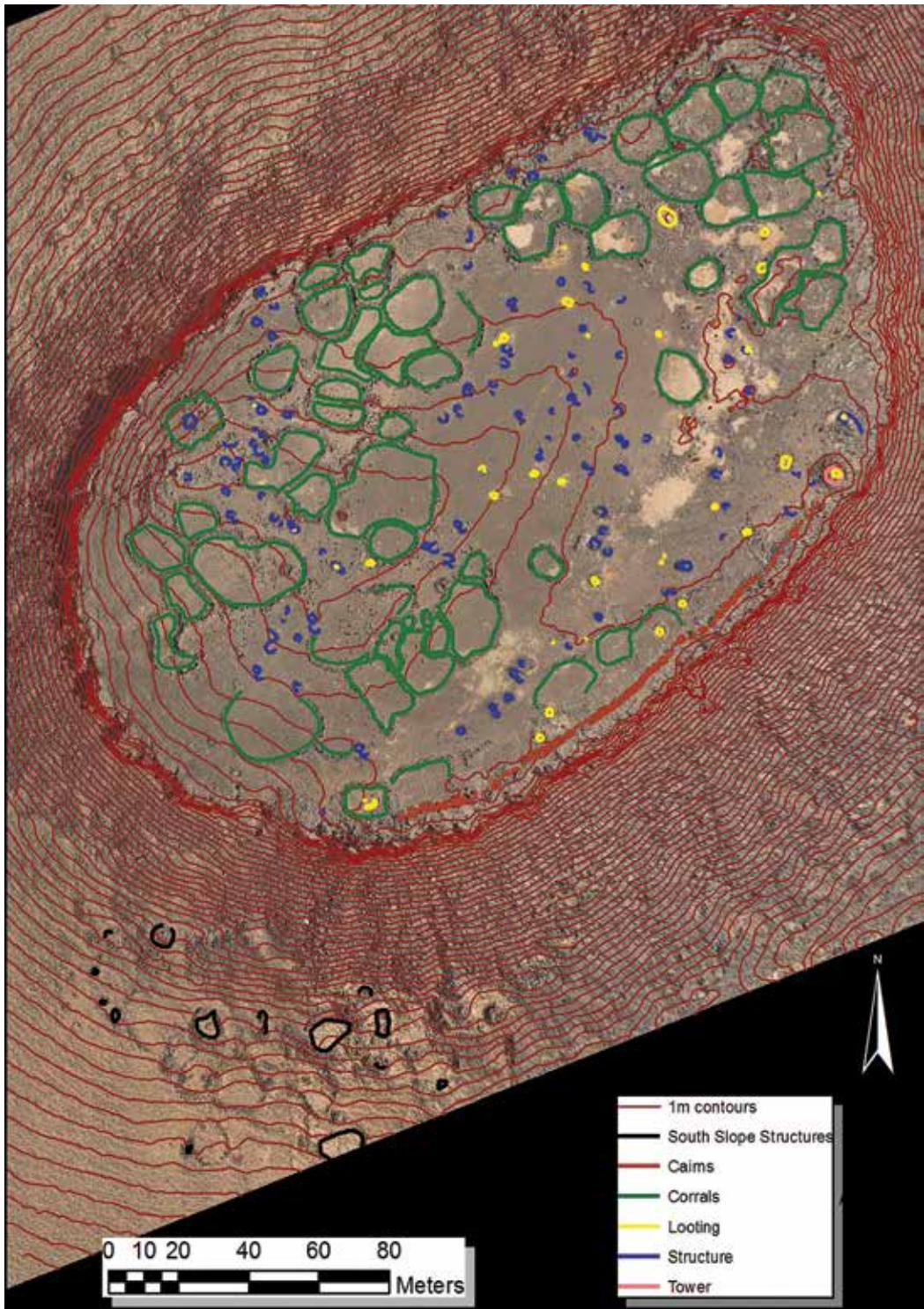


Figure 4. Photogrammetric contour map of Maitland's Mesa constructed from twelve oblique aerial photographs and a series of ground-control points collected with a total station on the ground. Aerial photographs were converted to a digital elevation model (DEM) in PhotoscanPro software and the resulting model was converted to a 1-meter contour interval map in ArcGIS. The underlying image of the site is an orthomosaic also constructed in Photoscan and output to ArcGIS (image by A. C. Hill)

Nearly thirty structures are visible on the southern slope. Most are circular, probably around a single interior space, although one large two-roomed rectilinear structure (7.0 × 3.5 m) is distinct from the others. Although a few of the round cells are large (up to 10 m in diameter), many range between 2 and 3 meters in diameter. One of these collapsed round structures (SS-11) was selected for excavation because it was apparently undisturbed by looting, and the entrance was preserved. The assumption that this might be a mortuary structure similar to the *nawamis* of the Sinai was quickly discarded with clearance of the collapsed basalt slabs. Their removal exposed an oval plan and a second entrance on the eastern side of the structure. The dry masonry basalt slabs that also seemed similar to construction techniques used for the *nawamis* were not used in the interior.

Two building phases were recognized. In the first, the building interior was built on the slope with a fill layer to level the small (ca. 2 × 3 m) space (fig. 6). A long, shaped basalt slab found in the fill probably acted as the roof support for a very low ceiling that necessitated crouching inside the structure. Hearths were found above this lowest level, suggesting repeated use. Unlike the exterior, interior wall construction includes large flat slabs vertically erected and supported by smaller stones wedged into gaps and crevices. A second doorway opened on the northeast; both doorways had vertical slabs supporting a lintel just under a meter in height.



Figure 6. Plan view of SS-11



Figure 7. Photograph showing entrance to SS-11, with openings to exterior storage areas

The second doorway opened on to a courtyard (fig. 7), which included a small stone-lined hearth with ashy sediment. An ash dump was found in the courtyard, near the northeast entrance, below a later enclosure wall. Also in this area of the southeastern edge was found a low corbeled space (1.90 × 1.45 m) with single central pillar in situ standing about 45 centimeters high, presumably a storage room (L.018). A smaller triangular storage space (L.020) also opened onto the courtyard; the larger storage room may also have had an opening on the southern aspect.

In the second phase, the eastern entrance was blocked and the courtyard walls added. The building's interior was reconfigured by leveling the floor and paving it with flat basalt slabs (ca. 30–40 × 50 cm); small stones were wedged between the slabs. A small gap in the center may have acted as a socket for the long, shaped pillar for additional roof support. These changes raised the floor further, possibly leaving so little clearance that crawling into the space was necessary.

Unlike the virtually empty cells excavated on the top of the mesa, artifacts were plentiful in SS-11. In addition to a few handstones and limited animal bone, flint artifacts were found that included tabular knives, unifacial and bifacial knives, scrapers, notches, and denticulates. A few arrowheads, diagnostic of the Late Neolithic (Yarmouk, Haparsa) suggest dates between 6500 and 6000 BC (fig. 8).

Although this structure proved not to be a mortuary structure, these exciting results allow us new insights into the occupation and use of the eastern desert. The many other similar structures ringing Maitland's Mesa, and possibly at a few other mesas along the Wadi al-Qattafi, suggest much denser, longer-term occupation than assumed for this arid region. The ability to date with confidence structure SS-11 to the Late Neolithic dramatically alters our understanding of the region, and the permanence with which people lived in the area. Despite the current arid and virtually unpopulated environment, such investment

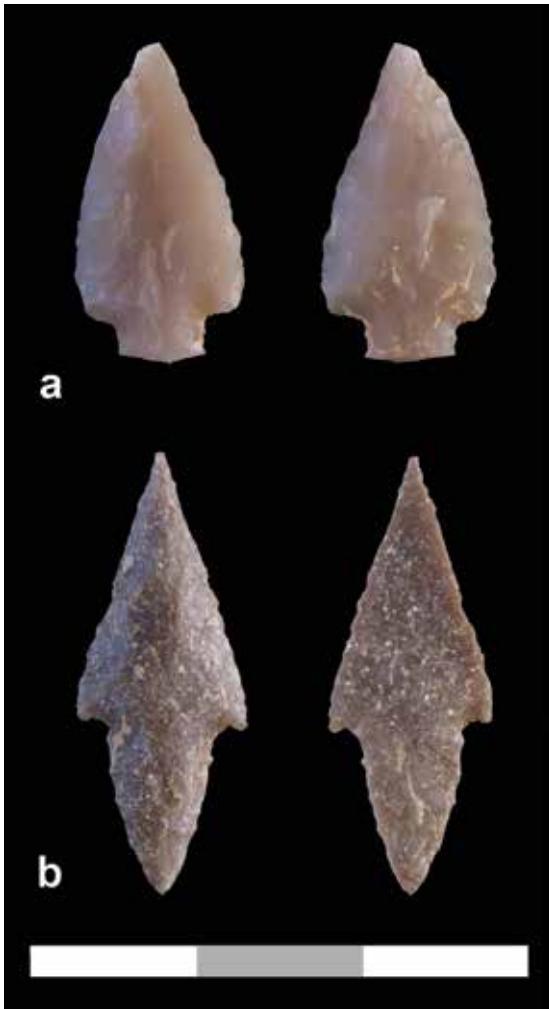


Figure 8. Projectile points from SS-11: (a) Yarmouk point, (b) Haparsa point (photo by G. O. Rollefson)

in substantial structures indicates much more than a nomadic existence with little long-term habitation. Instead, small groups of people may have lived a large portion of the year here, only leaving during the driest months. Clearly, one excavated structure at Maitland's Mesa, and another Late Neolithic structure at Wisad Pools, precludes conclusive statements, but in each case these Late Neolithic structures suggest residential occupation with some permanence, albeit seasonally constrained. Like the structure at Wisad Pools, this corbelled structure highlights a previously unknown phenomenon for the eastern badia.

The construction of these buildings required labor investment that anticipated repeat visits, presumably during the wetter months. Despite the need for much more research than these limited investigations, these initial results cause a reconsideration of the late prehistoric use and habitation of the area. Combined with other research initiatives in the area, the eastern badia of Jordan seems less empty during the late prehistoric periods.
