

# **A lost campaign? New evidence of Roman temporary camps in northern Arabia**

Michael Fradley, Andrew Wilson, Bill Finlayson and Robert Bewley

## **Abstract**

*Remote sensing survey in southern Jordan has identified at least three Roman temporary camps that indicate a probable undocumented military campaign into what is today Saudi Arabia, and which we conjecture is linked to the Roman annexation of the Nabataean Kingdom in AD 106 AD.*

## **Introduction**

Analysis of satellite imagery in southern Jordan by the Endangered Archaeology in the Middle East and North Africa (EAMENA) project has identified a series of three Roman marching camps running east of Bayir. These are probable evidence of a military expedition toward Dûmat al-Jandal in the Jawf region of Saudi Arabia. On the basis of the present evidence, although it is not possible to date these structures more accurately or connect them to any documented Roman military campaigns in the region, we conjecture that they may relate to the annexation of the Nabataean kingdom that began in AD 106.

## **Methodology and results**

The EAMENA project systematically analyses open-source satellite imagery through platforms such as Google Earth to identify and document the form and condition of archaeological sites. During survey of the Jordan-Saudi Arabia border region the slight trace of a rectangular enclosure was identified, exhibiting the classic playing-card shape of a Roman fort or camp. Further investigation identified two further enclosures to the west (Figure 1). These images showed clearly the form, symmetrical entrances, and the *titulum* outworks in front of the entrances that confirmed these were temporary camps built by the Roman army. On 23<sup>rd</sup> November 2022 the Aerial Archaeology in Jordan (AAJ) project photographed the western and central camps.

The western camp (EAMENA-0216152) is c. 43.5 km (27.05 miles) ESE of Bayir and measures approximately 125 m × 105 m, with an internal area of c. 1.291 hectares (3.189 acres). Oblique aerial photographs show possible rectilinear internal divisions (Figures 2–3). This western site had been registered on the MEGA-Jordan platform (NN/SITE 3501.004), but the site is not identified as a Roman camp. The central camp (EAMENA-0216151) lies c. 44.2 km (27.05 miles) ESE of the western camp and measures approximately 95 m × 65 m, with a smaller internal area of c. 0.691 hectares (1.709 acres). Oblique aerial photographs again suggest rectilinear internal divisions (Figure 4–5). Finally, the eastern camp (EAMENA-0216150) is c. 37.7 km (23.42 miles) ESE of the central camp, and again measures approximately 95 m × 65 m (Figure 6). Neither the central nor eastern camp is recorded on the MEGA-Jordan platform, and they appear not to have been previously documented. In terms of condition, all three sites are relatively stable, but have been affected by modern vehicle tracks. The three camps are located on the barren limestone and chalk formations on the west side of Wadi Sirhan, while Bayir is situated on the Belqa group limestones of central Jordan. The near-complete absence of other structural remains of any

period on the satellite imagery is in contrast to surrounding regions and suggests the landscape was relatively uninhabitable across millennia.

The area along the southern end of Wadi Sirhan east of this line of camps was also examined. As this area is today largely covered by recent central-pivot irrigation systems, Kh9 Hexagon images taken on 24 August 1982 were analysed, but no further potential camps were identified. On current evidence the eastern camp is the final station in the line, but camps to the east may have been lost under wind-blown sands.

## **Discussion**

This line of camps is a remarkable survival of Roman military activity in northern Arabia. Temporary camps built by the Roman army are rarely identified in the region, and in Jordan only four possible examples are listed in Kennedy's (2004) overview. These include a large example at Azaima north of the Dead Sea, a possible camp underlying the later fort at Azraq, and two camps (see Figure 1) south-west from Bayir: Tell Abara, near Udruh and Kh. Abu Safat.

The trajectory indicated by these new camps suggests an expedition toward Dûmat al-Jandal and Sakaka in the Jawf region at the eastern extent of the Nabataean kingdom. Charloux and Loreto (2013) suggest a minor caravan route linking Bayir and Dûmat al-Jandal, which would mirror the route suggested by the camps. The use of such a peripheral route could have been part of a strategy to bypass the more obvious route down the Wadi Sirhan, adding an element of surprise to any attack on the Jawf region, or as a flanking manoeuvre as part of a broader campaign with a second force in the Wadi Sirhan possibly responsible for the camp built at Azraq.

The distance between the camps across barren terrain is arguably too far to be crossed by infantry in a day, and supports the alternative that the camps were for mounted troops, perhaps with camels. Based on the models developed by Richardson (2002) on Roman camp capacity, we conjecture that the western camp could have held two notional mounted cohorts, while the smaller central and eastern camps would each hold a single mounted cohort.

The reduction in camp size from the western to the central camp raises an important question about what happened to the expedition. One possible scenario is that half of the force was lost before reaching the central station, but more probable is that half the force only advanced as far as one day's ride from the wells at Bayir and was possibly involved in ferrying water to the eastward advancing units until they could reach water stops on the Wadi Sirhan. On this route and with such a small force speed was presumably the priority. A final option is that the force split and advanced in different directions on leaving the western camp, and we have not identified the second route.

The spacing of the camps provides more evidence that the well station at Bayir may also have been occupied by the Roman military, whether in a temporary or more permanent capacity. A fort at Bayir was demolished in the early 1930s and has been interpreted as an Islamic structure (Field 1960: 99–101), but lacks detailed study. The identification of Latin, Greek and Nabatean inscriptions in the vicinity of Bayir is suggestive of earlier activity in the area (Calzini and Ruffo 1995), now further supported by its position within the alignment of camps under discussion.

The campaign against the Nabataean kingdom by Marcus Aemilius Scaurus in 62 BC focused on Petra, far to the west (Josephus, *Antiquities of the Jews* 14.80–81; *Jewish War* 1.159). The most probable context for the newly identified camps is the annexation of the Nabataean kingdom following AD 106, potentially supporting views that the process may have been more violent than previously understood (Cimadomo 2018). The Roman army was present as far south as Hegra by AD 175 (Fiema and Villeneuve 2018) and Dûmat al-Jandal by the 3rd century AD (Bowersock 1982: 158; Charloux and Loreto 2013: 31), but by this time control had long been established over the area and therefore a less convincing context for a military campaign; the annexation period under Trajan offers the likely setting for this expedition.

Future fieldwork could potentially confirm some of these initial interpretations, particularly if any material could indicate the period in which the camps were built and occupied. Further investigation in the southern Wadi Sirhan and in the vicinity of Dûmat al-Jandal might also add to our understanding of the Roman army operating in this region.

## Acknowledgements

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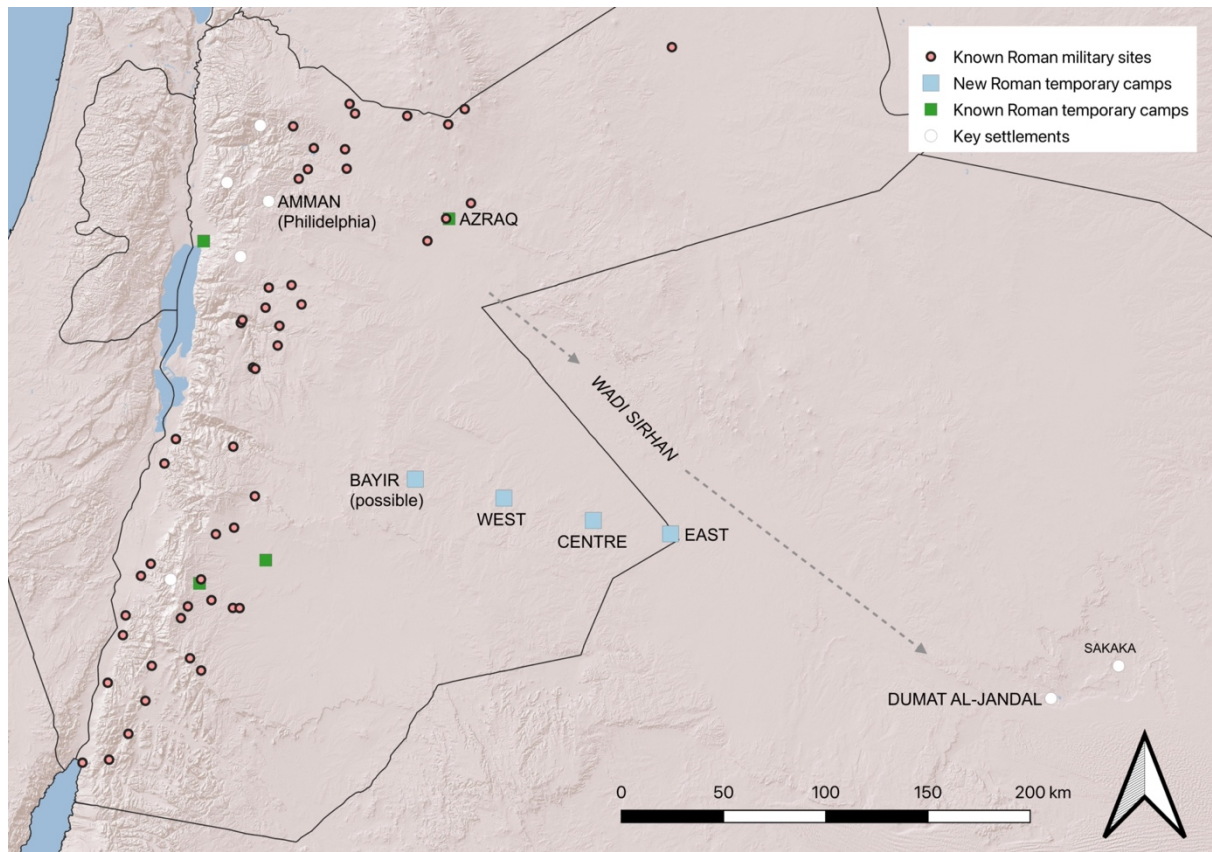
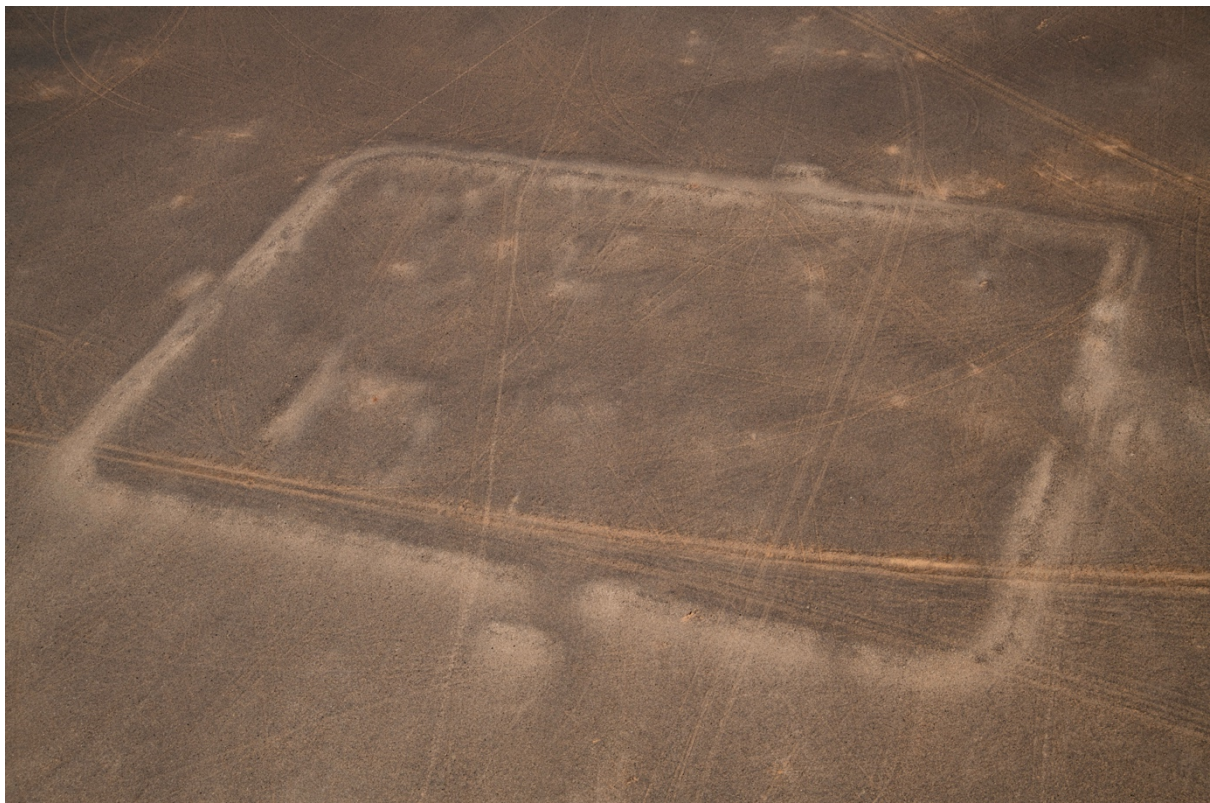


Figure 1. Distribution map showing location of the temporary camps.



2. Oblique aerial view of the central camp, from the east. Possible rectilinear internal divisions are visible on the left side of the enclosure (APAAME\_20221123\_FAB-0154).



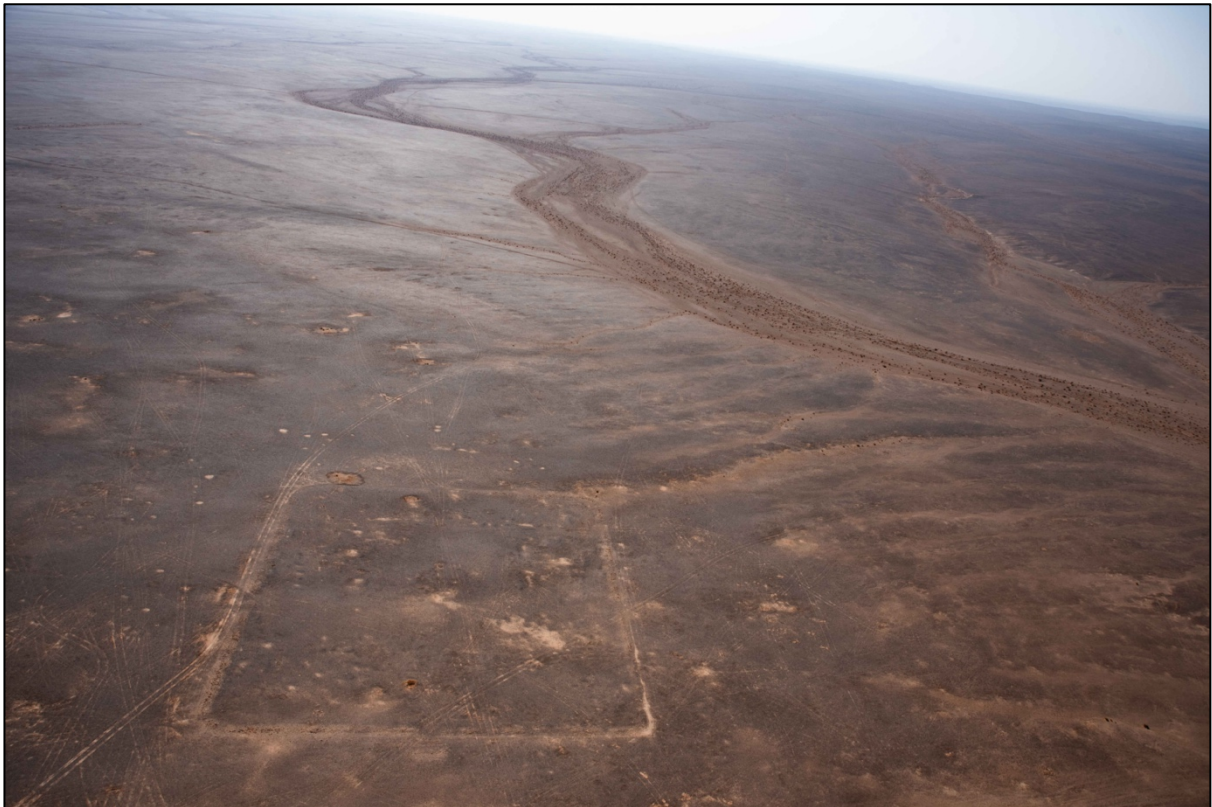


3. Oblique landscape view of the central camp, from the east (APAAME\_20221123\_FB-0166).



4. Oblique view of the western camp, from the south west. Possible rectilinear internal divisions are visible on the bottom and left of the enclosure (APAAME\_20221123\_RHB-0055).





5. Oblique aerial landscape view of the western camp, from the north east (APAAME\_20221123\_FB-0087).



6. Satellite image of the eastern camp, 26 February 2017 (Source: Google Earth; Maxar).