

THE GREAT ARAB REVOLT PROJECT: 2010 AND 2011 FIELD SEASONS

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Introduction

The Great Arab Revolt Project (GARP) is planned as a ten-year project to investigate the history and archaeology of the Great Arab Revolt of 1916-1918 (**Fig. 1**). It commenced in 2006; earlier work is reported on in two successive ADAJ reports published in 2008 (covering the 2006 and 2007 seasons) and 2010 (the 2008 and 2009 seasons). A general introduction to the project, its organisation and its methods appears in the first of these reports.

The main focus of our first two field seasons was: (1) the Late Ottoman trench-fortress around Ma‘ān and (2) the Late Ottoman defences in and around Wādī Rutm Station, which lies approximately 60 km south of Ma‘ān on the Hijāz Railway.

The main focus of our second two field seasons was: (1) the Late Ottoman defences in and around Baṭīn al-Ghūl Station, approximately 55 km south of Ma‘ān on the Hijāz Railway and (2) the Late Ottoman redoubts and Hashemite tribal army base at Wuhayda, approximately 18km west-south-west of Ma‘ān on the ‘Aqaba road.

This report summarises the results of work in 2010 and 2011 on the militarised landscapes along two stretches of the Hijāz Railway as follows:

The Northern Extent: Between Ma‘ān and ‘Aqabat - Hijāz

This includes work at the following locations: Ghadīr al-Hajj Station (15km south-east of Ma‘ān), ash-Shīdiyyah Station (26km south-east), Bird’s Nest Camp (31km south-east), Railway Blockhouse (33km south-east), South Blockhouse Camp (33 km south-east), Abdullah’s Fort (39km south-east), Mākin’s Fort (41km south-east), Ṣaliḥ’s Fort

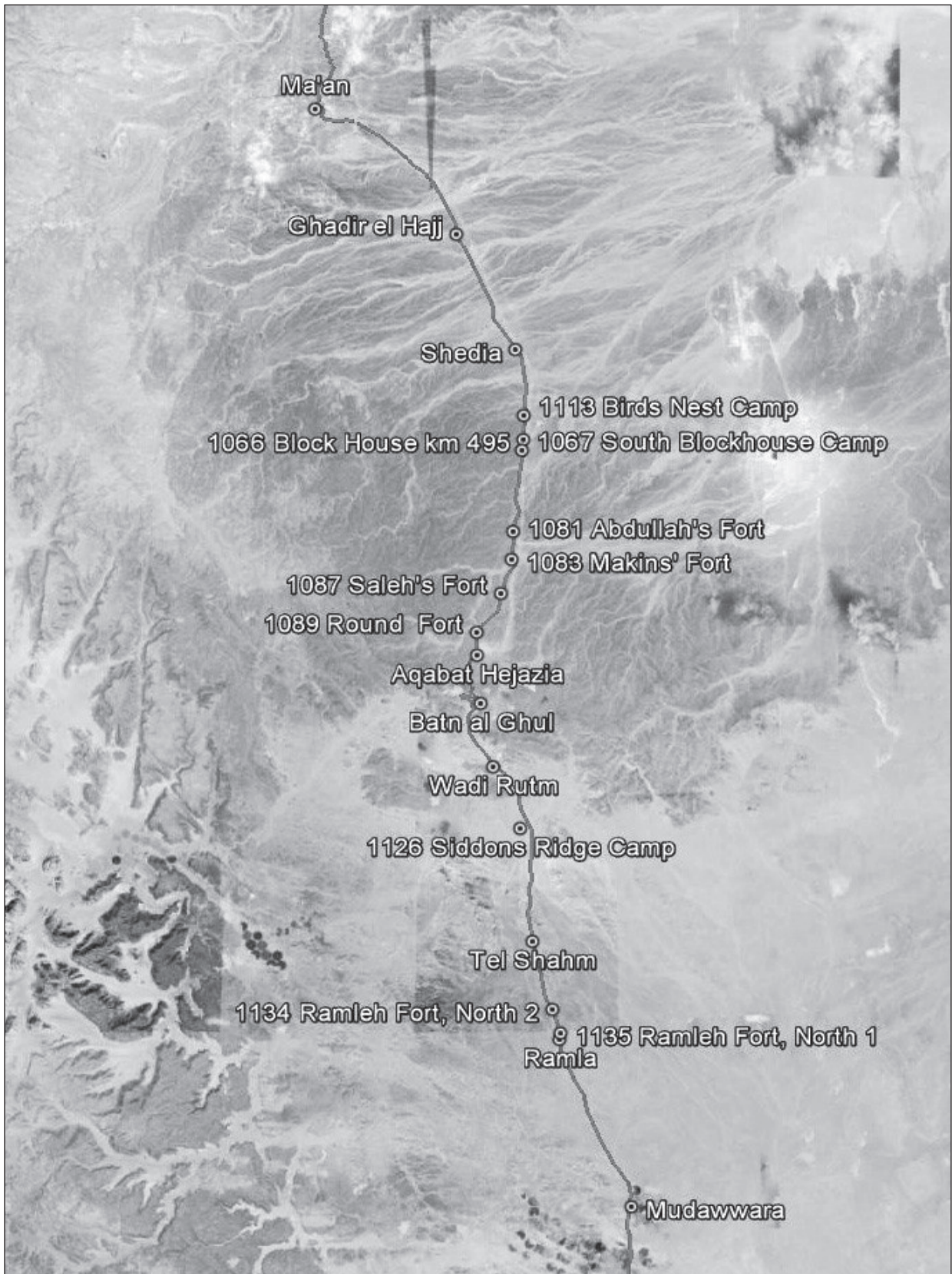
(44km south-east) and Round Fort (46km south-east).

The Southern Extent: Between Wādī Rutm and Mudawwarah

This includes work at the following locations: Saddūn’s Ridge Camp (6km south-east of Wādī Rutm), Tall Shaḥam Camp (13km south), Tall Shaḥam Fort (13km south), Tall Shaḥm Station (16 km south), Ramlih Fort, North 2 (22km south), Ramlih Fort, North 1 (24km south) and Ramlih Station (24km south).

The academic leaders of the project are Neil Faulkner and Nick Saunders, both of Bristol University. They are supported by a field team, which during the 2010 and 2011 seasons included: David Thorpe (field director), Susan Daniels (project administrator and planner), Linah Ababneh (planner), Ali Baldry (photographer), Cat Edwards (site supervisor), Anna Gow (finds supervisor), Caroline Jennings (resident artist), David Spencer (site supervisor), Roger Ward (metal-detectorist and IT specialist) and John Winterburn (landscape archaeologist). The team was supported by several Jordanian colleagues: Fawzi Abudaneh (al-Husein bin Talal University), Zeyad Al-Salameen (al-Husein bin Talal University), Hani Falahat (Department of Antiquities), Abdullah Rawashdeh (Department of Antiquities), Mansour Shqiarat (al-Husein bin Talal University) and Sa‘ad Twaissi (al-Husein bin Talal University).

The 2010 field season ran from 24 October to 7 November and involved a team of 26 field-workers. The 2011 field season ran from 14 to 28 November and involved a team of 31 field-workers. This report covers both seasons, just as our previous reports covered the 2006 / 2007 and 2008 / 2009 seasons.



1. Map showing sites investigated by GARP (copyright: 2012 Google Earth, 2012 Cnes / Spot Image, 2012 GeoEye).

The Northern Extent: Between Ma‘ān and ‘Aqabat - Ḥijāz

Ghadīr al-Ḥajj Station

Ghadīr al-Ḥajj, at a distance of 15km miles to the south-east, is the first Ḥijāz Railway station beyond Ma‘ān (Fig. 2). It comprises a single, rectangular, Late Ottoman stone structure measuring 11.80m by 5.50m. The building is ruinous and only survives at foundation level. It lies west of the railway line and there is evidence for an underground cistern between the two. About 25m beyond the far western side of the building is a fairly well-defined breastwork-trench, angled and curving. Approximately 20 spent Mauser cartridges were metal-detected in this trench.

Ash-Shīdiyyah Station

Ash-Shīdiyyah, the second Hijaz Railway station south of Ma‘ān, lies 11km south of Ghadīr al-Ḥajj Station. The present-day railway station comprises a complex of buildings probably dating from the 1960s. No evidence has been found for the original station buildings or the defences recorded as present in 1918.

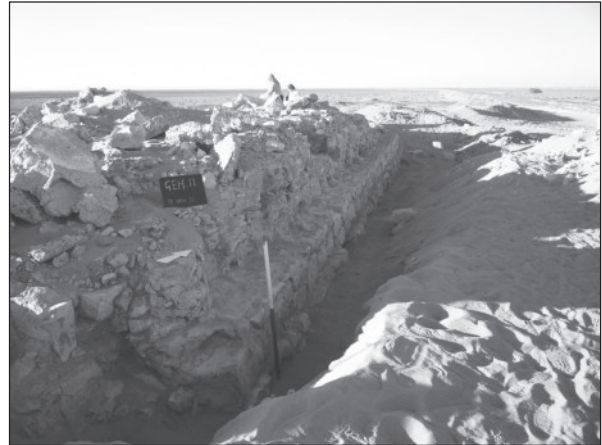
Bird’s Nest Camp

This camp, 6km south of ash-Shīdiyyah Station, comprises at least 27 stone tent-rings, with at least two other possible tent-rings, 22 of which are arranged in two parallel, north - south lines (Fig. 3). The tent-rings range in diameter from 3.85m to 4.80m.

The regular layout and standardisation of tent-ring diameter are typical and imply military activity. This is seemingly confirmed by the finds assemblage, which is Late Ottoman military in character.

Apart from a single linear trench 120m south of the camp, there is an absence of obvious defences around or near this camp, which may indicate that it accommodated construction workers during the building of the Ḥijāz Railway. On the other hand, it may be that it was indeed a wartime soldiers’ camp, but that the associated defence-works have been lost to the obvious industrialised destruction of the landscape.

If the latter interpretation is correct, then Bird’s Nest Camp would take its place in the line of intervisible defended posts between ash-Shīdiyyah and ‘Aqabat-Ḥijāz Station.



2. Ghadīr al-Ḥajj Station after the foundations were cleared (copyright GARP).



3. Birds’ Nest Camp as tent-rings are cleared prior to planning (copyright GARP).

Railway Blockhouse

This blockhouse, 7.8km south of ash-Shīdiyyah Station, is intervisible with Abdullah’s Fort to the south. It lies approximately 12m west of the Ḥijāz Railway line. The rectangular structure, aligned north-south, was formed of three rooms. Each room contained either a window or a doorway. The window of the northern room revealed that metal bars had been placed across it vertically, implying a need for defensive measures prior to the outbreak of the Revolt.

All rooms contained well-constructed loopholes, probably contemporary with the original construction. This has not been a common feature of station buildings observed by the GARP team, though there are some parallels.

The remains of a concrete roof were present both *in situ* and as fallen debris on the floor of the structure. The presence of high loopholes and the remains of partially collapsed stairs indicate that the roof was easily accessible.

No surrounding features were observed. All rooms have been heavily disturbed by later ac-

tivity, including graffiti and illicit excavation.

South Blockhouse Camp

This camp lies 8.7km south of ash-Shīdiyyah Station on a low hill 180m west of the railway. It comprises three separate groups of stone tent-rings. The northern group contains at least 15 tent-rings, arranged in two parallel rows running north-south, with the individual tents slightly misaligned rather than directly opposite each other. All observable entrances were on the eastern sides, facing the railway. Approximately 30m west of the northernmost tent-rings was a small circular structure formed of a dry-stone wall, earth-and-gravel bank and outer ditch. It could not be dated, but it commands clear views in all directions and may therefore have been an Ottoman defensive position guarding the camp.

The middle group lay 130m to the south on the far side of a *wadi* and comprised at least 27 tent-rings. The middle camp is notable for its differences with the northern. Though it was also aligned north-south in two parallel rows, with a handful of outliers to the south-west, the tent-rings are formed of banks of small stones rather than rings of large stones. The rings are placed only 1m apart, in contrast to around 5m apart in the northern camp. Whereas the northern camp was finds poor, the middle camp yielded an abundance of metal-detected finds, including cartridges, buttons, coins and seals.

Within the south-western limit of the middle group was a larger tent-ring surrounded by larger fragments of natural stone which may have been used to hold down the ropes of the tent. The larger size of the ring might suggest either that the tent contained a person of rank or that it had a special function.

The southern camp was walked by the team but not investigated in greater detail. It was formed of at least 12 rings, aligned east-west, and may have contained a bread oven similar to that observed at Faṣṣū‘ah Ridge Fort.

‘Abdullah’s Fort

Abdullah’s Fort, 15.6km south of ash-Shīdiyyah Station, is intervisible with Railway Blockhouse to the north and Mākīn’s Fort to the south. It comprises a breastwork-trench perimeter around a small, three-cell blockhouse with loopholed walls and a ‘blast wall’ at the

entrance. The fort was originally visited and surveyed in November 2009. There is evidence that the structure was substantially damaged in October / November 2011.

Mākīn’s Fort

This lies 18km south of ash-Shīdiyyah Station. It stands immediately west of the railway guarding a *wadi* and viaduct, but it also forms part of a line of visual communication, being intervisible with ‘Abdullah’s Fort to the north and Ṣaliḥ’s Fort to the south. It is noteworthy that an iron-pointed wooden instrument leg was found at the site, quite possibly from a heliograph tripod.

Mākīn’s Fort comprises a breastwork-trench perimeter formed of a stone wall and earth bank fronting a shallow scrape, and an internal blockhouse (**Fig. 4**). The whole complex is located immediately above the *wadi*, such that the ground falls away steeply to the south. The blockhouse comprises a circular enclosure to the east, with an attached rectangular block to the west. The interior is subdivided by partition walls and the outer walls are loopholed.

The fort appears to be linked by stone-lined paths to observation posts to the north, and tent-rings, a cistern (and water channel) of uncertain date, a possible oven and a small blockhouse (also loopholed) to the east, the last three being on the eastern side of the railway. Various other certain and potential observation posts and tent-rings were also seen in the immediate vicinity.

The line of an original embankment can be seen immediately to the east of the present one, as can the mortared foundations of an original viaduct. However, the present viaduct appears to



4. Mākīn’s Fort with viaduct in background (copyright GARP).

be Late Ottoman (though later repaired), so it is possible that the change of alignment dates from original construction or the war.

Ṣaliḥ's Fort

This lies 21km south of ash-Shīdiyyah Station and is intervisible with Mākīn's Fort to the north and Round Fort to the south. It comprises a sub-rectangular breastwork-trench perimeter wall of stone, gravel and sand around a two-cell blockhouse. The blockhouse measures approximately 10m by 7m and has an entrance on the eastern side covered by a 'blast wall'. Just beyond the perimeter wall and surrounding it is a *quincunx* arrangement of close-set pits (see Round Fort).

A short distance north-west of Ṣaliḥ's Fort is Ṣaliḥ's Camp, comprising eight definite tent-rings, two larger tent-rectangles and one or two other possible tent-rings in an area of extensive landscape damage.

Round Fort

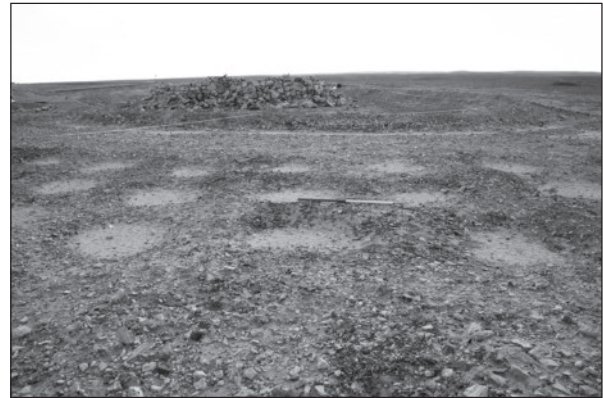
This lies 25km south of ash-Shīdiyyah Station and is intervisible with Ṣaliḥ's Fort to the north-east and 'Aqabat-Ḥijāz Station to the south-east. There is no direct line of sight between Ṣaliḥ's Fort and 'Aqabat-Ḥijāz Station, confirming the placing of military posts to facilitate (1) communication between one post and another and (2) direct observation of all sections of the railway line.

Round Fort comprises three elements: (1) a single-cell sub-circular blockhouse with an entrance to the east and a sunken stone hearth to the west, (2) a circular breastwork-trench forming a perimeter wall around the blockhouse and (3) a circular belt of *quincunx*-arranged pits, almost 100 in total, each one up to 0.5-0.7m across and 0.25m or more deep (**Fig. 5**). These pits may have been 'ankle-breakers', perhaps originally with a caltrop, upright nail, metal spike, thorn scrub or similar in the base. Alternatively, they may represent the bases of the angled supports of a barbed-wire entanglement.

The Southern Extent: Between Wādī Rutm and Mudawwarah

Saddūn's Ridge Camp

This lies 5.8km south of Wādī Rutm Station. The site is a low north-south ridge, about 300m



5. Round Fort showing the belt of pits (copyright GARP).

in length and 50m wide, located approximately 800m west of the Ḥijāz Railway. The site's location can be related to the commanding views it affords in all directions. There is a clear view to: Wādī Rutm Camp (on a high escarpment overlooking Wādī Rutm to the north-east), Black Mountain Camp (on a medium-sized hill to the north) and Tall Shaḥam Fort (on a medium-sized hill to the south).

The site comprises several distinct elements (**Fig. 6**). At the northern end is a small fort formed of a circular breastwork, with a loop-holed wall of stone and gravel, a firing ledge behind the breastwork and a deep trench behind this. It may have contained a blockhouse, though any evidence for this has been destroyed by bulldozing.

A zig-zag communication trench running along half the length of the ridge forms the second element, linking the northern fort with a third element, a horseshoe-shaped stone breastwork-trench – again with a firing ledge and a deep trench in the middle – located at the southern limit of the communication trench. There is



6. Saddūn's Ridge Camp, showing the communication trench leading to the northern redoubt (copyright GARP).

a step down into this bunker-like position, where a group of spent Mauser cartridges were excavated, apparently *in situ*.

The fourth element is a tent-ring encampment. Part of this was cut by the communication trench (and was therefore out-of-use at this point); up to six disused tent-rings were noted. The southern part, however, lies beyond the southern bunker, where some 19 tent-rings were observed.

In addition to the main elements, we also explored a probable latrine (north-eastern slope), a definite cook-house with two well-preserved hearths (south-eastern slope) and an enigmatic L-shaped part-enclosure (south-western slope).

Tall Shaḥam Camp

Tall Shaḥam comprises at least four distinct locations: from north to south, a tent-ring camp (Tall Shaḥam Camp), a hilltop breastwork fort (Tall Shaḥam Fort), a second tent-ring camp (unnamed) and Tall Shaḥm Station.

The camp comprises an avenue of two parallel lines of tent-rings, 19 in all, with three or more outliers. There appears to be reuse of existing prehistoric stone circles (hut circles?) in some cases.

Tall Shaḥam Fort

This lies immediately south of the camp on a medium-sized, steep-sided, rock-strewn hill which gives a clear view of both camps, the station and the *wadi*. In the middle of the site and at its highest point is a sub-square blockhouse. Platforms surrounding the structure had been cut into the rock. A short dry-stone perimeter wall with at least three 'sentry-posts' surrounds the whole.

Tall Shaḥam Station

The station lies about 2.4km south of Tall Shaḥam Fort. The single station building has been fortified and the position is covered by trenches.

Ramlīh Fort, North 2

This feature lies 2.6km south of Ramlīh Station. Located on rising ground east of the railway, Ramlīh Fort is intervisible with both Tall Shaḥam and Ramlīh Stations. It comprises a sub-rectangular enclosure, the surviving part

measuring 13m north-south and 10m east-west, though the western extent has been damaged by bulldozing.

The perimeter breastwork-trench is formed largely of stone and upcast, with the slate-like local stone also used to form 11 well-constructed loopholes close to the level of the exterior ground-surface. On the north-western corner and towards the southern end of the surviving part of the western wall, there are semi-circular projections in the breastwork-trench.

The trench measures 1.50m across and the bank 2.0m across; the unfinished excavation revealed that the trench was at least 1.50m deep from the top of the ground-level loopholes, showing that the defenders could have stood inside their trench to deliver fire.

Inside the enclosure is a centrally placed circular bank, almost certainly representing an inner breastwork-trench. Inside this is a ring of stone, almost certainly the remains of an inner redoubt. The depth of the outer trench and the low-level siting of the loopholes make it likely that defenders in the inner breastwork-trench and redoubt could have fired over the heads of those along the perimeter.

A stone-lined path can be seen linking the railway and fort. Three external structures, two located close to the fort, were recorded to the east and south. These circular stone-walled structures were more substantial than tent-rings.

Ramlīh Fort, North 1

This fort lies 540m north-east of Ramlīh Station. It comprises a sub-rectangular fortification, 13m by 13m, with earth parapets and stone-wall revetments. The external walls survive to a height of 1.5m and are 1m wide.

Ramlīh Station

This station lies 8.6km south of Tall Shaḥam Station and 15km north-west of al-Mudawwarah Station. The single station building was probably rebuilt in the 1960s. There is evidence for a perimeter trench system to the east of the building.

Conclusions

The investigation of two long stretches of the Hijāz Railway south of Maʿān over two field seasons has confirmed the impression gained during earlier, more intensive investigations in

the crucial sector between them, which includes the precipitous Baṭīn al-Ghūl escarpment. Thus, the distribution of defended posts along the line is designed to make them intervisible, so that signals could be passed down the line (by heliograph in the day and lamplight at night?), and to ensure that every stretch of the line was under direct observation (at least by day). This is testimony to the chronic and ubiquitous nature of the insurgent threat represented by the Hashemite Arab forces operating in the desert in 1917 and 1918.

This not only amplifies the impression gained during the first four seasons of the intensity of the war, but also adds rich detail about the character of the counterinsurgency effort necessary to defend the landscape. Crucially, we are witness to the archaeological imprint of imperial 'overstretch'. The imperative was both to keep the whole line under observation and to ensure that information could be relayed fast enough to facilitate a rapid response to attacks. This meant that the Ottoman Army was strung out in many small pockets, like beads on a necklace, thereby depriving individual posts of security through strength, as well as draining resources from (1) a more proactive counter-insurgency east of the Jordan and (2) from the defence of the trench-lines facing Allenby's army west of the Jordan.

In our first report, we concluded that the Great Arab Revolt Project had confirmed the huge potential of modern conflict archaeology in southern Jordan by revealing the survival of an extensively militarised landscape dating from 1916-1918 in the desert areas. We argued that

the remains indicated a military response to a threat that was, on the one hand, dispersed and low-intensity but, on the other, chronic and pervasive. We further argued that this contrasted sharply with the experience of the First World War on the better-known Western Front.

Work during 2008 and 2009 confirmed the intensity of the Late Ottoman militarisation of the landscape. In particular, detailed work at Baṭīn al-Ghūl has shown that the density of military remains earlier revealed at Wādī Rutm is not exceptional. Moreover, wider survey work (not reported in detail here) has confirmed that comparable densities exist along the entire stretch of Ḥijāz Railway between Ma'ān and Wādī Rutm, and that other areas (e.g. the approaches to Ma'ān from 'Aqaba) also bear a strong Late Ottoman military imprint. The impression grows of a large-scale counter-insurgency operation in southern Jordan between July 1917 and October 1918 – testimony to the effectiveness of the Arab military effort.

GARP is therefore contributing substantial new information and ideas to at least three distinct archaeologies: that of modern conflict, that of southern Jordan and that of desert movement and warfare. It is also revealing the potential which exists for the development of major new heritage tourism attractions in the region.

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