

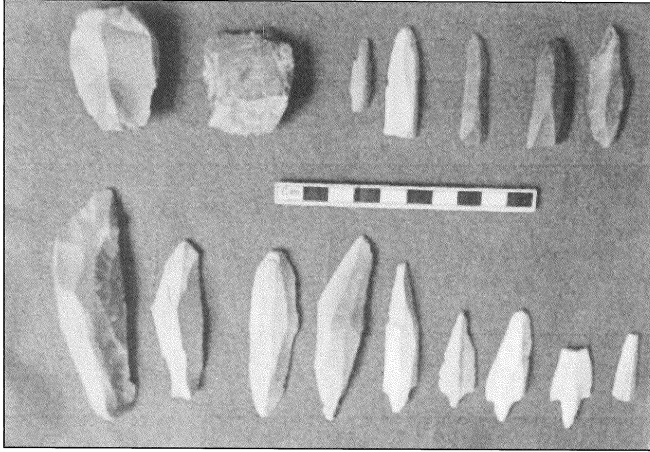
2. Contour map of the Ghawr aş-Şāfi survey area.



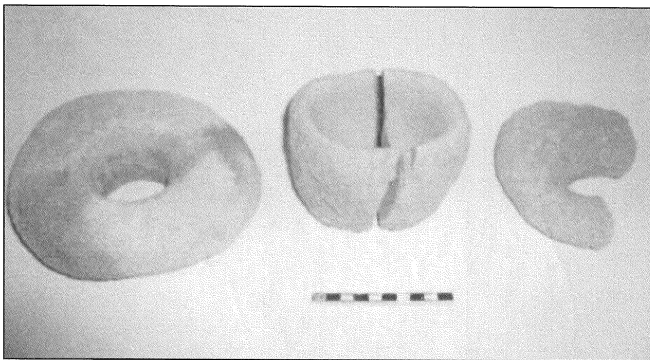
3. Exposed architecture at Wādi Hamrat Suwayf site (photo: K.D. Politis).

Bayyuḍ, is yet another plateau with Neolithic-period flint tools and Middle Bronze Age cairn tombs.

According to the *Notitia Dignitatum* (73, 26), a garrison with a local cavalry unit (*Equites*



4. Worked flints, Wādī Ḥamrat Suwayf (photo: K.D. Politis).

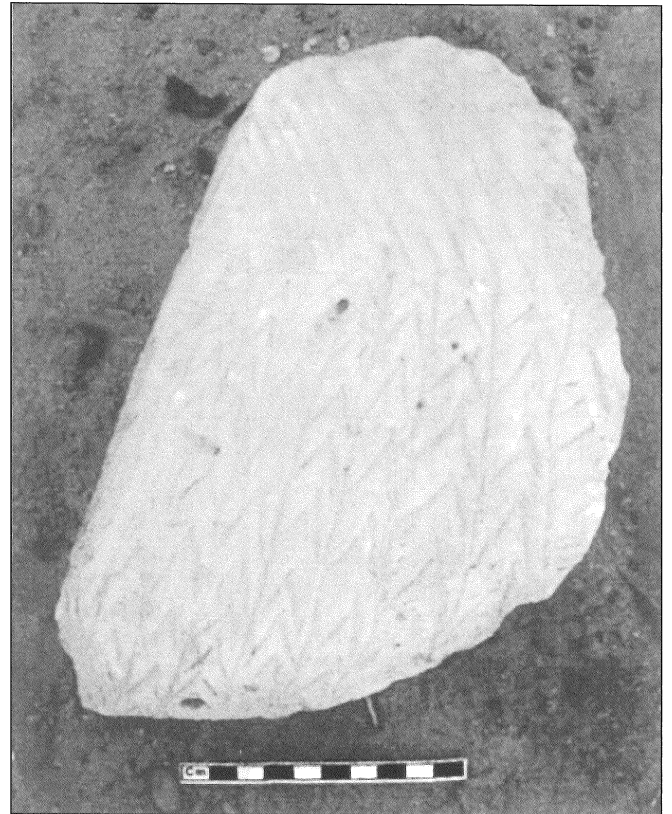


5. Stone objects, Wādī Ḥamrat Suwayf (photo: K.D. Politis).



6. Western view of the Ghawr aṣ-Ṣāfi with Umm aṭ-Ṭawābīn (indicated) and Wādī al-Ḥasā flowing into the Dead Sea in background (photo: K.D. Politis).

sagittarii indigenae) was stationed at Zuara during the early fourth century AD. On the southeastern hill above Wādī al-Ḥasā lies Umm aṭ-Ṭawābīn, a large walled fortress with remnants of circular tent encampments on its western slopes (Figs. 6-7), littered with Nabataean-Roman pottery sherds which are probably associ-



7. Limestone fragment of an eagle's wing (UT1) from Umm aṭ-Ṭawābīn (photo: K.D. Politis).

ated with this garrison (King *et al.* 1987: 449; MacDonald 1992: 83-87, 104, 249).

The ancient water canal and dam system at the south side of the mouth of Wādī al-Ḥasā was recorded including an unknown Nabataean inscription next to a rock-cut niche (Figs. 8a and 8b).

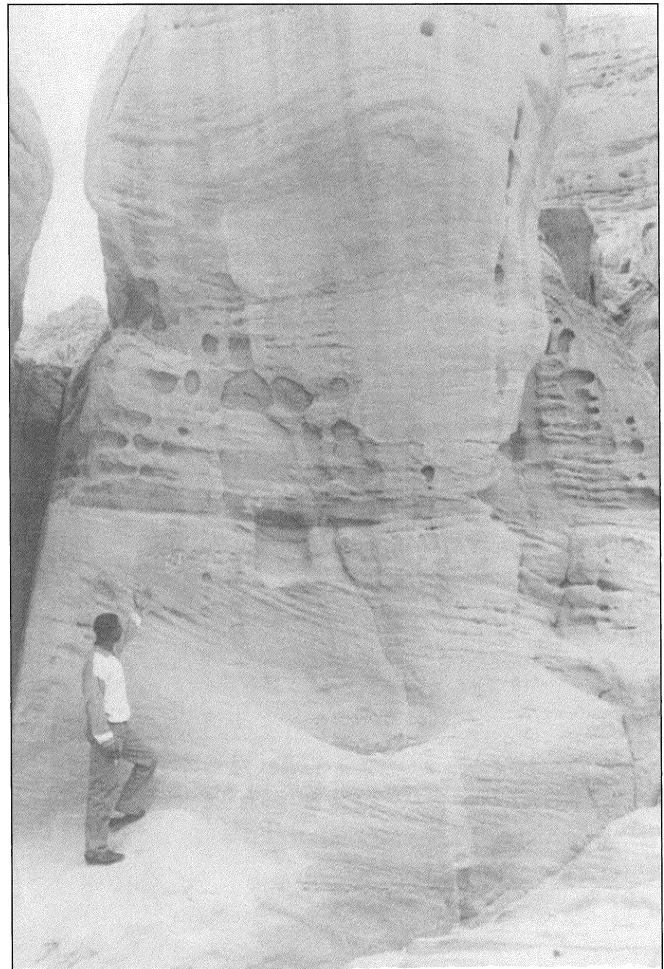
South-east of Umm aṭ-Ṭawābin a Naqab track was identified at Wādī Abrash with evidence of pack animals still using it (Figs. 9, 10). MBII tombs were also recorded there.

To the north-east, is Wādī Samrūj, where a 3-6 metre wide ancient road connected Zuara with al-Karak plateau to the east, initially detected in 1999 (Ben-David 2001: 140-144), and ultimately connecting to the *via nova Traiana* (Politis *et al.* 2005) (Figs. 11, 12).

A complete survey of this road has shown that it was originally constructed as a 'stepped' Roman road which continued to be used well into the medieval Islamic periods, as evidenced by three open-air mosques along the road (Fig. 13). Copper mining was also evident from the discovery of ore fragments.

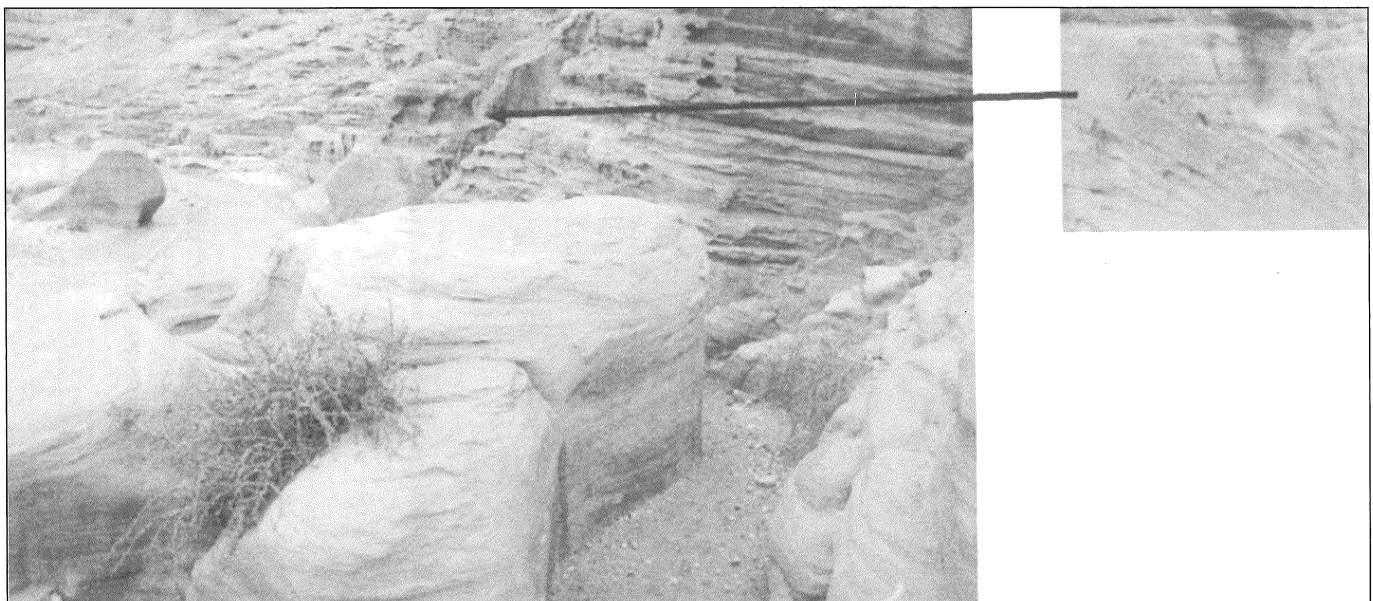
The smaller Wādī Bayyuḍ in between Wādī(s) Sarmūj and al-Ḥasā was also investigated revealing a dozen Middle Bronze Age II cairn tombs. Although there is a natural pass, no formal road was evident here.

In Ghawr aş-Şāfi floor, survey was extended around Khirbat ash-Shaykh 'Īsā and Tulaylāt Qaşr Mūsā al-Ḥamid to more clearly identify the extent of these two settlement sites. The former medieval Islamic city is much more extensive

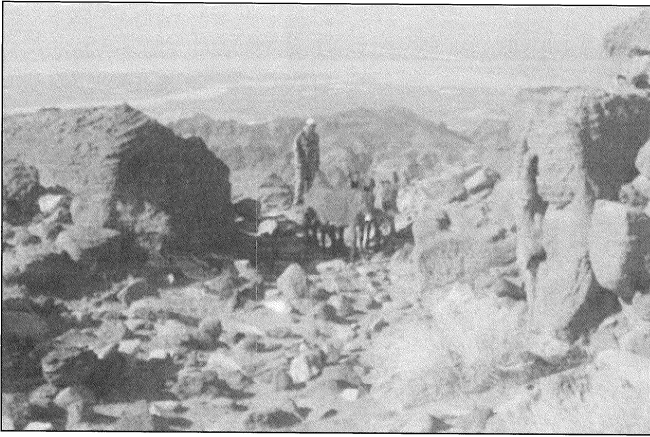


8a. Water canal and Nabataean inscription on south side of the Wādī al-Ḥasā (photo: G. Papaioannou).

than the current claimed antiquities property and additional lands need to be acquired. The latter also proved to be a more extensive Iron Age II site with evidence of Roman occupation.



8b. Locating Nabataean inscription and niche in Wādī al-Ḥasā (photo: K.D. Politis).



9. Pack animals on ancient road (photo: K.D. Politis).

Local aş-Şāfi inhabitants also brought to our attention that immediately east of the modern cemetery of Arḍ Ramlit-Ghālib on the north bank of Wādī al-Ḥasā, (Figs. 1a, 1b and 2) there was also an ancient cemetery, which was being illegally excavated. They spoke of gold jewellery and pottery vessels being found there, but no inscribed tombstones (such as those of the Byzantine period found in abundance at an-Naq' on the south side of the wadi). The few pottery sherds which were recovered dated to the first-second centuries AD. Although this site urgently needs further investigation, it may be



10. Camel drawings, Wādī Abrash (photo: K.D. Politis).



11. Ancient road at Wādī Samrūj leading to Zuara in Ghawr aş-Şāfi (photo K.D. Politis).



12. 'Stepped' Roman road
(photo: K.D. Politis).

related to other known Nabataean sites in the southern Ghawr, such as Umm aṭ-Ṭawābīn, Khirbat Kazūn and an-Numayra.

Excavations

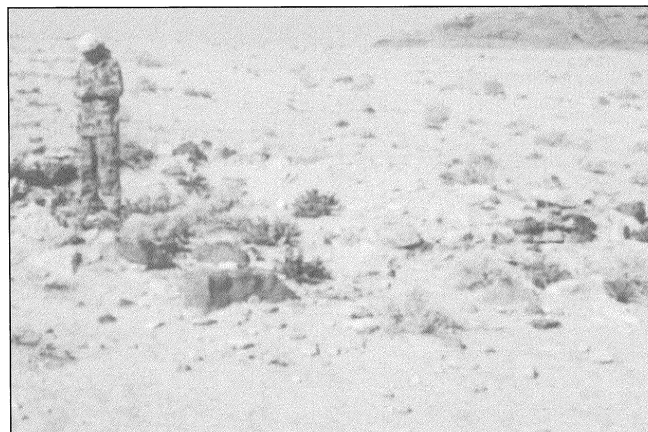
Excavations were limited to two areas of Ghawr aṣ-Ṣāfi during this season. The first was at Khirbat ash-Shaykh 'Īsā in order to fine-tune the stratigraphic sequence. The second was at the hermitage on the north side of Wādī al-Ḥasā, which has been repeatedly robbed in recent years and needed attention. No excavations were carried-out at Ṭawāḥīn as-Sukkar because the Department of Antiquities was conducting consolidation works of the exposed, standing structures.

Khirbat ash-Shaykh 'Īsā

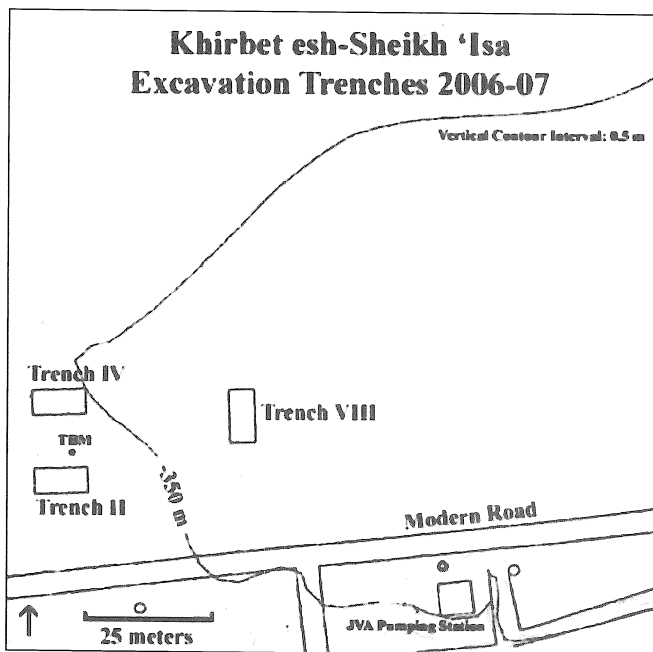
In 2002 and 2004, *sondages* at the mediaeval urban site of Khirbat ash-Shaykh 'Īsā (mediaeval Zughar) had revealed a substantial, well-made masonry wall running north-south (Wall 2), with a tower offset to the west, and a partially collapsed small arched entrance, possibly dating to the Umayyad period, and standing to at least seven courses (Politis *et al.* 2005; Photos-Jones *et al.* 2002; Jones *et al.* 2000). The latest phase detectable anywhere on site appears to be 15th century. The town probably extended all the way to the standing ruins of Mamluk Ṭawāḥīn as-Sukkar to the south-west, as is indicated by a concentration of ploughed-up surface finds and architectural

remains across the intervening cultivated fields. Surface finds of wasters at Khirbat ash-Shaykh 'Īsā indicate Mamluk production of industrial sugar cone pots and molasses jars there.

The aim of this season's excavations was to establish a preliminary phasing of the architecture already revealed, and to investigate the occupational rather than industrial history of the site in the Ayyubid-Mamluk periods. For this reason, the northern sector of the site, which shows the most intensive surface scatter of black ash and ceramic wasters, was deliberately avoided this season. Two trenches, II and IV, expanded two previous *sondages* laid against Wall 2. A third new trench, VIII, was laid ca. 30 metres to the east of Wall 2, in an area with no visible architectural remains. All the trenches measured 5 x 10 metres (Fig. 14).



13. One of three open-air (*masjid*) mosques on ancient road (photo: K.D. Politis).



14. Location of excavation trenches.

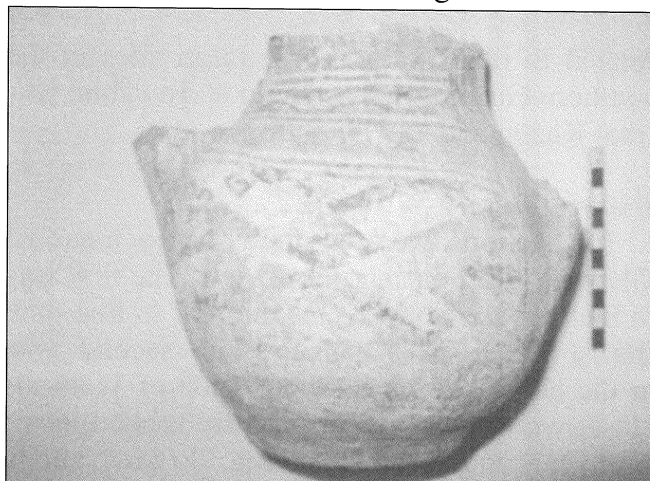
At least two clear phases of the Mamluk-period site use were revealed, which will provide a useful phasing for the locally-produced pottery from this site. In the last surviving phase of perhaps the 15th century, earlier substantial structures were radically reconfigured, suggesting real functional discontinuity — for instance, at least four *ṭābūn*(s) were scattered across an earthen courtyard surface in Trench II, blocking the original arched doorway, and an earlier mortared masonry wall had been poorly rebuilt along its earlier line, with adobe superstructure on reused rubble. Similarly, a room at the east of Wall 2 in Trench IV had another blocked door-

way, this time with an open stone hearth.

In Trench VIII, a courtyard with *ṭābūn* and rubble stone wall had been abandoned, leaving one large hand-made painted storage jar still *in situ* (Fig. 15) close to the top course of a ruined earlier wall with a tumbled adobe superstructure. In an adjoining store-room, a yellow clay bench yielded another complete Mamluk hand-made painted jug sitting upon it (Fig. 16).

Simple domestic occupation was indicated in the latest phases in all trenches, despite the presence of large sugar cone pots scattered through the top abandonment layer.

During an earlier Mamluk phase, the northern room/building in Trench IV an earlier doorway and wall had been rebuilt, and an earth-clay bench with a small industrial installation — perhaps a small metal — working kiln had been



16. Mamluk hand-made painted jug (CN24) from Trench VIII, Khirbat ash-Shaykh 'Isā (photo: K.D. Politis).



15. Large hand-made painted storage jar (CN24) in situ in Trench VIII, Khirbat ash-Shaykh 'Isā (photo: M. O'Hea).

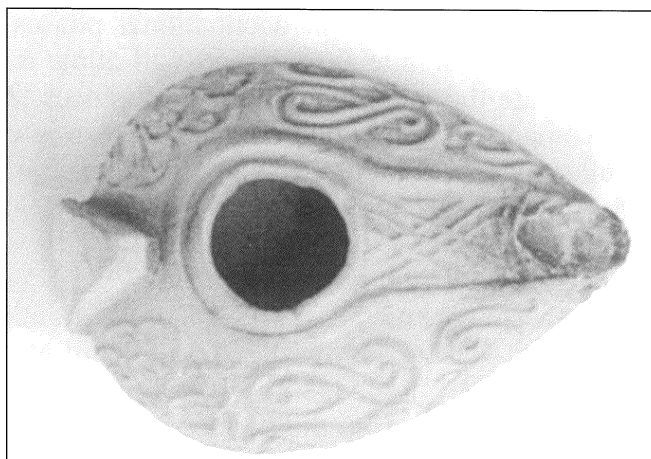
installed. Although no metal off-cuts have as yet been identified, the greatest concentration of copper alloy fragments is from this room.

An earlier Mamluk — or perhaps late Ayyubid — phase of the courtyard house in Trench VIII was also identified. Here a complete ‘molasses jar’ was found embedded within the Mamluk clay bench, on an earlier floor (Fig. 17).

The earlier mortared masonry walls of this room had been covered with brown earth-plaster. Outside and to the east of this room there appears to have been a deep built-up rubbish dump, including numerous butchered animal bones, ash and a heavy concentration of cooking pots. As with Trench II, the surviving masonry walls appear to be much earlier — here, traces of a fine white lime plaster facing survive in patches, beneath the Ayyubid/early Mamluk earth-plaster. Preliminary pottery phasing seems to indicate an Ayyubid dating for this rubbish build-up.

In Trench II, the later architectural history of the massive 1.5 metre-wide Wall 2 was clarified. Here, an extensive collapse of adobe superstructures and masonry from the abutting Wall 3 extended across the trench for nearly a metre in depth. Although the latest pottery from the upper levels of this collapse could be as late as Ayyubid, substantial amounts of Abbasid pottery lamp (Fig. 18) and glass fragments suggest that this lay over ninth century occupation of this building. The tops of an adobe return wall of a room to the south of the arched doorway in Wall 2, and of a masonry wall blocking the doorway, were identified at the end of the season (Fig. 19).

If these are Abbasid, as the stratigraphic sequence suggests, then the original building to



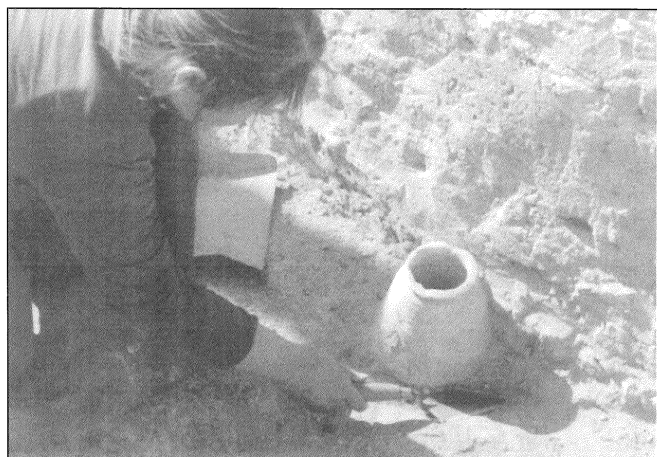
18. Abbasid pottery lamp (CN 32) from Trench II, Khirbat ash-Shaykh ‘Īsā (photo: M. O’Hea).



19. Trench II from the west, Khirbat ash-Shaykh ‘Īsā (photo: K.D. Politis).

which Wall 2 belongs must be Umayyad at the latest and possibly earlier still. Fragments of fine *Prokonnesian* marble and stone and glass *teserae* were retrieved from both rooms/buildings set against Wall 2. The original function of the rooms or building, however, awaits further excavation. The difference in the history of the three sets of rooms in the three trenches tentatively argues against earthquake destruction as the cause of the collapse and abandonment here.

It is hoped that the next season of excavations will continue in all three areas, revealing the full phasing of the ‘Late Antique’ structures in this area of ancient Zuara/Zughar, and expanding into a fourth new trench. This was clearly a substantial town, which as a long-term archaeological project will provide an invaluable opportunity to examine the economic transition of a mercantile centre from ‘Late Antiquity’ through the mediaeval period. This season has clearly demonstrated



17. Sugar molasses jar (CN 33) in situ in Trench VIII, Khirbat ash-Shaykh ‘Īsā (photo: K.D. Politis).

that there are substantial occupational phases, linked to fine architecture, which will allow us to integrate the numerous literary references to the Roman, Byzantine and mediaeval town into a fuller historical picture of the significance of Ghawr aṣ-Ṣāfi region in these periods.

Wādī al-Ḥasā Hermitage

The hermitage on the south bank of the mouth of Wādī al-Ḥasā was investigated in detail and although largely looted, some Byzantine material was collected from the surface and through the clearing of the double chambered rock-cut tomb (Figs. 20-22).

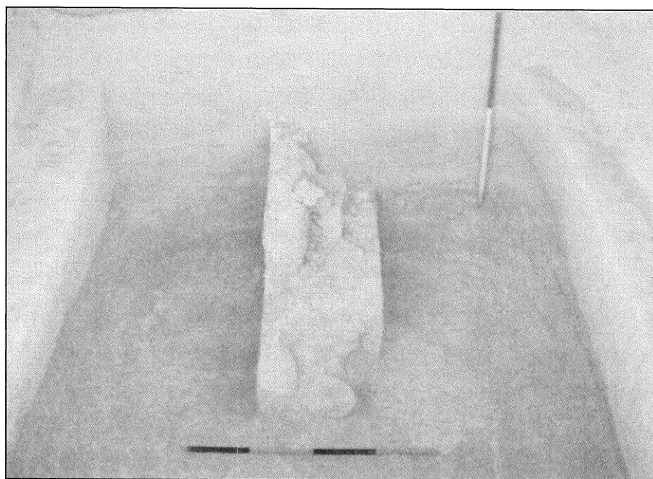
In the adjacent rock-cut prayer niches of the chapel two Greek graffiti inscriptions were also recorded on the walls as well as remnants of painted plaster (Fig. 23). The first had already been recorded (Alt 1935: 72-73) but it was relocated and verified (Figs. 24-25). The second had not been identified before (Figs. 26-27).

Three hermit's cells could be identified south east of the chapel (Fig. 28), but they were not excavated.

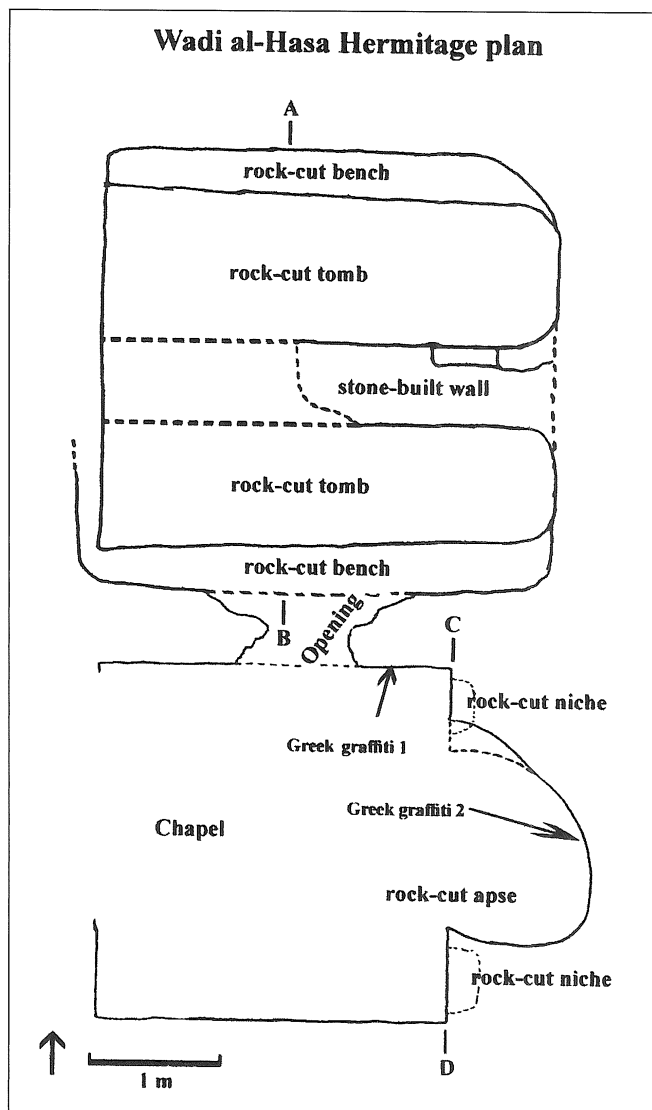
The hermitage at Wādī al-Ḥasā seems to have been a holy site venerating the burial place of two saintly men, which was part of early Christian pilgrimage in Byzantine *Palestina Tertia* (Politis 1999).

The Staff

The survey was carried out by Georgios Papaioannou and Konstantinos Politis with Adamatios Sampson investigating the prehistoric sites. Archaeological excavations were supervised by



20. Double chambered rock-cut tomb (photo: K.D. Politis).



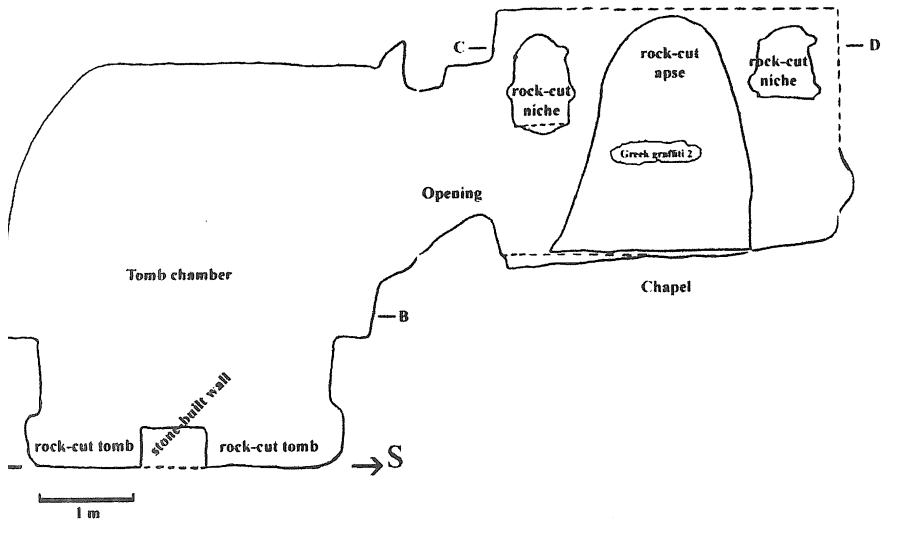
21. Wādī al-Ḥasā Hermitage plan (by G.A. Papaioannou).

Margaret O'Hea (KSI) and Konstantinos Politis (WHH). The field supervisors were Leigh Bate, Kimberly Clements, Katarina Doupis, Genevieve Gemmell-Sinclair, Jennifer Lennox, Rhiannon Tabaka, Jennifer Tuner, Stacey Stafford-Brookes and Salha Suleiman Ghareeb. The objects and small finds were registered by Sariah Willoughby. The Department of Antiquities was represented by Jihad Darwish. Locally hired workers came from Ghawr aṣ-Ṣāfi. The project was directed by Konstantinos Politis and Margaret O'Hea.

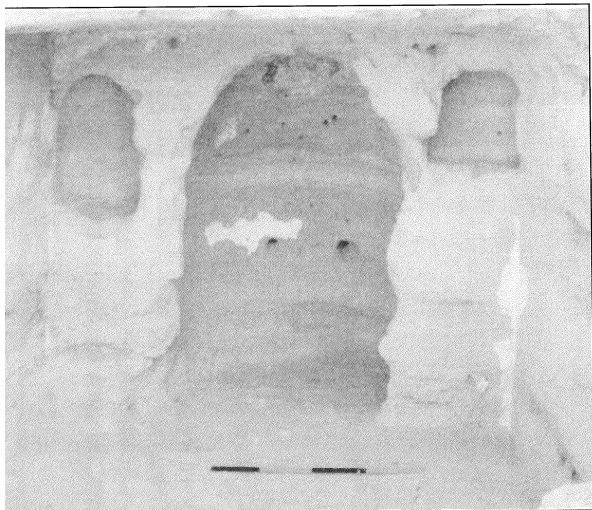
Acknowledgments

The project is grateful to the Director-General of Antiquities, Dr. Fawwaz al-Khaysheh and his staff for granting permission to work in Ghawr aṣ-Ṣāfi. Thanks are due to the Jordan

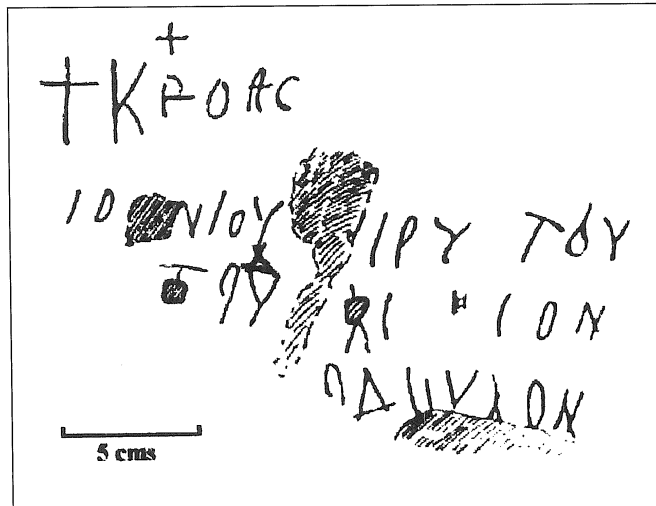
Wadi al-Hasa Hermitage section



22. Wādī al-Ḥasā Hermitage sections (by G.A. Papaioannou).



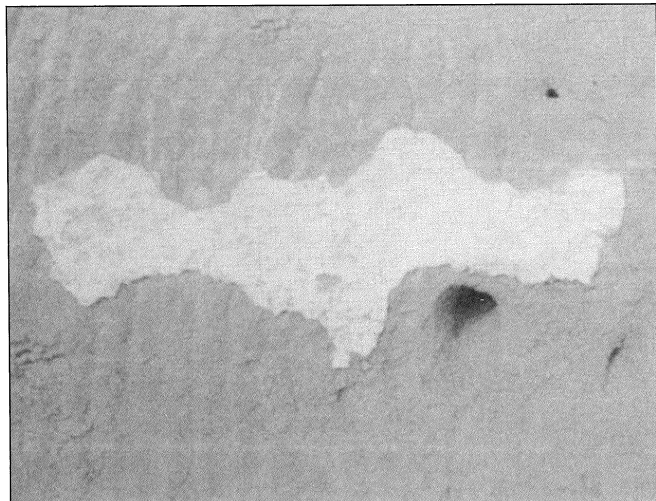
Rock-cut prayer niches in the chapel (photo: K.D. Politis).



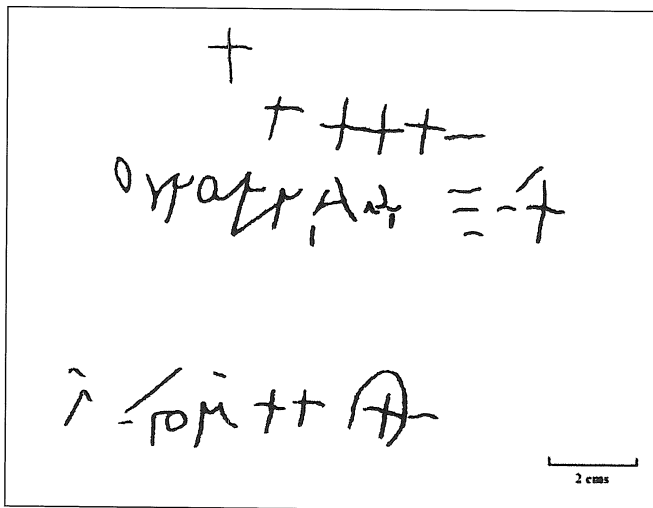
25. Greek graffiti inscription 1 adjusted to indicate recent damage (G. Papaioannou after Alt 1935: 73).



Greek graffiti inscription 1 (photo: K.D. Politis).



26. Greek graffiti inscription 2 (photo: K.D. Politis).



27. Greek graffiti inscription 2 (transcribed by G. Papaioannou).



28. Three hermit's cells at Wādī al-Ḥasā hermitage (photo: K.D. Politis).

Valley Authority for allowing the project to use one of its housing units in Mazra'a-Sekine and Aramex for logistics in 'Amman. The survey equipment was loaned by the Municipality of aṣ-Ṣāfi.

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ENIGMA VARIATIONS: RITUAL STRUCTURES FROM LATE PREHISTORY AND EARLY ANTIQUITY AT ṬURAYF AL-MARĀGH, WĀDĪ RAMM

Gary O. Rollefson and Wesley J. Matlock

Introduction

Long known for its fabulous scenery, small Nabataean temple, and its association with the Great Arab Revolt, Wādī Ramm (formerly “Rum”) has concealed a more extensive history and prehistory little known to the general public. Diana Kirkbride’s test probe at ‘Ayn Abū Nukhayla (Kirkbride 1960) was followed up eventually by Henry in the 1990s to reveal an impressive part-time settlement of goat pastoralists and opportunistic “farmers” during the Middle Pre-Pottery Neolithic B (MPPNB) period (e.g. Henry *et al.* 2003). But less-known in the Wādī Ramm region were the Lower Paleolithic to Chalcolithic and Early Bronze Age (and later) uses of the region, including cultic practices that earned the name “Holy Valley” in the eyes of early investigators (A. Kirkbride and Harding 1947: 10; cf. Borzatti von Löwenstern 2002; Cattarin *et al.* 2003; Farès-Drappeau and Zayadine 2004).

In 2005, one of us (GOR) was contacted concerning the presence of ritual structures that had parallels in the Negev and Sinai deserts (U. Avner, pers. comm.), and arrangements were made to visit Wādī Ramm in 2006 and take a brief overview of the variety of stone constructions and rock art inside the Wādī Ramm proper and in the immediate vicinity. In addition to the hundreds of “open-air sanctuaries” chronicled by A. Kirkbride and Harding, we also noted smaller standing stone clusters, tombs, and curious meandering “walls.” Plans were subsequently made to investigate these structures more thoroughly, and in 2007 the Department of Antiquities of Jordan issued a permit to conduct a mapping project over a two-week period.

Geological Setting

Wādī Ramm is located in the Southern

Mountainous Desert geologic province (Bender 1975: 13), with Jabal Ramm reaching 1754m. The terrain consists of linear arrangements of buttes and inselbergs, and among them are large and small depressions with drift sand and politic sediments in mudflats (Bender 1975: 13).

The granite basement rocks in the Wādī Ramm region are part of the Arabian-Nubian Shield that has a history going back one billion years (McCourt 1990: 6), although ages for the metamorphic rocks in southwestern Jordan generally range between 800 to ca. 600 million years (McCourt 1990: 21-24; Bender 1974: 38). The granite underlies Cambrian and Ordovician sandstones (Bender 1968: 21), and at the summit of at least some of the inselbergs there are remnants of Cenomanian limestone formations with flint exposures (Bender 1968: 46, 48 and Abb. 46), such as those at the top of Jabal Ka‘aka approximately 50km southeast of Wādī Ramm in Wādī Sayḥam (personal observation; Farès-Drappeau, pers. comm.; cf. Rollefson n.d.: Table 1).

There are various names for the different sandstone formations in southern Jordan, reflecting the state of information of Jordanian and regional geology at different times (e.g., Burdon 1959 vs. Bender 1974 vs. Paradise n.d.). Currently, the brown to reddish-brown to reddish-orange Cambrian sandstone (Bender 1968: 46) is known locally as the Umm Ishrin Formation, while the younger Late Cambrian/Early Ordovician sandstone of whitish-beige color is called the Disi (or “Disa”) Sandstone formation in Wādī Ramm (Paradise n.d.: 18-19; cf. Bender 1974: 50-51; Paradise 1999).

Wādī Ramm itself is a canyon-like feature between the enormous inselberg complexes of Jabal Ramm to the west and Jabal Umm ‘Ishrin

to the east. Both sides feature sheer cliff faces in the sandstone parts of the mountain formations and these cliffs are situated uncomfortably on a “platform” of the granite foundation. Winds are constantly present in the canyon, and the aeolian product is deposited along the bottoms of both the eastern and western façades of the valley. Water erosion during the rainy season has moved some of the sand towards the center of the canyon, and small drainages are noticeable at the foot of both the western and eastern faces of Wādī Ramm. There is a gradient of about 15m from the eastern side towards the center of the valley over a distance of 260m, and it is likely that some structures from archaeological periods — both early and late — are obscured by the accumulation of sediment in the center of the canyon.

The dark granite layer is the source for almost all of the rocks in walls and standing stone formations, although sandstone (either large blocks or thin tabular slabs) was also used often in the pavements alongside and inside some of the ritual structures as well as in the paved “pathways” (see below).

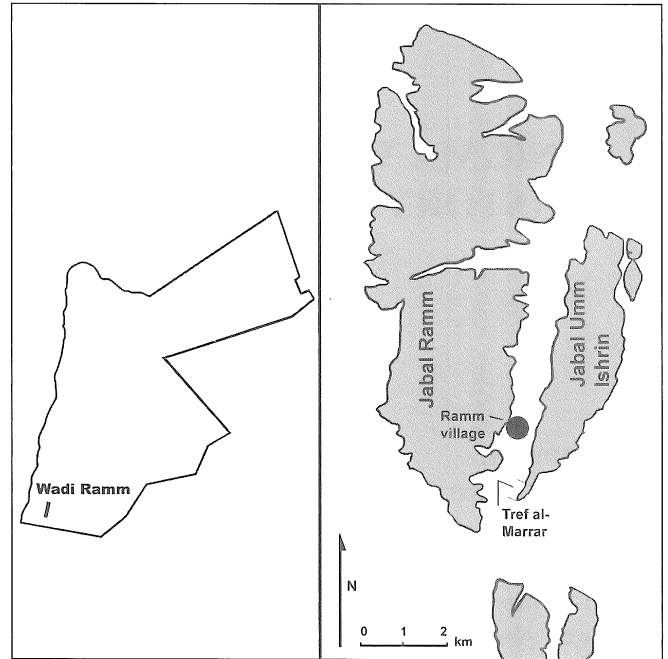
Methodology

In view of the limited time available for the 2007 season, we decided to concentrate on one specific area, known locally as Ṭurayf al-Marāgh, near the southern end of the west face of Jabal Umm ‘Ishrīn. One reason for this selection was that structural features in this restricted area (ca. 220 x 245m, or roughly five hectares) revealed a pattern of considerable complexity in terms of size, shape, and orientation (Fig. 1).

While indications of construction were clear, details were obscured by the movement and deposition of sediment, and this necessitated the clearing of drift sand. Using brushes, the drift sand was swept off to expose selected features as completely as possible, and this entailed in some cases the removal of up to 15-20cm of sand. The research permit did not include any excavation *per se*, so we could not investigate stratigraphy and renewal of any of the features this season, nor could we obtain subsurface sediment samples for dating purposes.

Results

Altogether, the project mapped in 45 struc-



1. Map of Wādī Ramm and the Ṭurayf al-Marāgh study area.

tures, although only nine of them were exposed in any detail (Fig. 2). The stone alignments and enclosures vary in shape and size, ranging from low walls (e.g. S3) to circular or oval tumuli (e.g., S6, S10), closed rectilinear structures (e.g., S2, S19), u-shaped semi-enclosures with one side open (e.g., S7, S33), pavements or platforms (S36), and linear “paved pathways” (F2, F6, and F5). The u-shaped structures are oriented around the compass, although there is a tendency for the open sides to face either north or south. Some of the tumuli or rectilinear structures (e.g. S9) are oriented E-W and are likely, in some cases at least, to be Muslim burials, although standing stones at either end are rare and not easily detectable. Due to time constraints, very few details of the S-structures could be recorded, but below we present descriptions of the structures that were cleared of drift sand.

Linear Features (Fig. 3)

Feature 2. During the original visit to the area in 2006, linear alignments of stone had been exposed by aeolian activity, and the regularity of the construction demanded that they be investigated. Feature 2 (F2) was the first to be cleared because it appeared that it might be associated with the U-shaped Feature 1 (F1, see below) (Figs. 2 and 4). Cleaning began near the center of the feature, working north and south