

FROM THE JORDAN VALLEY LOWLANDS TO THE TRANSJORDANIAN HIGHLANDS: PRELIMINARY REPORT OF THE WĀDĪ SHU‘AYB ARCHAEOLOGICAL SURVEY PROJECT 2016

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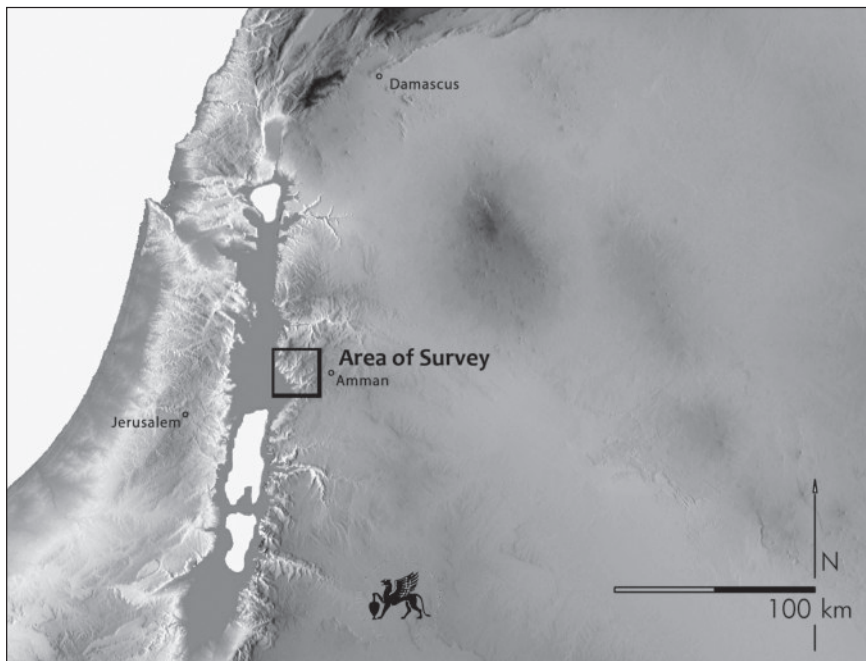
Introduction

The Wādī Shu‘ayb constitutes one of the major routes connecting the southern part of the Jordan Valley (coming from Jerusalem and the oasis of Ariha/Jericho on the western side of the southern Jordan Valley) with the central Jordanian highlands in the region of as-Salt, then continuing towards Amman in the southeast and the Baq‘ah Valley in the northeast. While the upper reaches of the Wādī Shu‘ayb (here also referred to as the Wādī as-Salt), including its adjacent tributary wadis such as the Wādī al-Kafrat and Wādī al-Azraq, features fertile soils watered by the perennial waters of the wadi and abundant annual rainfalls, the southern part of the wadi’s course consists of dry lands, until it finally merges with the Jordan River. In general, the area receives about 200 mm of rain annually, which is sufficient for sheep and goat herding, but not for extensive agriculture. However, since the wadi carries large amounts of water, being fed by several natural springs in the vicinity of as-Salt in the north (e.g. the springs ‘Ayn Jazzīr and ‘Ayn Jadūr near as-Salt), as well as the heavy annual rainfall from the Transjordanian highlands, the wadi itself provides enough water throughout the year. In several places along the course of the wadi, the flat areas next to the wadi bed therefore allow intensive cultivation. The wadi encompasses three natural environmental zones: the Mediterranean woodlands in the north, the foothill steppe, and the riparian forest associated with the wadi bed and springs e.g., the various contributions in Ababsa 2013: 64-66, 77-90 ; recently also Farhan and Anaba 2015). Based on current evidence, agricultural practices in these areas did not include large-

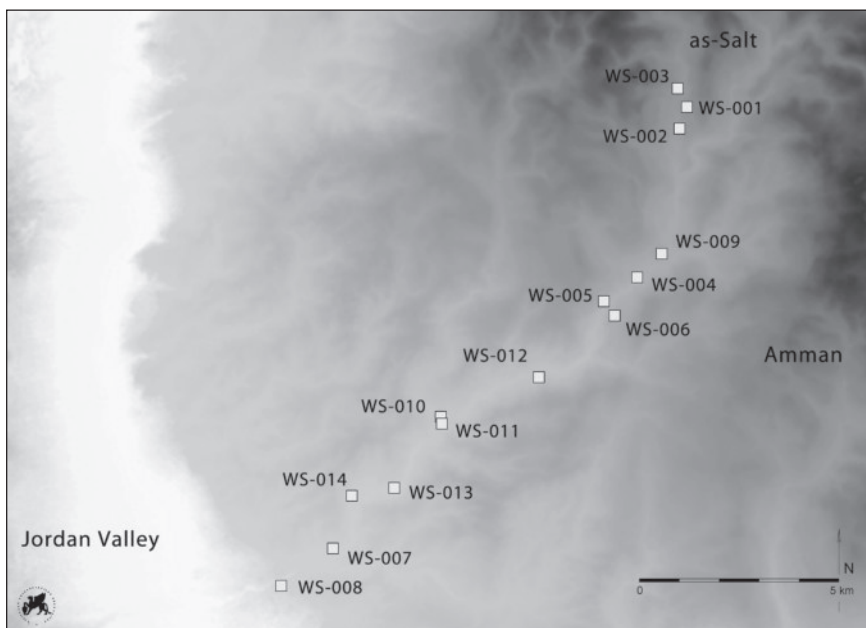
scale terracing, but were rather focused on the exploitation of moderate topographic niches, as well as soil pockets between lapies.

The alluvial fan of the Wādī Shu‘ayb, where the wadi enters the southern part of the eastern Jordan Valley and the Ghor, represents the southern end of the wadi (here referred to as Wādī Nimrin). The Jordan Valley (*ca.* 105 km long) lies entirely below sea level; from the freshwater Sea of Galilee (-212 m; aka Lake Tiberius) the Jordan River meanders south and empties into the Dead Sea at -394 m below sea level. The Jordan Valley only receives rain from October through May; and while the north receives *ca.* 380 mm rainfall in a year, the southern part receives only half of this, and must thus be considered a semi-arid desert environment. On the eastern Jordanian side, the Jordan Valley is dissected by numerous smaller wadis that flow from the Transjordanian Highlands, one of which is the Wādī Shu‘ayb.

While several surveys have been conducted in parts of this region before, it has, hitherto, never been properly surveyed as a whole; previous efforts either concentrated on the areas around as-Salt in the north, or sites in the Jordan Valley in the south. Thus, since previous explorations of the wadi itself have been very limited (see below, II. Research History), the initial intention of the *Wādī Shu‘ayb Archaeological Survey Project* (WSAS) was to thoroughly record and document all archaeological sites within the area of the Wādī Shu‘ayb, starting just south of the modern town of as-Salt in the north – including parts of the Wadis as-Salt and al-Kafrat – down to the town of South Shuna (Shunat Nimrin) in the eastern Jordan Valley (Figs. 1, 2). The total area surveyed comprises



1. Map showing the location of the survey area (Map: DAI, Orient Department, *Th. Urban* using USGS/NASA 3-arc second SRTM data; map compiled by A. Ahrens).



2. Map showing sites surveyed in 2016 by the Wādī Shu‘ayb Archaeological Survey Project (Map: DAI, Orient Department, *Th. Urban*; map compiled by A. Ahrens).

a length of *ca.* 18 km from north to south, and covers an altitude difference of approximately 1000 m. The survey area extends two kilometers on each side of the wadi bed, while the wadi itself was chosen as a natural transect.

Research History

Given the particular importance of this wadi, it is surprising to note that only a few archaeological investigations have hitherto been conducted in the region, almost all of

which focused on the regions near as-Salt or the Jordan Valley, but never on the Wādī Shu‘ayb itself. Early descriptions of the landscape and archaeological sites of the southern Jordan Valley, mostly in relation to narratives and the identification of sites mentioned in the Old Testament, are given by, among others, Tristram (1874), Merrill (1881) and Thomson (1882), while Conder mapped the region for the first time in his “Survey of Eastern Palestine” for the Palestine Exploration Society (Conder 1889).

In 1905, coming from Jerusalem and heading to as-Salt, British orientalist and traveler Gertrude Bell probably traversed the Wādī Shu‘ayb, although she does not mention archaeological sites in her account (Bell 1907 [2016]:15-16). Albright collected material from archaeological sites on various visits to the Jordan Valley, including the region immediately north of the Dead Sea (Albright 1924; 1926). Glueck surveyed several sites at the southernmost point of the Wādī Shu‘ayb, at the juncture of the wadi with the Jordan Valley, during his extensive surveys from 1939–47; the wadi here referred to as Wādī Nimrin (Glueck 1943; 1951:366-371). In 1975, the eastern Jordan Valley was again surveyed thoroughly by Ibrahim, Sauer and Yassine (1976; 1988). The site of Tall Nimrin, located within the limits of the modern town of South Shuna at the southern end of the wadi’s alluvial fan, was excavated from 1989–1995 (for results see Flanagan *et al.* 1996 and references therein). In the years 1998 and 2000, Ji and Lee (1999; 2002; Ji 2007:137-139) surveyed parts of the wadi at its juncture with the Jordan Valley as part of their survey in the region of Irāq al-‘Amīr and the Wādī Kafrayn (Collins *et al.* 2015:5-7).

The area immediately south of as-Salt was initially surveyed by the priest and biblical archaeologist de Vaux in 1937 (de Vaux 1938). Later, several Neolithic sites in the Wādī Shu‘ayb were briefly visited by Zeuner (1957), Raikes (1965), and Mellaart (1975). In 1988, the region of Wādī Shu‘ayb between South Shuna and as-Salt was the focus of a preliminary archaeological survey, which doesn’t appear to have developed into further and more detailed survey campaigns (Wright *et al.* 1989). Apart from these surveys, excavations were conducted in 1988–1989 at the Neolithic site of Wādī Shu‘ayb, about halfway between as-Salt and South Shuna (see Simmons *et al.* 1998; 2001 and references therein). Additionally, construction work for a sewage plant led to the discovery of various well-preserved, intact Roman tombs in the wadi at the site of Khirbat as-Sūq (WS-003, see below), just south of as-Salt, in 1978 (Hadidi 1979).

All in all, it is clear from this brief survey of archaeological explorations that the Wādī Shu‘ayb region still offers great potential for the

detection of previously unknown archaeological sites. This is even more important when taking into account the large-scale threat against archaeological sites by modern construction work and illegal looting.

Methodology and Results of the First Survey Campaign in 2016

During the 2016 season three transects crossing the survey area from north-east to south-west were chosen, in order to ensure an adequate sample of each of the three natural environmental zones within the Wādī Shu‘ayb catchment area (see above). Sites were formally defined on the basis of high surface artifact density, exposure of cultural deposits, the presence of architectural features, or a combination of these three. Larger sites, such as tells, which contained a range of different features, received a site number for the site as a whole, in addition to feature numbers for each individual feature. Each site, and, when possible, each feature at a specific site, was searched for datable artifacts and recorded, including detailed photographic documentation as well as technical descriptions, measurements and sketches of all features on the field recording form. GPS coordinates were also determined and recorded for all sites and features surveyed. Altogether, a total number of fourteen major sites were surveyed during the first campaign in 2016 (**Fig. 2**). Some of these sites were already known, such as Khirbat Jazzīr (WS-001), Khirbat as-Sūq (WS-003), Khirbat al-Mu‘allaqa (WS-005), the Neolithic site of Wādī Shu‘ayb (WS-009), Tall Blaibil (WS-007), and Tall Nimrin (WS-008), but often lacked detailed and thorough descriptions (including damage assessment and monitoring; see the gazetteer of sites, descriptions and **Appendix** below). In addition, associated diagnostic pottery has never been published in detail for most of these sites. Other sites, such as Khirbat Shu‘ayb (WS-006), near the Mosque and Tomb of the Prophet Shu‘ayb, were hitherto unknown and therefore surveyed for the first time. Diagnostic pottery and other finds, such as flints, were collected from all sites, recorded, and photographed or drawn. A description of each site surveyed in 2016 is given below (the acronym WS stands for Wādī Shu‘ayb followed by the specific site

number; known names of sites are given in brackets). The numerical list of sites surveyed (provided in the gazetteer) follows the itinerary of the survey, which alternated between areas, not a strict north to south direction.

1. *WS-001 (Khirbat Jazzīr)*

This site is located *ca.* 8 km south of as-Salt, on the southern bank of the wadi. The site was first visited and briefly surveyed by de Vaux in 1937 (de Vaux 1938: 405; 1941:25-27; 1967: 124-129), and again by Wright *et al.* in 1988 (Wright *et al.* 1989; referred to as “Site no. 17” in their report).

The entire site rests on a natural pointed rock outcrop measuring approximately 200 x 150 m, which slopes down towards the wadi bed (Fig. 3). The rock outcrop was in large parts artificially modified to create horizontal levels on which

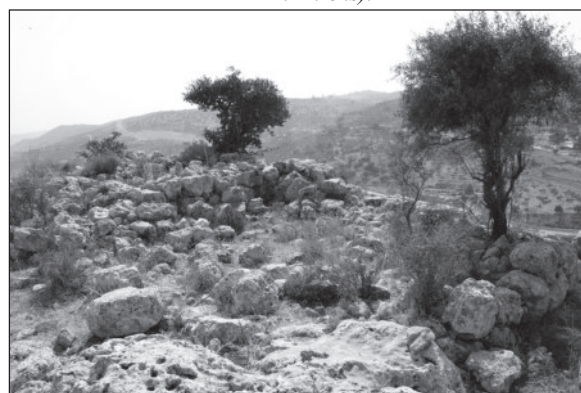
stone walls could be erected. Therefore, the flat plateau at the top, which could only be reached by a narrow passageway located at the eastern site of the rock outcrop, also appears to have been leveled, to make way for several rows of rooms and possibly a casemate system of fortifications which seems to encircle the entire plateau (Fig. 4). Just below the level of the plateau, several other wall structures were detected, which may have served as part of the fortifications, or as massive substructures of unknown/undetected buildings belonging to the structures on the plateau. In the middle of the plateau, a courtyard with no evidence of associated structures seems to have existed; a cistern (or tomb?) is located here. The buildings or rooms on the plateau were constructed of unworked stones of local origin; the courses sometimes preserved as high as 1-2 m (Fig. 5).



3. Khirbat Jazzīr (WS-001): located on the rock outcrop in the center of the photo, seen from north (Photo: A. Ahrens).



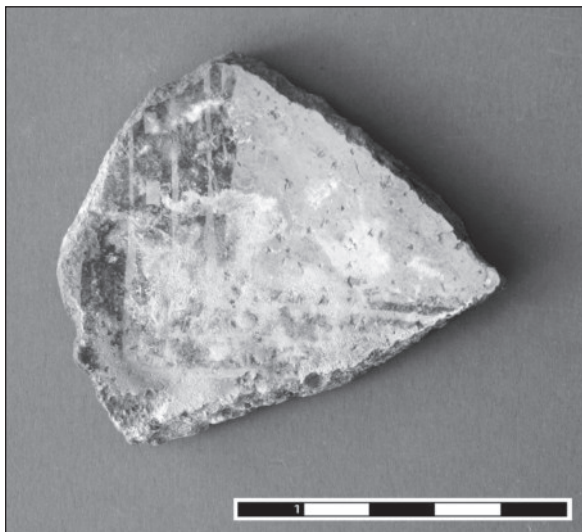
4. Khirbat Jazzīr: remains of fortification system (Photo: A. Ahrens).



5. Khirbat Jazzīr: remains of casemate buildings on the plateau (Photo: A. Ahrens).

The pottery collected consists of Hellenistic, Roman and possibly also Mediaeval Ayyubid-Mamluk Hand-Made Geometric-Painted/HMGP sherds (Fig. 6). There is very little, if any, pottery found in the surrounding fields of Khirbat Jazzīr, so there is no factual evidence for the existence of a lower city in the vicinity of the site. It seems most plausible that Khirbat Jazzīr was not a city or village, but rather a hilltop fortification or watchtower-like structure, since it offers striking views of the wadi towards both the south and north, or perhaps even a rural farmstead perhaps connect to nearby Khirbat as-Sūq during the Roman and also Byzantine periods.

It is unclear which building structures should be correlated with the various periods reflected in the pottery repertoire, or even when exactly the buildings were erected. When de Vaux visited the site in 1937, he concluded that the site only yielded pottery dating to the Iron Age, (de Vaux 1938: 405, 8, pl. XVLL:1). De Vaux described the site as follows: “*le site occupe une position remarquable, au sommet d’une colline dominant l’ou. as-Salt et surveillant aussi vers le S.-O. la troué de l’ou. Azraq, qui sa rapproche en ce point de l’ou. as-Salt. (...) Là était campée, sur le roc nu qui affleure partout et forme le glacis, une forteresse dont il subsiste des portions de murs et de casemates en matériaux assez frustes (1938:405)*”. Not coincidental, de Vaux assumed that Khirbat Jazzīr was to be identified with the biblical



6. Khirbat Jazzīr: Ayyubid-Mamluk red painted pottery fragment (Photo: A. Ahrens).

Jazer (de Vaux 1938: 405; 1967: 124-129. The site is mentioned, for example, in Num. 21:32, Josh. 13:25, and 2 Sam. 24:5). This tentative identification has been adopted and further elaborated by various scholars ever since (see the discussion and further references in Abel 1967: 356-357; Zwickel 1990: 219; Hübner 1992: 143; Gass 2009: 173, esp. footnote 921; MacDonald 2000: 106-108; Finkelstein *et al.* 2011: 140-141, with biblical and older references). Until today, however, no further archaeological work at the site itself, that is, excavations or survey, have hitherto been conducted.

In light of the above mentioned chronological distribution of diagnostic pottery, this chronological frame needs to be revised accordingly. All in all, the site may be seen in direct connection with nearby Khirbat as-Sūq to the north (WS-003, see below), or even Tall Jadūr/Gadora (Jadūr/as-Salt) located farther to the north (Knauf and Lenzen 1987: 52-53; Hübner 1992: 139-140), at least during the Hellenistic-Roman and Byzantine period. There is also evidence, albeit very limited, for an earlier occupation in the pottery repertoire collected at Khirbat as-Sūq (according to the fabric, Late Bronze–Iron Age?, see below: site WS-003; also Wright *et al.* 1989: 347), so it cannot be excluded that the region generally was settled also during this early period.

As the survey in 2016 has indicated that a lower town did not exist at Khirbat Jazzīr, neither to the south nor to the north of the actual plateau, the settlement must, therefore, have been confined to the plateau itself. With an overall size of ca. 70x50 m (i.e. 0.35 ha, 0.86 acres), the settlement cannot have sustained a larger number of people. The site of Khirbat Jazzīr, it seems, may thus instead have functioned as an outpost for an actual settlement located in the wadi, most probably that of nearby Khirbat as-Sūq (WS-003, see below) on the opposite (northern) side of the wadi bed.

There is no imminent threat to Khirbat Jazzīr, although the lower parts of the rock outcrop are currently being used as animal shelters by locals, and concrete has been used for the construction of these shelters in parts. On the plateau, remains of modern human activities (such as remains of plastic bottles and

fire places) were found, as well as one pit in the corner of the remains of one of the buildings, which is probably a looting pit.

2. WS-002

This site is located *ca.* 700 m to the south of WS-001/Khirbat Jazzīr and consists of a round structure made of roughly worked stones of local origin (Fig. 7). The entire structure measures approximately 10 x 12 m in diameter, with one or two courses preserved in parts. The structure seems to rest directly on a rock outcrop which was artificially worked into a flattened, even surface, roughly resembling the specific technique already described for nearby WS-001/Khirbat Jazzīr (see above). Immediately to the north of the structure, the rock outcrop also features a flat space of approximately 50 m², though it was impossible to clarify whether this was man-made or a natural feature of the rock outcrop. It is evident that the worked stones in the building belong to an older structure, the location of which may be close by. The pottery collected is undiagnostic, but possibly dates to the Iron Age and Hellenistic-Roman periods, according to the fabrics. Given the lack of clearly diagnostic pottery it is, however, unclear if site WS-002 is contemporary with WS-001.

As there are good views of the wadi to the south, the structure would perhaps best be explained as a watchtower. Interesting to note here is that, during his survey in 1937, (de Vaux 1938: 405, pl. XVIII: 1) noted the existence of a “*bastion avancé*” located to the south of the main site of Khirbat Jazzīr, which most probably, albeit without definite proof, is to be located in the region where WS-002 is (See de Vaux 1938: 405, “*Au pied de cette acropole vers*



7. Site WS-002: overlooking the Wādī Shu‘ayb, seen from north (Photo: A. Ahrens).

l’ouest et dominant immédiat l’ouadi es-Salt, qui court ici le long d’une falaise abrupte, un ressaut de la colline portait un bastion avancé. C’est une construction rectangulaire de 10 à 15 m. de côté, en grosses pierres mal taillées.”. Unfortunately, since the region and landscape around sites WS-001, WS-002 and WS-003 have been drastically altered by modern construction work and agricultural exploitation, it has proved impossible to securely establish the location of the structure de Vaux found in 1937.

Arguing on the basis that only Iron Age pottery had been found at the site, although he did not publish any diagnostic pottery types were never published by him (de Vaux 1938: 405. “*La céramique n’abonde pas, mais elle est homogène et entièrement de l’époque du Fer. F. I et II.*”), de Vaux proposed a functional connection between the site and nearby WS-001/Khirbat Jazzīr. Since de Vaux regarded the site of WS-001/Khirbat Jazzīr to be a regular settlement site, he also assumed the site of WS-002 (if the identification with his “*bastion avancé*” is accepted) to be a fortress or a watchtower-like structure overlooking the course of the wadi towards the south and belonging to the settlement nearby (de Vaux 1938: 405: “*Elle [the entire site] comporte deux ensembles de ruines*”). There is no proof which chronologically or functionally backs this presumed connection today, although the few pottery sherds collected at WS-002 and their date would, at least generally, be in concordance with the pottery collected at WS-001.

The structure is not in imminent danger, although Bedouins living nearby use the site for sheltering animals.

3. WS-003 (Khirbat as-Sūq)

The site is located to the north of WS-001, on the northern bank of the Wādī Shu‘ayb, immediately north of the modern road leading from as-Salt to South Shuna. The exact extent of the site is difficult to ascertain, as it has been encroached by modern agricultural fields on almost all sides (Fig. 8). WS-003/Khirbat as-Sūq is already known from previous archaeological work (Hadidi 1979). The site contains a large number of rock-cut tombs



8. Khirbat as-Sūq (WS-003): seen from Khirbat Jazzīr (Photo: A. Ahrens).

and many limestone sarcophagi fragments, as well as masonry structures which have been dismantled, and sometimes also reused, for terrace walls of a more recent (modern?) date (Fig. 9). The site was first surveyed and then described in more detail by de Vaux (1938: 403, No. 2). Subsequently, (Wright *et al.* 1989:347) referred to it as “Site no. 16” in their survey report. This site is not to be confused with a site of the same name which is located *ca.* 8 km south of Amman.

Pottery collected at the site suggests major Hellenistic-Roman, Late-Roman and Byzantine occupation levels. However, a number of sherds might, according to the shape and fabric, also indicate earlier occupation (these fragments probably date to the Iron Age; for pottery dating before the Hellenistic period, see already Wright *et al.* 1989: 347).

The site has been largely destroyed, and requires immediate protection, as terrace walls (used for agriculture), which artificially cut the archaeological remains of the ancient site, have been constructed. Additionally, numerous modern looting pits, particularly in the vicinity of visible or suspected tomb entries, seem to



9. Khirbat as-Sūq (WS-003): view towards as-Salt (Photo: A. Ahrens).

have destroyed a large number of archaeological remains, including several tombs.

4. WS-004

The site is situated immediately north of the Wādī Shu‘ayb viaduct bridge, but south of the village which is located in the vicinity. The site consists of non-diagnostic pottery and lithic scatters. Since the material was collected from an agricultural field which is in use, it is possible that the material actually comes from a different place close by, most probably an unknown archaeological site below the village north of the modern viaduct bridge, although no archaeological remains were found there (Fig. 10).

The material collected at the site evidences on-site preparation of cores, with primary production elements present. The raw material used consists of fine to medium grained flint, predominantly grey in color. The tools are not diagnostic, although some formal tools, such as perforators, a burin, a scraper, and notched and retouched blanks, are evident. All in all, the assemblage is, therefore, difficult to date.

The area of the site is under modern cultivation, being used as an agricultural plantation for olive trees, thus the exact boundaries of the site remain unknown. It is also unclear if the site of origin is destroyed, or located somewhere else in the vicinity.

5. WS-005 (Khirbat al-Mu‘allaqa)

Site WS-005, know to locals as Khirbat al-Mu‘allaqa (“The hanging ruin”) sits on a plateau of sandstone and marl clay on the northern bank of the wadi, and is, in parts, slowly collapsing into the wadi due to erosion (Fig. 11). The ruins are impressive, with several masonry structures



10. Site WS-004: seen towards the west (Photo: A. Ahrens).



11. Khirbat al-Mu'allāqa (WS-005): view from north to south, with the plateau of Khirbat Shu'ayb (WS-006) visible in the background (Photo: A. Ahrens).

still visible. Tumbled buildings consisting of large blocks are scattered all over the site. The collapsed remains of a tower-like structure, located close to a cliff near the wadi's northern bank, dominate the site; next to this structure are several smaller, indeterminate building clusters, which cover most of the plateau (Fig. 12). The walls of the tower-like structure stand as high as 4 m in some parts. It is difficult to trace the exact plans of these structures because of their poor state of preservation.

The pottery collected mainly suggests occupation during the Roman-Hellenistic



12. Khirbat al-Mu'allāqa: walls of tower-like building structure (Photo: A. Ahrens).

and Byzantine periods, with a possible earlier occupation. The survey conducted by Wright (Wright *et al.* 1989) appears to list the site as "Site no. 19."

The site has been heavily destroyed in parts and requires protection, with a large number of looting pits over the whole. The fact that it is favored by the local population for recreational and leisure activities with no modern settlement nearby, has most likely led to an increase in plundering ("gold hunters").

6. WS-006 (Khirbat Shu'ayb)

This site was discovered and first visited by the WSAS project in 2016. It is located on a flat rock outcrop high above the southern bank of the Wādī Shu'ayb, next to the Mosque and Tomb of the Prophet Shu'ayb (Fig. 13). Until the 1990s, the site was occupied by the Jordanian army and therefore inaccessible, with many military installations (such as concrete trenches and bulldozed ramparts) still clearly visible today. The rock outcrop consists of (at least) four plateaus or flattened levels, that seem to be connected to each other and which all feature fragmented remains of walls located



13. Khirbat Shu'ayb (WS-006): rock outcrop in center of photo, left of the shrine and mosque, seen from north (Photo: A. Ahrens).

at the corners of the levels/plateaux (**Fig. 14**). They thus seem to form the outer walls of several structures which occupied the plateaux, but which are mostly destroyed, due to either the army or erosion. The site offers very good views far into the Jordan Valley and the West Bank of Palestine, but also north towards as-Salt. One could imagine a fortification structure or a watchtower-like structure at this strategic location, as the site would be well-suited for monitoring all transits between the Jordan Valley and the Jordanian highlands.

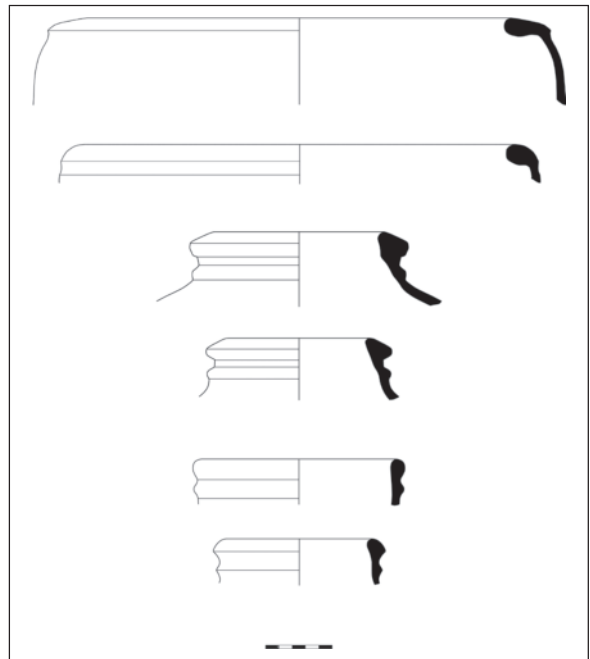
It may be that the site is functionally and chronologically connected with site WS-005/Khirbat al-Mu‘allaqa (see above), which is located directly opposite site WS-006/Khirbat Shu‘ayb, on the northern bank of the wadi. Perhaps, although this clearly needs further investigation, these two sites guarded a passage through the wadi. Since the landscape has been drastically altered by modern construction work, as well as the establishment of agricultural plantation and greenhouse compounds along the wadi bed, this cannot, unfortunately, be ascertained on the basis of the current course of the wadi.

The pottery collected, according to preliminary sampling, dates primarily to the Roman-Hellenistic period, although there are diagnostic forms and fabrics which may be even earlier, i.e. from the Iron Age (**Fig. 15**).

There is massive building activity next to the mosque just north of the site. So far, no damage to the site has occurred, but this should be monitored in the future. Ironically, the presence of the aforementioned military installations seems to have hampered the excavation of looting pits.



14. Khirbat Shu‘ayb: terraces with wall foundations (Photo: A. Ahrens).



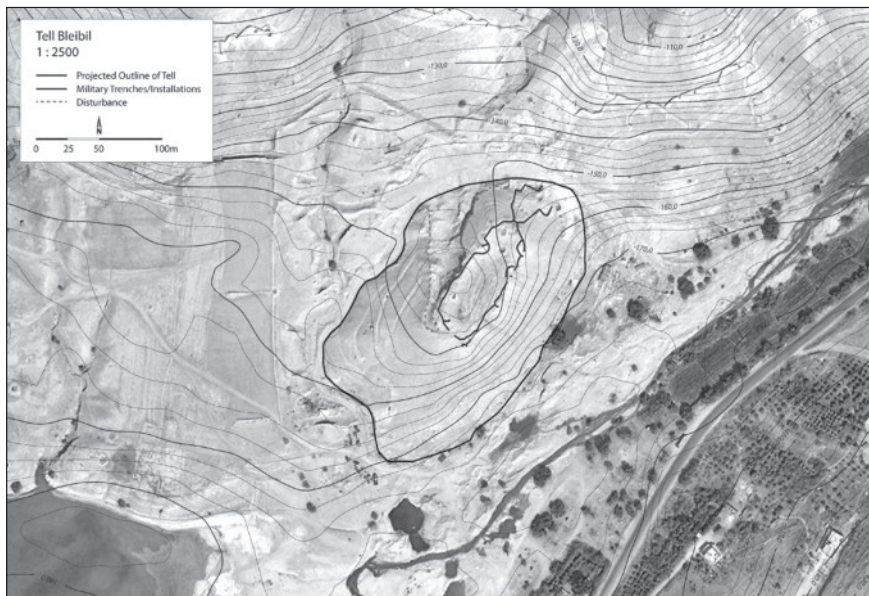
15. Khirbat Shu‘ayb: selection of Iron Age pottery (Drawing: A. Gubisch).

7. WS-007 (Tall Blaibil)

Tall Beibil (sometimes also referred to as Tall Bulyabil in the literature) is a well-known site, located on the northern bank at the mouth of the Wādī Shu‘ayb (called Wādī Nimrin here), which overlooks the Jordan Valley and the Wādī Juray‘ah (**Figs. 16, 17**). The site had already been visited by Albright (1924: 3; 1926: 48-49) and (Glueck 1943: 11-12; 1921) as part of their surveys of the Jordan Valley in the first half of the 20th century. Subsequent surveys in the region of the Jordan Valley have always included the site (Ibrahim *et al.* 1988; Wright *et al.* 1989; Ji and Lee 2002), although no targeted excavations have so far been conducted at the site.



16. Tall Blaibil (WS-007): seen from northeast towards the Jordan Valley (Photo: B. Briewig).



17. Map of Tall Blaibil, showing modern disturbances (Map: N. Salamanek using SRTM data and satellite image courtesy of Bing Maps).

The site, which seems, at least partly, to rest on top of a rock outcrop, was occupied by an army outpost until the 1990s, and can be identified as Wright’s “Site no. 1” (Wright *et al.* 1989). The summit has been completely bulldozed by military activities, and thus does not retain any archaeological remains. However, the military activities and the subsequent abandonment of their installations have led to a partial collapse of the northern flank of the tall site, thus exposing a large section of the stratigraphic sequence, including a massive mudbrick wall resting on a stone foundation (Figs. 18, 19). Additionally, several floor levels are discernible, at different heights, all along the northern section. In their survey report, (Ji and Lee 2002: 187-188, fig.9) described and interpreted several features, including a potential gate and a fortification system with several towers. Prior to this, the

existence of a fortification system at Tall Blaibil had also been put forward by Glueck, on the basis of aerial photographs (Glueck 1951: 369-370, fig. 111).

One important find of the 2016 campaign



18. Tall Blaibil: remains of mudbrick fortification wall (Photo: A. Ahrens).



19. Tall Blaibil: remains of mudbrick fortification wall (Photo: A. Ahrens).

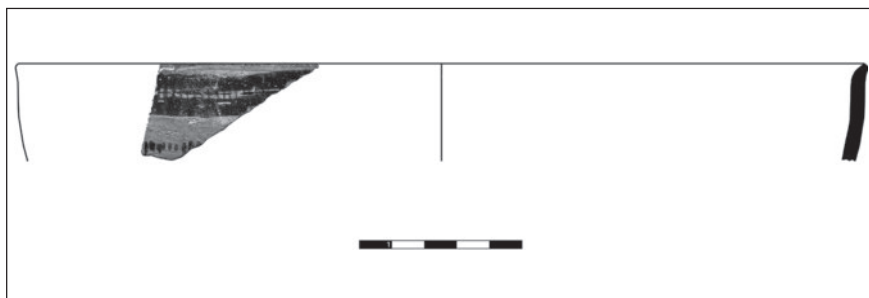
was the discovery of a rim fragment of the distinctive Cypriot White Slip Ware II bowl (WS II; the so-called “milk bowl” from the Late Bronze Age IB–IIB; **Fig. 20**) at this site, which thus far was believed to be devoid of Late Bronze Age occupation (Albright 1926: 48-49; Glueck 1943:11; 1951; Ibrahim *et al.* 1998: 192, No. 199; Ji and Lee 2002: 187-188. See, however, Wright *et al.* 1989: 347-348, referring to the site as belonging “to large tells of Late Bronze and subsequent periods” without giving further references or showing diagnostic pottery; see also Finkelstein 2014). The fragment belongs to the most common and popular form of this distinctive pottery type, i.e. the hemispherical bowl with “wishbone” handle (not preserved), which is characterized by a thick white slip and brownish vertical and horizontal bands of paint, with a net pattern in between. This unexpected find may close the apparent occupational gap in the region. Tall Nimrin/WS-008 (located *ca.* 1500 m south-west of Tall Blaibil, see below) features Middle Bronze Age IIB/IIC (or MB III) occupation, followed by Iron Age I and II remains with a hiatus in between these two periods, whereas Tall Blaibil was thought to feature Early Bronze Age remains, directly followed by Iron Age remains.

Thus far, specimens of WS II Ware have not been attested at sites in the eastern part of the southern Jordan Valley, in striking contrast to the northern part of the eastern Jordan Valley, where WS II Ware is attested frequently (Fischer 2001; Fischer 2006a; 2006b: 282-283, 286-287; Fischer 2014). The dearth of WS II Ware is, without doubt, primarily due to the fact that, south of the Zarqa Triangle, the eastern part of the southern Jordan Valley is thought to be devoid of substantial (if any) archaeological remains dating to the Late Bronze Age (Albright 1926: 48; Ji 1997: 25-26; Maeir 2010: 171). However, WS II Ware is present at Jericho, just

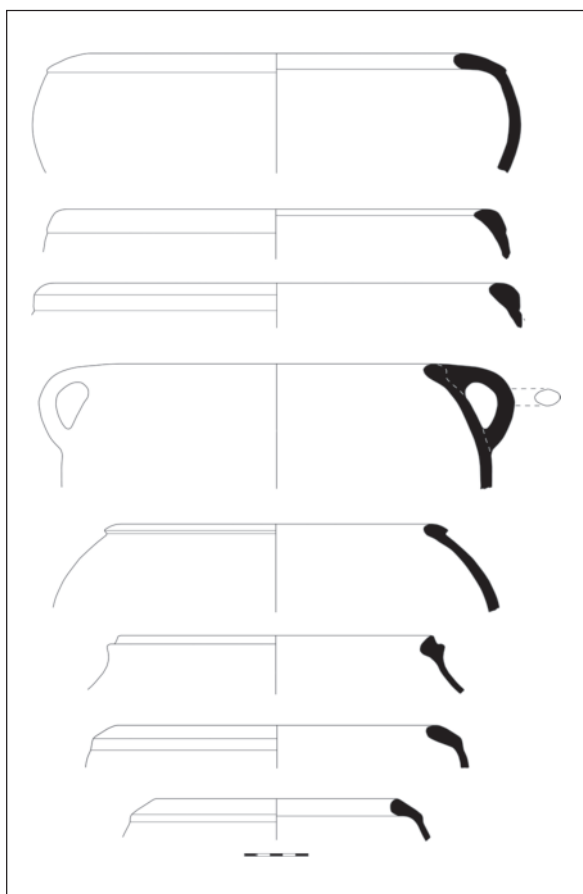
across the Jordan River from Tall Blaibil, in the western part of the southern Jordan Valley (Sellin and Watzinger 1913: Pl. 21: no. G.2), and a further fragment of WS II Ware was recently discovered in deep soundings at Tall Damiyah, which is located in the southernmost part of the Zarqa Triangle, next to the Jordan River (pers. comm. L. Petit and Z. Kafafi; for the recent excavations, see Petit and Kafafi 2016; see also Albright 1926: 47).

Therefore, while this is only speculation and a moot point to discuss without further proof, one could argue that at least some of the WS II Ware specimens found at various sites on the southern Transjordanian plateau (often believed to have been channeled from the west to the east by the Yarmouk and Zarqa Rivers) may actually have reached these sites via a more southern transect. For example, fragments of WS II Ware found in tombs in the Baq‘ah Valley/Umm ad-Danānīr (McGovern 1986: 200-201, Fig. 60.11, Pl. 37c) and in the Amman Airport Building/Temple (Hankey 1974: 142) may also have reached their findspots *via* the Wādī Shu‘ayb.

Without going into detail here, Tall Blaibil has for a long time been tentatively identified as the biblical site of Beth Nimrah (“House of the Leopard”), a town belonging to the tribe of Gad (Num. 32:36, Josh. 13:27), an identification which was already put forward by Albright (1926: 48-49) and (Glueck 1943: 11-12; see also Hübner 1992: 143). However, it has recently been proposed that nearby Tall Nimrin (WS-008, see below), which is located *ca.* 1.2 km to the south-west of Tall Blaibil, is the site of biblical Beth Nimrah (see Hölscher 1910: 19), as several Aramaic inscriptions were found there (Dempsey 1993; 1996). A secure identification of Tall Nimrin as the site of Beth Nimrah is, however, still lacking, although Iron Age pottery (Iron Age IIA/B) is abundant at the site (**Fig. 21**).



20. Tall Blaibil: Cypriote White slip ware II pottery fragment (Photo: A. Ahrens; Drawing: A. Gubisch).



21. Tall Blaibil: selection of Iron Age pottery (Drawing: A. Gubisch).

There is no immediate threat to Tall Blaibil, and no apparent recent or larger looting pits were visible when the site was surveyed in 2016. The large section at the northern flank of the tell described above may, however, continue to collapse.

8. WS-008 (Tall Nimrīn)

Tall Nimrīn is located in the eastern part of the town of South Shuna, cut by the road which leads from there to as-Salt. The tall is encroached by building activity on all sides, and its flanks have therefore been heavily destroyed (Fig. 22). Although Albright, visiting the site almost twenty years earlier, does not mention this striking feature at all (Albright 1924: 3; 1926: 48-49), the northern side of the tell had already been cut by the road which still exists today at the time of Glueck's survey (Glueck 1943: 11). Ibrahim *et al.*'s survey also includes the site (1988: 192, no. 182 referred to here as Tall ash-Shuna South).



22. Tall Nimrīn (WS-008): northern road-cut section (Photo: A. Ahrens).

Excavations at the site were first conducted by Flanagan, J.W., McCreery, D. W., and Yassine, K. N. in the late 1980s and early 1990s (results summarized in Flanagan *et al.* 1996; see also Dornemann 1990). The site features remains from the Middle Bronze Age IIB, Iron Age, Roman-Hellenistic, and Medieval Islamic periods. Pottery from all these periods was found at the site, and remains of the excavation trenches are still visible today; these excavations thus corrected Glueck's dating of the site from the Roman through to the Medieval Period (Glueck 1943: 11). After the discovery of Iron Age I and II layers at the site, an alternative identification and location for biblical Beth Nimrah was put forward, namely Tall Nimrīn; before the results of the excavations it had generally been assumed that Tall Blaibil (WS-007, see above) was Beth Nimrah. As already noted by (Albright 1924; 1926: 48-49) and (Glueck 1943: 11-12), the archaeological sites of Tall Blaibil (WS-007), (Tall Mustāḥ is located *ca.* 500 m south of Tall Blaibil, and, due to the military presence on the Tall, could not be surveyed in 2016. See the results of surveys conducted by Ibrahim *et al.* 1988: 192, No. 200; Ji and Lee 2002: 191-192, Fig. 16), and Tall Nimrīn (WS-008), which were located close to each other, clearly belong to one specific cluster of sites that Glueck considered to be "one historical site, occupied in three widely separated periods" (Glueck 1943: 11-13). It is obvious that all three sites are indeed located in one particular area, overlooking the entry to the fertile Jordan Valley, and at the same time also restrict access from the valley into Wādī Shu'ayb and the Transjordanian highlands. The locations for each of the three tell sites might also be a consequence of the meandering course

of the wadi itself during the periods in question.

Albeit close to the bustling town of South Shuna, only a single looting pit was observed. The tell itself is fenced along its northern section towards the main road, to protect potential visitors from falling, though apparently not to protect the site itself, as the other sides of the tell are not fenced.

9. WS-009 (*Wādī Shu‘ayb Neolithic Site*)

The Neolithic site of Wādī Shu‘ayb (dating to Pre-Pottery Neolithic B (PPNB) and Pottery Neolithic A (PNA)) has been known to scholars since the 1920s (Zeuner 1957: 23; Mellaart 1975: 63,68), but only identified as an important site in the late 1980s, when the road leading from as-Salt to South Shuna was enlarged (Rollefson 1987: 521). Subsequent to this, two seasons of excavations have been conducted at the site (Simmons *et al.* 1998; 2001), which lies on the northern bank of the wadi, right next to the main road (Rollefson 1987: 521-522). Today, archaeological features are only visible along the section which initially led to the discovery of the site, although random lithic scatters are abundant all over the surface. Today, the area is used for the cultivation of olive trees (Fig. 23).

Material recovered during the 2016 survey includes formal tools (e.g. perforators, burins, sickles, scrapers, a pick, and denticulates), together with notched flakes and blades, and retouched flakes and blades. The material shows typical PPNB elements, underlined by the presence of a variety of burins, as well as one naviform core. In addition, several pottery fragments found at the site clearly date to the Yarmoukian Period (PNA). All in all, the



23. *Wādī Shu‘ayb Neolithic site (WS-009): road-cut section (Photo: A. Ahrens).*

chronological sequence established by the excavations is reflected in the survey material. The trenches were apparently at least partly backfilled immediately after the excavations, and there is no imminent threat to the site at present.

10. WS-010 (*Khirbat al-Jisr al-‘Irāqiyyīn*)

This site was first identified during the 2016 survey, and is located along the northern bank of the wadi bed. Locals refer to it as al-Jisr al-‘Irāqiyyīn (the “Bridge of the Iraqis”) or al-Jisr al-Khashab (the “Bridge of wood/trees”) because a modern bridge crosses the wadi bed here; however, Khirbat al-Jisr al-‘Irāqiyyīn is an informal, not an official, place name (Fig. 24).

It consists of an embankment/accumulation of stones, sand and gravel, which was formed by the wadi, on top of which are modern houses which seem to have been abandoned recently. It is not clear, however, if a distinctive tell structure exists, or if the houses rest on the aforementioned natural embankment. Next to these houses were several features, such as stone foundations and stone pavements or floors, which seem to be the remains of older structures, which have not been dated precisely. Further away, to the south, is another feature, which could tentatively be interpreted as the remains of an installation or large oven. A large number of lithic finds was found all over the site, possibly dating to the PPNB (Ahrens and Rokitta-Krumnow 2017: 37-42).

The lithic assemblage is interesting, with a predominance of blades, although blade cores have not been found. Bidirectional blades, as



24. *Khirbat al-Jisr al-‘Irāqiyyīn (WS-010): view towards the north (Photo: A. Ahrens).*

well as crested blades, are also attested. The raw material consists of fine grained flint, with color ranging from purple, dark to light brown, and ivory. The tool kit is dominated by retouched flakes and blades, as well as notched blades and flakes. Burins are by far the most obvious formal tool type, and may date the site to the PPNB, as the assemblage is comparable to other known so-called burin sites in Jordan. Two of the burins found at the site were formerly used as sickles (as evidenced by the gloss).

Pottery is not abundant, but the few diagnostic sherds seem to date to either the Roman or Byzantine periods, and possibly also the Medieval Period. The site therefore seems to evidence a long period (or different periods) of settlement: the PPNB and later occupations sometime during the Roman-Hellenistic/Late Roman to Byzantine Period, and/or the Medieval Period. A more detailed analysis of the pottery and lithic finds will hopefully refine this chronology.

The southern part of the site has been bulldozed in part to allow for a passage to the fields along the wadi, but there are no looting pits visible on the site itself. It is home to a family of Bedouins, who live in tents north of the abandoned houses, who use parts of these buildings as animal shelters.

11. WS-011

The site was first identified and surveyed by WSAS in 2016, and is located on the top of a rock outcrop immediately south of WS-010, along the southern bank of the wadi. The top of the outcrop measures *ca.* 100 x 100 m; at least one building, albeit heavily destroyed (see below), seems to have existed at its north-



25. Site WS-011. (Photo: A. Ahrens).

eastern corner. The building is rectangular, measuring *ca.* 7 x 7 m; the walls were built from unworked stones (Fig. 25).

The pottery seems to date exclusively from the Hellenistic Period, although the presence of Medieval pottery in the assemblage is possible; a more detailed analysis is needed for a final decision.

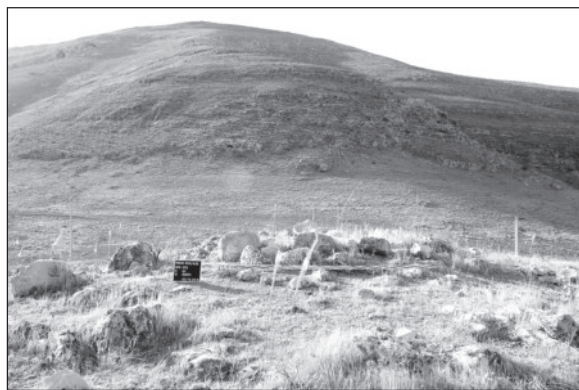
This site is completely destroyed. Bulldozers appear to have leveled the summit of the rock outcrop, leaving large heaps of stones which were once part of the walls of structures or buildings at various places throughout the area. Several large looting pits are also visible among the debris.

12. WS-012

The site was first identified during the 2016 survey campaign; it is located on top of a rock outcrop on the southern bank of the wadi. Several large looting pits at the bottom of the outcrop led the survey team to inspect the top. It appears to consist of two visible features: the first is a rectangular structure made of unworked stones, probably a watchtower, south of which is a second rectangular building, probably with two rooms (Fig. 26).

The pottery collected probably dates from the Late Roman and Byzantine periods; there may also be several fragments of Medieval pottery within the sample.

Agricultural fields surround the site on all sides, but the structures at the site appear to have suffered little damage, as they rest on a solid rock outcrop which is higher in elevation, and unlikely to be cultivated. There are a number of looting pits visible all over the site, some of which seem to have targeted the stone



26. Site WS-012: seen towards the south (Photo: A. Ahrens).

foundations of the main structure.

13. WS-013

The site is located on the northern bank of the wadi. It sits on a moderate slope and consists of a lithic scatter, probably dating to the PPNB (Fig. 27).

Among the lithic assemblage collected at the site, core trimming elements and blanks hint at on-site production of flint tools. The raw material is dominated by fine grained flint, of grey and ivory color. Sickles and burins were not found, but perforators, scrapers and denticulates are present. Retouched and notched flakes and blades dominate the tool kit. Unfortunately, due to the absence of diagnostic finds, the dating of this site is difficult.

Pottery sherds are not abundant and they all seem to date to the modern era; the area is settled by Bedouins and features a number of concrete houses located around a large courtyard, which was apparently used by the Jordanian army until the 1990s. Archaeological (and architectural) features from older periods may, therefore, have been destroyed here, although the site was surveyed thoroughly and no remains of archaeological features were detected. WS-013 seems to correspond to Wright’s “Site no. 13” (Wright *et al.* 1989).

There are no immediate threats to the site.

14. WS-014

Site WS-014 is located on a protrusion of sand and gravel on the northern bank of the wadi. It also was used as a military installation until the 1990s; several concrete ditches attest to that. Also, there are several older stone houses, which seem to date to the late 19th–early 20th century, but are now abandoned. A large number

of lithic finds (PPNB) were also found in this area, as well as some pottery (Fig. 28).

The lithic assemblage from WS-014 predominantly features retouched and notched flakes and blades, followed by perforators, scrapers and sickles. One retouched blade exhibits heavy use wear on one edge. Core trimming elements and blanks hint at on-site production. Raw material is fine to medium grained flint, predominantly grey and dark brown in color. As with WS-013, the absence of diagnostics means dating is difficult.

The pottery seems to be modern. Some sherds may be earlier, but this cannot be determined at this time.

The site is not in immediate danger, and no looting pits were visible at the time of the survey. However, the houses described above are slowly collapsing.

Summary and Preliminary Conclusions

The first WSAS campaign has confirmed many results which have already been documented by previous surveys in the area. It has also verified that the region was inhabited from at least the Pre-Pottery Neolithic until the Islamic and Ottoman periods.

While evidence for an occupation of this region in the wadi during the Chalcolithic to the Bronze Age and Iron Age periods is still very limited (apart from the sites surveyed in the Jordan Valley and the Wādī Shu‘ayb alluvial fan). A provisional suggestion is that a considerable increase in population and settlements is evident during the Hellenistic and Byzantine periods. While there is evidence for an Iron Age II A/B–Persian Period occupation, it is much sparser and more elusive compared



27. Site WS-013: seen towards the west (Photo: A. Ahrens).



28. Site WS-014, seen towards the north (Photo: A. Ahrens).

to the later periods attested. All in all, Iron Age I and the Late Bronze Age have so far only been attested at sites in the vicinity of the Jordan Valley (see above: Tall Nimrīn and Tall Blaibil, sites WS-008 and WS-007 respectively).

One important find of the 2016 campaign was the discovery of a fragment of the distinctive Cypriote White-Slip-Ware II (WS II) at Tall Blaibil, hence verifying (or at least indicating at) a Late Bronze Age occupation, contrary to previous literature. This may close the apparent gap in occupation in the area, as Tall Nimrin (located *ca.* 1500 m south-west of Tall Blaibil) features Middle Bronze Age IIB occupation, followed by Iron Age remains, whereas Tall Blaibil was previously thought to feature Early Bronze Age remains immediately followed by Iron Age remains.

Future survey campaigns aim to clarify settlement patterns and chronological distribution of archaeological sites within the Wādī Shu‘ayb; fieldwork so far is too preliminary to provide a detailed picture of diachronic settlement patterns for the region. Further research will also use soundings at selected sites to check the typological data from the survey. Once we have collected a more comprehensive databank, we hope to return both to the historical questions about the regional and transregional communication networks, and to the definition of the Wādī Shu‘ayb as an archeological landscape in its own right. Future work will also consider potential sites for excavation.

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The Wādī Shu‘ayb Archaeological Survey Project conducted its first surface survey campaign during the fall of 2016 (from the 24th of September to the 10th of October) on behalf of the Damascus Branch of the Orient Department of the German Archaeological Institute. The survey was directed by the author, assisted in the field by B. Briewig (Berlin), while A. as-Saket (Archaeological Museum of as-Salt) served as the representative for the Department of Antiquities during the entire period. The Wādī Shu‘ayb Archaeological Survey Project team members are grateful for the full support of the Director-General of the Department of Antiquities, Dr. M. D. Jamhawi, and his staff

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Appendix: Gazetteer of Sites Surveyed in 2016.

| Site Number | Local Site Name | Altitude (MSL) |
|-------------|------------------------------|----------------|
| WS-001 | Khirbat Jazzīr | +674 m |
| WS-002 | <i>Name unknown</i> | +598 m |
| WS-003 | Khirbat as-Sūq | +639 m |
| WS-004 | <i>Name unknown</i> | +333 m |
| WS-005 | Khirbat Mu‘allaqa | +291 m |
| WS-006 | Khirbat Shu‘ayb | +363 m |
| WS-007 | Tall Blaibil | -118 m |
| WS-008 | Tall Nimrin | -186 m |
| WS-009 | Wadi Shu‘ayb Site | +393 m |
| WS-010 | Khirbat al-Jisr al-‘Irāqiyīn | -17 m |
| WS-011 | <i>Name unknown</i> | +33 m |
| WS-012 | <i>Name unknown</i> | +184 m |
| WS-013 | <i>Name unknown</i> | -85 m |

| | | |
|--------|--------------|--------|
| WS-014 | Name unknown | -100 m |
|--------|--------------|--------|

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