

THE 1998 SEASON OF ARCHAEOLOGICAL SURVEY IN THE REGIONS OF 'IRĀQ AL-'AMĪR AND WĀDĪ AL-KAFRAYN A PRELIMINARY REPORT

by

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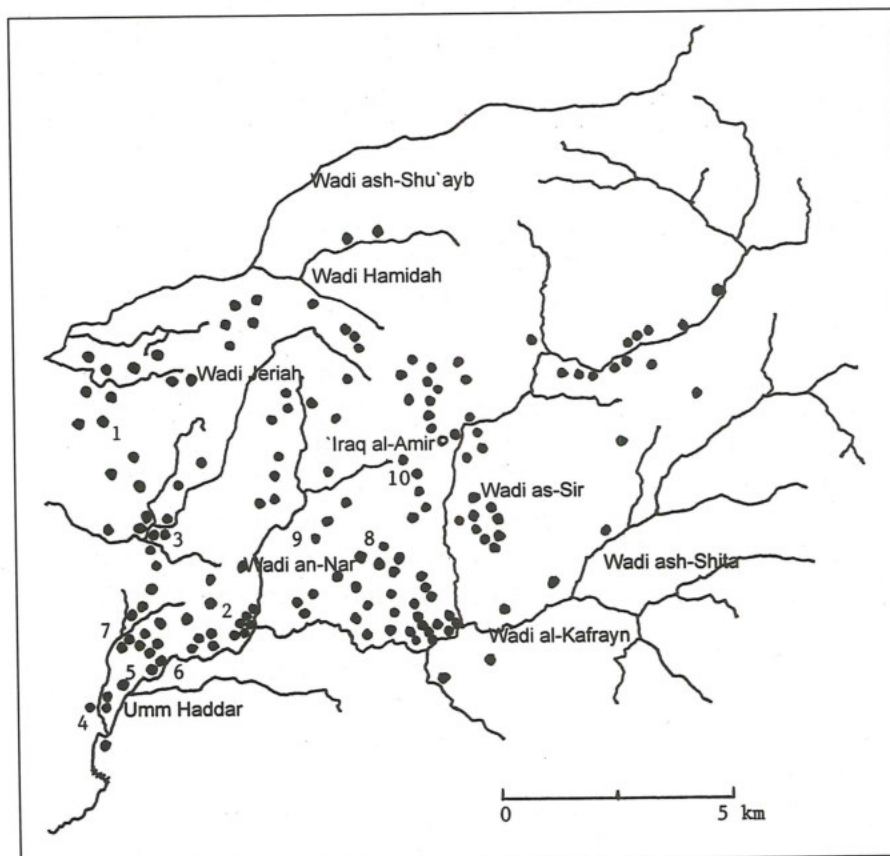
Introduction

The 'Irāq al-'Amir Project conducted its second intensive surface survey and archaeological study during the period from August 5 to August 31, 1998. The fieldwork was directed by the authors, and Sophinaz Kabagah joined the survey team as a drafts-person. Ahmad Tawahiah was the representative of the Department of Antiquities and rendered valuable consultation and assistance.

The initial intention of the 'Irāq al-'Amir regional survey project was to cover the area within 5-km radius of 'Irāq al-'Amir. Hence, in 1996, the survey focused on the region along the Wādī as-Sir and recorded

86 archaeological sites (Ji 1997a; 1997b; 1998a). Finds from the 1996 survey indicated that the vicinity of 'Irāq al-'Amir witnessed high settlement intensification in the Byzantine and Islamic periods and low intensification in the Early Bronze, Iron II-Persian, Hellenistic, and Roman periods.

It was soon found, however, that the artificial boundary was impractical for the understanding of the settlement pattern and occupational history in the region of 'Irāq al-'Amir, and thus the survey area was extended westward to the Jordan Valley in the course of the 1998 archaeological survey season (Fig. 1). In 1998, the survey team covered an area of approximately 35 square



1. The 1996 and 1998 Archaeological Survey Sites. 1. K. al-Magfiāt; 2. R.Umm Qaṭṭāf South 3. R. al-Klāl; 4. R.Umm Haddar; 5. Tulaylāt Umm Haddar South; 6. K. aṣ-Ṣuwwān' 7. Tulaylāt Umm Haddar North; 8. R.Umm al-Madāris; 9. R. al-Aḥmar; 10. K. al-Mdayyna.

kms which extends from Wādī al-Kafrayn in the south to the rocky ranges and hills overlooking Wādī ash-Shu'ayb to the north and the west. Between Wādī al-Kafrayn and Wādī ash-Shu'ayb are Wādī Jeriya (Wādī Amir), Wādī an-Nār (the Wādī Ḥūwwāra), and their tributaries. Hence, the survey area can be roughly divided into six sub-regions: (1) the Wādī al-Kafrayn region which extends 1 km to the north of the Wādī al-Kafrayn bed, (2) Wādī Jeriya region which extends 1 km on each side of the Wādī Jeriya bed, (3) the Wādī al-Kafrayn dam-lake area which is called the Umm Haddar Plains, (4) the section between the Wādī an-Nār and the Wādī as-Sir, (5) the section between the Wādī Jeriya and the Wādī an-Nār and (6) the section between the Wādī ash-Shu'ayb and the Wādī Jeriya. The last three regions are characterized by rocky ridges, arid terrains, moderate to steep slopes, and many small wadi tributaries.

Much of the region under consideration has never been properly surveyed for archaeological remains. Previous surveys concentrated either on the areas close to 'Irāq al-'Amīr and Wādī as-Sir or on the immediate vicinity of the Wādī al-Kafrayn dam-lake (cf. de Vaux 1938; Villeneuve 1988; 1989; Prag and Barnes 1996; Waheeb 1997). In general, the hilly area between Wādī al-Kafrayn and Wādī ash-Shu'ayb is very difficult to explore because of the hot climate and steep hills, and just as difficult to use agriculturally. The area receives about 200 mm of rain per annum which is minimal for sheep and goat herding in the area, but is not sufficient for extensive agriculture. An exception to this generalization is the Wādī Jeriya Valley which varies in width from 0.5 km to 2 km. This valley reaches its maximum width of about 2 km in the vicinity of Rujm al-Klāl and expands to the dimensions of a small plain. The Wādī Jeriya Valley is fertile and thus currently under intensive cultivation. It, however, completely dries up during the summer season except for a

couple of small water springs (e.g., 'Ayn Jeriya and 'Ayn Ḥassān) along the wadi. Accordingly, Wādī al-Kafrayn is the only major perennial water source in the entire 1998 survey area.

The 1998 fieldwork had a twofold research purpose. First, it was designed specifically to investigate the existence of ancient settlements along Wādī al-Kafrayn and Wādī Jeriya, and in the hilly region between the Wādī ash-Shu'ayb and Wādī al-Kafrayn. Second, efforts were made to understand the relationship between the settlements in the survey area and those in the region of 'Irāq al-'Amīr with special attention to the possible Iron II-Persian and Hellenistic road systems connecting the Jordan Valley with 'Irāq al-'Amīr, particularly along Wādī al-Kafrayn and Wādī Jeriya.

1998 Survey Results

The research background and survey methodology have been dealt with in previous reports (Ji 1997a; 1997b; 1998a), and thus, the present report focuses primarily on the findings of the new fieldwork. In 1998, a total of 88 archaeological sites were visited. These sites, when added to the 86 sites visited in 1996, bring the 'Irāq al-'Amīr survey of sites to a total of 174 (Tables 1-6). Of the 88 sites recorded during the 1998 season, 19 sites (21.59%) contained pottery sherds dated to the Chalcolithic and Early Bronze periods. Late Bronze sherds came from one site (1.14%), whereas Iron I and Iron II-Persian sherds were found at five sites (5.68%) and 32 sites (36.36%) respectively. The distinction between Iron II and Persian pottery was not made for this report since it has recently become increasingly clear that in central Jordan, late Iron II ceramic corpus flourished right through the Babylonian period and lasted well into most of the Persian period (Herr 1995). Moreover, thirty-four sites (38.64%) produced Hellenistic sherds and 18 sites (20.46%) had Roman sherds. Byzantine

Table 1. Cross-tabulation by Chronology and Area in the Region of 'Irāq al-'Amir.

	CEB*	MB	LB	I1	I2/Per	Hell	Rom	Byz	Els	MIs
Wadi as-Sir	14 (0)**	4 (0)	2 (0)	4 (2)	11 (2)	11 (1)	7 (2)	22 (0)	4 (0)	2 (0)
Wadi al-Kafrayn	11 (1)	3 (3)	0 (0)	3 (3)	17 (16)	18 (17)	7 (6)	23 (22)	0 (0)	1 (1)
Umm Haddar	4 (4)	0 (0)	0 (0)	0 (0)	0 (0)	6 (6)	4 (4)	5 (5)	0 (0)	0 (0)
Wadi Jeriah (Amir)	3 (1)	0 (0)	2 (1)	4 (2)	13 (7)	3 (2)	5 (3)	15 (9)	6 (0)	4 (2)
Wadi ash-Shu'ayb	1 (1)	0 (0)	0 (0)	0 (0)	2 (2)	0 (0)	1 (1)	9 (8)	0 (0)	1 (1)
Farawit	3 (1)	0 (0)	0 (0)	0 (0)	6 (4)	6 (5)	3 (2)	15 (9)	4 (0)	1 (0)
Wadi an-Nar	5 (1)	0 (0)	0 (0)	0 (0)	6 (1)	6 (2)	3 (1)	13 (2)	8 (0)	4 (0)
Wadi Hamidah	0 (0)	0 (0)	0 (0)	0 (0)	2 (0)	0 (0)	0 (0)	1 (0)	1 (0)	1 (0)
Wadi ash-Shita	5 (0)	0 (0)	0 (0)	0 (0)	1 (0)	2 (0)	2 (0)	7 (0)	4 (0)	4 (0)
Total	46 (19)	7 (3)	4 (1)	11 (5)	56 (32)	53 (34)	32 (18)	110 (57)	27 (0)	18 (4)

*CEB: Chalcolithic and Early Bronze; MB: Middle Bronze; LB: Late Bronze; I1: Iron I; I2/Per: Iron II and Persian; Hell: Hellenistic; Rom: Roman; Byz: Byzantine; Els: Early Islamic; MIs: Mid Islamic.
 **(): The number of sites that were surveyed in 1998.

Table 2. Cross-tabulation by Chronology and Site Type in the Region of 'Irāq al-'Amir.

	CEB*	MB	LB	I1	I2/Per	Hell	Rom	Byz	Els	MIs
Village and City	13 (9)**	2 (2)	2 (0)	6 (2)	15 (5)	17 (7)	10 (3)	20 (7)	12 (0)	8 (0)
Watchtower & House	14 (9)	1 (1)	1 (1)	2 (2)	28 (23)	24 (20)	16 (12)	58 (41)	6 (0)	4 (4)
Wall Line	1 (0)	0 (0)	0 (0)	0 (0)	3 (2)	1 (1)	1 (1)	3 (3)	0 (0)	0 (0)
Scatter Site (Pottery)	2 (0)	0 (0)	0 (0)	1 (1)	2 (1)	0 (0)	1 (0)	2 (1)	2 (0)	1 (0)
Tomb	6 (0)	3 (0)	0 (0)	0 (0)	1 (0)	4 (2)	1 (0)	6 (2)	1 (0)	1 (0)
Campsite	1 (1)	0 (0)	0 (0)	0 (0)	2 (1)	4 (4)	1 (1)	5 (3)	1 (0)	0 (0)
Cave	3 (0)	0 (0)	0 (0)	0 (0)	3 (0)	2 (0)	1 (0)	8 (0)	4 (0)	3 (0)
Rock-cut Features	3 (0)	0 (0)	0 (0)	1 (0)	1 (0)	1 (0)	1 (0)	4 (0)	0 (0)	0 (0)
Watermill	2 (0)	1 (0)	1 (0)	1 (0)	1 (0)	0 (0)	0 (0)	2 (0)	0 (0)	0 (0)
Terrace-Dam	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (0)	1 (0)	1 (0)
Total	46 (19)	7 (3)	4 (1)	11 (5)	56 (32)	53 (34)	32 (18)	110 (57)	27 (0)	18 (4)

*CEB: Chalcolithic and Early Bronze; MB: Middle Bronze; LB: Late Bronze; I1: Iron I; I2/Per: Iron II and Persian; Hell: Hellenistic; Rom: Roman; Byz: Byzantine; Els: Early Islamic; MIs: Mid Islamic.
 **(): The number of sites that were surveyed in 1998.

Table 3. Frequency Table and Pie Chart of the Chalcolithic and Early Bronze Sites

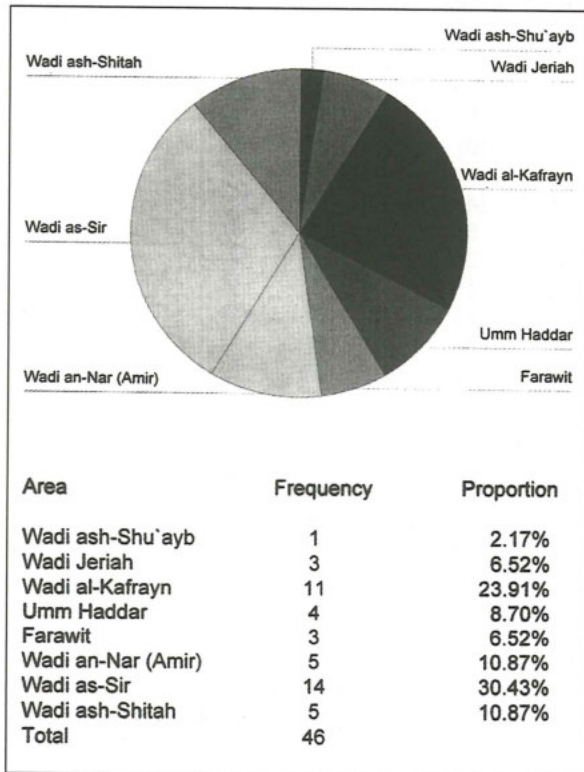


Table 5. Frequency Table and Pie Chart of the Hellenistic Sites

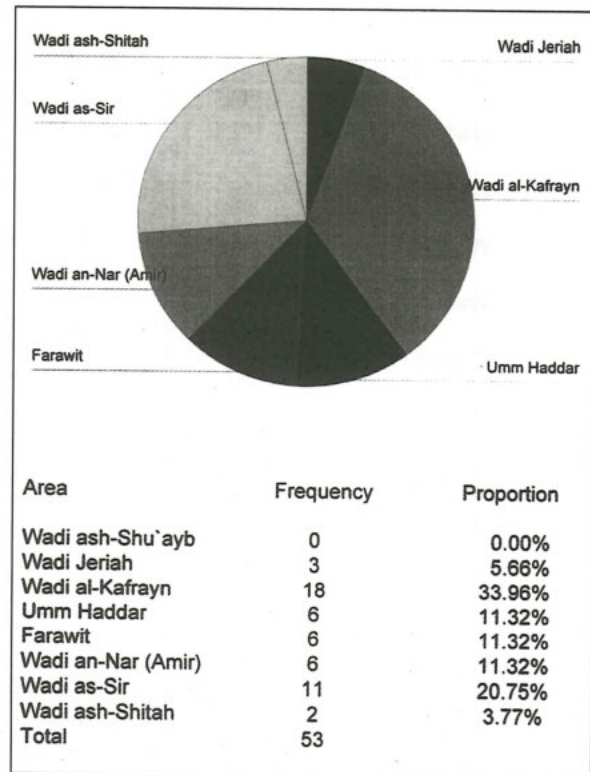


Table 4 . Frequency Table and Pie Chart of the Iron II and Persian Sites

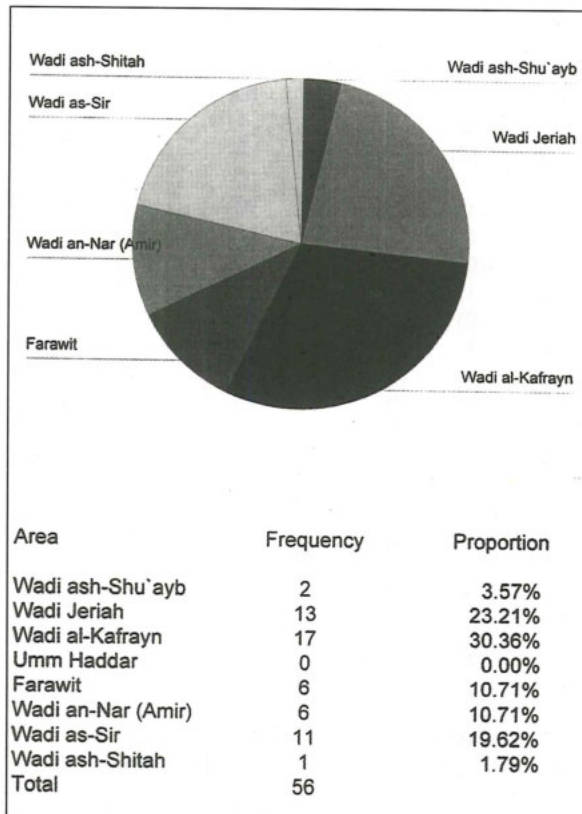
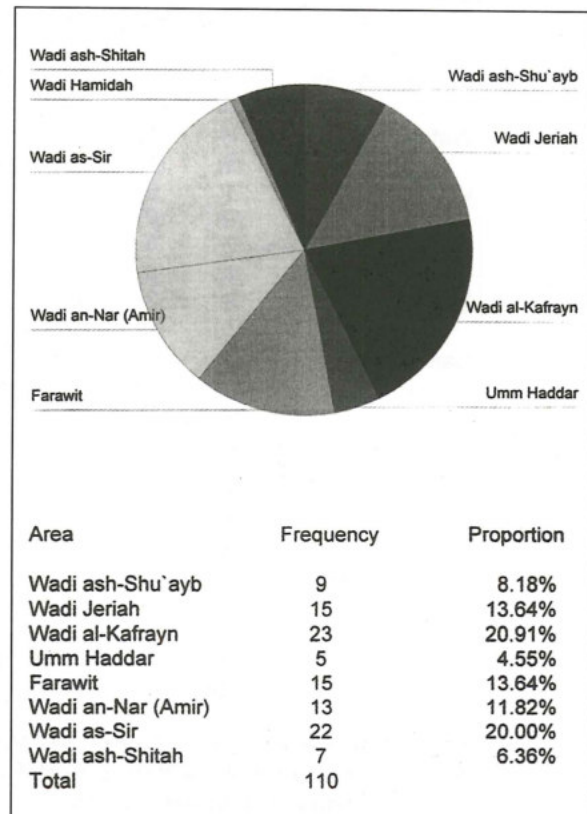


Table 6. Frequency Table and Pie Chart of the Byzantine Sites



sherds came from 57 sites (64.77%), while Middle Bronze and Middle Islamic sherds were found at three (3.41%) and four sites (4.55%) respectively. Surprisingly, Early Islamic sherds were absent in the area surveyed in 1998. Sixty of the 88 sites (68.2%) were situated on top of hills or on slopes, whereas 28 sites were at the bottom of or in immediate proximity to a wadi. In addition, 14 sites were classified as city or village (15.9%) and 65 sites as watchtowers or isolated buildings (73.9%). Campsites accounted for 4.5% of the total (four sites) and two sites were identified as cemeteries (2.3%). Three sites (3.4%) merely produced pottery sherds or lithic tools without any architectural evidence.

Should we associate these findings with sub-regions within the 1998 survey area, we see that regions differ in terms of their settlement intensification over the periods. Chalcolithic and Early Bronze sites tend to be situated along the Wādī al-Kafrayn and in the Umm Haddar Plains. These two regions include 15 Chalcolithic and Early Bronze sites, which make up 78.95% of 19 Chalcolithic and Early Bronze sites in the 1998 survey region. Some examples are village remains found at Tulaylāt Umm Haddar South and North (Survey Sites 121 and 132), and Survey Sites 139 and 157. They are all located in the narrow strip along the Wādī al-Kafrayn. Note that Chalcolithic and Early Bronze sites are noticeably absent in the Wādī Jeriya region and the hilly area between Wādī al-Kafrayn and Wādī ash-Shu'ayb. The only exception is Survey Site 95, a large circular structure located near a tributary which flows westward into Wādī ash-Shu'ayb.

The period from Early Bronze II to Iron I represents the low point in the occupation of the area between Wādī al-Kafrayn and Wādī ash-Shu'ayb. The sparsity of Iron I sites is not totally surprising, since it was already noted in the previous survey seasons and studies (Ji 1997c; 1998a). Yet, such sparsity

is still somewhat problematic if we take into consideration the high intensification in population in the plateau region during the given period (Ji 1995). Although the progress of the survey may fill this gap, it is not improbable that the survey area remained largely unoccupied during Iron I when the plateau region flourished in population and settlements. Diagnostic Iron I sherds were uncovered at Rujm Magfiāt (Survey Site 98), Rujm al-Klāl (Survey Site 112), Khirbat aṣ-Ṣūwwān (Survey Site 127), at a watchtower-like site (Survey Site 128) near Khirbat aṣ-Ṣūwwān, and at an impressive rectangular structure (Survey Site 138) near the confluence of Wādī an-Nār with Wādī al-Kafrayn. Yet, given the strength of the evidence, these sites appear to have been small isolated watchtower-like sites or seasonal settlements during Iron I. All these Iron I sites yielded Iron II-Persian sherds, and this fact perhaps indicates a continuity of settlement from Iron I to Iron II-Persian in the survey region.

The settlement pattern in the surveyed region for the Iron II and Persian periods shows no concentration of sites, although the majority of them are found along Wādī al-Kafrayn and Wādī Jeriya. Twenty of 31 Iron II-Persian sites are situated along these two wadis. In other words, about two-thirds of the Iron II-Persian sites in the surveyed area center along Wādī al-Kufrayn and Wādī Jeriya. Judging from the number of Iron II-Persian sherds and the size of architectural remains, we may suggest that some of the Iron II-Persian sites will prove to have been sizable garrisons or towns. They are Rujm Magfiāt (Survey Site 98), Rujm al-Klāl (Survey Site 112), Khirbat aṣ-Ṣūwwān (Survey Site 127), and Khirbat al-Mdayyna (Survey Site 172). Most of the remaining Iron II-Persian sites are characterized by circular or rectangular watchtower-like structures. In addition, it is worth mentioning that in 1997, a Jordanian Cultural Resources Management Project team collected several

Iron II-Persian sherds at Khirbat as-Sūr (Survey Site 67) (personal communication with M. Waheeb). Given the several Iron II-Persian towns and villages documented in 1996 (e.g. Khirbat Ḥassān, Khirbat ath-Thughra, Khirbat al-Farāwīt, and Tall abū-'Unayz), it becomes clear now that there were clusters of Iron II-Persian urban towns and villages on the hilltops in the survey area, particularly along Wādī al-Kafrayn and Wādī Jeriya. In addition, certainly these cities and villages were closely associated with watchtower-like structures built in their vicinities.

The analysis suggests fairly high concentrations of Hellenistic sites along Wādī al-Kafrayn and the Umm Haddar Plains. On the hilltops close to Wādī al-Kafrayn or on the slopes which lead down to the wadi, there are at least 25 Hellenistic sites. In 1996, the survey team recorded about 15 Hellenistic sites along Wādī as-Sir and Wādī al-Kafrayn. Hence, there are more than 40 Hellenistic sites lined up along these two wadis. This number makes up about 70% of the 53 Hellenistic sites in the entire 1996 and 1998 survey region. Hellenistic remains have proven to be absent or only slight in Wādī Jeriya region and the section between Wādī Jeriya and Wādī ash-Shu'ayb. Exceptions are Rujm al-Klāl (Survey Site 112) and Survey Site 114 located along Wādī Jeriya. It should be noted, however, that these two sites seemed to have been associated with Khirbat as-Sūr which is located about 2.5 to 3.0 km northeast of the sites, and provides a commanding view over these two Hellenistic sites in the Wādī Jeriya Valley. In addition, many of the sites that had Iron II and Persian pottery also yielded Hellenistic pottery. This is particularly the case for the urban settlements along Wādī al-Kafrayn. Eleven of the 34 Hellenistic sites surveyed in 1998 also include Iron II-Persian sherds, ten of which are situated along Wādī al-Kafrayn and the vicinity of Khirbat al-Farāwīt (Survey Site 28). This fact posits

that in the Wādī al-Kafrayn region, the Iron II-Persian population centers continued to hold that status in the Hellenistic period. Not only are there continuously occupied Iron II-Hellenistic settlements along Wādī al-Kafrayn, but the 1998 survey also revealed quite a concentration of new small tower-like structures along the wadi, most of which are dated to the Hellenistic period. It is also noteworthy that the Umm Haddar Plains witnessed quite high levels of settled population during the Hellenistic period. Many of the sites in the Umm Haddar region have visible, impressive architecture that dates to the Hellenistic period. Examples are building remains and fortification structures at Survey Sites 118, 119, 120, 121, 131, and at Khirbat aṣ-Ṣūwwān (Survey Site 127).

The possibility of ancient road systems associated with Wādī al-Kafrayn and Wādī Jeriya during the Iron II-Persian and Hellenistic period (Ji 1998a; 1998b; forthcoming) was a topic of interest to the authors. The work of the 1996 survey in the region of 'Irāq al-'Amīr and Wādī as-Sir showed that there was a group of sites at which Iron II-Persian and Hellenistic pottery were collected. As demonstrated above, the 1998 survey has also provided a list of Iron II-Persian and Hellenistic sites that can be added as a fortress or settlement system related to Wādī al-Kafrayn. Given the geographical and topographical conditions, this chain of visible Iron II-Hellenistic settlements along Wādī al-Kafrayn and Wādī as-Sir perhaps attests to the existence of ancient roads along the wadis during the given periods (cf. Dorsey 1991). This being the case, the western gateway to 'Irāq al-'Amīr along the Wādī al-Kafrayn appears to have been Khirbat aṣ-Ṣūwwān (Survey Site 127) during the Iron II-Persian and Hellenistic periods. Presumably, Rujm Umm Haddar and its nearby sites such as Survey Sites 119 and 120, and the "plateau fort" of Prag and Barnes (1996) are interpreted as outposts or

garrisons associated with Khirbat aṣ-Ṣūwḡān. The course of this road ascends to 'Irāq al-'Amīr along Wādī al-Kafrayn and Wādī as-Sīr for miles by way of Khirbat al-Farāwīt (Survey Site 28), Tall abū-'Unayz (Survey Site 26), and a line of small watchtower sites. Khirbat al-Farāwīt and Tall abū-'Unayz thus probably functioned as way stations and forts in conjunction with this road system.

Wādī Jeriya may have been another strategic route which linked 'Irāq al-'Amīr with the Jordan Valley during the Iron II. We can incorporate Rujm al-Klāl, Khirbat Ḥassān (Survey Site 20), Khirbat ath-Thughra (Survey Site 32), Khirbat as-Sūr (Survey Site 67), and several small settlements (e.g. Survey Sites 16, 17, 87, 100, and 113) into this road system. During the Hellenistic period, this route was probably no longer vital, since most of the sites except for Rujm al-Klāl and Khirbat ath-Thughra were abandoned after the Iron II. It is also possible that a branch of this road led from Rujm al-Klāl to 'Irāq al-'Amīr by way of Khirbat as-Sūr, Khirbat al-Mdayyna, and the easily traveled valley of the Wādī an-Nār. There is evidence of the existence of fortresses and small watchtowers associated with this road the examples of which are Survey Sites 67, 107, 171, 173, and Rujm Umm al-Qaṭṭāf North and South (Survey Sites 105 and 106). This being the case, Rujm al-Klāl was probably an important hub of the region's road network.

To recapitulate, the Hellenistic period was very likely one of increased population and proliferation of settlements along Wādī al-Kafrayn and in the region between Wādī Jeriya and Wādī as-Sīr. In contrast, the area between the Wādī ash-Shu'ayb and the Wādī Jeriya experienced a nearly complete occupation gap during the Hellenistic period, which continued until the Byzantine period. Accordingly, the combination of the preceding findings may support the previous suggestion that: (1) Iron II and Persian set-

tlements tend to cluster in the areas close to Wādī as-Sīr, Wādī al-Kafrayn, and Wādī Jeriya; (2) there was continuous occupation in the regions of Wādī as-Sīr and Wādī al-Kafrayn from Iron II to the Hellenistic period, although many of the sites in the area of Wādī Jeriya were abandoned during this period; (3) the Iron II-Persian settlement pattern points to the potential existence of road systems of the period connecting the Jordan Valley with 'Irāq al-'Amīr and the Transjordanian plateau, particularly along Wādī al-Kafrayn and Wādī as-Sīr; (4) this Wādī al-Kafrayn route was intensively reused in the Hellenistic period, whereas the Wādī Jeriya road network appears to have been somewhat neglected (Ji 1998a; 1998b).

The Roman and Byzantine sites are rather evenly scattered over the survey area. This is particularly true of the Byzantine period, which indicates that there must have been a substantial settled population across the survey area during the Byzantine period. A glance at the settlement pattern for this period shows that many Hellenistic sites remained in use during the early Roman period. An overall impression is, however, that the late Roman period had a decline in settled population, since most of the Roman pottery collected in the survey area seems to be dated to the early Roman period. Undoubtedly, the Byzantine period afforded the greatest population in the 'Irāq al-'Amīr region. In addition, note that the predominant pottery collected at the sites between Wādī Jeriya and Wādī ash-Shu'ayb is from the Byzantine period. This fact indicates that in the section between the Wādī Jeriya and Wādī ash-Shu'ayb, a first increase in population came during the Iron II-Persian period, and there was a stronger resurgence of population during the Byzantine period. A puzzling feature of the survey area is the absence or sparsity of Islamic sites in the Umm Haddar Plains and the regions between Wādī al-Kafrayn and Wādī ash-Shu'ayb. This fact stands in contrast with the 1996 observation that the Is-

lamic period saw a flourishing occupation in the neighboring regions of Wādī as-Sīr and Wādī ash-Shita (cf. Ji 1998a). This 1998 finding indicates that: (1) at least the region between Wādī al-Kafrayn and Wādī ash-Shu'ayb experienced a decline of settled population during the Islamic period; (2) the Islamic settlement pattern cannot be treated in conjunction with the Byzantine period; and (3) impressive Islamic sites tend to be situated in the regions close the plateau and in the northern extremity of the survey area (Figs. 2 and 3).

Description of Selected Sites

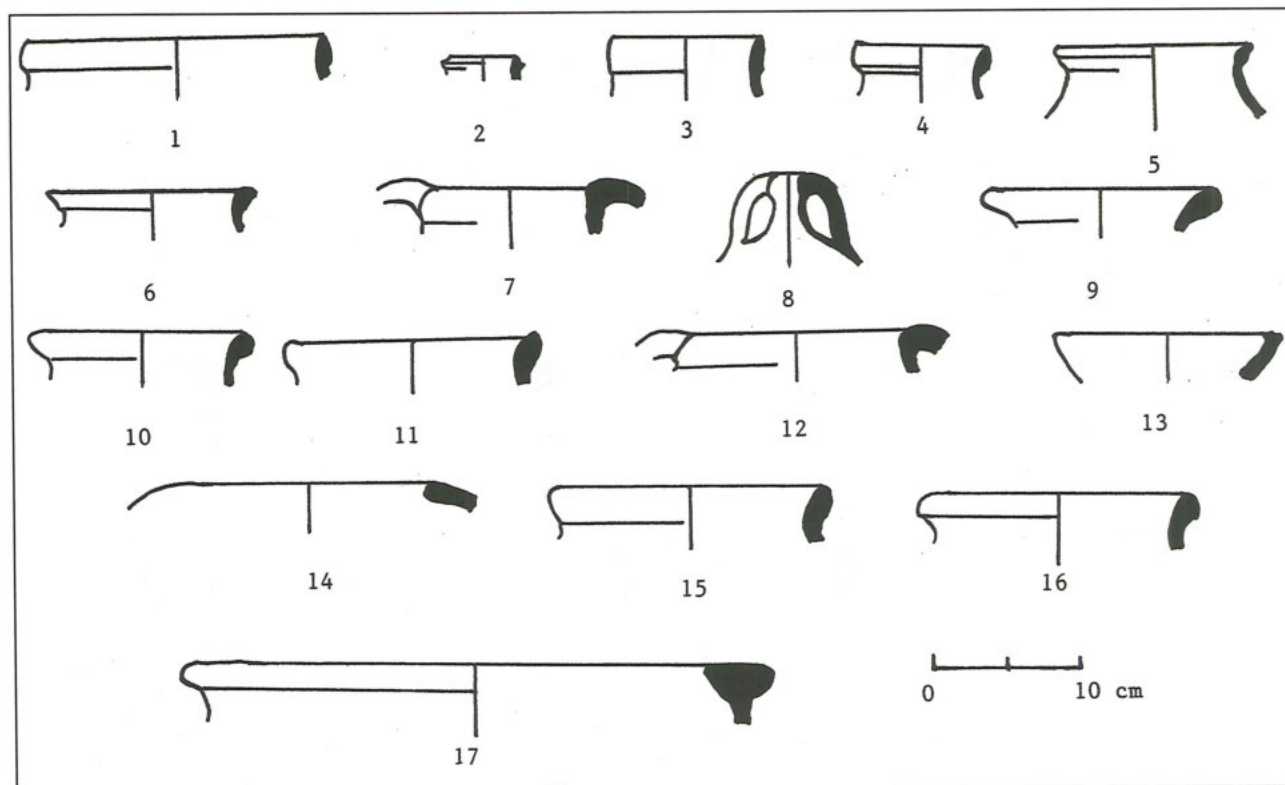
Khirbat al-Magfiāt (Survey Site 98; PG: 214.5/147.4; Fig. 4)

Khirbat al-Magfiāt is located on a very pronounced hilltop south of the Wādī ash-Shāfah, about 1 km northeast of Site 99 and about 3.0 km northwest of Rujm al-Klāl (Survey Site 112). Situated in a strategic location, this site commands a panoramic view of the surrounding terrain. Collapsed ruins of seven buildings can be identified including a couple of caves and a potential animal pen on the east. No surrounding walls are discernable. The southernmost structure is rectangular, measuring 2.7 x 2.9 m and stands about 1 m high. The building is made up of medium and large semi-hewn stones with walls measuring about 70 cm thick. About 7.5 m north of this first structure is a circular one composed of medium to large stone blocks 2 to 4 courses high. The diameter of this building is about 3.7 m, and the walls are about 60 cm thick. Immediately northwest of the second structure is an impressive oval structure (4.8 x 6.1 m) made up of fairly large stone blocks. The walls measure 80 cm high and 1.2 m thick. Immediately south of this structure is a small round building about 3.2 m in diameter. This structure is built of medium to large boulders and currently stands up to 1 m high above the ground. The walls are about 1.5m

thick. Another circular structure is visible about 2.5 m northwest of the third structure, which includes an inner oval-shaped chamber (1.5 x 1.7 m). This building measures about 3 m in diameter, with its walls about 45 cm thick. In the northeastern part of this site are a round structure and a rectangular building. The round structure, which measures 4.5 m in diameter, is made up of roughly hewn medium to large stones. The rectangular building measures ca. 4.3 m (north-south) by 6.6 m (east-west) with internal walls dividing it into two chambers. The entrance to this building seems to be situated on the northwest corner. Amidst of these structures is a potential cave complex composed of at least three caves which are now completely collapsed. This cave complex appears to have been used for a variety of purposes in antiquity such as dwelling, storage, and animals. A potential ancient animal pen is visible about 20 m northeast of this site. The pottery of this site is dated to the Late Bronze II-Iron I, Iron II-Persian, and Byzantine periods.

Survey Site 99 (PG: 213.8/146.8; Fig. 5)

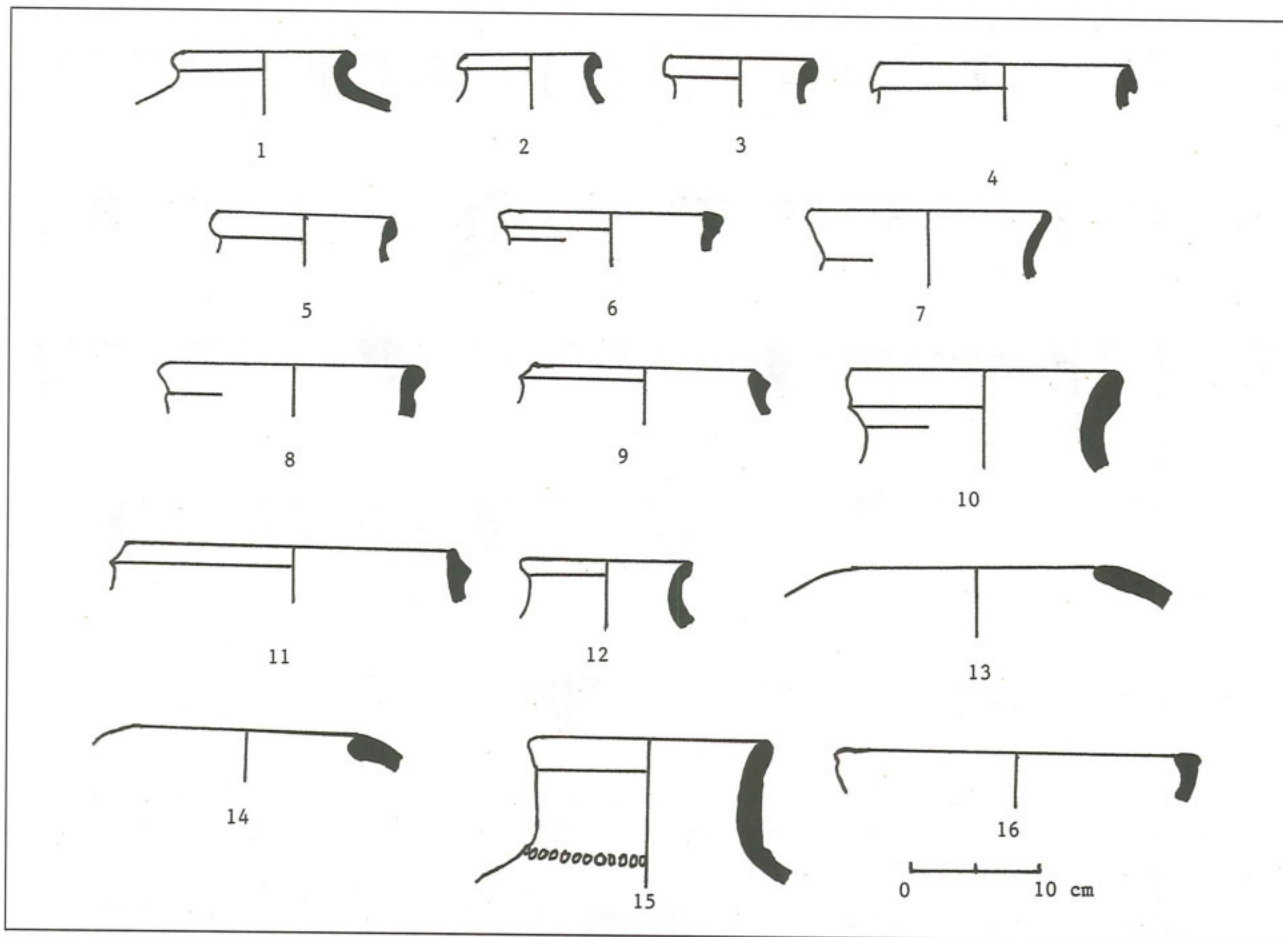
Site 99 is located on a pronounced hilltop, covering an area of 30 m (east-west) by 40 m (north-south), about 1 km southwest of Khirbat al-Magfiāt, overlooking Wādī Jeriya from its southern rim. In addition, like Khirbat al-Magfiāt, this site provides an excellent vantage point from which to view the entire terrain between the al-Mahḍar ridge and Ghrūb al-Klāl as well as providing a good view over the Wādī al-Kafrayn dam and the Umm Haddar Plains. This site consists of three round watchtower-like structures composed of small to medium rough limestone blocks measuring about 25 x 30 x 30 cm. Two of the three structures measure about 5 m in diameter and remain standing up to 70 cm on the ground. Their walls measure about 85 cm thick. The other structure is slightly smaller than the first two buildings, measuring 4.1 m in diameter and



No.	Provenance	Pottery ID	Type	Date	Description
1	Site 112	ISP 112-1	Cooking pot	Iron 1-E Iron 2	Brown (7.5YR 5/4) (EI*), gray core (7.5YR 5/1), many small to medium white inclusions
2	Site 112	ISP 112-2	Jug	L Hell-E Rom	Red (2.5YR 5/8) (EI), gray core (5YR 5/1), no inclusion
3	Site 118	ISP 118-1	Jar	L Hell-E Rom	light reddish brown (2.5YR 7/4) (EI), pale yellow slip (2.5Y 8/2) (I), no core, few small white inclusions
4	Site 118	ISP 118-2	Jar	L Hell-E Rom	Pale yellow (2.5 YR 8/4) (E), pink (5YR 7/4) (I), gray core (5YR 6/1), very few small white inclusions
5	Site 118	ISP 118-3	Jar	L Hell-E Rom	Very pale brown (10YR 7/4) (EI), gray core (5YR 5/1), many very small white inclusions
6	Site 118	ISP 118-4	Jar	L Hell-E Rom	Very pale brown (10YR 8/3) (EI), light red core (2.5YR 6/6), very few small white inclusions
7	Site 118	ISP 118-5	Cooking pot	Hell	Reddish yellow (5YR 6/8) (EI), light reddish brown slip (5YR 6/4) (E), no core, few medium white inclusions
8	Site 118	ISP 118-6	Jug	L Hell-E Rom	Light red (2.5YR 6/6) (EI), no core, no inclusion
9	Site 120	ISP 120-1	Jar	Hell	pink (7.5YR 7/4) (EI), no core, numerous small white and gray inclusions
10	Site 120	ISP 120-2	Jar	Hell	Very pale brown (10YR 7/4) (EI), gray core (10YR 5/1), many small white and gray inclusions
11	Site 120	ISP 120-3	Jar	Hell	Very pale brown (10YR 7/3) (EI), no core, many small gray inclusions
12	Site 120	ISP 120-4	Cooking pot	Hell	light red (2.5YR 6/6) (EI), no core, no inclusion
13	Site 121	ISP 121-1	Bowl	Chal-EB	Yellow reddish (5YR 5/6) (EI), reddish gray core (5YR 5/2), many small to medium white inclusions, very crudely hand-made
14	Site 121	ISP 121-2	Jar	Chal-EB	Pink (7.5YR 7/4) (EI), no core, many small to large white and gray inclusions, hand-made
15	Site 121	ISP 121-3	Jar	Hell	Pink (7.5YR 8/4) (EI), no core, many small white and gray inclusions
16	Site 121	ISP 121-5	Jar	Hell	Pink (5YR 7/4) (EI), reddish gray core (2.5YR 5/1), some small white and gray inclusions
17	Site 121	ISP 121-4	Krater	Byz (?)	Reddish yellow (5YR 6/6) (EI), pink slip (7.5 YR 8/4) (EI), gray core (10YR 6/1), very few medium white inclusions

* E: exterior, I: interior

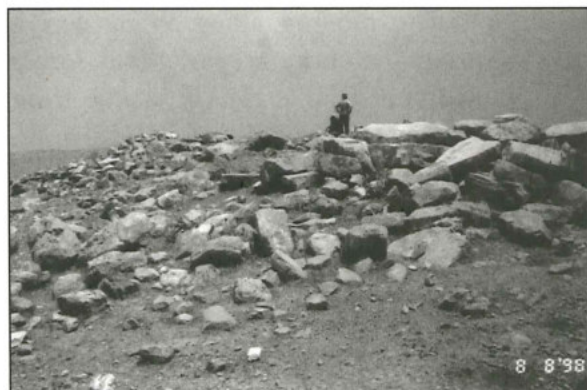
2. Selected Pottery from the 1998 Archaeological Survey and Descriptions.



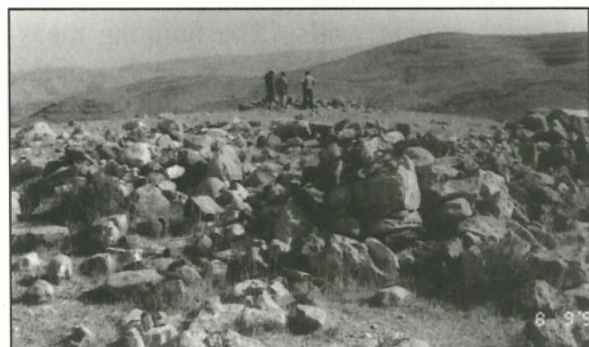
No.	Provenance	Pottery ID	Type	Date	Description
1	Site 127	ISP 127-1	Jar	Hell	Pink (5YR 7/4) (EI*), very pale brown slip (10YR 8/2), gray core (10YR 6/1), few small white inclusions
2	Site 127	ISP 127-2	Jar	Hell	Very pale brown (10YR 8/4) (EI), light gray core (10YR 7/1), many very small gray inclusions
3	Site 127	ISP 127-3	Jar	Hell	Reddish yellow (5YR 6/6) (EI), gray core (10YR 5/1), some medium to large white and gray inclusions
4	Site 127	ISP 127-4	Jar	Hell	Reddish yellow (5YR 6/6) (EI), gray core (10YR 5/1), some medium to large gray inclusions
5	Site 127	ISP 127-5	Jar	Hell	Very pale brown (10YR 7/4) (EI), gray core (10YR 5/1), many small to medium white inclusions
6	Site 127	ISP 127-6	Jar	Hell	Light brown (7.5YR 6/4) (EI), pinkish gray core (5YR 6/2), some medium to large gray inclusions
7	Site 127	ISP 127-7	Jar	L Hell-E Rom	Pink (5YR 8/3) (EI), no core, many small to medium white inclusions
8	Site 127	ISP 127-8	Bowl	Iron I	Pink (5YR 7/4) (EI), very pale brown slip (10YR 7/3) (E), gray core (10YR 5/1), many medium to large white and gray inclusions
9	Site 127	ISP 127-9	Cooking pot	Iron 2	Reddish brown (5YR 5/4) (EI), no core, numerous small to medium white and gray inclusions
10	Site 127	ISP 127-10	Jar	Hell	Light reddish brown (5YR 6/4) (EI), gray core (5YR 5/1), many small to large white and gray inclusions
11	Site 127	ISP 127-11	Cooking pot	Iron 2	Reddish brown (2.5YR 5/4) (EI), gray core (7.5YR 5/1), many small to medium white and gray inclusions
12	Site 132	ISP 132-1	Jar	Chal-EB	Reddish yellow (5YR 6/6) (EI), no core, some medium white inclusions, hand-made
13	Site 132	ISP 132-2	Jar	Chal-EB	Pink (5YR 7/4) (EI), no core, many small to large white and gray inclusions, hand-made
14	Site 132	ISP 132-3	Jar	Chal-EB	Light reddish brown (5YR 6/4) (EI), gray core (7.5YR 6/1), numerous small to medium white inclusions, hand-made
15	Site 132	ISP 132-6	Jar	Chal-EB	Light reddish brown (5YR 6/4) (EI), gray core (5YR 5/1), many small to large white inclusions, hand-made, thumb decoration on the collar
16	Site 133	ISP 132-5	Bowl	Iron 2	Pink (5YR 7/4) (EI), gray core (5YR 6/1), few small white inclusions

* E: exterior, I: interior.

3. Selected Pottery from the 1998 Archaeological Survey and Descriptions.



4. Khirbat al-Magfiāt (Survey Site 98; looking north-east).



5. Survey Site 99 (looking north).

remains only one to two courses high above the ground. There are a series of bedouin tombs about 50 m north of this site. The pottery is Iron II-Persian, Byzantine, and Middle Islamic.

Survey Site 100 (PG: 214.7/146.4; Fig. 6)

This site is situated slightly more than 1km southeast of Site 99 on the precipitous promontory close to the Wādī Jeriya. It covers an area of 20 m (north-south) by 40 m (east-west), and is composed of two round watchtower-like structures that command a panoramic view over Wādī Jeriya, the Jordan Valley, and the surrounding terrain. Some traces of the eastern structure were obliterated by modern seasonal cultivation, yet it is likely that the building was originally a round structure constructed from unworked medium-sized limestone blocks with small cobbles. This structure measures 3.6m in diameter, and the walls are about 70 cm thick. The better preserved of the two struc-

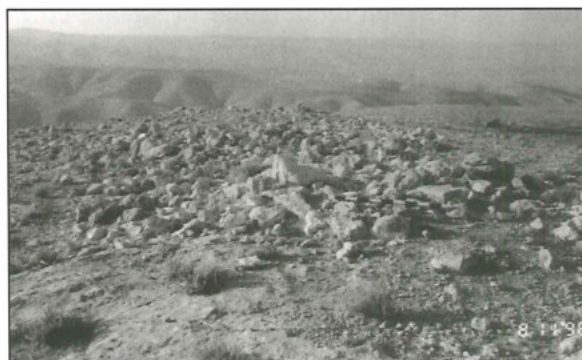


6. Survey Site 100 (looking south)

tures is located further up the slope about 30m northwest of the first one. Constructed with the same materials as the eastern one, some sections of the exterior walls stand at about 80 cm above the ground. The structure is a round building, measuring 4.0 m in diameter, with its external wall lines currently visible at three courses high (about 80cm) and up to four courses thick (about 1.1 m). Notable in this structure is an interior circle which is clearly definable and measures 1.2 m in diameter. The pottery is Iron II-Persian, Byzantine, and Middle Islamic.

Rujm Umm al-Qaṭṭāf South (Survey Site 105; PG: 216.5/143.9; Fig. 7)

This small-sized site occupies a hilltop on the al-Maḥar ridge, overlooking Wādī Jeriya to the west and Wādī al-Kafrayn dam to the south. It is located about 200 m southeast of Rujm Umm al-Qaṭṭāf North (Survey Site 106). The ruins indicate three to four round structures composed of small to medium



7. Rujm Umm al-Qaṭṭāf South (Survey Site 105; looking southwest).

rough limestone blocks. The best preserved one, which measures ca. 2.3 m in diameter and includes one round inner chamber, is situated on the north side of this site. The external walls remain only one course high (ca. 30 cm) and three to four courses thick (ca. 65 cm). Next to this structure is another round structure, which measures 4.4 m in diameter, with its walls about 85 cm thick. Further to the southeast of this second structure, there are remains of two round structures which are now completely ruined. The pottery is Hellenistic and Byzantine.

Rujm Umm al-Qaṭṭāf North (Survey Site 106; PG: 216.6/144.2)

Rujm Umm al-Qaṭṭāf North is a major fort-site on the al-Maḥḍar ridge which contains a cluster of watchtower-like or fort sites. This site is located on a high knoll, situated approximately midway between Khirbat as-Sūr and Rujm al-Klāl, and appears to be a stopping spot on the ancient road from Khirbat as-Sūr to the Jordan Valley along the al-Maḥḍar ridge. It overlooks the modern dirt road from Khirbat as-Sūr down to the Wādī Jeriya and the Umm Haddar Plains. One large building at this site measures ca. 11.4 x 13.2 m. What appears to be an entrance is noted on the north side of the structure. The external walls are 1 m thick and still remain standing up to 1.2 m above the ground. The outlines of several inner wall lines are discernable, which indicate that this building is divided into at least six to seven rectangular or square compartments or rooms. There appears to be a central round room or tower. All the walls of the building are of medium to large limestone blocks, three to four rows wide. The pottery is Iron II-Persian and Byzantine.

Rujm al-Klāl (Survey Site 112; PG: 214.9/144.7; Fig. 8)

Rujm al-Klāl is on a high knoll situated at the western edge of Wādī Jeriya Valley, which provides an excellent lookout point to

monitor traffic moving along Wādī Jeriya and to survey the entire area of Wādī Jeriya Valley. Rujm al-Klāl is clearly visible from Khirbat Ḥassān (Survey Site 20), Tall Hilālī, Khirbat as-Sūr (Survey Site 67), and the watchtowers along the al-Maḥḍar ridge (e.g., Survey Sites 105-109). Just north of this site is a small spring called 'Ayn Jariya. According to a bedouin family near the spring, 'Ayn Jariya provides enough water for three families and about 100 sheep and goats during the summer. On this site are the remnants of a rectangular building with a couple of compartment walls. The building measures 4.2 m (east-west) by 8 m (north-south), and the walls remain standing two to three rows wide (ca. 65 cm) and two courses high (ca. 50 cm). A potential entrance, measuring 1.1 m wide, is noted near the southwest corner of the building. Immediately east of this building is a smaller rectangular building (ca. 3.9 x 5.6 m) which has survived up to three courses high (ca. 1 m). Both buildings are comprised of various size of undressed and semi-dressed limestone blocks. The pottery is Iron I, Iron II-Persian, Late Hellenistic-Early Roman, and Byzantine.

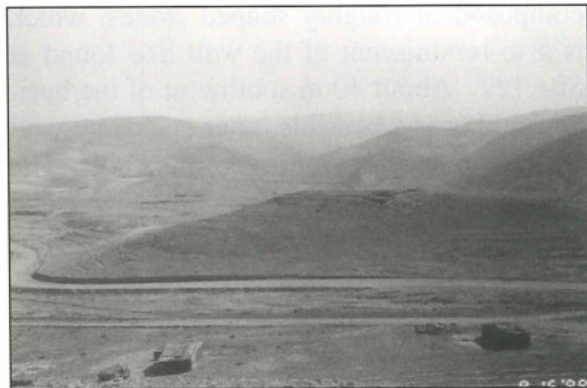
Rujm Umm Haddar (Survey Site 118; PG: 214.2/141.2; Waheeb's Survey Site 1; Figs. 9 and 10)

This prominent ruin is situated on the high hilltop, covering an area of 40 m (east-west) by 50 m (north-south), in the center of



8. Rujm al-Klāl (Survey Site 112; looking west)

the Wādi al-Kafrayn basin area with excellent visibility in all directions. Rujm Umm Haddar is characterized by a rectangular late Hellenistic and early Roman fort with roughly square towers at each corner. The fort is built of roughly-dressed limestone blocks measuring approximately 20 x 35 x 40 cm. The wall lines indicate a rectangular fort-like structure (ca. 31 x 41m), and there are occasional inner wall lines that divide the structure into several chambers. The external walls are four to five courses thick (ca. 1.5 m). Waheeb (1997: 466-67) conducted soundings in the northern and southern part of that the fort and noted a destruction layer which may indicate the fort was once destroyed by a conflagration. There is a large cistern in the center of the fort which probably collected the run-off water from the roof. On the north side of this cistern is a water channel leading to an opening in the cistern. The archeological



9. Rujm Umm Haddar (Survey Site 118; looking northeast)



10. The southern fortification wall of Rujm Umm Haddar

soundings revealed traces of post holes in the hard compact floor of the structure, which may indicate that the fort was a two-story structure. Waheeb suggests that the fort used stones for the lower courses of the structure and mud-brick for the upper courses. The structure was probably roofed with wood and various organic materials. The pottery is Late Hellenistic-Early Roman.

Survey Site 119 (PG: 214.2/141.3; Waheeb's Survey Site 2)

Immediately north of Rujm Umm Haddar is a rectangular late Hellenistic structure half of which has been obliterated by recent bulldozing activities. The building appears to have been about 13 m (east-west) by 17 m (north-south) and was built of roughly-dressed limestone blocks. The external walls measure 70 cm thick. Waheeb's soundings (1997: 463) show that the floor of this building consists of hard compact soil, and the building includes a large rectangular inner chamber. Waheeb correctly suggests that this site is associated with the fort at Rujm Umm Haddar. The pottery is Late Hellenistic-Early Roman.

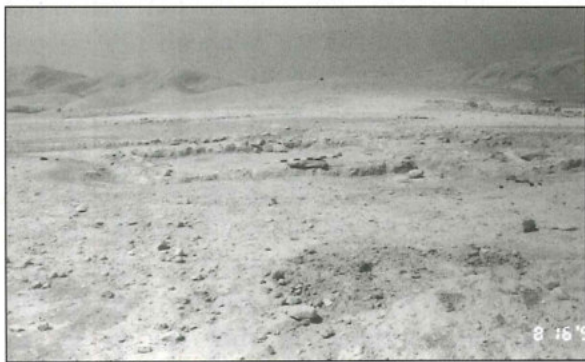
Survey Site 120 (PG: 214.0/141.3; Waheeb's Survey Site 10)

Approximately 200 m east of the late Hellenistic buildings at Rujm Umm Haddar (Survey Site 118) and Survey Site 119 is another Hellenistic building which roughly measures 9 x 13 m. The walls remain standing about 60 cm high, and the external walls measure 90 cm thick. Waheeb (1997) put down a test trench at this site and noted a potential reservoir built beside a water drainage. Waheeb assigned this building to the Hellenistic and Byzantine periods. The pottery collected by the survey team at this site and its vicinity indicates the early Hellenistic and Byzantine periods. Hence, the Hellenistic building at this site seems to have been slightly earlier than the counterparts at Rujm Umm Haddar and Site 119.

The pottery is Early Hellenistic and Byzantine.

Tulaylāt Umm Haddar South (Survey Site 121; PG: 214.6/141.8; Waheeb's Survey Site 5; Fig. 11)

Tulaylāt Umm Haddar, about 500 m northeast of Rujm Umm Haddar (Survey Site 118), occupies a couple of medium-sized knolls on the northern edge of the Wādī al-Kafrayn dam-lake. Numerous foundation wall lines in different directions are discernable on the surface. Waheeb (1997: 467-68) conducted archaeological soundings and reported, "The Chalcolithic occupation on the site seems to be represented by extensive and rectangular rooms built of two rows of undressed limestone, but unfortunately, only the foundations were found *in situ* and in very poor conditions." The survey team noticed several broad-room houses that Waheeb excavated. The houses were built using small to medium stones with walls about 70 cm thick. One of the houses found on the northern edge of this site includes a broad rectangular room with a round hearth. About 50 m southeast of the center of this Chalcolithic site is a large enclosure wall possibly bisected by a compartment wall. The enclosure measures about 22 m (north-south) by 50 m (east-west). It is difficult to decide whether these remains represent part of the Chalcolithic village. The concentration of possible Hellenistic and Byzantine body sherds associated with



11. Tulaylāt Umm Haddar South (Survey Site 121; looking northeast)

this enclosure is noted, which may indicate a later date of this structure than the Chalcolithic village. The pottery is Chalcolithic-Early Bronze I, Late Hellenistic-Early Roman, and Late Roman-Byzantine.

Survey Site 123 (PG: 214.9/143.2; Waheeb's Survey Site 4)

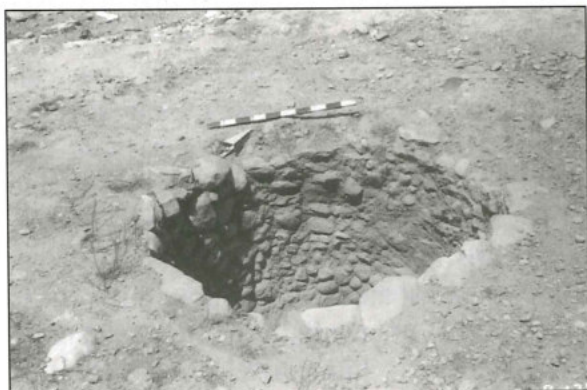
Approximately 2.5 km north of Rujm Umm Haddar (Survey Site 118) along the modern dirt road is Site 123 located on a small sand hill. The site includes several stone structures which appear to have been built according to a careful plan. In the center of this site is a roughly circular burial chamber lined by large stone slabs. The survey team collected a large number of human bone fragments inside the chamber. The outer diameter of this chamber is 2.3 m, and the walls stand about 1.3 m high above the ground. The burial chamber seems to have been surrounded by a rectilinear structure composed of roughly shaped stones, which is also reminiscent of the wall line found at Site 122. About 40 m southwest of the burial chamber is a possible outer enclosure wall built along the contour line of the knoll. The visible wall measures about 20 m long and 30 cm thick. To the east of the burial chamber is a rectangular structure with a possible entrance on the east side. The structure measures 2.2 m (north-south) by 2.4 m (east-west) and stands up to 1.3 m above the ground. The walls are about 40 cm thick, and the possible entrance is about 50 cm wide and remains standing up to 90 cm high. On the basis of flints and pottery sherds, Waheeb (1997: 466) suggests a Chalcolithic date for this site. The pottery is Hellenistic and Byzantine.

Khirbat aṣ-Ṣūwwān (Survey Site 127; PG: 215.3/142.4; Waheeb's Survey Site 6; French Survey Site 25; Figs. 12 and 13)

Khirbat aṣ-Ṣūwwān must have played an important role in the control of communication and trade routes between 'Irāq al- 'Amīr



12. Khirbat aş-Şūwwān (Survey Site 127; looking southwest)



13. A Silo at Khirbat aş-Şūwwān.

and the Jordan Valley during the Iron II-Persian and Hellenistic periods. This site is a currently unoccupied settlement site on the summit of an isolated promontory, ca. 3 km southeast of the Wādī al-Kafrayn dam, on the west side of Wādī al-Kafrayn. The promontory is characterized by steep sides except for an approach from the northwest along a relatively narrow ridge. Situated on an isolated peak, Khirbat aş-Şūwwān provides a clear view of the entire area of the Umm Haddar Plains and the approaches along the Wādī al-Kafrayn from the Jordan Valley to the Transjordan plateau. Tumbled building ruins of large blocks are scattered in the northwest-southeast direction. The collapsed remains of a structure dominate the north side of the site, which represents a solidly-built fort with multiple inner chambers and a round tower. It is very difficult to trace the exact building plan of the fort because of its poorly preserved state, yet a

careful investigation leads to the deduction that it has a rectangular plan (ca. 25 x 35 m) with four rooms on the west side and probably three rooms on the east side. The most significant element of this fort is a rectilinear courtyard on the north side, which includes an enigmatic 10 m diameter round structure. The remains of enclosure walls found to the south of this fort appear to represent an animal pen used in antiquity. The survey of the southern edge of the promontory leads us to suggest that earlier walls, possibly a fortification system, exist to the south of the rectangular fort. The wall lines cover an area ca. 20 m (north-south) by 35m (east-west). It is worth noting that the majority of Iron I sherds are collected in conjunction with these possible earlier walls, whereas Hellenistic sherds dominate the area of the fort. In addition, on the land bridge between the fort and Survey Site 126 are seven to eight stone-lined silos spread over an area ca. 10 x 15 m (Fig. 13). Some of them are well preserved and measure about 2 m deep. The diameter of silo mouths ranges from 1.1 m to 2.2 m. About 15 m south of these silos are the foundations of a rectangular building that was almost completely stripped by robbers in the past years. The 10 x 15 m building has no visible internal wall lines. The pottery is Iron I, Iron II-Persian, Hellenistic, Roman, and Byzantine.

Tulaylāt Umm Haddar North (Survey Site 132; PG: 214.7/141.9)

Survey Site 132 appears to be a large Chalcolithic and Early Bronze I village closely associated with Tulaylāt Umm Haddar South (Survey Site 121). Situated on a low sandy knoll ca. 200 m northeast of Tulaylāt Umm Haddar, the village overlooks the entire area of the Umm Haddar Plains. Numerous wall lines dot the site, yet the surface ruins are largely indistinguishable except for the remains of several houses. The house at the highest point of this site was

built using a broad-room house plan and measures 3.8 m by 6.9 m. At the center of the site is a broad-room house (ca. 3 x 6 m) divided into two rooms by a compartment wall. Approximately 70 m east of this house is a building complex including a couple of possible enclosed structures and several broad-room houses. Most of the visible walls are built two to three rows wide (ca. 25 cm) using small limestone and chert blocks. This site seems to be an extensive Chalcolithic site and will help in the study of the transition from the Chalcolithic to Early Bronze I in the southern Jordan Valley. The pottery is Chalcolithic-Early Bronze I.

Survey Site 136 (PG: 216.5/142.7)

This site appears to be the remains of a large village situated on a natural rocky terrace ca. 1.5 km northeast of Khirbat aṣ-Ṣūwān. This site covers an area ca. 50 x 100 m and includes a large number of wall lines and a dolmen. Wall lines seem to be spread over the entire site, yet it is quite difficult to distinguish most of them with confidence. On the southern edge of the terrace is a circular structure built of medium undressed stone blocks. Its external diameter is ca. 4 m and the walls are 60 cm thick. To the east of this circular structure are randomly scattered wall lines and various stone heaps which may represent a complex of houses. Further to the east are the remains of a possible dolmen which is partially collapsed. The dolmen is oriented roughly north to south and built of rudely shaped natural stones. It consists of a capstone (45 x 90 x 140 cm) and two upright stone slabs in addition to one upright stone at the back. This dolmen appears to have been built on a rectangular platform formed of small limestone blocks, and is reminiscent of the dolmens in the region of Wādī as-Sīr and belongs to the same repertoire of types as those near 'Irāq al-'Amīr (Ji 1997a; 1997b). About 50 m northwest of the dolmen is a rectangular house (ca. 2.2 x 2.8 m) plus two

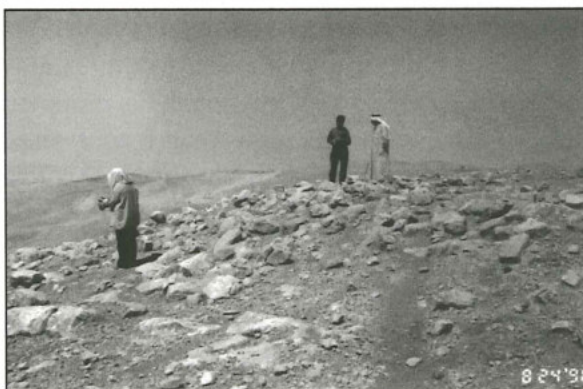
stone tumbles which also represent ancient buildings. These buildings consist of small limestone blocks with walls about 40 cm thick. The pottery is Early Bronze, Middle Bronze, and Iron Age body sherds.

Rujm Umm al-Madāris (Survey Site 159; PG: 219.7/144.6)

This small-sized site occupies a prominent hilltop in the region of Umm al-Madāris, a rocky ridge northwest of Khirbat al-Farāwīt (Survey Site 28), and provides a clear view in all directions, particularly over Wādī al-Kafrayn. Khirbat al-Farāwīt is clearly visible to the southwest, and includes two small structures built side by side. The better preserved and more impressive one is situated on the northern side of the site and measures ca. 5 m in diameter. The walls are three to four rows thick (ca. 1.5 cm) and stand at two courses high. It is constructed of medium to large roughly hewn stones. Immediately south of this structure is a circular structure (ca. 4.3 m in diameter) constructed of small to medium undressed stones. Considering the rocky terrain, which is mostly unsuitable for agriculture, and its strategic location, we may suggest Rujm Umm al-Madāris was a watchtower site built as a lookout or for defense. The pottery is Hellenistic and Byzantine.

Rujm al-Aḥmar (Survey Site 171; PG: 218.7/145.4; Fig. 14)

Near the head of the Wādī al-Aḥmar, a tributary to the Wādī an-Nār, are the ruins of some buildings and wall lines on a rocky hilltop. Khirbat as-Sūr (Survey Site 67) and the Wādī an-Nār are clearly visible to the west. This site was almost totally bulldozed for agriculture, and thus it is quite difficult to trace the ancient wall lines. The remaining wall lines may represent a building compound which was larger than 10 x 10 m. The walls are two to three rows wide (ca. 90 cm) and remain standing up to 50 cm above



14. Rujm al-Aḥmar (Survey Site 171; looking northwest)

the ground. Further to the east is a potential oval-shaped enclosure. This site seems to have been a relatively substantial ruin which covered an area ca. 30 x 30 m. The pottery is Iron II-Persian and Byzantine.

Khirbat al-Mdayyna (Survey Site 172; PG: 220.1/146.2; Fig. 15)

Situated on the slope of a prominent hill ca. 2 km northeast of Rujm al-Aḥmar (Survey Site 171) and ca. 1 km southeast of the modern village of Hamdir is Khirbat al-Mdayyna which has been almost totally obliterated in the course of modern agriculture and construction. According to the local residents, the area was bulldozed in 1995 and 1996 to build terrace walls and olive groves which currently cover an entire hillside. This site, however, contains some evidence of ruined architecture some of which was built immediately on bedrock.



15. Khirbat al-Mdayyna (Survey Site 172; looking northwest)

The remaining wall lines represent two large rectangular structures comprised of large undressed limestone blocks. One measures 7 x 10 m without any inner compartments, while the other one, built immediately north of the first one, measures 8 x 11 m and is divided into two sections by an inner wall. East of these structures are several wall lines spread over an area, ca. 20 x 20 m. All these structures seem to represent enclosures that were used for animals or storage. A seemingly residential structure is noted on the north-western side of this site near the modern gateway to the olive groves. The survey team identified at least three walls lined up in the east-west directions. The walls are constructed of medium-sized undressed stones and are two rows thick. Khirbat al-Mdayyna seems to have been a substantial village including many buildings and animal enclosures laid out on the western slope of a hill. The site commands a good view over the entire Wādī an-Nār region: Khirbat as-Sūr (Survey Site 67) is clearly visible to the west and Khirbat 'Ayn Grada (Survey Site 57) to the northwest. The pottery is Iron II-Persian.

Conclusion

Previous archaeological surveys were primarily concerned with the sites in the immediate vicinity of 'Irāq al-'Amir and the Wādī al-Kafrayn dam-lake, ignoring the region of Wādī Jeriya and the hilly area between Wādī ash-Shu'ayb and Wādī al-Kafrayn. The 1998 surveys proved that the area along Wādī al-Kafrayn and the Umm Haddar Plains was intensively inhabited during the Chalcolithic-Early Bronze, Iron II-Hellenistic, and Byzantine periods. There are many Iron II-Persian and Hellenistic settlements and watchtowers on the slopes and ridges between Wādī al-Kafrayn and Wādī Jeriya, most of which were seemingly reused during the Byzantine period. The Iron II-Persian and Byzantine periods are also well represented on the slopes close to

Wādī ash-Shu'ayb. Yet, until now there is little evidence of any Hellenistic settlements in this region.

To combine the 1998 data with the 1996 survey results, in the region of 'Irāq al-'Amīr and Wādī al-Kafrayn, Chalcolithic and Early Bronze pottery was found at 46 sites (26.4%) and Iron II-Persian sites account for 31.6% of the total (54 sites of 174 sites). Middle Bronze and Late Bronze sherds came from seven sites (4.0%) and four sites (2.3%) respectively. Eleven sites (6.3%) are dated to Iron I. Hellenistic sites make up 30.5% (53 sites), and Roman pottery came from 32 sites (18.4%). The Byzantine period witnessed the peak of settlement intensification; 110 sites included Byzantine pottery (63.2%). Early Islamic pottery was collected at 27 sites (15.5%) and Middle Islamic sherds came from 18 sites (10.4%).

Accordingly, a provisional suggestion is that the Byzantine period showed a considerable increase in population and settlement in the region of 'Irāq al-'Amīr and Wādī al-Kafrayn. Chalcolithic-Early Bronze, Iron II-Persian, Hellenistic, and Roman pottery was also collected at more than 30 sites. Thus, the survey area may have witnessed high settlement intensification during the Byzantine period and low settlement intensification in the Chalcolithic-Early Bronze, Iron II-Persian, and Hellenistic-Roman periods. As pointed out in the pre-

vious report, Iron I is under-represented in the survey area in comparison to the Transjordanian plateau region, which is more or less in line with the view that Iron I sites were sparse in the southern Jordan Valley and its neighboring regions.

Acknowledgments

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