THE 1984 SURVEY OF THE IRBID/BEIT RAS REGION

by C.J. Lenzen and A.M. McQuitty

Introduction

In 1983, the authors began a research project in the area of Irbid and Beit Rās, the ancient cities of Arbela and Capitolias.¹ The project had two general foci: archaeological survey and a survey of vernacular architecture. The project, although a co-directed one in terms of the actual carrying out of the project, had the foci as two discrete areas and were/are the separate responsibilities of the co-directors: Lenzen is responsible for the archaeological data; McQuitty is responsible for the vernacular architectural data. The following is a preliminary report on these co-terminus projects.²

The Fieldwork

As archaeological projects were being or had been conducted in the Jordan Valley,³ Wadi Ziqlab,⁴ and Wadi el-'Arab,⁵ it was felt that concentration on the plateau surrounding Irbid would provide necessary comparative and correlative data for northwestern Jordan.

The study of the traditional housing in the region, consisting of typological work which had not been done since the nineteenth century, defined the fieldwork as being concerned with both the distant and recent past. The documentation of certain material culture, e.g., tawabeen⁶

and recent pottery traditions, was in order to extend the definition of research to present a more integrated understanding.

Survey Methodology

The area (Fig. 1) surveyed consists of one major city, Irbid, and numerous villages and outlying farmstead-type settlements. The terrain is generally areas of flat cultivatable land bisected by secondary wadis which are tributaries of the major east-west wadi, Wadi el-'Arab. The water supply varies between settlements, but is mostly dependent on rainfall. Because of this variation in the known settlement pattern and in the natural terrain, as well as because of the component parts of the research design, a variety of survey methodologies were employed. These were:

a. Village and/or Site Specific Survey

In the cases of the villages in the survey area, preliminary reconnaisance was made in 1983.8 In 1984, each village was re-visited numerous times with specific objectives. Where antiquities were known, e.g., in Beit Rās, these were documented and surveyed by designated area within the villages. The surveying of these inhabited areas provided its own challenges. It is impossible to correlate frequency distributions of material culture remains (mcr's)

^{1.} C.J. Lenzen and Alison McQuitty, 'A Preliminary Survey of the Irbid-Beit Rās Region, North Western Jordan,' *ADAJ* XXVII (1983), p. 649.

^{2.} The projects were independently funded: Lenzen was funded by NEH (ACOR); McQuitty was funded by the British Academy and BIAAH.

^{3.} C. Gustavson-Gaube, 'Tell esh-Shuna North 1984: A Preliminary Report,' *ADAJ XXIX* (1985), p. 43-88.

Edward B. Banning and Clare Fawcett, 'Main [sic]-land Relationships in the Ancient Wadi Ziqlab: Report of the 1981 Survey,' ADAJ

XXVII (1983), p. 291-310.

J.W. Hanbury-Tenison, et. al., 'Wadi 'Arab Survey 1983,' ADAJ XXVIII (1984), p. 385-424.

Alison McQuitty, 'An Ethnographic and Archaeological Study of Tawabeen in Jordan,' ADAJ XXVII (1983), p. 656; Alison McQuitty, 'An Ethnographic and Archaeological Study of Clay Ovens in Jordan,' ADAJ XXVIII (1984), p. 259-268.

C.J. Lenzen, 'Recent Pottery Traditions in Beit Rās,' fc.

^{8.} Op. cit., fn. 1.

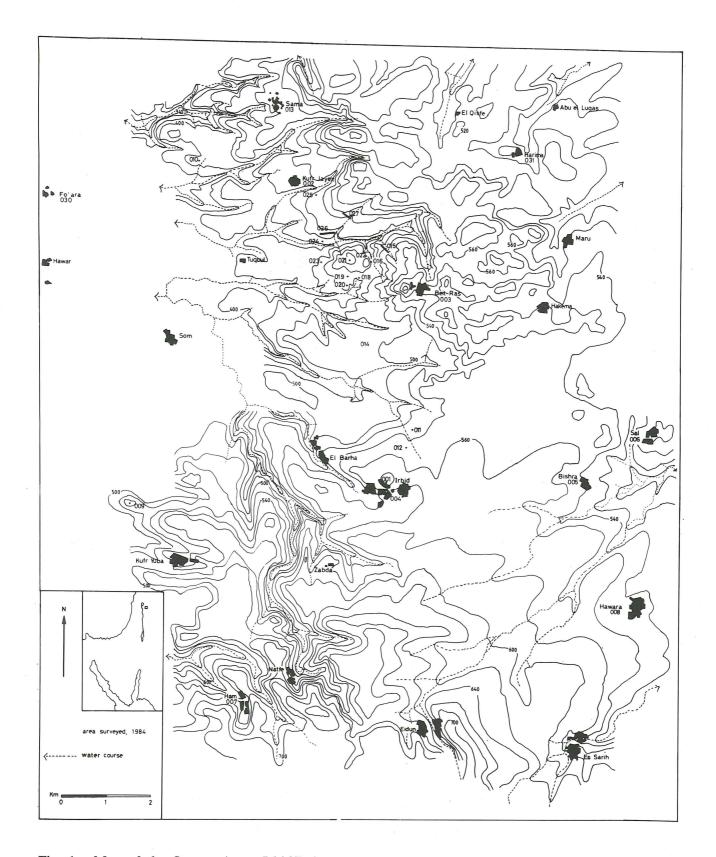


Fig. 1. Map of the Survey Area, Irbid/Beit Rās Project.

from these sites to those not inhabited as the young (the children!), eager archaeologists of the villages aided in the retrieval process but at the same time skewed the data. However, the benefits of our young archaeologists far out-weighed any detriment to statistical analysis insofar as they acted as informants relative to the research design.

Several sites had already been identified as antiquities sites, e.g., Tell Irbid⁹, Beit Rās¹⁰. These sites were re-visited, taking into account the earlier explorers' and archaeologists' comments concerning them.

b. Salvage Site Survey

Throughout this region of Jordan, the necessities of modern development have meant the removal of occupational evidence from the recent past as well as the distant past. With the cooperation and encouragement of the Irbid office of the Department of Antiquities and the region's citizens, it was possible to check most of the development bulldozer cuts in the survey area during the period between July, 1984, and December, 1984. Following accepted methodology, these cuts were surveyed in segments. When structures were encountered, these were drawn and photographed in relationship to the surrounding soil layers. At best, this random method provided data relative to the occupation of certain sites in a relatively controlled manner.

c. Intensive Kilometer Segment Survey

Ten (10) kilometres to the west, north, and north-west of Irbid were surveyed intensively. The system used was that the

1:50,000 map determined the corner of each square kilometre, this then was walked. A total of fifteen (15) hours was spent in each square kilometer. The definition of a site used was that visible architectural remains in conjunction with other mcr's had to be present; where only mcr's were visible on the surface, the term "scatter" was employed. Sites and scatters were numbered sequentially as they were encountered without regard to geographical location. A site, e.g., 001-Irbid, could also, depending on its size, have scatters within it. This was done to facilitate recordkeeping and to indicate the assumed discontinuity of the scatter within the site.

d. Vernacular Architecture Survey

Sixty-three (63) buildings were planned, photographed and elevation drawings were done in the villages of Beit Ras, Kufr Jayiz, Sama er-Rousan, Ham, Hartha, and Irbid; and observations were made in el-Mughayer. As well as the above being employed, informal interviews were conducted with the owners and/or inhabitants of the houses being studied. The two foci of the project were conducted in conjunction with each other in Beit Ras, Kufr Jayez, Sama er-Rousan, Ham, and Irbid. The addition of Hartha and el-Mughayer to this part of the research was to provide geographical comparisons for the study of vernacular architecture. 11

In the following, the two terms, "unit" and "complex", are used. "Unit" is defined as a four-walled structure; "complex" is defined as several units which are contigious to each other or which are used together, e.g., stable, oven, house, sleeping room and reception room.

For a full bibliography on Tell Irbid cf: C.J. Lenzen and Ernst Axel Knauf, 'What was Irbid?' RB fc; C.J. Lenzen, 'Tell Irbid: A Problem in Archaeological Interpretation,' BN fc; C.J. Lenzen, 'Tell Irbid,' ABD fc; C.J. Lenzen and Alison McQuitty, 'Tell Irbid,' ADAJ XXVIII (1984), p. 297; C.J. Lenzen, R.L. Gordon, and A.M. McQuitty, 'Excavations at Tell Irbid and Beit Rās, 1985,' ADAJ XXIX (1985), p. 151-160.

Above and C.J. Lenzen and E.A. Knauf, 'Beit Rās/ Capitolias: A Preliminary Evaluation of the Archaeological and Textual Evidence,' Syria LXIV (1987), p. 21-46; and, C.J. Lenzen, 'Beit Rās,' ABD fc.

In both cases, archaeological projects are being conducted in the villages. No study of the vernacular architecture had taken place as of 1983/84.

THE SURVEY SITES

001 Irbid (Pl. XLV,1)

Grid Reference: 2298-2184

Elevation: 577 m. above msl

Survey Methods: a, b, d

Description: The modern city of Irbid has developed around Tell Irbid. The tell was one of the largest in northwestern Jordan until recently, measuring approximately 350 m. x 450 m. Survey of the site consisted of salvage investigation of bulldozer cuts and the undisturbed surface of the mound. Based on the pottery, occupation of the tell has been consistent since ca. 4200 B.C. Salvage archaeological excavations have been carried out at the site since the 1960's. 12 In 1984, 1985, and 1986, excavations were conducted on the north-west and northern section of the tell. Although previous researchers have paid little attention to Tell Irbid and the city of Irbid, the tell and the city have provided necessary data relative to the development of settlement in the region.

The 1984 excavations, which formed a basis for the 1985 and 1986 excavations, ¹³ were conducted in Areas A, B, C and D at the request of the Department of Antiquities. These excavations indicated a destruction from *ca.* 1200 B.C. ¹⁴ on the north-west (Area C); no evidence of this destruction was found in the other excavated areas. The probe trench, Area A, through the massive basalt wall, no longer visible, confirmed a rebuilding of the wall following *ca.* 1200 B.C. and a construction date of between *ca.* 1800 to 1500 B.C.

A total of four buildings were studied as part of the vernacular architecture survey, three of which were constructed from basalt. All of the structures were singlestoried and the roofing method was both vaulting and flat, supported by iron girders

and arches. The style of these buildings contrasted with those found in the adjacent rural area with attention paid to detail, e.g., door and window surrounds (Pl. XLV,2). No absolute date, as in a foundation stone, was present, although oral history assigned them to the first half of this century.¹⁵

002 Kufr Jayez

Grid Reference: 2278-2253

Elevation: 460 m. above msl

Survey Methods: a, d

Description: Kufr Jayez is a village of approximately 3,000 inhabitants which is located to the north-west of Irbid. The surrounding land is used for agriculture, e.g., olives. Bedrock is visible throughout the village. Cisterns, caves and rock-cut tombs can be found on the south side. The retrieved material culture remains consisted primarily of pottery dating from the Byzantine period, the early Umayyad period and from the end of the nineteenth century through the first half of this century.16 Tesserae were also retrieved from the village. One partial tessellated pavement dating to the Roman period, now removed, was investigated in 1983.

One complex with a courtyard was studied, and like the structures of Beit Rās, was constructed from stone and mud with a flat roof supported by two arches. Internal built-in features, e.g., grain-bins, were recorded.

003 Beit Rās

Grid Reference: 2305-2229

Elevation: 614 m. above msl

Survey Methods: a, b, d

Description: Beit Rās is located five kilometers north of Irbid. The modern village of Beit Rās lies over the ancient Decapolis

Cf. R.W. Dajani, 'Iron Age Tombs from Irbid,'
 ADAJ VIII-IX (1964), p. 99; in particular,
 Zeidan Kafafi, Late Bronze Age Pottery in
 Jordan (East Bank): 1575-1200 B.C. Unpublished M.A. Thesis, University of Jordan, 1977.

^{13.} Op. cit., fn. 9.

^{14.} Radio-carbon dates will alter this, cf. Alison M.

McQuitty, 'Radio-Carbon Dates from Tell Irbid,' Radio-Carbon fc.

^{15.} The ethnohistorical data is considered to be valid by the authors.

^{16.} The pottery is still being analyzed; traditional periodization is being avoided.

city of Capitolias; the identification of the two places has been known since the nineteenth century. The archaeological survey consisted of intensive random survey of the village and delineation of segments of the village. Because of the occupation of the village, survey was primarily organized by family housing complexes within the designated areas of the village. This resulted in survey units based on recent housing and archaeological data.

The pottery indicates occupation from ca. 100 B.C., the late Hellenistic period, to the present. The earliest occupation was probably on the "ras", the highest point in the present village and in the ancient city. Below the "ras" to the east, evidence of a major Roman construction, in all probability a temple, was found. The cistern and reservoir system to the west and south of the village, along with visible ancient architecture to the north-west, was surveyed. Salvage excavations have been conducted in the village since the 1960's; 19 research excavations are presently being conducted. 20

A total of four complexes with courtyards and one single building were studied in Beit Ras. The construction material was stone with thick mud-mortar and plastering. The following roofing methods were employed: stone vaulting, flat roofs supported by arches alone, arches and beams, arches and iron girders. The complexes contained up to twenty units including oven houses, pigeon houses and stables. Within each unit, there were built-in features, e.g., mattress stands, grain bins, and water-jar stands. Dating of these structures relied on oral history. The oldest building dated to the beginning of this century with the most recent dating to the 1950's. The single structure was a madaafa or guesthouse (Pls. XLVI,1-2).

004 Scatter within 001-Irbid (Pl.XLVII,1)

This scatter was located on the top of Tell Irbid adjacent to the trade school. This consisted of four basalt sarcophagi and one limestone column fragment.²¹ These material culture remains were identified as a scatter as it was known that these were not in the original find spot. These were found during 1963 when one of the main streets of Irbid was being expanded, "Cinema Street". The sarcophagi date to ca. A.D. 150-250 and have typical motifs of the period (Pl. XLVII,1). Parallels to these can be found at Umm Qeis, ancient Gadara, and Ham.²²

005 Bishra

Grid Reference: 2343-2185

Elevation: 540 m. above msl

Survey Method: a

Description: Bishra is a village to the east of Irbid, located on a modern road connecting the city with a series of villages: Bishra to Shajara. During 1984, traditional housing was removed for the construction of new roads. At the time of the removal, pottery traditionally dated to the Mamluk period and multi-coloured glass bracelets, also dated to the Mamluk period, were found.

006 Sal

Grid Reference: 2359-2196

Elevation: 560 m. above msl

Survey Method: a

Description: Sal, located on the same road as Bishra, has developed around the ancient tell on which the traditional houses were partially built. Little remains of the tell and the fortification walls noted by

^{17.} Op. cit., fn 10.

^{18.} Ibid.

^{19.} The record of these excavations is on file at the Registration Centre, the Department of Antiquities.

^{20.} Research excavations are under the direction of C.J. Lenzen, Yarmouk University, Institute of

Archaeology and Anthropology.

^{21.} Since the survey, these have been moved to the Yarmouk University, Institute of Archaeology and Anthropology.

^{22.} Sultan Shraideh and C.J. Lenzen, 'A Roman Tomb at Ham,' ADAJ XXVIII (1984), p. 299.

Nelson Glueck.²³ The retrieved pottery from the tell indicates occupation during the period between ca. 1300 B.C. to 1000 B.C.

007 Ham

Grid Reference: 2268-2134

Elevation: 640 m. above msl

Survey Method: a, b, d

Description:²⁴ The village of Ham is located to the south-west of Irbid. The site consists of two natural hills: the eastern one, which is the location of the modern housing and the location of the early antique occupation; and the western one, which is the location of the recent traditional housing and the late antique occupa-

Pottery dating from ca. 3200 B.C. to 800 B.C. was found on the eastern hill; pottery from ca. A.D. 150 to the present was found on the western hill. The site was visited four separate times. Three of the survey visits were random and controlled only by the cardinal points; one survey visit, totalling nine hours, was a segmented survey of the northern face of the eastern hill.

One house in Ham was studied in detail. This house was similar to the other village houses described above, being made of stone and mud. The roof had collapsed and it was not possible to determine its construction.

008 Hawar

Grid Reference: 2221-2232

Elevation:

540 m. above msl

Survey Method: b

Description: Hawar is a village located to the north-west of Irbid. During construction of a new road system in the village, structures, which in all likelihood dated to the Mamluk period, were partially uncovered. The only material culture remain retrieved from this bulldozer cut was pottery which dated from the period of ca. 800 B.C., and from the period between ca. A.D. 150 to the present.

009 Tell Ashiar

Grid Reference: 2255-2185

Elevation: 400 m. above msl

Survey Method: a

Description: This site, a tell visible to the west from the top of Tell Irbid, has been surveyed both by G. Lankester Harding and Nelson Glueck.25 The site was walked during the survey; no material culture remains were found on the surface of the tell. Earlier reports indicate an "Early Bronze" and "Iron Age" occupation.

010 Khirbet el-Burz (Pl. XLVII,2)²⁶

Grid Reference: 2253-2258

Elevation: 400 m. above msl

Survey Method: a

Description: Previously, Khirbet el-Burz had been surveyed by Glueck.²⁷ There are no springs in the immediate vicinity of the site; a complex water storage system consisting of cisterns was identified. The site is presently abandoned and must be understood in conjunction with the earlier tell, Tell Sama, and the later village of Sama er-Rousan. Occupation of the site ranged from ca. A.D. 100 to ca. 1700. The site was surveyed by gridding it into pie-wedged segments. The perimeters of the site were surveyed using the cardinal points. The area is fertile and lies on the secondary road system discussed below.

In conjunction with the site-specific

^{23.} Nelson Glueck, Explorations in Eastern Palestine, IV, AASOR. Vols. XXV-XXVIII (1945-1949). New Haven: ASOR, p. 113-114.

^{24.} Op. cit., fn. 22.

^{25.} Glueck, op. cit.; Harding's notebooks are on file at the Registration Centre, The Department of

Antiquities.

^{26.} C.J. Lenzen, A.M. McQuitty and M. Rousan, 'Khirbet el Burz,' ADAJ XXIX (1985), p. 175-178.

^{27.} Glueck, op. cit.

survey of Khirbet el-Burz, the present village of Sama er-Rousan was studied, 013.

011 Scatter within Survey Square 1

Grid Reference: 2300-2190

Elevation: 520 m. above msl

Survey Method: c

Description: This was a pottery scatter within Square 1 of the kilometer survey segments. The location was between two modern buildings; it is likely that the pottery was excavated during the construction of the buildings. Of the thirty-five sherds, only three were diagnostic beyond the designation "Byzantine"; these dated to approximately the fifth century A.D.

Survey square 1 was the one located closest to Irbid. The south-west corner of the square was delimited by the Palestinian camp. Originally, this land is said to have belonged to Beit Rās and was farmed. Today, the area is being developed for housing. Within recent memory, there were numerous basalt boulders throughout this area.

012 Scatter within Survey Square 1

Grid Reference: 2302-2194

Elevation: 540 m. above msl

Survey Method: c

Description: This scatter consisted of two hundred and thirty (230) basalt boulders measuring 0.60 m. x 0.50 m. x 0.40 m. and 0.50 m. x 0.68 m. x 0.76 m. Some of the boulders appeared to have been cut or had parts removed. It is likely that the basalt wall surrounding ancient Tell Irbid was made from boulders originating in this and the surrounding area. Basalt boulders were also identified within the foundation trenches for modern housing within Survey Square 1. It is possible that the boulders were field walls surrounding the tell.

013 Sama er-Rousan

Grid Reference: 2271-2270

Elevation: 460 m. above msl

Survey Method: d

Description: One complex with a courtyard was recorded. The three remaining units were all built of stone and had flat roofs supported by arches. A two-storey madaafa was also recorded. The rooms on the upper floor opened onto a verandah, the ceiling of which was painted with simple circular designs (Pl. XLVIII). According to oral history, this building dated to the first part of this century and had been occupied by one of the governors appointed by the Ottomans.

014 Scatter within Survey Square 2

Grid Reference: 2290-2210

Elevation: 500 m. above msl

Survey Method: c

Description: This was a pottery scatter within Survey Square 2, a flat field between 001-Irbid and 003-Beit Rās. The pottery, although mostly non-diagnostic, dated primarily to the period between ca. A.D. 400 to A.D. 600. Tesserae were also found, but randomly throughout the square. As of 1984, the land within the square was divided between Beit Rās and Irbid: the north/north-west belonged to Beit Ras, whereas the south/south-east belonged to Irbid. In the south-east corner of the square, a cistern was found.

015 Scatter within Survey Square 3

Grid Reference: 2298-2237

Elevation: 480 m. above msl

Survey Method: c

Description: This was a pottery scatter consisting of eighty sherds, mostly bodysherds, dating to the period between ca. A.D. 100 to 700. This was found on the east slope of a tributary wadi. 026 and 027 should be associated with this, as part of a secondary road system leading to Kufr Jayez was found. This scatter was located north-west of 003, Beit Rās.

016 Scatter within Survey Square 3

Grid Reference: 2295-2236

Elevation: 460 m. above msl

Survey Method: c

Description: This was a pottery scatter in the north-west section of the survey square where there was a confluence of calcrete bedrock and tilled flatland. The scatter was west of Site 003, Beit Rās. Presently, the land belongs to the village of Beit Rās. There are linear fields divided by heaped stones. A cistern with a limestone well-head was found in association with pottery dating to the same time as 015; however, only twenty sherds, mostly body sherds were found.

017 Within Survey Square 3

Grid Reference: 2298-2231

Elevation: 500 m. above msl

Survey Method: c

Description: 017 identifies a collapsed water channel, running in a north-west/southeast direction north-west of 003, Beit Rās. Steps were carved into the bedrock. A limestone pestle fragment was found as well as twelve pottery sherds dating to *ca.* A.D. 400-700.

018 Within Survey Square 4

Grid Reference: 2292-2231

Elevation: 460 m. above msl

Survey Method: c

Description: This was a shaft tomb cut into the bedrock. This type of tomb has usually been dated to the Byzantine period; parallels to these tombs have been found at Abila.²⁸ Surrounding the tomb was evidence of the bedrock having been quarried. Four worn "Byzantine" pottery sherds were found in association with the tomb.

019 Scatter within Survey Square 4

Grid Reference: 2288-2233

Elevation: 460 m. above msl

Survey Method: c

Description: This was a pottery scatter found in the southern section of the survey square. The pottery dating to the "Byzantine" period, totalled forty-five worn sherds. There were terrace walls in the area which, according to the Beit Rās villagers, were built ca. 1936.

020 Site within Survey Square 5

Grid Reference: 2288-2229

Elevation: 460 m. above msl

Survey Method: c

Description: This site is located in the northeastern corner of the survey square. It was surveyed by Mittmann and designated "Site 58 — Khirbet Dabulaya". ²⁹ The site is on a south-facing slope with large exposures of bedrock; the flatter surrounding areas are presently being ploughed. The total area of the site is 100 m. by 150 m. A series of cisterns and caves were observed. One tomb and part of a cisterns had recently been excavated. The pottery from this illicit excavation dated to the period from ca. A.D. 50-400. The installation was relatively square and gives the same impression as the khirab and rujum surrounding Amman. 30 At the time of the survey, October, 1984, bedouins were encamped in the area.

021 Site within Survey Square 4

Grid Reference: 2288-2235

Elevation: 480 m. above msl

Survey Method: c

Description: This site is located to the north-east of the survey square and was first identified by Mittmann as "Site 57—Tell el-Butm". The site is presently

^{28.} Private Communication: John Davis.

^{29.} Siegfried Mittmann, Beiträge zur Siedlungs-und Territorialgeschichte des Nördlichen Ostjordanlandes. Weisbaden: Harrassowitz.

^{30.} Cf. bibliography in C.J. Lenzen and Alison M. McQuitty 'Khirbet Salameh: Its Archaeology and Its Context,' fc.

^{31.} Op. cit., fn. 29.

mostly terraced for the growing of tomatoes and grapes. There are cisterns present and a modern house complex on the eastern side of the site. Tesserae were scattered across the site. In the present terrace walls, reused architectural fragments, e.g., a door socket, were observed. The pottery, primarily bodysherds, dated to the "Byzantine" period. It is likely that this was a farmstead/villa in antiquity.

022 Scatter within Survey Square 3

Grid Reference: 2294-2236

Elevation: 460 m. above msl

Survey Method: c

Description: This was a pottery scatter consisting of five sherds surrounding a cistern with a square opening and runnels. The pottery, all diagnostic (datable), dated to the fourth century through seventh century A.D. This scatter was on the north and east slopes of 021 and should be associated with it. Natural caves were visible in the bedrock.

023 Scatter within Survey Square 4

Grid Reference: 2284-2235

Elevation: 440 m. above msl

Survey Method: c

Description: This was a pottery scatter consisting of eighty-nine worn "Byzantine" bodysherds and only six indicators. The dating of the scatter is the fifth to the seventh century A.D. The land was flat, agricultural land with sloping bedrock; field walls made of limestone were visible.

024 Scatter within Survey Square 4

Grid Reference: 2284-2239

Elevation: 440 m. above msl

Survey Method: c

Description: This was a pottery scatter consisting of thirty pottery sherds dating to the period between the fifth century and nineteenth century A.D. It was located in the north-west section of the square. Again bedrock was visible around the scatter.

025 Scatter within Survey Square 7

Grid Reference: 2282-2249

Elevation: 470 m. above msl

Survey Method: c

Description: This was a dense pottery scatter consisting of one hundred and twenty-three sherds dating from the fifth century to the nineteenth century A.D. It was found within an olive grove on a bedrock plateau; the bedrock showed some quarry marks.

026 Within Survey Square 7

Grid Reference: 2284-2242

Elevation: 440 m. above msl

Survey Method: c

Description: This was a 132.00 meter stretch of a road running north-east by south-west on the north edge of a wadi within the square. This probably relates to 015. The road was made of limestone blocks which were chinked. The road is in the direction of the village of Tuqbul. Fourteen pottery sherds dating to the "Byzantine" period were retrieved.

027 Within Survey Square 7

Grid Reference: 2287-2246

Elevation: 490 m. above msl

Survey Method: c

Description: This was part of a road measuring 128 meters, running west/southwest. This formed a branch of the road system related to 015 and 026 and was in the direction of Kufr Jayez. The width of this "fork" was discernible as 6 meters. It was constructed on bedrock and had a fieldstone edging. According to the oral tradition of the villages, these roads were used until relatively recently.

Sites 028 (Kufr Yuba), 029 (Ibdar, not on Fig. 1), 030 (Foara), 031 (Ḥarima), 032 (Ḥatim), 033 (Ḥakama) and 034 ('Al'al, not on Fig. 1) were site specifically investigated at the request of the Department of Antiquities as construction was taking

place in each village during the time of the survey. Pottery, either retrieved by the Department or by the authors, was studied and has the same date range as the pottery retrieved from the other sites. The data from these sites is being incorporated into the final report on the survey. Mughayir was included in the survey for the purposes of the vernacular architecture alone.³² Two houses constructed of basalt were studied: one with a flat roof supported by arches and the other with a vaulted roof. These two structures, like the others studied, date to the beginning of this century.

Conclusions

As the study of the material and its relationship to settlement patterns in the northwestern portion of Jordan is continuing, only minimal conclusions can be made here. Certainly, the excavations at Tell Irbid and Beit Ras, along with the authors' study of the ceramics retrieved by the Department of Antiquities prior to 1983/84, have gone far to clarify the continuity of occupation. Although the survey pottery from the survey squares was for the most part worn and could not be given precise dates, pottery retrieved from the villages and from modern construction foundation trenches helps to clarify the fact that there does not seem to have been an hiatus in occupation within the region. The nature of the occupation changed: the two large cities, Arbela (Irbid) and Capitolias (Beit Ras), became villages. This, however, does not seem to have occurred prior to the eleventh century A.D. The pre-ca. 3200 B.C. use of the area definitely needs to be clarified.³³

Acknowledgements

Dr. 'Adnan Hadidi, former Director-General of the Department of Antiquities, and Mssrs. Sultan Shraideh and Hekmat Ta'ani of the Irbid Office gave freely of their time and support. Drs. Andrew Garrard (Director-BIAAH) and David McCreery then (Director-ACOR) greatly facilitated the work. Friends from 'Amman, too numerous to name, willingly travelled to Irbid to do the archaeological registry work for us. Processing support was also provided by Dr. Kennett, C. Overby, I. Ruben, and S. Thorpe. J. Christine McQuitty travelled from England to walk the fields with us and was an integral member of our team. Finally the Sultan Shraideh and Mohammad Melhim families, along with the people in the villages, are gratefully thanked for many things from food to ladders and for "pitching-in" when needed!

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^{32.} Excavations have been conducted at the archaeological site by M. Ibrahim (Yarmouk University) and S. Mittmann (Tübingen University).

^{33.} M. Muheisin has studied the flints from the survey. This study will be incorporated in the final publication.