PRELIMINARY REPORT ON THE ARCHAEOLOGICAL INVESTIGA-TIONS OF AŞ-ŞADAQA, SOUTHERN JORDAN, 2007¹

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Introduction

The first season of excavations and surveys at aṣ-Ṣadaqa was carried out by a team from the Nabataean Centre for Archaeological Studies at al-Hussein Bin Talal University. Archaeological fieldworks, which took place between August 26th and September sixth under the direction of Dr Zeyad al-Salameen and Dr Saad Twaissi, involved limited excavations and detailed surface and survey work.

Aș-Ṣadaqa is located about 23km west of Ma'ān and is situated at a level of 1490m to 1520m above sea level. It is located geographically along the well-known *Via Nova Traiana* (Fig. 1).

Aṣ-Ṣadaqa's name is attested in many historical sources. It appears in the *Tabula Peutingeriana*² under the name Zadagatta and is located according to this *Tabula* 18 Roman miles south of Petra. It is mentioned also in the *Notitia Dignitatum*³ from the Byzantine era which confirms the military role of the site (**Fig. 2**).

Its name is attested also in Greek Graffitie discovered in Wādī Haggag in Sinai which refer to the "Fortress of Zadacatha" "K $\alpha\sigma\tau\rho\sigma\nu$ Z $\alpha\delta\alpha\kappa\alpha\theta\alpha$ ".



 Many thanks are due to al-Hussein Bin Talal University for sponsoring this project. Special thanks are due also to Hani al-Falahat of the Jordanian Department of Antiquities who joined the team during their fieldwork.
A map of the Roman roads compiled in the fourth century AD.

The Notitia Dignitatum was an official document of the early fifth century AD, which recorded every military and governmental post in the late Roman empire.



2. Aș-Șadaqa in the Tabula Peutingeriana.

The Greek archive which was uncovered in the Petra Church contains documents indicating the importance of agriculture in the Petra region's suburbs especially those regions to the south, west and east of Petra. They mention names of geographical sites in the vicinity of Petra such as Augustopolis = Udhruḥ, Zadakatha = aṣ-Ṣadaqa (Bikai 1996: 487), Math Lawza = Umm Lawza, al-Raphida =ar-Rāfid (Gagos and Frosen 1998: 474).

Several archaeological surveys conducted in the southern part of Jordan have considered the site, as remains and traces of ruins are covering most of the site, including a watchtower and traces of rectangular *castellum*? Whose remains are still to be traced southwest of the spring at 'Ayn aṣ-Ṣadaqa. The southern and western walls of this building are still preserved.

About 1km east of the settlement is Rujm aş-Şadaqa, a well preserved watchtower which occupies the hilltop. This watchtower was dated by Glueck to the Classical Periods (Nabataean and Roman) and he mentioned that it formed part of the chain of the Nabataean watchtowers. It should be noted that aş-Ṣadaqa was one of the major stations along the Nabataean trade route.

Past Researches

No systematic excavation has been conducted at the site and only two archaeological soundings have been carried out there; one by Hanan Kurdi of the Jordanian Department of Antiquities in early 1970s which revealed a Nabataean tomb containing many loculi which was dated, depending on the discovered pottery, to the first century AD (Kurdi 1972: 85-87). The second sounding was conducted in 1989 by David Graf and focused on the supposed fort (Graf 1992: 253-260). These archaeological fieldworks have demonstrated extensive occupation and confirmed that the site was important during the Nabataean, Roman, Byzantine and Islamic periods. Recently an archaeological survey has been conducted in the area from Ayl to Rās an-Naqab which considered the site. The area to the north of aṣ-Ṣadaqa was systematically surveyed by Abudanah in 2003 (Abudanah 2006).

Aş-Şadaqa and the Ancient Routes

A sophisticated network of roads was constructed during the Nabataean and pre-Nabataean period in order to facilitate the flow of essential commodities from Arabia to the consumers and vice-versa. These routes were furnished with watchtowers to ensure sufficient security for travellers and caravaners and to provide them with their essential needs. Remains of such structures have been recorded by the team who managed to document the following routes which are furnished sometimes with watchtowers (this includes the first and second routes mentioned below). During the survey, many routes coming to aṣ-Ṣadaqa and springing from it have been recorded and these include the following:-

- 1. The Ṣadaqa-Petra route starts from Ṣadaqa-Kh. Saud- aṭ-Ṭayyiba- Dhaha- Bīr Sarah- Petra (Graf 1995: 214-267)
- 2. The Ṣadaqa- Fardhakh- Ayl- Basta- Petra route. During our survey we found possible traces of this road (Abuudanah 2006).
- 3. The Şadaqa- Gharandal route. This road has not been visited during our survey but it is mentioned frequently in various applications. It starts from aṣ-Ṣadaqa to Dilāgha- Wādī as-Sīq- Gharandal (ancient Aridella in the *Notitia Diginitatum*).

The water sources along these routes made it ideal for small agricultural villages, as indicated by the type of the discovered sites along the routes. Additionally, there are numerous agricultural terraces along these routes that were noted but not recorded in our current survey.

2007 Field Research

The first step of our project involved documentary research whose principal aim was to identify all recorded structures and features located within the area. Historical data was used to predict the nature and extent of archaeological remains within the area and to formulate an estimate of previous disturbances to the area. Therefore, topographic maps of the whole area were reviewed prior to our archaeological survey. These maps were supplemented by aerial photographs. Once formal permission was granted to the team by the Jordanian Department of Antiquities to survey and excavate the area, we conducted a simple aerial survey using a kite. Additionally, a total station survey was undertaken under the supervision of Mr. Ali al-Farajat of the Petra Region Authority. The goals of this survey were to record a topographic map of the site and to establish a four-meter grid system for excavation units as well as to map all extant unexcavated surface architecture.

Then we started our second task which was to survey the whole area and to ascertain the location of the archaeological remains. The primary aims of the 2007 season were as follows:-

- to investigate the visible archaeological remains and to determine the geographical extent of the ancient site.
- to establish a detailed record of the principal cultural strata preserved at the site.
- to locate the extent of the visible architectural features.
- to determine an excavation strategy for the following seasons.
- to interpret the value of the aş-Şadaqa area in an archaeological, historical and cultural context.
- to explore the ancient road-networks from and to aş-Şadaqa.

Result of the 2007 Survey

During our survey in the area which was not planned before, twenty eight sites have been identified and these sites include watchtowers, remains of ancient roads as well as villages. They have been fully recorded and photographed but have not been drawn. The survey covered areas located to the north, south, east and west of aş-Şadaqa.

One of the most significant results of the archaeological survey is the large number of villages and watchtowers discovered. Another noticeable result is the date of these structures (Nabataean, Classical and Islamic).

A short description for these sites, their altitudes, coordinates and probable dates is found below:-

Site 1, (The fort)? (Fig. 3)

Altitude 1505.71- 1514.85 m asl Coordinates N 30°09.539' E 35°29.632', N 30°09.615' E 35°29.691'

This very extensive site occupies the centre of the modern village of aṣ-Ṣadaqa. It has been suggested by early scholars that it was a fort. Only soundings were carried out in this area in the late eighties and demonstrated extensive occupation but revealed no information about the function of the site. Long-term and systematic excavations might reveal more details about the date and nature of this site. Pottery sherds dated from the Nabataean up to the Islamic periods have been collected.

The main structure in the site is seemingly rectangular. It is very difficult to discern the eastern borders as it is obstructed by the construction of the modern village, however the western border is clearly visible. Along this side there are indications for the existence of towers. This thick wall is running northward and its length is approximately 134m and there are many internal divisions within the structure.

There are also indications that some of the stones used in the construction of this fort were taken by the local villagers to build their traditional houses and to delineate their agricultural fields. It has been noted in some of the traditional houses built east of the site that many dressed stones and weighing stones were reused in the construction of these houses and it is likely that they were all taken from the fort site.

There is a water spring north of the site.

Site 2 The castellum?

Altitude 1511 m asl This site is located west of the as-Sadaqa



3. Aerial photo showing Site 1.

spring. It is a small structure that has straight wall lines and built with medium sized stone blocks with one and sometimes two courses visible above ground. Additionally, there are numerous scattered building blocks in the surrounding fields. It has been identified by earlier scholars as *castellum*. Our first season of excavation has been carried out to determine the function of the structure. However, it was very limited due to many technical obstacles. So, only a few soundings have been conducted and these revealed limited information (for further details see the following parts of this report).

Date: Classical.

Site 3

Altitude 1500 m asl Coordinates N 30°09.626′ E35°29.731′ Dimensions 15.5 square meters

Low agricultural terrace located east of the fort. Abundant Nabataean pottery sherds but no wall lines have been recorded. Additionally, remains of a broken column have been recorded and this might indicate that there were some structures built at the site.

Date:- Nabataean

Site 4 Janab al-Bahar (Figs. 4, 5)

Altitude 1528 m asl

Coordinates N 30°10.773' E 35°29.575'

Dimensions 6m north-south x 5.5m east west

Upper part of a watchtower located now at the ground level of a road, which was made and used seemingly after the destruction of the watchtower. This watchtower was constructed

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4. Site 4 (Janab al-Bahar).



close to an ancient route whose traces are still visible. The entrance of the watchtower is located east of the structure and opens towards the route. The structure measures approximately 33 square meters.

Site 4 A (Wādī al-Asāwir)

Altitude 1551.73 m asl

Coordinates N 30°11.256' E 35°29.312'

This site is located in Wādī al-Asāwir. A rectangular structure located at the bottom of a hill. Very difficult to discern the outline as it is obstructed by the piling of small stones resulting from the clearance of the surrounding agricultural fields, however the south-eastern corner is

5. Site 4 A (Wādī al-Asāwir).

clearly visible. From this corner there is a wall running northward and measures approximately 14m and another one running westward and measures approximately 10m.

Date:- Nabataean and Roman.

Site 5 (Wādī al-Asāwir) (Fig. 6)

Altitude 1583 m asl

Coordinates N 30°11.356' E 35°29.392'

Traces of an ancient road leading from Aṣ-Ṣadaqa to Rājif have been recognized. It is missing in some places due to recent agricultural activities. Its width is approximately 5m and its borders are clearly visible.

Date:- Classical.



Site 6 Kh. ar-Ruwayha (Fig. 7) Altitude 1588.08 m asl Coordinates N 30°11.371′ E 35°29.361′

This site is called Kh. ar-Ruway a by the local inhabitants. It is a huge structure built of medium and large hewn limestone blocks with one and sometimes two courses visible above the ground. There is a water cistern within the site as well as rock-cut caves. There is a rocky outcrop east of the site which suggests quarrying activities. Collected pottery is dated from the first century AD.

Date:- mostly Nabataean.

Site 7 (Fig. 8)

Altitude 1575.81 m asl Coordinates N 30°11.276′ E 35°29.448′

6. Site 5 (Wādī al-Asāwir).

There are two main structures within this site; the first one is square. Another square structure is located near the first one and both were built of dressed and semi-dressed limestone blocks which were seemingly taken from the nearby quarries.

Date:- undetermined yet.

Site 8 (**Fig. 9**)

Altitude 1573.36 m asl

Coordinates N 30°11.036' E 35°29.383'

Huge structure built over a hill, which is located opposite to sites number 6 and 7. This structure measures approximately $50 \times 25m - 50m$ east west and 25m south north. This structure overviews the route that leads to Råjif. Two flint tools have been found in the vicinity of the site.

Date:- Classical.



7. Site 6 (Kh. ar-Ruwayha).

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8. Photo of Site 7.



Site 9 Kh. Umm Naqāț (Figs. 10, 11)

Altitude 1567.58 m asl

Coordinates N 30°11.026′, 30°11.059′, 30°11.033′, E 35°28.878′, 35°28.823′, E 35°28.831′

Huge Village with irregular shape measuring approximately 7000 square meters. There is an underground spring located to the east of the village which can be reached by crawling 13.5m underground. Inside this chamber there is a water spring coming out of the rock and flowing slowly in to a basin; this spring is called 'Ayn Umm Naqāt.

This complex site with many structures was built of medium sized stone blocks, some show-



9. Site 8.

10. Photo of the entrance of the Umm Naqāt spring.



ing to a height of two or three courses above the ground. Located on a shallow hill with several limestone outcrops, the main built site and rock-cut outcrops are within an area of agricultural fields. Ancient wall lines are abundant in the fields.

Date: undetermined yet.

Site 10

Altitude 1618.79 m asl

Coordinates N 30°11.077' E 35°29.174'

This structure was built at the summit of a mountain. Built of medium and large hewn stone blocks, with one and sometimes two courses visible above the ground. The structure is like a structure-within-a-structure building. Its dimensions are: 7m east west and 6m south north. This site is surrounded by agricultural fields. Few flint scatters have been collected from the site.

Date: undetermined yet.

Site 11

Altitude 1580.38 m asl

Coordinates N 30°11.088' E 35°28.717'

Rock-cut cistern associated with a threshing floor. This cistern is located west of Kh. Umm Naqāt. The cistern, as mentioned by some local inhabitants, is pear-shaped, and there are remnants of hydraulic plaster on the interior. Its Aerial photo showing the geographical location of Kh. Umm Naqāţ.

depth could not be determined as it is full of debris. The diameter of its opening hole is 80cm.

Site 12 Kh. 'Ayn Khalīl (Figs. 12, 13)

Altitude 1639.51 m asl

Coordinates N 30°11.034′ E 35°28.390′

This site is called Khirbat 'Ayn Khalīl by the local inhabitants. An extensive site built of hewn and undressed limestone blocks, it is located on a flat area on the mountain slope. The site has many internal divisions and structures, up to two or three courses can be seen at the surface. Islamic tombs have been found between the walls of some of the internal divisions which have were mostly been robbed.

Remains of grinding stones have been noticed near the site. Many agricultural fields and wadi barriers of unhewn medium sized stone blocks and deeply buried terrace walls have been noticed around the site. The spring of 'Ayn Khalīl is located west of the khirbat but it is dried up now.

Abundant sherd scatter was noticed at the site.

Date:- Classical.

Site 13 (Fig. 14) Altitude 1625.49 m asl

Coordinates N 30°10.901' E 35°28.538'

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13. Photo of a robbed tomb in Site 12.

Wall lines, of somewhat large stones. There is a junction of two ancient roads:

- The first one is coming directly from aṣ-Ṣadaqa Village. This could only be traced for a short stretch to the east and is defined by smaller

12. Photo of Site 12.



14. Photo of Site 13.

stones.

 The second is coming from Khirbat Umm Naqāț and leading towards Khirbat 'Ayn Khalīl.

These roads are surrounded by agricultural fields and terraces.

Date: Classical and Islamic.

Site 14 Kh. Al-Wajdiyya (Figs. 15, 16, 17)

Altitude 1590.14 m asl

Coordinates N 30°10.127' E 35°28.888'

A complex site with many structures. It is an extensive site built over a hill with many structures (wall lines) and internal divisions built of medium sized stone blocks, some showing to a height of two or three courses above the ground. Located on a hill with several limestone outcrops. The main built site and rock-cut outcrops are within an area of agricultural fields. Ancient wall lines are abundant in the fields.



15. Photo of Site 14.



16. A fragment of rock-cut water channel found in Site 14.

Two robber pits are located inside the site and some small pits have been seen.

Remnants of an ancient road leading to the site have been recognized. There is a huge pit north of the site. It is full of debris and huge limestone blocks and this might have been a cistern. Additionally, a fragment of rock-cut water channel has been found close to the cistern. Two caves have been recorded west of the site and some walls were built over these caves.

Abundant Nabataean pottery sherd scatter was noticed east of the site.

Date:- Classical (mostly Nabataean).

Site 15 Kh. Rajā (Figs. 18, 19, 20)

Altitude 1587.39 m asl Coordinates N 30°09.991´ E 35°28.708´

This site is called Khirbat Rajā. It is an extensive site located at the summit of a mountain. Built of medium and large stone blocks, with one and sometimes three courses visible above the ground. It has many internal divisions of very straight lines. Some of the rooms are still preserved standing to a height of up to four courses above the ground. The plaster on the walls has largely eroded off, but some small areas of white plaster have been identified.

The size of the built stones as well as the construction techniques indicate that there were more than one occupational phases. West of the site there is a water reservoir connected to a square settling tank directly to the northeast. There are remnants of hydraulic plaster on the interior. The depth of the reservoir could not be determined as it is full of debris and large blocks.

The main built site is within an area of agricultural fields and ancient wall lines are abun-



18. Remnants of road leading to Site 15.



17. Remnants of an ancient road lead to Site 14.

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19. The "Plastered-Room" in site 15.



20. Remnants of water collecting basin in Site 15.

dant in the fields.

There is a road leading to the site from the east and its remains are still visible. The road heads westward.

Abundant Nabataean pottery sherd scatters have been seen at the site.

Date:- Classical (mostly Nabataean).

Site 16 (Wādī *'Imrān*) (**Fig. 21**) Altitude 1585.26 m asl

Coordinates N 30°10.099' E 35°28.404'

This site is located at one of the banks of Wādī 'Imrān. It is an extensive site with many structures (wall lines) built of medium sized stone



21. Site 16 (Wādī 'Imrān).

blocks, some showing to a height of two or three courses above ground level. The main built site is located within an area of agricultural fields.

There are remnants of an ancient road between this site and site 15 (Khirbat Rajā).

Date:- Classical.

Site 17 Wādī 'Imrān (Fig. 22)

Altitude 1659.94 m asl Coordinates N 30°10.067′ E 35°28.002′

This site is located within Wādī 'Imrān area. It is a rectangular watchtower located at the top of a hill. Very difficult to discern the southern half as it is obstructed by the piling of small stones from the clearance of the surrounding agricultural fields, however the northeast and northwest corners are clearly visible. It consists of a building-within-a-building and the dimensions of the northern, internal half of the structure are: 7.3m east-west and 2.6m north-south.

Date:- Classical.

Site 18 (Fig. 23)

Altitude 1641.65 m asl Coordinates N 30°09.781' E 35°28.315' Several structures with internal divisions



22. Site 17 Wādī 'Imrān.



23. Site 18.

built of medium sized stone blocks and located on a hill slope with limestone outcrop. Two walls border the site which measures approximately 26m x 26m. There is a probable route approaching the site from the east. The structure is located on a flat area between several hills and surrounded by agricultural fields.

Date:- Classical.

Site 19 (Fig. 24)

Altitude 1634.94 m asl

Coordinates N 30°09.681' E 35°28.373'

This site is located east of site number 18. A Thamudic graffiti has been found at the site. It is a relatively small structure that has straight wall lines and is built with medium sized hewn stone blocks and is located on a hill slope with limestone outcrop. Some courses are clearly visible.

Date:- Classical.

Site 20 Kh. aṣ-Ṣarāy'a (**Fig. 25**)

Altitude 1595.018 m asl

Coordinates N 30°09.165' E 35°28.691'

An extensive site with many structures built of medium sized stone blocks, some showing to a height of two or three courses above ground level. There are strong indications of quarrying activities within the site. Robber pits have been noticed in the site and these pits exposed some standing walls. Recorded structures within this site include a limestone basin and a small rock-cut basin (cup-hole), used most likely for agricultural purposes. The whole site is squareshaped and measures approximately 30 x 30m. There is another square structure west of the site measuring approximately 27 x 27m.

Date:- Classical.



24. Thamudic inscription in Site 19.

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Site 21 Al-Miflisah (Fig. 26) Altitude 1488.64 m asl Coordinates N 30°08.618' E 35°29.606' Wall lines of somewhat large stones seemingly remnants of an ancient road running

ingly remnants of an ancient road running south-north, constructed meters west of the modern road south of aṣ-Ṣadaqa. This road leads towards aṣ-Ṣadaqa and towards Kh. aṣ-Ṣarāy'a. The road is marked in the east by a double wall. The width of the road is about 5m. This road was constructed on an elevated area surrounded by obvious ancient terraced agricultural fields. This site is disturbed by modern agricultural fields.



26. Site 21 al-Miflisah.

Date:- Classical.

Site 22 al-Miflisah (Fig. 27) Altitude 1470.35 m asl

Coordinates N 30°08.288' E 35°29.798'

25. Site 20 Kh. aş-Şarāy'a.

This site is located east of site 21. It has a small structure with few internal divisions constructed within low agricultural terraces. It is very difficult to discern the outline as it is obstructed by the piling of small stones from the clearance of the surrounding agricultural fields. Scarce pottery sherd scatter was noted at the site.

Date:- Classical and Islamic.

Site 22a al-Miflisah (Fig. 28)

Altitude 1471.87 m asl

Coordinates N 30°08.254′ E 35°29.806′

Relatively small structure constructed meters south-east of site 22. Its northern and western walls are still visible.

Date:- Classical and Islamic.

Site 23 Dawsin Area, Kh. al-Mukhaylil (Fig. 29)

Altitude 1422.19 m asl

Coordinates N 30°08.166' E 35°31.316'

An ancient site, some of which has been recently occupied by a traditional village. This is an extensive site with many structures built of small and medium sized stone blocks, some showing to a height of three courses above ground level. Ancient wall lines are apparent at the surface. It is located northeast of 'Ayn al-



27. Site 22 al-Miflisah.



Mukhaylil which has been dried recently. Islamic tombs are located east of the site as well as a traditional house. Robber pits have exposed Nabataean pottery fragments including Nabataean cooking pot, unguentarium and painted ware.

Abundant Nabataean pottery sherd scatters. Additionally, there are numerous scattered building blocks in the surrounding fields which indicate that there were many other structures at the site.

Date:- Classical (mostly Nabataean).

Site 24 (Fig. 30)

Altitude 1565.75 m asl Coordinates N 30°09.465' E 35°29.403' Quarrying area located southwest of Aș28. Site 22a al-Miflisah.

Sadaqa. It seems that these quarries form the main source for providing building materials for the nearby structures of Kh. as-Sadaqa (Site 1).

Date:- undetermined yet.

Site 25 (Rujum aṣ-Ṣadaqa) (**Figs. 31, 32**) Altitude 1554.48 m asl

Coordinates N 30°09.739′ E 35°30.348′

Nabataean in origin according to Neslon Glueck. It is a huge watchtower overlooking aṣ-Ṣadaqa and the surrounding areas. It has been studied extensively before but no soundings or excavations were done at the site. Islamic tombs were constructed within the wall of the watchtower.

Date:- Nabataean.

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30. Photo of Site 24.



31. Site 25 (Rujum Aş-Şadaqa).

Site 26 Nabataean Tombs (Fig. 33) Altitude 1539.84 m asl

Coordinates N 30°09.606′ E 35°29.983′

This site was excavated by the Jordanian Department of Antiquities in the early seventies (Kurdi 1972) and dated to the Nabataean period

29. Site 23 Dawsīn Area, Kh. al-Mukhaylīl.

(the first century AD). Many tombs were found at the site.

Date:- Nabataean.

Results of the 2007 Soundings

Site 2 has been chosen for excavation this season because:- (1) it is a small structure and it is easy to control financially and to fit our limited team size; (2) the external walls of the structure are clearly visible; (3) it is hoped that this site might give indications about settlement type in this site as well as dates of occupation.

First of all, four squares were opened. Then we were informed by the Department of Antiquities that we should stop our excavation as there was a mistake and they did not intend to give us permission to excavate this site. We were obliged to continue in two soundings and to conduct a field survey at the site.

Two soundings measuring 4 x 4m were excavated. Prior to the actual digging, walls were visible on the surface and after excavating these trenches, three phases have been identified.

Trench 07 (Fig. 34)

This was a 4 x 4m trench. Excavations have revealed a wall running north-south. The progress of work has shown that this wall is associated with a doorway and extends further north and south outside the trench. The door way lies in the northwestern corner of the square and this doorway is furnished with a socket.



32. Aerial photo showing the location of Rujum As-Sadaqa.



33. Site 26 Nabataean tombs.



34. Photo of Trench 07.

The trench contained three layers. Excavations continued into soil around and between the architectural remains as many of the faces of the walls were unclear due to the damage in the loci. All loci in this trench contain pottery. Excavation halted in this trench once the floor was discovered. In this trench we have identified three occupational strata.

For ease of reporting, it is preferable here to summarize the results by stratum:-

Stratum I: The earliest occupation level, Stratum I, was discovered at the bottom of the sounding at elevation 1509.46 meters. Flagstones paved the eastern part of the trench and a stone wall was built directly above this pavement. This wall, composed of a single course of limestone blocks, runs north-south for 1.8m. There are two stone built piers west of the pavement. The thickness of this stratum is 1.04m. There is a deposit of ash which indicate a collapse.

Stratum II: The next occupational layer is at 1508.95m and comprised of a wall. This wall is of similar construction to the wall in Stratum I, but stands a few rough courses in height. The lower layers of this stratum were composed of yellowish gravel containing small and large stones.

Stratum III: The third occupational stratum covers the surface and spreads over the whole square.

Interpretation

Walls indicate more than one phase of occupation. They are dressed in some places and undressed in others. Gravels and soils were used to fill the gaps between the limestone blocks. Two doorways have been uncovered and their widths are completely different. Flagstones have been discovered covering some parts of the floors.

The essential constituents of the architecture at aş-Ṣadaqa were bound to a significant degree by the environment. The principal limestone quarries are probably to be found south of the area (site number 24). Stones are dressed and undressed and their size differs. Small stones and gravels were used by the architect to fill the space between the huge blocks.

Without further excavation, precise dating of the phases described above is difficult. No objects such as coins and inscriptions were uncovered that could provide absolute dates for these phases. Pottery vessels do provide some help with assigning relative dates to each phase.

Artifacts

Artifacts recovered in 2007 include pottery sherds, bones, glass fragments, architectural fragments, metal nails and grinding stones.

Objects and samples were uncovered from all the phases. Objects and samples collected include architectural and metal fragments, metal nails and grinding stones (**Fig. 35**).

The pottery assemblage included fragments



35. Stone-made fragments discovered in Trench 07.

of bowls, lamps and jar sherds. Ceramic vessels represent the majority of excavated artifacts and a selection is presented here. Almost all loci contained a mixture of vessels dated from the Nabataean period up to the Islamic periods.

A substantial amount of bones were uncovered during the excavation. The preliminary investigation of the ancient bones indicates that they belong to a variety of animals. They include a horse skull.

Glass vessel fragments were found in all phases of excavation. No complete glass vessel was discovered.

A systematic study of these finds will be published after the completion of the excavation of the surrounding areas and the analysis of the parallels. The information given here should be regarded as a very preliminary and short introduction.

Trench 11 (Figs. 36, 37)

This sounding lies in the northern side of the main settlement cluster of Khirbat aṣ-Ṣadaqa and on about 30m to the west of the spring (this



36. General view of Trench 11.



37. General view of Trench 11.

structure is normally known to scholars as *castellum*). The sounding has 4 x 4m dimensions and it was carefully chosen within a bigger rectilinear structure as indicated by external walls. The latter are fairly well preserved in terms of their orientation and extensions as well as their good stonework and this is especially clear in the western and northern sides of the curtain wall which have two faces and still retains the height of 1m. The trench surface did not show anything significant except some shrubs and thorns whose roots appeared to extend underneath the topsoil. The digging process started with removing the shrubs and thorns from the surface and digging the topsoil layer which was no more than 20cm deep at the deepest point.

Having removed the topsoil, multi-sized stones, mostly hewn, were distributed throughout most of the sounding area. While the process of digging and cleaning was in progress, two walls were uncovered, Locus 06 (to be called wall 1 henceforth) and Locus 07 (to be called wall 2 henceforth). Wall 1 runs almost northsouth while wall 2 runs almost west-east and the former cuts the latter at a right angle. With more progress in the work, the relationship between these two walls has become clear and a third architectural element has also been uncovered at the northern end of the wall of Locus 06. The new element appeared to be a doorway with a socket in the northern side of the doorway. It has also become clear that wall 2, although its southern face lies within the baulk, is very short and has a specific function. Not only the dimensions indicate that function but also the masonry on either end of the wall.

Very significant slab, over 1m high, stands on the western end of the wall. It is not clear if this slab represents an arch-base or simply a

doorway. The latter function is indeed possible since another stone, which has almost the same dimensions, was found in the second sounding area and seems to have stood against this slab forming what might be a doorway. The eastern end of this wall is most likely an arch-base as indicated by the stones' layout and shape. Moreover, the space to the east of the wall and within the sounding area does not have another wall or an extension for the same wall. Therefore, it would be reasonable to suggest that the other arch-base lies outside the sounding area and is still buried in the area east of the sounding area no. 01. The progress of work has also shown that wall 1 which is associated with the doorway extends further north outside the sounding area. The digging process has shown that a thick layer of debris and collapsed stones occupies the space around the walls especially the area east of wall 1 which represents almost two-thirds of the sounding area. In addition, pottery sherds and small pieces of glass have been found in association with this layer. Little space was available between wall 1 and the baulk; nevertheless it was enough to go ahead with the digging process. However, the space narrows towards the southwestern corner of the sounding area. The finds within this area are significant. A group of bones (human/animal?) were found within the debris and soil in an area that seems to have been deliberately enclosed by a group of stones lined to attach and cut wall 1. The excavator suggests that the enclosed area was used as a grave for whatever was buried there. However, it is not clear if there is another line of stones within the baulk to complete the enclosed space for the grave. It is noteworthy that two worked shells were found within the supposed grave besides many pottery sherds and glass pieces. Having fully documented the alleged grave and its components, the digging continued in the same part of the sounding area and the stones of the assumed grave and the debris were removed. The result of that process was uncovering a new locus underneath the suggested grave. Shortly it appeared that the new locus extends all over the area between the baulk and wall 1. The new locus was a layer of ash associated with pottery sherds and seems to extend outside the sounding area, particularly towards the southwest corner. The discovery of some stones, with specific shapes, near the southwest and southeast corners of the two sounding areas suggests that the ash layer is not a destruction layer but probably created as a result of industrial activity.

On the same level, in the eastern half of the square, the quantity of collapsed stones decreased and a soft and loose soil associated with some pottery sherds extends all over the area. The excavator and his team started coincidently to clear the ash layer west of wall 1 and the soft and loose soil east of it. The clearance process amazingly revealed paved floors on either sides of the wall. The pavement consists of stone tiles the surface of which is smooth and level and the tiles have different dimensions. Having reached the floor, digging was over and the team started to clean the floors and the walls. Finally, all of the architectural elements and the paved floors were drawn.

Conclusions

From preliminary documentary research, a framework for the continued archaeological survey and excavations has been developed. Archaeological soundings within our area addressed a range of research questions about the history of the aş-Ṣadaqa area and the living patterns of the people who inhabited this region, and promised solid evidence for answering these questions is expected in the subsequent excavations. Those include the dates of construction and architecture of the individual building areas. Religious life in the area over time will be addressed.

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