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Survey of the Via Hadriana : the 1997 Season.

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# Survey of the Via Hadriana : the 1997 season

Steven E. SIDEBOTHAM, Ronald E. ZITTERKOPF

THE SECOND SEASON of the University of Delaware's survey of the Via Hadriana in July and August 1997 located and plotted, using the Global Positioning System,<sup>1</sup> an additional *ca.* 200 km of the road. The course of the Via Hadriana has now been accurately located for approximately 430-440 km from Sheikh 'Ibada (Antinoë/Antinoopolis) on the Nile in Middle Egypt to Safaga on the Red Sea coast. The survey also charted numerous segments of the route from the region near a sizeable ancient watch tower atop a hill (at 26° 10.74' N / 34° 14.05' E) just north of Quseir al-Qadim<sup>2</sup> to the area between the fort in Wadi Safaga and the modern port of the same name (map figure 1). In the region between Abu Sha'ar al-Qibli and Abu Gariya, the survey discovered that the Via Hadriana ran in approximately a straight line between the two stations and did not divert inland to the small fort in Wadi Belih as previously speculated.<sup>3</sup> The survey did not extend south of Quseir this season.

Epigraphic evidence noted in last season's report attests the Via Hadriana's construction during the reign of Hadrian (A.D. 117-138)<sup>4</sup> in connection with that emperor's foundation and construction of the Nile emporium of Antinoopolis/Antinoë. Whether Hadrian actually initiated work on the road<sup>5</sup> or lived to see its completion is uncertain.

This season the survey found no additional road stations or other sites immediately associated with the Via Hadriana. A search for two stations whose names and approximate

**1** The survey used three Global Positioning System (GPS) receivers: Magellan Nav 5000D, Micrologic Supersport and Garmin 45. The GPS coordinates supplied in the text are averages of multiple readings rounded off to the nearest one-hundredth of a minute.

**2** M. PRICKETT, « Quseir Regional Survey », in D.S. WHITCOMB, J.H. JOHNSON (eds.), *Quseir al-Qadim 1978 Preliminary Report*, Cairo, Princeton, 1979, p. 298, plate 84, p. 311 and R.E. ZITTERKOPF, S.E. SIDEBOTHAM,

« Stations and Towers on the Quseir-Nile Road », *JEA* 75, 1989, p. 159, fig. 2, p. 174 discuss this tower.

**3** Cf. S.E. SIDEBOTHAM, R.E. ZITTERKOPF, J.A. RILEY, « Survey of the 'Abu Sha'ar-Nile Road », *AJA* 95.4, 1991, p. 577.

**4** S.E. SIDEBOTHAM, R.E. ZITTERKOPF, « Survey of the Via Hadriana by the University of Delaware: the 1996 season », *BIFAO* 97, 1997, p. 221 and note 2. E. MILLER, « Sur une inscription grecque découverte

à Cheikh Abad l'ancienne Antinoë », *Revue archéologique* 21, 1870, p. 313-318. This inscription can also be found in *IGRRP*<sup>2</sup> 1.1142 = *OGIS* 701. For extensive commentary see A. BERNARD, *Pan du Désert*, Leiden, 1977, p. 216-232, no. 80.

**5** Cf. K. MEISTER, « Zur Datierung der Annalen des Tacitus und zur Geschichte der Provinz Ägypten », *Eranos* 46, 1948, p. 115, postulates that Trajan initiated construction of the road bearing the name of Hadrian who completed it.

locations had been provided by a bedouin informant last season (Ba'aytharaan and Umm 'Uegela, the latter purportedly on a nearby ancient secondary route) could not be located. Measured plans of Tal'at al-Arta (figure 2), Umm Suwagi (figures 3-4) and Ujra Zena (figures 5-6) produced last season are presented here.

Analysis of the pottery undertaken this season provided dates for some, but not all, of the sites listed in Table I below. Sites are listed from west to east and, then, north to south. Full publication of the pottery will appear in the final report after completion of the survey.

It is now apparent from analysis of surface ceramics that the thoroughfare, or at least portions of it, continued in use through late antiquity, until the fourth or fifth centuries A.D. if not later. Sites located along the transdesert west-east portion of its course, which were occupied in the fourth or fifth centuries A.D. (*viz.* Makhareg Gharb, Makhareg and Tal'at al-Arta), would have had no other *raison d'être* for their existence except as stops on the Via Hadriana.

Other stations on that portion of the Via Hadriana parallel to the Red Sea coast or sites associated with it which might have used the route also functioned in late antiquity [e.g. Milaha al-Nakhl, Abu Sha'ar al-Qibli, Abu Sha'ar, Umm Howeitat/Umm Hayatat (between Safaga and Quseir, figure 7), Marsa Nakari, Wadi Lahma and Berenike]. Most of these sites, however (Abu Sha'ar al-Qibli, Abu Sha'ar, Marsa Nakari, Wadi Lahma and Berenike), could have functioned independently of the Via Hadriana connected as they were by other roads either to the Nile or, in the case of Wadi Lahma via Vetus Hydreuma and Berenike, with the Red Sea coast; their occupation in late antiquity does not, in itself, attest the continued operation of the Via Hadriana. However, the fourth-fifth century A.D. settlements at Milaha al-Nakhl and Umm Howeitat/Umm Hayatat (between Safaga and Quseir), must have been connected by trunk routes to the Via Hadriana – although the survey did not locate trunk roads associated with these two sites – and would have depended upon the Via Hadriana for communication with the outside world. Their existence, *ergo*, provides an argument for the continued operation of parts of the Via Hadriana along the Red Sea coast into at least the fifth century A.D.

Although use of those parts of the Via Hadriana crossing between Antinoopolis and the Red Sea coast and in the regions of Milaha al-Nakhl and Umm Howeitat/Umm Hayatat (between Safaga and Quseir) into late Roman/early Byzantine times must now be accepted, it is still unclear what the major functions of the road were at any point in its history.

The Via Hadriana may well have served some governmental administrative function, probably facilitated military monitoring of the region and communication between Middle Egypt and the Red Sea coast and linked, north-south, the various Red Sea ports, installations and settlements near the road with one another. The Via Hadriana may also have expedited the movement of Christian pilgrims between Middle Egypt and the monasteries of St Antony and St Paul and, possibly, onward, by sea via Raithou, to St Catherine's Monastery in Sinai; an analogous function has previously been postulated for the Kainopolis-Abu Sha'ar route in late antiquity.<sup>6</sup>

<sup>6</sup> SIDEBOTHAM, ZITTERKOPF, RILEY (*supra* n. 3); S.E. SIDEBOTHAM, « University of Delaware Fieldwork in the Eastern Desert of Egypt, 1993, » *Dumbarton*

*Oaks Papers* 48, 1994, p. 274-275; S.E. SIDEBOTHAM, « An Overview of Archaeological Work in the Eastern Desert and Along the Red Sea Coast

of Egypt by the University of Delaware-Leiden University, 1987-1995 », *Topoi* 6/2, 1996, p. 777.

Table 1. Sites on/associated with the Via Hadriana.

Site name	Type of site	Coordinates	Pottery dates*
Antinoopolis/Antinoë (Sheikh 'Ibada)	Urban Nile emporium	27° 48.16' N 30° 52.85' E	Roman-Byzantine
Quarry in Wadi al-'Ibada	3 small limestone quarries	27° 51.07' N 30° 56.57' E	unknown
Large ramp in Wadi al-'Ibada	part of road	27° 51.41' N 30° 57.62' E	unknown
Makhareg Gharb	unidentified structures	27° 53.24' N 31° 15.39' E	2nd-4th (?) C. A.D.
Makhareg	well/associated structures	27° 53.10' N 31° 17.28' E	2nd-5th C. A.D.
Tal'at al-Arta	road station	27° 58.75' N 31° 28.03' E	early Roman to late 4th-5th C. A.D.
Large ramp east of Tal'at al-Arta	part of road	27° 59.40' N 31° 28.31' E	unknown
Mahattit Ziyar Romaniya	stop on road	28° 03.11' N 31° 32.52' E	late 1st-2nd or early 3rd C. A.D.
Umm Suwagi	cistern/associated structures on road	28° 16.77' N 31° 53.96' E	mostly early Roman, 1 possible late Roman
Bir Hawashiya	well/ associated structures on road	28° 12.58' N 32° 22.28' E	late 1st/2nd to early 3rd (?) C. A.D.
Abu Sha'ar al-Bahri	<i>hydreuma</i> /wells on road	27° 58.64' N 33° 12.90' E	poorly dated, early Roman cooking pot
Milaha al-Nakhl	settlement near road	27° 33.86' N 33° 25.27' E	possible early Roman, mainly late 4th-5th C. A.D.
Abu Sha'ar al-Qibli	<i>hydreuma</i> /wells on road	27° 22.14' N 33° 37.98' E	2nd-5th/6th C. A.D.
Abu Sha'ar	fort near road	27° 22.13' N 33° 40.97' E	4th-late 5th/early 6th C. A.D.
Abu Gariya	<i>hydreuma</i> on road	26° 56.00' N 33° 43.72' E	late 1st-2nd or early 3rd C. A.D.
Wadi Safaga	<i>hydreuma</i> on road	26° 37.05' N 33° 58.55' E	unknown
Umm Howeitat/ Umm Hayatat	settlement near road	26° 33.29' N 33° 54.38' E	5th C. A.D.
Quei	<i>hydreuma</i> on road	26° 20.99' N 34° 07.10' E	unknown
Quseir al-Qadim	Red Sea port	26° 09.42' N 34° 14.54' E	1st-2nd, possibly 3rd C. A.D.
Umm Howeitat	gold mining settlement near road	25° 26.58' N 34° 34.16' E	Ptolemaic
Marsa Dabr/Marsa Nabiyah	<i>hydreuma</i> on road	25° 18.86' N 34° 44.24' E	early Roman
Nechesia (?) (Marsa Nakari)	Red Sea port	24° 55.50' N 34° 57.74' E	1st-2nd & mid-4th-5th C. A.D. on
Wadi Lahma	<i>hydreuma</i> on road	24° 09.92' N 35° 21.81' E	Ptolemaic-1st-2nd & 4th (?) C. A.D.
Berenike	Red Sea port	23° 54.62' N 35° 28.42' E	Ptolemaic-late 5th/early 6th C. A.D.
* Pottery dates provided by Dr R.S. Tomber			

The Via Hadriana's role as a commercial highway at any point in its history is more doubtful. Although the Via Hadriana may have facilitated the transport of products from the mines/quarries of sites like Umm Howeitat/Umm Hayatat (between Safaga and Quseir) to the Red Sea coast and/or onward to the Nile, those thoroughfares oriented in a generally east-west direction between the Red Sea settlements and the Nile River (e.g. the Abu Sha'ar-Kainopolis, Quseir al-Qadim-Koptos, Marsa Nakari-Edfu and Berenike-Edfu/Koptos roads) generally would have been better suited from a commercial point of view<sup>7</sup> than the Via Hadriana. These direct roads were shorter and, therefore, more cost-effective communication arteries between the Red Sea coast and the Nile River than the Via Hadriana.

The physical appearance of those segments of the Via Hadriana examined this season were, in most instances, similar to those investigated in 1996. This season the survey, again, found neither paved sections nor milestones. Generally, the Via Hadriana comprised the natural desert surface cleared of boulders, cobbles and other detritus. The latter was pushed off to the sides of the road forming windrows of gravel and/or cairns. Cairns of various sizes composed of cobbles or boulders or both lined the road. In some cases these cairns were quite small, closely spaced and placed on the gravel borders. In other instances, the cairns were larger and lay some distance outside the gravel borders (figure 8).

These differences in road construction may indicate that different crews were at work, that one crew surveyed the route laying out and marking its general course using cairns followed by a second crew which cleared the route forming the smooth surface lined with borders of gravel. On the other hand, the remains of the road where cairns lay some distance outside windrows might suggest an initial period of construction followed some time later by a «reconstruction» or repair/refurbishment phase. Unfortunately, there is virtually no diagnostic evidence from most of the road segments except the actual stops/stations themselves to allow for a more precise interpretation of the dates of or reasons for the various road building techniques evidence of which survives at numerous points along the course of the Via Hadriana.

This season the survey noted substantial damage to and destruction of sections of the Via Hadriana in the areas between Safaga and Abu Gariya and between Quseir al-Qadim and Quei due mainly to flash floods (*suyl*) in the former area and human activity in the latter route segment.

The course of the Via Hadriana, in at least one instance (e.g. just north of the tower north of Quseir al-Qadim), came quite close to – less than 100 meters from – the Red Sea. At several points, the route lay only a few hundred meters at most from the sea (immediately south of Quei, immediately south of Wadi Safaga, between Gebel Nuqara and the Red Sea at the modern town of Safaga) while in others (e.g. Abu Sha'ar al-Bahri, Abu Gariya) it lay as much as *ca.* 15-20 km from the coast.

**7** Ceramic evidence examined thus far from the gold mining settlement at Umm Howeitat (between Quseir and Marsa Alam) indicates activity only in the Ptolemaic period (third-second century B.C.) which would suggest that there was no association between it and the later Via Hadriana. In January

1998, however, a more careful survey of the region around Umm Howeitat revealed graves with associated late Roman ceramics.

Ptolemaic gold mining operations at Umm Howeitat must have been linked by road to some point on the Red Sea coast and/or the Nile valley. It is possible

that there was a coastal route in this area predating the Via Hadriana the course of which the latter route also used. Umm Howeitat would have been linked to this «proto-Via Hadriana» to facilitate its communication and transportation needs.

Potable water would have been more easily located farther from the Red Sea and this must have been a major reason for placement of the road, where possible, some distance from the coast. Also, wadis farther from the coast are shallower than those nearer the shore making road construction farther inland and travel along such a road easier than if located along the coast where wadis emptying into the sea would be deep and difficult to traverse. In addition, a route adjacent to the sea would be substantially longer due to the numerous bays, peninsulas and other irregularities of the coastline which it would encounter.

In those instances where the Via Hadriana came within only a few hundred meters or less of the Red Sea, it is clear from the topography of the surrounding area – impassable wadis or mountains – that a coastal route was the only option. In some of those instances (e.g. fort in Wadi Safaga) the road made a relatively sharp turn inland for some distance to reach a station which was located at the closest point to the coast which afforded potable water. Thus, placement of the route of the Via Hadriana and the location of accessible potable water were sometimes incompatible and had to be reconciled by deviations in the road's course.

## ■ Secondary route

In addition to continued survey of the Via Hadriana, the project also located and plotted a *ca.* 14 km long segment of a previously unrecorded route (figures 1 and 9) which lay south of the east-west transdesert segment of the Via Hadriana and which passed by the distinctive limestone outcrop locally known as Demsa Umm Ragaba (27° 48.50' N / 31° 20.85' E) (figures 10 and 11). Due to lack of time and terrain impassable to our vehicles, the project found neither of the termini of this route nor any stations associated with it this season.

The farthest west the survey traced this thoroughfare was to a cairn at the top of a rise (at 27° 46.52' N / 31° 12.73' E) on the west side of Wadi al-Dahasah/Malasa *ca.* 30 km east of the Nile. The eastern-most section of this route which the survey recorded was at approximately 27° 48.60' N / 31° 20.90' E. There were traces of stopping points along this secondary road as well as robbed graves, but no extant evidence of any stations. Several sections of this route were substantial, cleared and provided with gravel borders and small cairns (figure 13). *Ca.* 600 m north of Demsa Umm Ragaba the cleared road section was *ca.* 13.9 m wide, ran unbroken east-west for approximately 1 km and had a relatively flat, smooth light colored surface lined with borders of dark colored detritus (figures 10 and 12). At Demsa Umm Ragaba itself there was a small scatter of non-diagnostic sherds and lithics. *Ca.* 350 meters southwest of Demsa Umm Ragaba and at the foot of a cliff was a dense scatter of lithics and non-datable sherds; *ca.* 700 meters west of Demsa Umm Ragaba, also at the base of a cliff, was an additional scatter of lithics and sherds which may be Ptolemaic.

Although in appearance it greatly resembles Roman period routes elsewhere in the Eastern Desert, the survey recovered no evidence for independent dating of the road in the Demsa Umm Ragaba area. The lithics and probable Ptolemaic pottery found near the road may well predate its actual construction. It was not unusual for Roman period roads in the Eastern

Desert to make use of earlier tracks often dating back to dynastic or prehistoric times<sup>8</sup> and such may well have been the case for portions of this highway in the region of Demsa Umm Ragaba.

The well-marked road in the vicinity of Demsa Umm Ragaba was probably part of an alternate route. If extended westward, it may have gone to Antinoopolis or to a point on the Nile River south of Antinoopolis. It may have connected to the primary route of the Via Hadriana east of Antinoopolis and, perhaps, joined one or both of the yet unlocated stations of Ba'aytharaan and Umm 'Uegela. If extended to the east, it may have been part of the thoroughfare which passed by the unnamed station (27° 53.11' N / 31° 25.07' E) and on to the station at Tal'at al-Arta. It may also have continued to the station at Ujra Zena (27° 53.11' N / 31° 31.53' E) located last season<sup>9</sup> and to the route located last year continuing to the northeast (figure 9). If this was the case, its extension would intersect the Via Hadriana somewhere east of Mahattit Ziyar Romaniya and west of Umm Suwagi.

The routes in the region of the unnamed station and Ujra Zena were not cleared and lined with gravel borders and cairns as was the section recorded this season in the vicinity of Demsa Umm Ragaba, but rather a track with only occasional small cairns marking its course. Stops/stations located on both route segments are listed in Table II with associated pottery dates.

**Table II.** Sites on secondary route(s) south of west-east transdesert portion of the Via Hadriana.

Site name	Type of site	Coordinates	Pottery dates*
Ramp in small wadi on west side of Wadi al-Dahasah/ Malasa	part of road	27° 46.60' N 31° 12.80' E	unknown
Demsa Umm Ragaba	camp (?)	27° 48.26' N 31° 20.84' E	unknown
Unknown ca. 350 m. SW of Demsa Umm Ragaba	camp (?)	27° 48.17' N 31° 20.67' E	unknown
Unknown ca. 700 m W of Demsa Umm Ragaba	camp (?)	27° 48.25' N 31° 20.40' E	possibly Ptolemaic
Unnamed station	station on secondary route	27° 53.11' N 31° 25.07' E	unknown
Ujra Zena	well/station on secondary route	27° 53.11' N 31° 31.53' E	late 1st-2nd & 5th C. A.D.

\* Pottery dates provided by Dr R.S. Tomber

Although possibly the result of a search for a secure water supply, the chronological and functional relationships of the Demsa Umm Ragaba route recorded this season to that in the region of the unnamed station and Ujra Zena located in 1996 and to the Via Hadriana remain unclear and will be examined in future seasons.

The survey noted a scatter of sherds between Ujra Zena and a point between Makhareg and Tal'at al-Arta which suggests that some functional relationship existed between that secondary route and some of the stops on the Via Hadriana if not the Via Hadriana itself.

**8** SIDEBOTHAM, ZITTERKOPF (*supra* n. 4), p. 222 and note 6.

**9** SIDEBOTHAM, ZITTERKOPF (*supra* n. 4), p. 223-224.

## Conclusion

Approximately 430-440 km of the Via Hadriana from Sheikh 'Ibada on the Nile to Safaga on the Red Sea – about half of the road's entire length – have now been plotted. Numerous portions of the route have also been traced between Safaga and Quseir al-Qadim.

The survey has several more seasons of work in order to complete this mapping of the Via Hadriana and the stops and stations on or near its course.

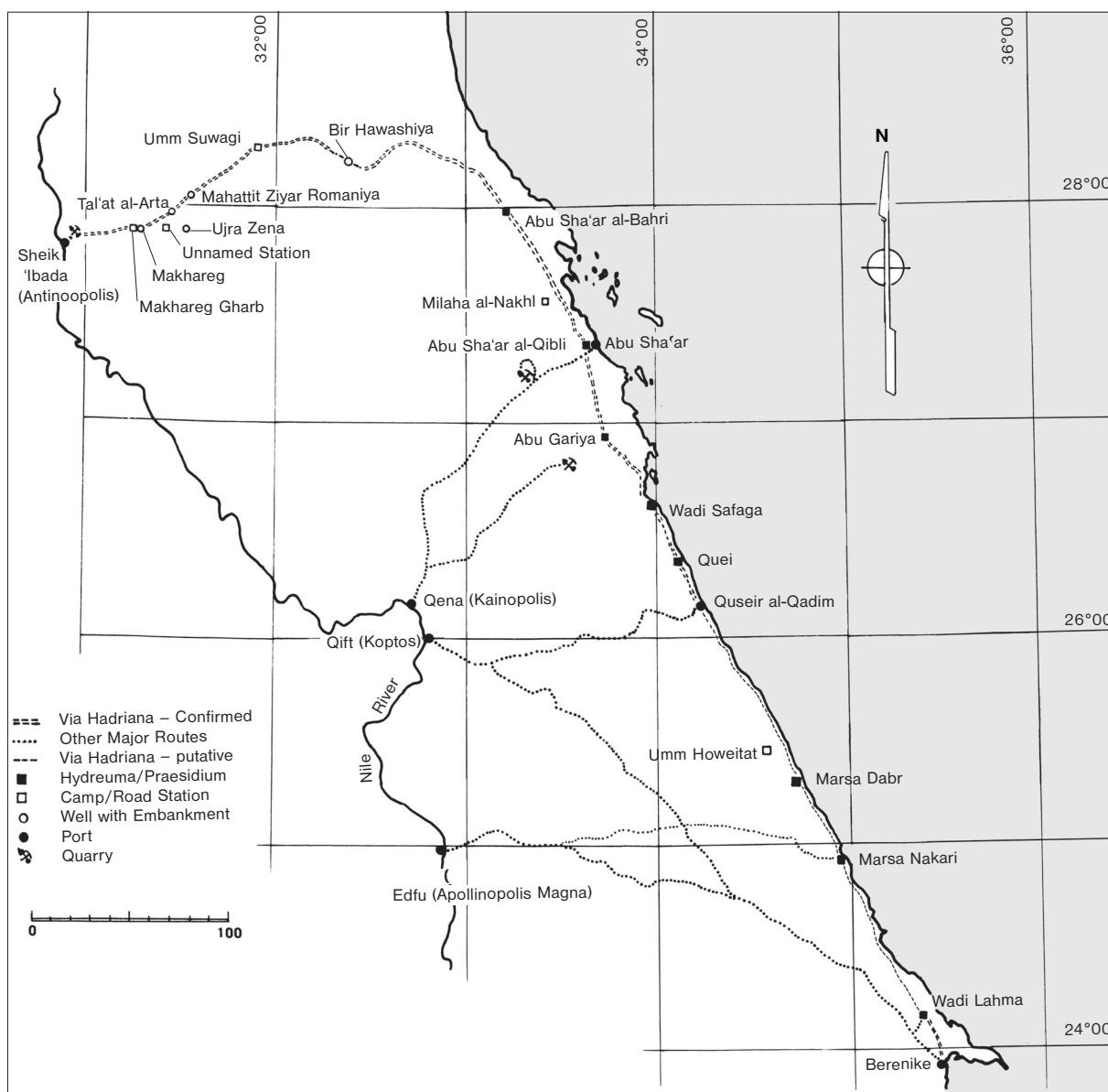


Fig. 1. Map of the Via Hadriana. Drawing by R.E. Zitterkopf.

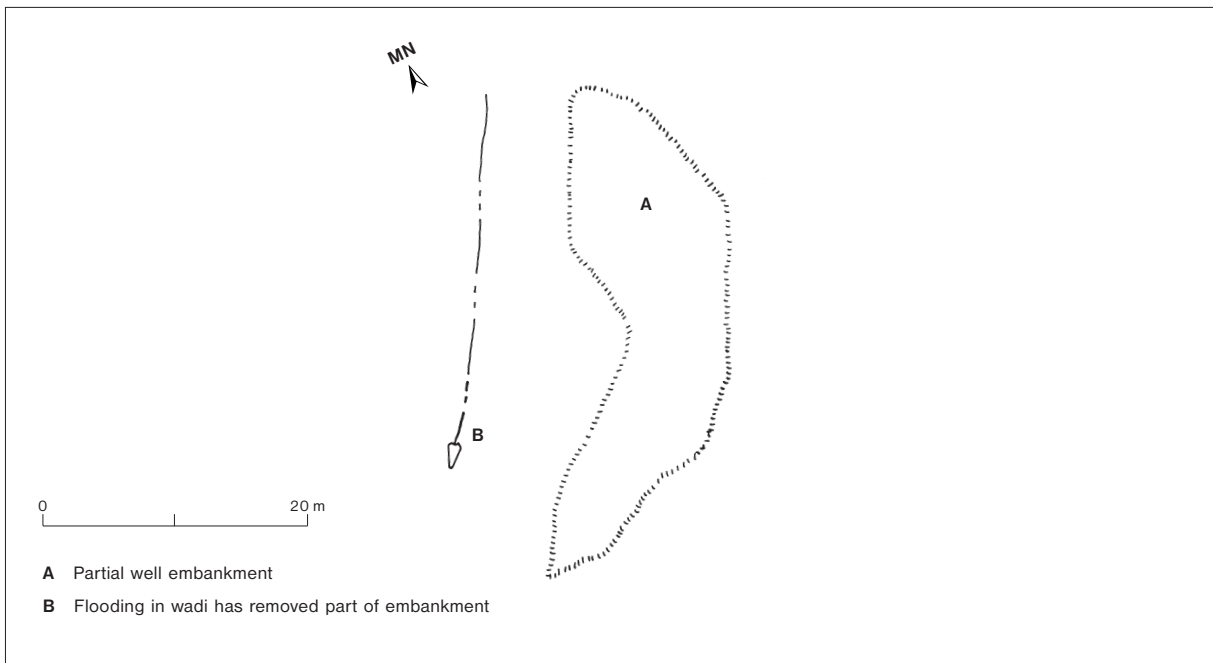


Fig. 2. Plan of Tal'at al-Arta. Drawing by R.E. Zitterkopf.

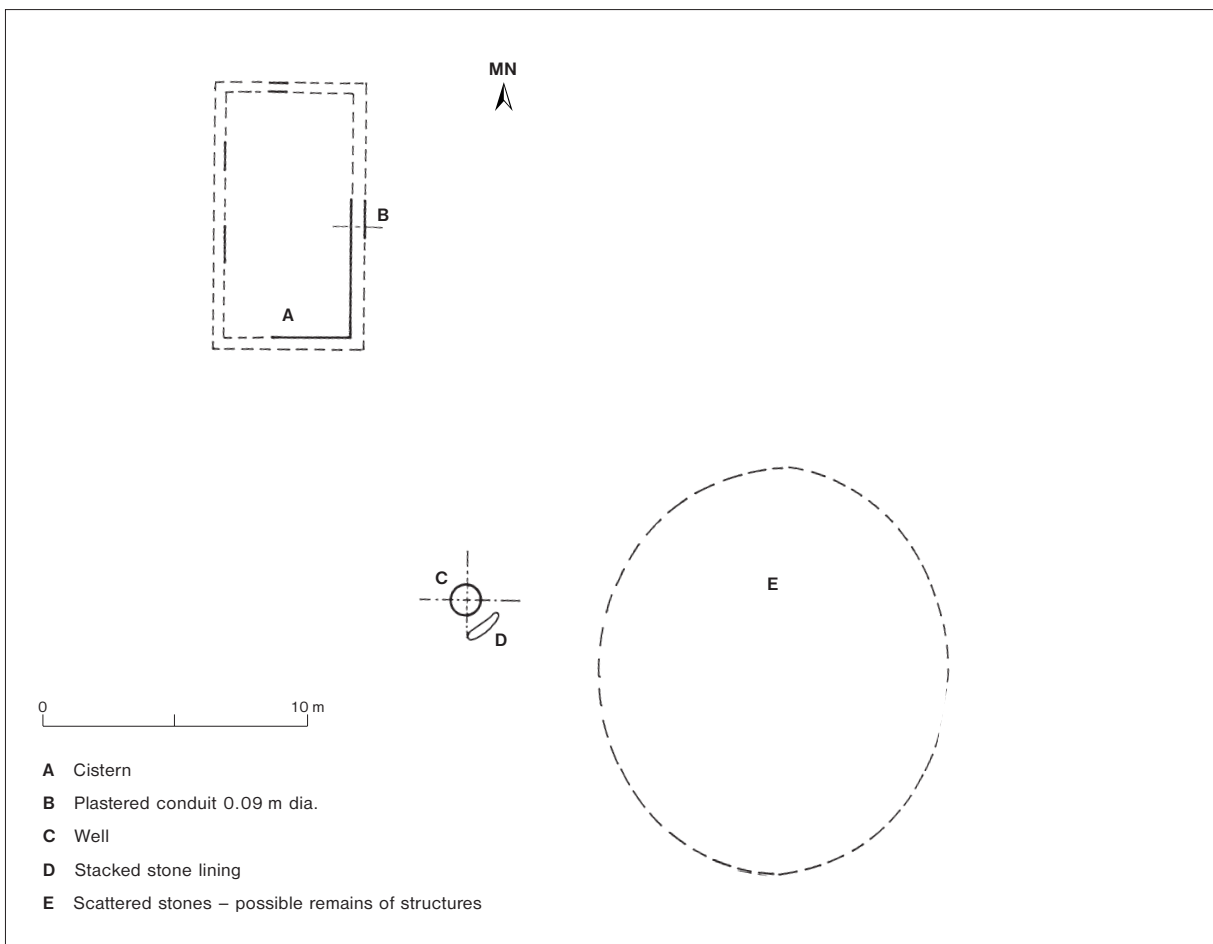


Fig. 3. Plan of Umm Suwagi. Drawing by R.E. Zitterkopf.

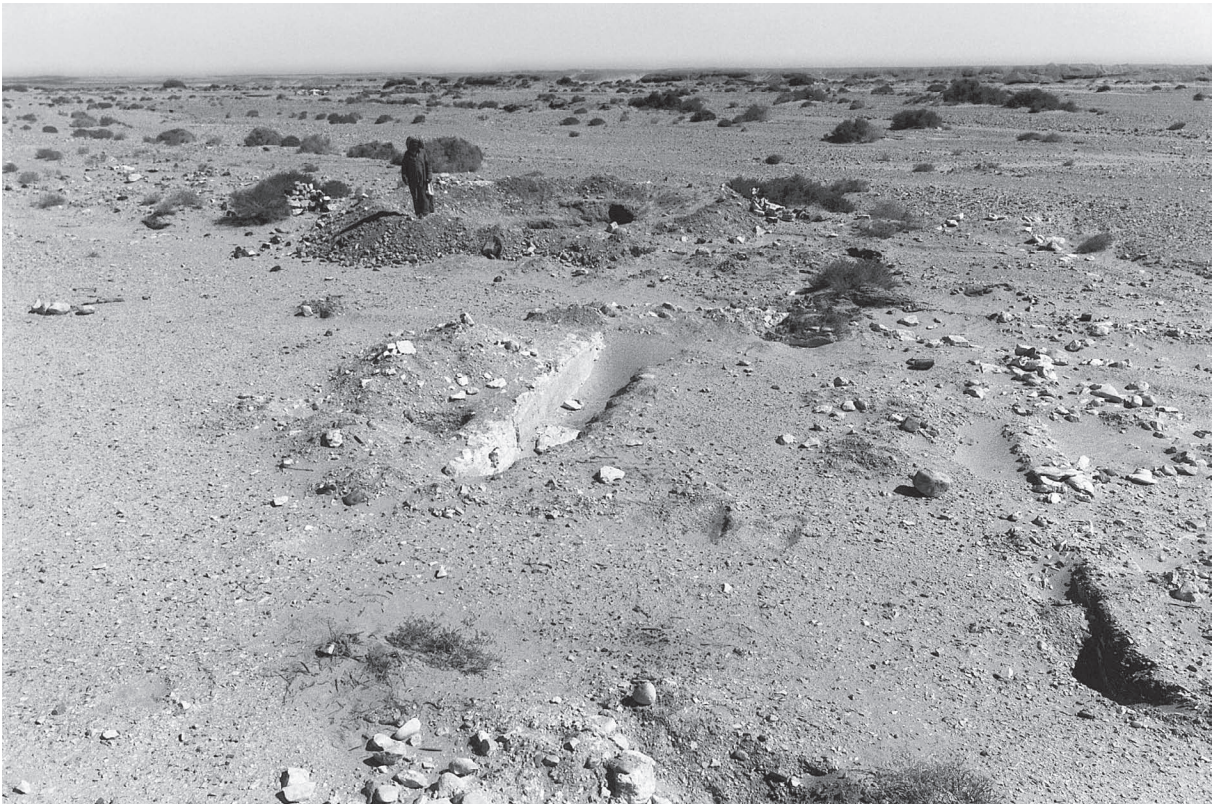


Fig. 4. Umm Suwagi looking southwest. Photo by S.E. Sidebotham.

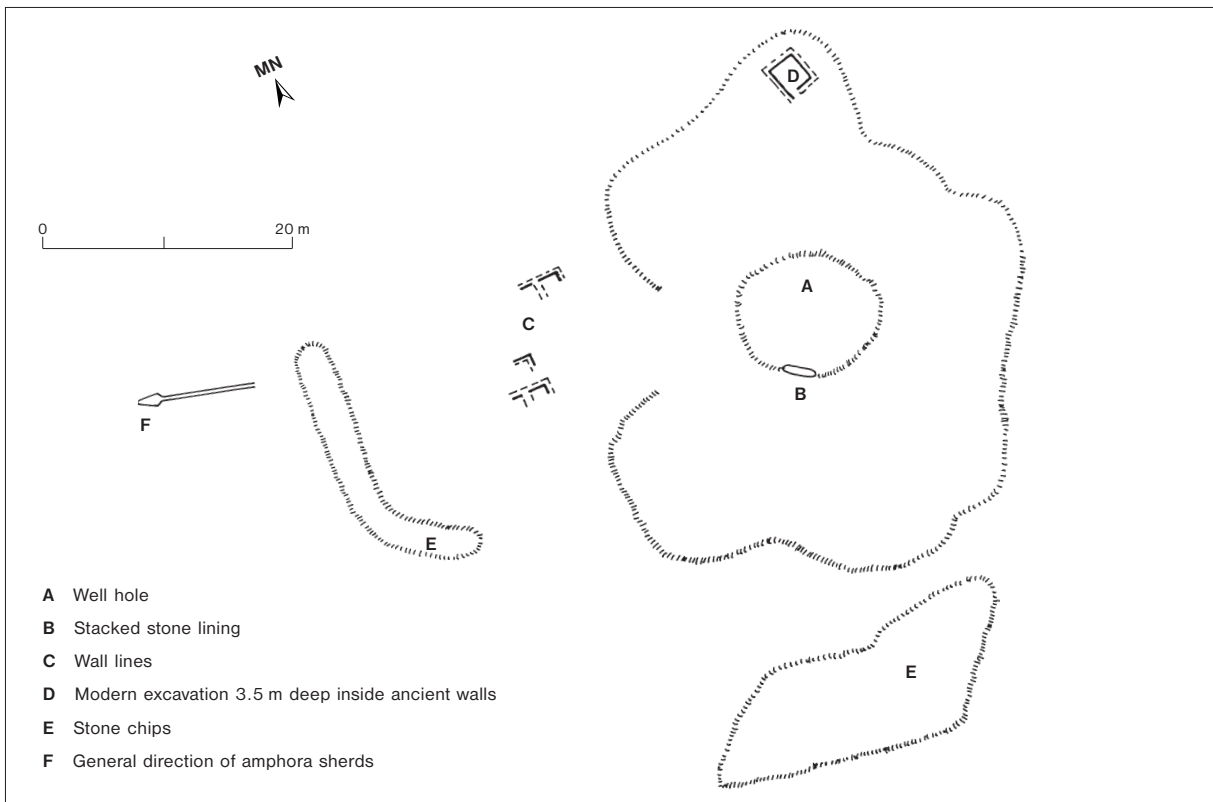


Fig. 5. Plan of Ujra Zena. Drawing by R.E. Zitterkopf.



Fig. 6. Ujra Zena looking north. Photo by S.E. Sidebotham.



Fig. 7. Umm Howeitat/Umm Hayatat (between Safaga and Quseir) looking northeast. Photo by S.E. Sidebotham.



Fig. 8. Via Hadriana section near Milaha al-Nakhl looking north. Photo by S.E. Sidebotham.

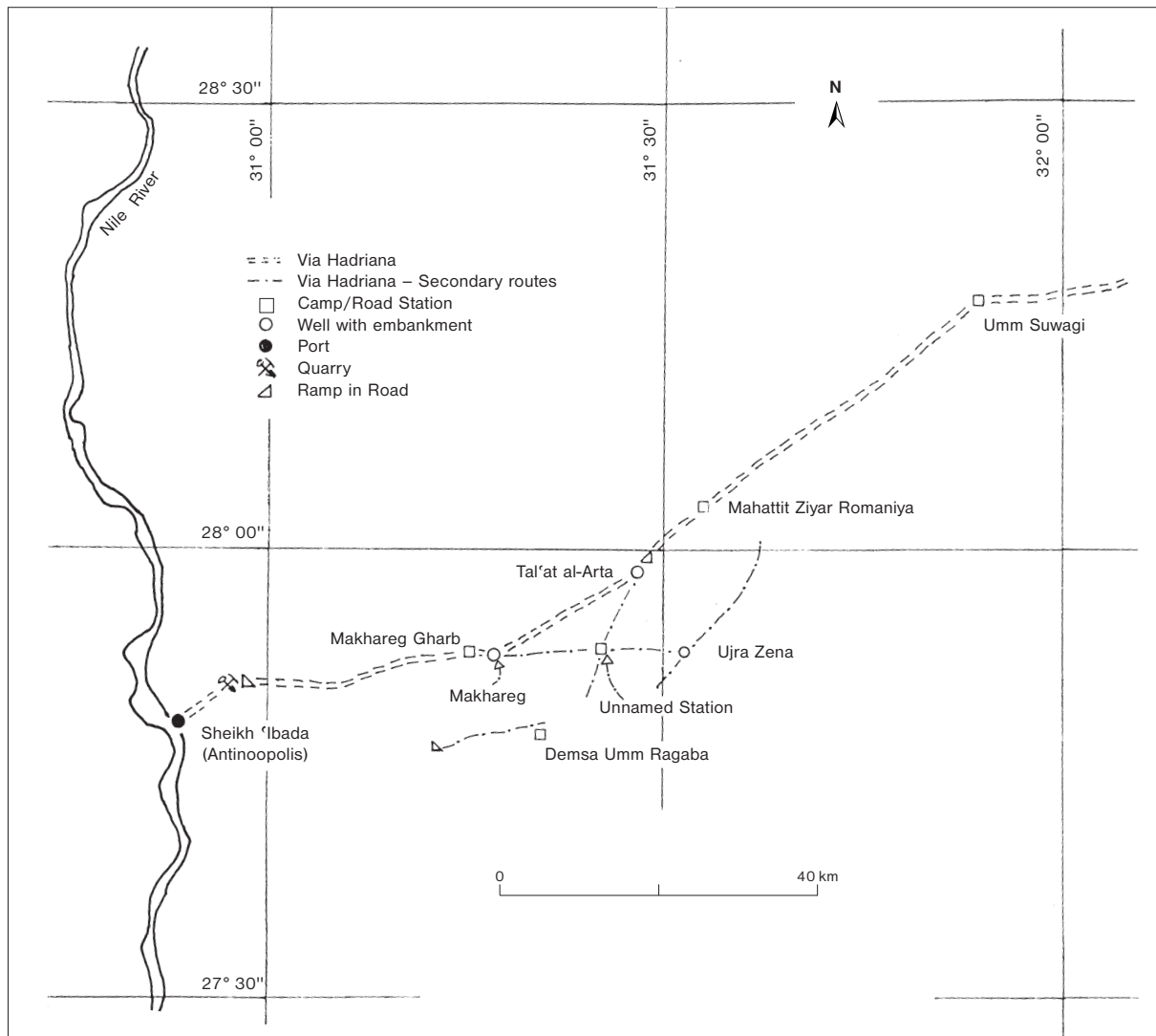


Fig. 9. Map of the secondary roads associated with the Via Hadriana. Drawing by R.E. Zitterkopf.



Fig. 10. Secondary route and Demsa Umm Ragaba looking southeast. Photo by S.E. Sidebotham.



Fig. 11. Demsa Umm Ragaba looking southeast. Photo by S.E. Sidebotham.



Fig. 12. Secondary route near Demsa Umm Ragaba looking southeast (detail of fig. 10).



Fig. 13. Secondary route between Demsa Umm Ragaba and the Nile looking west. Photo by S.E. Sidebotham.