ARABIA ADQUISITA?

Ceramic Evidence for Nabataean Cultural Continuity during the Antonine and Severan Periods: The Aqaba Ware from Horvat Dafit

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by

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ABSTRACT

ARABIA ADQUISITA? Ceramic Evidence for Nabataean Cultural Continuity during the Antonine and Severan Periods: The Aqaba Ware from Horvat Dafit.
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The purpose of this study is to assess what impact the Roman annexation of Nabataea in AD 106 had upon the Nabataean economy and ceramic repertoire during the succeeding Antonine and Severan periods, *ca.* AD 138–235. This is accomplished by examination of the excavation record and utilising an assemblage of Aqaba Ware pottery from the Nabataean/Roman site of Horvat Dafit. At this site a *caravanserai* was constructed in the 1st century AD. It formed part of an extensive Nabataean trading network that facilitated the transport of frankincense and myrrh from the southern Arabian peninsula through the Nabataean kingdom to Gaza, whence these luxury goods were dispersed throughout the entire Graeco-Roman world.

After Nabataea became the *provincia Arabia*, scholars have long assumed that their trade network collapsed. This is due not only to a lack of ancient literary references to the period in question and a paucity of archaeological evidence attributed to this era, but also because researchers have consciously chosen to study either the time before the annexation, or the subsequent Diocletianic period, i.e. the 4th century AD and beyond.

The site of Horvat Dafit is important because it was occupied throughout the Antonine and Severan periods. Evidence from the excavations conducted there in 1983-1984 by the Israel Antiquities Authority, under the direction of Rudolph Cohen, have demonstrated that the site – and indeed the entire Nabataean trade network – continued to thrive during the entire 2nd century AD and into the early-3rd century AD, when the region seems to have been depopulated due the collapse of international trade and a series of plagues.

The Aqaba Ware from Horvat Dafit is significant for three reasons. First, the assemblage exhibits a continuity of the Nabataean ceramic tradition. Second, it demonstrates the innovative nature of the Ailan potters, through the introduction of new vessel forms, in order to meet the needs of either new or previously existing markets. Finally, the corpus of Aqaba Ware from Horvat Dafit represents one of but a mere handful of sites with stratified pottery dating to the Antonine and Severan periods. Taken together, examination of Horvat Dafit and its Aqaba Ware pottery has shed a great deal of light on a period in the regional history that was previously misunderstood.

ACKNOWLEDGEMENTS

This has been, without question, the longest, hardest and most arduous task that I have ever endeavoured in my entire life. The present study represents more than a decade of reading, research, archaeological fieldwork and ceramics analysis. Along the path that led the writer to this point, there were numerous people who shared their knowledge, offered their help, and were of invaluable support.

First and foremost, I am greatly indebted to Dr. Tali Erickson-Gini, Regional Inspector of the Southern Negev District for the Israel Antiquities Authority (IAA). Since we first met, our passion for Nabataean pottery has been a binding tie. She is the person who suggested to the powers-that-be at the IAA, that I was the 'man for the job' with regard to publishing the final report for Horvat Dafit. In addition, she has acted as a sounding board for many of my ideas, provided valuable insights about the region's ceramic repertoire, and has been a source of support and encouragement. Finally, she has always made me feel welcome in her home, and in our numerous discussions on the finer points of Nabataean pottery, has been nothing less than an inspiration. These mere words cannot even begin to express my gratitude.

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In 2000-2001, as an ACOR Fellow, I was able to examine over 50 ceramic assemblages in both Jordan and Israel. Once again, I would like to thank those who helped facilitate that research: Drs. Khairieh 'Amr, Rudolph Cohen, Christa Clamer, Dennine Dudley, George Findlater, Yvonne Gerber, Timothy P. Harrison, Jean-Baptiste Humbert, Ina Kehrberg, Alison McQuitty, John P. Oleson, Andrew M. Smith II, Laurent Tholbecq, Roberta Tomber, and Professor Yoram Tsafrir. In addition, I would like to express my gratitude to those who have let me examine their ceramics, or provided information regarding the pottery they have studied: Dr. Piotr Bienkowski; Dr. Leigh-Ann Bedal; Dr. Anna de Vincenz; Dr. Stephan Schmid; Dr. Christoph Schneider; and Dr. Bethany Walker. Furthermore, I owe a great debt to Professor S. Thomas Parker, who had the confidence in me to study and publish the Nabataean/Early Roman pottery from the Roman Aqaba Project.

This dissertation could not have been completed without the support, encouragement and meticulously careful editing of Dr. P.W.M. (Phil) Freeman, to whom I owe endless thanks, and for whom I have the utmost respect and appreciation. Also, I would like to warmly thank my colleagues in Liverpool, who have made this arduous journey in such a godforsaken place a lot more tolerable: Jonty, John-n-Anni, Benny, Duane, Tiffany, Dana, Sam, Eileen, Estelle, 'Harry', and Lorna. Moreover, I would like to sincerely thank Catherine Angela Edwards, who stuck by me through thick and thin, was a wellspring of support and my best friend, despite the hardships we have endured during this trying time. Finally, I would like to thank my mother, Toby W. Dolinka, who has always been there for me, always been on my side, and without whose support, this entire endeavour would never have been accomplished.

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LIST OF ABBREVIATIONS

AA	Archäologischer Anzeiger.
AAE	Arabian Archaeology and Epigraphy.
AASOR	Annual of the American Schools of Oriental Research.
ABD	Anchor Bible Dictionary.
ACOR	American Center of Oriental Research.
ADAJ	Annual of the Department of Antiquities of Jordan.
ADPV	Abhandlung des Deutsches Palästinavereins.
AJ	Josephus, *Antiquities of the Jews*.
AJA	American Journal of Archaeology.
ANRW	Aufstieg und Niedergang der Römischen Welt.
ASOR	American Schools of Oriental Research.
BA	Biblical Archaeologist.
BAR	British Archaeological Reports.
BASOR	Bulletin of the American Schools of Oriental Research.
BIA	Bulletin of the Institute of Archaeology (University of London).
BJ	Bonner Jahrbücher.
BSG	Bulletin de la Societé de la Géographie.
BSOAS	Bulletin of the School of Oriental and African Studies.
BZ	Byzantinischer Zeitshcrift.
CBRL	Council for British Research in the Levant.
CJ	Classical Journal.
DNFW	Debased Nabataean Fine Ware
ESA	Eastern Sigillata A.

ESI	Excavations and Surveys in Israel.
GJ	The Geographical Journal.
GM	Göttinger Miszellen.
HSCP	Harvard Studies in Classical Philology.
IAA	Israel Antiquities Authority.
IEJ	Israel Exploration Journal.
IFAPO	Institut Français d'Archeologie du Proche-Orient.
JAOS	Journal of the American Oriental Society.
JAS	Journal of Archaeological Science.
JEOL	Journal Ex Oriente Lux.
JFA	Journal of Field Archaeology
JRA	Journal of Roman Archaeology.
JRGZM	Jahrbuch der Römisch-Germanischen Zentralmuseums, Mainz.
JRS	Journal of Roman Studies.
JSOT	Journal for the Study of the Old Testament.
JSS	Journal of Semitic Studies.
JW	Josephus, *The Jewish War*.
LA	Liber Annus.
NAA	Neutron Activation Analysis.
NEA	Near Eastern Archaeology.
NEAEHL	New Encyclopedia of Archaeological Excavations in the Holy Land.
NFW	Nabataean Fine Ware.
NH	Pliny the Elder, *Natural History*.
NPFW	Nabataean Painted Fine Ware.
OCD3	Oxford Classical Dictionary, Third Edition.

OEANE	Oxford Encyclopedia of Archaeology in the Near East.
PAES	Princeton Archaeological Expedition to Syria.
PEFQS	Palestine Exploration Fund, Quarterly Statement.
PEQ	Palestine Exploration Quarterly.
QDAP	Quarterly of the Department of Antiquities, Palestine.
RB	Revue Biblique.
RCRF	Rei Cretariae Romanae Fautorum.
RE	Pauly's Real-Encyclopädie der Classischen Altertumswissenschaft.
R.St.Lig.	Rivista di Studi Liguri.
SBD	Supplement au Dictionnaire de la Bible.
SHA-II	Studies in the History of Arabia II: Pre-Islamic Arabia.
SHAJ	Studies in the History and Archaeology of Jordan.
SIMA	Studies in Mediterranean Archaeology.
ZDPV	Zeitschrift des Deutsches Palästinavereins.
ZNW	Zeitschrift fur die Neutestamentliche Wissenschaft.
ZPE	Zeitschrift für Papyrologie und Epigraphik.

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CHAPTER ONE

Aims and Methodology

1.1 Introduction

This study deals with aspects of the history and archaeology of the Nabataeans, a people whose culture thrived from the 1st century BC until the early 2nd century AD, when their kingdom was annexed by the Romans and incorporated into the empire as the *provincia Arabia*. At the height of their culture, the Nabataean realm covered most of modern Jordan, the Negev Desert in Israel, the Sinai peninsula, and a large portion of northwest Saudi Arabia. The Nabataeans are primarily known for their rôle as middlemen in the lucrative trade in frankincense, myrrh and other aromatics and spices that passed through their territory, providing them with remarkable wealth.

During the past decade there has been a resurgence in scholarship on the Nabataeans. Archaeological fieldwork conducted at the Nabataean capital of Petra (Bedal 2001, Bignasca *et al* 1996, Hammond 1996, Joukowsky 1998), at Aqaba (Parker 1997, 1998, 2002), in the Negev (*e.g.* Erickson-Gini 1999) and at other Nabataean sites (*e.g.* Daviau *et al* 2000) has greatly clarified our understanding of their material culture and its chronology. Studies on Nabataean inscriptions and papyri (*e.g.* Cotton 1997b, Yardeni 2000, Healey 2001, Macdonald 2003) have provided insights into their language, script and religion. Two conferences in Jordan, (1998, 2002) sponsored by the Jordanian Department of Antiquities, and another held at the British Museum (2001), have brought together prominent scholars from around the globe who study the Nabataeans, which has resulted in a renewed exchange of ideas amongst academicians and the dissemination of a great deal of unpublished material. Museum exhibits in Helsinki (Frösen & Fiema 2002), Haifa (Rosenthal-Heginbottom 2003), and in the United States (Markoe 2003) have brought the Nabataeans and their material culture to a general audience, thereby sparking further public interest in the subject matter. Finally, the publication of updated general studies on the Nabataeans (*e.g.* Schmid 2001, Nehmé & Villeneuve 1999), have brought the discipline as a whole into the 21st century. Despite all of these recent advances in Nabataean studies, however, there still remain gaps in our knowledge about their material culture in general, and their ceramic tradition in particular, in the century following the Roman annexation.

1.2 Previous Research on Nabataean Pottery

Nabataean pottery represents one of the hallmarks of Nabataean art. It is very unique and easily identifiable. The Nabataean ceramic repertoire consists of four main groupings: the Nabataean Painted Fine Wares (hereafter NPFW); the Nabataean Fine Ware (hereafter NFW); unguentaria, which were small bottles used to store scented oils; and the Nabataean commonware pottery. The most recognisable of these types is the NPFW, which is characterised by vessel walls that are so thin (sometimes measuring only between 1-3 mm), that archaeologists often refer to it as 'eggshell ware'. The NPFW bowls are decorated with floral and geometric designs that are very distinct (**Fig. 1.1**).

Fig. 1.1 NPFW bowl from the American Museum of Natural History exhibit entitled 'Petra: Lost City of Stone' (from <www.amnh.org>).

Unlike with many other types of ancient ceramics, *e.g.* Greek red-figure vases, the study of Nabataean pottery is a relatively new field. First identified only as recently as 1929 (Horsfield 1930, 1942), analysis of this ceramic type has progressed slowly. The first reports offering a descriptive analysis of Nabataean pottery began only in the 1930s (*e.g.* Iliffe 1933), and because of its distinct appearance, the NPFW was utilised in early surveys of Transjordan (Glueck 1934, 1935, 1939) to identify Nabataean sites. With the exception of a few studies (Hammond 1959, 1962, 1964), little real development occurred in the study of Nabataean ceramics during the nearly

40-year period from its first discovery until the 1970s, during which time the first in-depth reports appeared (*e.g.* Parr 1970; Schmitt-Korte 1971; Negev 1974). These were the first to deal with the typological and chronological issues surrounding Nabataean pottery, which until that point in time was only broadly datable to the 1st centuries BC/AD. Further refinements in the classification, dating and decoration of Nabataean ceramics happened during the 1980s (*e.g.* Schmitt-Korte 1984; Khairy 1982, 1983; Negev 1986), and the first chemical investigations utilising neutron activation analysis were conducted ('Amr 1987; Gunneweg *et al* 1988). These chemical studies demonstrated that the NPFW was produced in or around Petra.

The real groundbreaking work on Nabataean pottery in all of its many and varied forms was provided by the Swiss team from the University of Basel, who excavated the hillock of ez-Zantur in Petra between 1988 and 2001. The most complete typo-chronology for both the NFW (**Fig. 1.2**) and the NPFW (**Fig. 1.3**) has recently been supplied by Stephan Schmid (1995, 1996, 2000), and it is now much easier for excavators to assign relative dates to the NPFW and NFW they uncover during the course of their fieldwork at Nabataean sites.

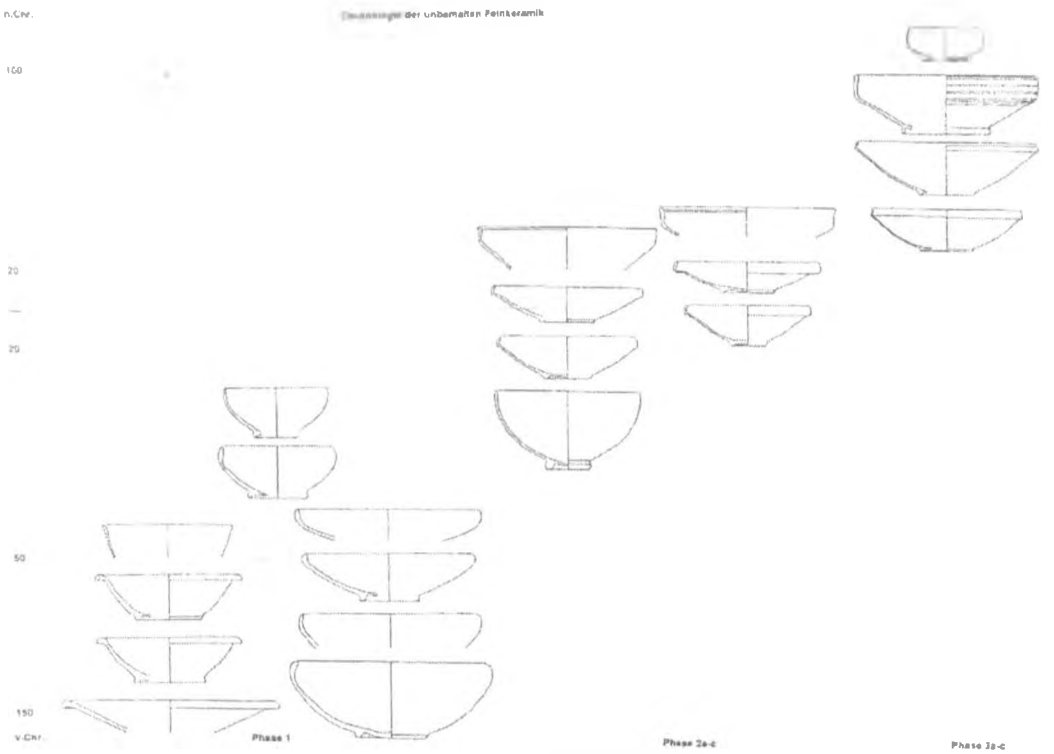

Fig. 1.2 Typo-chronology for the NFW bowls developed by Schmid (2000: abb. 97).

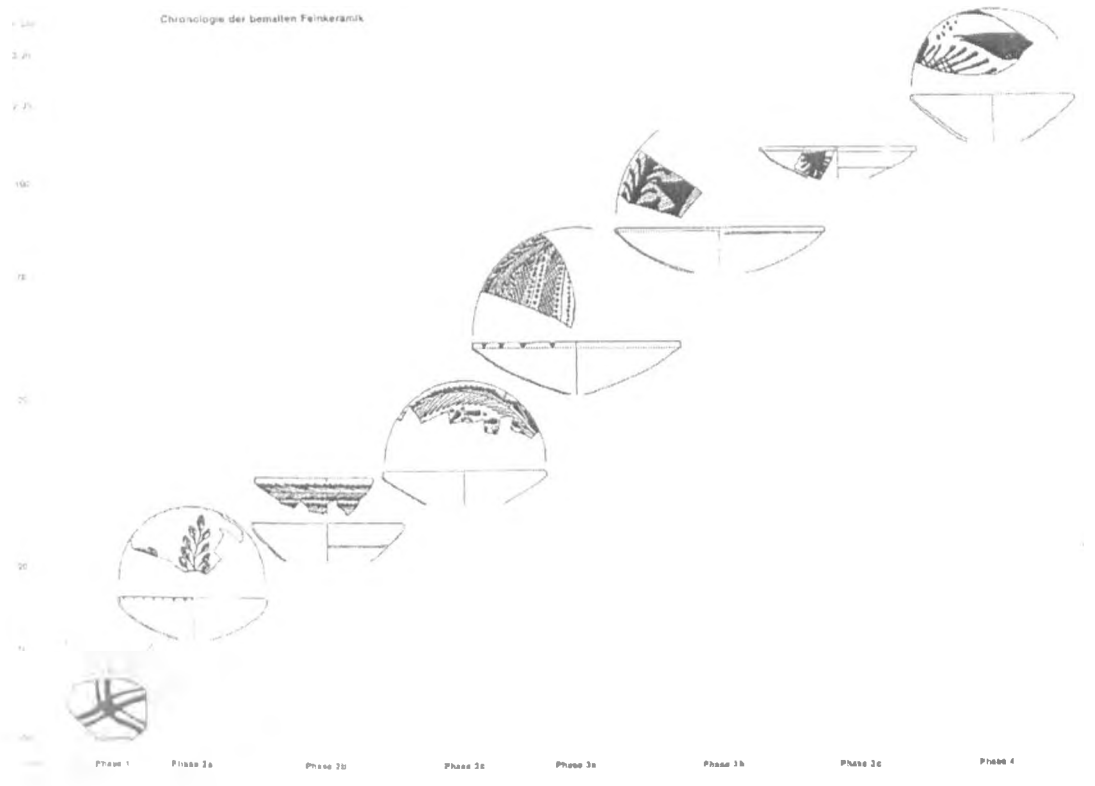

Fig 1.3 Typo-chronology for the NPFW bowls developed by Schmid (2000: abb. 98).

Examination of the plain and commonware assemblages of the Nabataeans was neglected for a long time, as ceramicists favoured studying the NPFW. It was not until the groundbreaking work of Khairy (1975) that this issue was addressed. In studying the materials from Parr's 1958-1964 excavations at Petra (Parr 1970), he was the first to discern 15 different 'classes' (i.e. vessel forms), which were broken down into sub-categories based upon rim profile. The most useful information provided by Khairy's study was his identification of specifically Nabataean vessel types not paralleled outside of Nabataea. Unfortunately, he only offered very broad chronological range for his vessel types, so it is relatively useless as a dating tool. In addition, he never attempted to reconcile the stratigraphic location from which the vessels were found with the detailed phasing provided by Parr. Finally, this work was a doctoral dissertation that has never been published.

The most extensive and comprehensive study on the Nabatacan commonware pottery was undertaken by Yvonne Gerber (1996, 1997, 2001), who also worked with the Swiss at ez-Zantur in Petra. She has isolated and identified literally hundreds of types and sub-types for this much overlooked ware, and there is probably no single person who knows more about the subject matter. Unfortunately

this work too, much like that of Khairy, was in the form of a doctoral dissertation which has also not been published. Taken together, there is a great need for either the work of Gerber to be published or for someone else to create a typo-chronology for the Nabataean commonware pottery, based upon known vessel forms from existing corpora of those ceramics from well-stratified excavations.

1.3 Nabataean Aqaba Ware Pottery

The impetus for this study stems from previous research and fieldwork conducted by the author between 1996 and 2001. The focus of this research was the history and archaeology of the Nabataeans in general, and Nabataean ceramics in particular. Work with the Roman Aqaba Project introduced the writer to the material culture of Nabataean and Roman Jordan, with the Early Roman and Nabataean pottery (1st century BC to early-2nd century AD) from that project as the topic of his Master's thesis (Dolinka 1999). During the course of these investigations, he was able to distinguish a hitherto unknown type of Nabataean commonware pottery produced at the ancient site of Aila (modern Aqaba, Jordan), to which he gave the appellation 'Aqaba Ware'. This unique ceramic type differed from the only other known type of Nabataean pottery – *i.e.* the red-coloured, calcareous ware produced at Petra – in its characteristic cream-coloured fabric, sandy/gritty texture and inclusions of biotite mica, a typical component of the sands in the southern Wadi Araba region.

Following the completion of his Master's thesis at North Carolina State University, the author spent an academic year as an ACOR Fellow, the primary focus being to trace the quantitative and qualitative distribution of Aqaba Ware at Nabataean sites, and to make refinements in its typo-chronology. In total, 45 sites in Jordan and Israel yielded quantities of Aqaba Ware. The results of this research were recently published (Dolinka 2003). The significance of that report lies in the fact that not only is it the first study of its kind dealing with a known and easily recognisable type of Nabataean commonware pottery, but also because until that point, the ceramic record of southern Nabataea (*i.e.* south of Petra) had been essentially overlooked.

1.4 Rationale for this Study

Despite the apparent success of the aforementioned research on Aqaba Ware, there were still many unanswered questions with respect to its typological and

chronological development, and even broader implications regarding Nabataean history and material culture in the century that followed the Roman annexation of their kingdom in AD 106. To this writer, the most pressing issue was the question of what happened to Nabataean pottery, especially the Aqaba Ware, after the early-2nd century AD? Did it continue its production and distribution in its present form, did it degenerate, or was it replaced by a new ceramic tradition altogether? Finally, why did there appear to be such an apparent gap in our knowledge of the historical and archaeological record regarding the Nabataeans during the Antonine and Severan periods?

The reason for our lack of understanding regarding the Nabataeans during the second century AD is twofold. The first obstacle is a chronological issue, and the result of artificial periodizations imposed upon the region and its material culture. A prime example of this is the chronological schema provided by Sauer for the ceramic sequence from Tel Hesbān in central Jordan. For his dating, Sauer (1973: 3) proposed the following for the Early and Late Roman periods:

PHASE	*EVENTS/EMPERORS*	*DATE RANGE*
Early Roman I	Pre-Herod	63 – 37 BC
Early Roman II	Herod	37 – 4 BC
Early Roman III	Post-Herod to 1st Revolt	4 BC – AD 73
Early Roman IV	Vespasian to 2nd Revolt	AD 73 – 135
Late Roman I	Hadrian to Commodus	AD 135 -- 193
Late Roman II	Severan	AD 193 – 235

To justify the parameters for the Early Roman phases, Sauer used the political and/or military events in Judaea. This approach is flawed, however, because interactions between Judaeans and Romans have literally nothing to do with the material culture of the Nabataeans in general, or their ceramic repertoire in particular. For the Late Roman phases, Sauer used the tribunicial dates of Roman emperors. While assemblages of Nabataean pottery from these respective phases roughly do conform to his proposed dates, and are indeed incorporated into the present study, it should be stressed here that this phenomenon is not based upon who is emperor in Rome, but rather local developments within the Nabataean ceramic tradition. The problem of periodization has also become exacerbated by the varying ways scholars studying different sites in both Jordan and Israel have interpreted what exactly is 'Roman' and to what dates that term actually refers (cf. Freeman 2001: 427).

Periodization has also had a negative effect upon the chronological limitations of ceramic studies. The imposition of entirely subjective start and end dates for a pottery assemblage inherently places false boundaries upon it, as if it were to exist in a vacuum by itself, with nothing before or after it having any relevance. In other words, according to traditional thinking, once the Romans annexed Nabataea, the discussion of Nabataean pottery ends, and that of 'Roman' ceramics begins. An apropos example of this is the chronological schema provided by Schmid (1995, 1996, 2000, 2001) for the Nabataean finewares uncovered by the Swiss excavations at Petra ez-Zantur. While this typo-chronology is immensely important for the study of Nabataean pottery, it does have its limitations. Schmid places his final 'Dekorphase 3c' from *ca.* AD 100-106/114, a date which corresponds to either the Roman annexation or an earthquake that rocked the region shortly thereafter. In doing so, he makes little substantive comment about either the continuity or discontinuity of that ceramic tradition in the succeeding centuries, as that would stray into 'Roman' territory. The same can be said of the writer, whose research on the pottery from the Roman Aqaba Project was limited to the 'Early Roman/Nabataean' assemblage – i.e. before the Roman annexation.

An additional hindrance to the study of post-annexation Nabataean archaeology and ceramics lies with the publication record itself. The excavation of many Nabataean sites with 'Roman' strata as well has only been reported on in a very preliminary fashion. In addition, many scholars have chosen to focus their study and their archaeological fieldwork on the earlier Nabataean occupation or the later Byzantine period at sites. Furthermore, what research has been conducted at Roman sites in Jordan has focused upon those situated in areas to the north of the region discussed in this study. Meanwhile, the southern part of the former Nabataean kingdom, *i.e.* the portions of Jordan which lie to the south of the Dead Sea littoral, has been for the most part essentially ignored (Freeman 2001: 438). Finally, important fieldwork with special focus on the Nabataean ceramic repertoire has been written up in the form of doctoral dissertations only (*e.g.* Erickson-Gini 2004), and the information is therefore available to only a limited number of scholars who are actually aware of these studies.

A second issue addressed by this study is the fate of the Nabataean trading network in the 2nd and 3rd centuries. There remain gaps in our knowledge about the period in question, and this is due to the current text-based consensus that the

Nabataeans experienced an economic, social and demographic decline after the Roman annexation, largely based upon evidence from outside (*i.e.* north) of the limits of their kingdom. This apparent northern bias is due to a number of ideas posited by respected scholars. First, it has long been thought that the south was rendered backwater and became "le sud désertique" or "the barren south" (Sartre 1985: 54-56) when the Nabataean capital was moved from Petra to Bostra, after which Bostra became the capital of the *provincia Arabia* (MacAdam 1986a). According to these same scholars, Petra then diminished in importance, and became a "smallish provincial town...with little development" (Millar 1993: 421). Both of these ideas have been thoroughly refuted (Fiema 2003), and recent archaeological excavations in the Petra city centre (cf. Chapter 3.4c below), as well as papyrological evidence referring to the site (*P.Yadin* 12), have clearly demonstrated that Petra was a thriving place that underwent major renovations after the annexation, was continuously occupied through the Byzantine period, and served as an important administrative and judicial centre for the region.

Another major misinterpretation about the southern Nabataean kingdom, based upon the previous one, is the supposition that since the administrative focus had shifted from Petra to the north, the economic focus did as well. This theory then goes on to imply that because of this shift, the Nabataean roads and *caravanserais* fell out of use, with the trade in aromatics being diverted to either the Wadi Sirhan (situated to the northeast), or to the Egyptian Red Sea coast (Bowersock 1983: 64). These suggestions are also clearly wrong, as attested to by the fact that all of the major Nabataean settlements in the Negev, Wadi Arabah and southern Jordan examined in Chapter 3 below were not abandoned, but rather thrived after the annexation. The evidence from Horvat Dafit supports this idea of continuity, and clearly demonstrates that the Nabataean trade networks did not go out of use, but in contrast, flourished throughout the Antonine and Severan periods.

Taken together, it becomes very clear that there is a large gap in our information about what happened to the Nabataean trade networks and pottery after the annexation, and the need exists for a site that was occupied throughout the entire second century AD that can be used as a case study in order to address these issues. This is the intention of the research presented here. In 2001, the Israel Antiquities Authority decided to release for study and publication, "...old, as-yet unpublished excavations carried out in Israel..." (*ASOR Newsletter* 52/3 [2002] 17). This

included all of the materials from fieldwork conducted by Rudolph Cohen during the 1980s. As the writer is recognized in both Israel and Jordan as a specialist on Nabataean pottery, in November 2004 the IAA gave him formal permission to publish the final report for the Nabataean/Roman site of Horvat Dafit, which was occupied throughout the Antonine and Severan periods, and had great quantities of Aqaba Ware present in its ceramic assemblage, making it perfectly suited to test the fate of the Nabataean ceramic tradition and trade networks after the annexation.

1.5 Methodology

In November-December 2004, the writer conducted an intensive research trip to Israel, in order to examine the site archive and artefacts from Horvat Dafit. During that visit, all of the excavation records – including the locus sheets, finds reports, top plans and section drawings – were gathered from the IAA Archives in the Rockefeller Museum in Jerusalem. Next, the pottery drawings and photographic negatives from the IAA facility at Har Hotzvim (also in Jerusalem) were copied. Finally, exhaustive research on the ceramic assemblage was conducted at the IAA warehouse in Beit Shemesh. This led to the creation of a catalogue of relevant drawn pottery from the site that is not only representative of each of the site's occupational phases, ranging in date from the 1st to 3rd centuries AD. Known vessel forms of Aqaba Ware from each phase were then selected, in order to test their frequency and form, thereby revealing whether or not the vessels studied did indeed continue to be used throughout the 2nd century AD. Taken together, the following study provides insights concerning the development of the Nabataean Aqaba Ware ceramic repertoire and the fate of the Nabataean trade network after the Roman annexation.

1.6 Summary

The primary purpose of this dissertation is to assess what impact (if any) the Roman annexation of Nabataea in AD 106 had upon the ceramic repertoire of the Nabataeans during the succeeding Antonine and Severan periods, *ca.* AD 138–235. Utilising the pottery assemblage from the Nabataean site of Horvat Dafit, with particular regard to the Aqaba Ware which comprises the majority of that ceramic corpus, a detailed analysis of the vessel and rim forms can provide valuable information on how this pottery can relate to social, political and economic change. There are three distinct aspects of this ceramic assemblage that are relevant to better

understanding the post-annexation development of the Nabataean ceramic tradition. First, its presence can be used as a chronological marker to demonstrate the existence of Nabataean settlement and trading activities after AD 106. Second, its vessel forms can be utilised to indicate both cultural continuity of the Aqaba Ware tradition and the innovation and creativity of the Ailan potters after the annexation. Finally, examination of this assemblage can aid in understanding possible changes in the organisation of production, the use of raw materials and the preferences and/or habits of the consumers who used this pottery, through changes in the characteristics or quality of specific vessel forms.

Chapter Two presents a discussion on the history, society and material culture of the Nabataeans, in order to provide a background for this study. First addressed is the issue of Nabataean origins and how they came to occupy the lands they inhabited. Next is an examination of the principal regions of the Nabataean kingdom, in order to provide a geographical background, as well as make the reader aware of the principal sites in each of the four main sectors of occupation. Following that is an analysis of the sources for the history of the Nabataeans. As the Nabataeans had no historians themselves, the view that comes down to us from the Greek and Latin writers is for the most part anecdotal, biased and represents an outsider's view, although one may glean a certain amount of data regarding Nabataean historical events, chronology and insights into their culture. A discussion of the Nabataean monarchy follows, delineating the major events during the reign of each Nabataean king. Finally there is an overview of Nabataean material culture, with an analysis of their architecture, terracotta figurines, and hydrological installations. Taken together, all of this provides an historical regional context for these remarkable people, and serves as a basis from which to examine what happened to them and their material culture, particularly the Aqaba Ware pottery, and their trading network after the creation of the *provincia Arabia*.

Chapter Three investigates a selection of Nabataean sites that exhibit an occupational history both before and after the Roman annexation of AD 106, in an attempt to better understand the *status quaestionis* of research to-date and to identify gaps in our knowledge of the region during the Antonine and Severan periods. Discussion focuses upon archaeological research conducted at seven sites in the Negev (Mampsis, Oboda), Wadi Arabah (Moa and Aila) and southern Jordan (Humayma, Khirbet edh-Dharih, Petra). While fieldwork at these sites has provided a

better understanding of settlement activity, chronology and material culture of the Nabataeans during the period in question, most of the research either remains unpublished, and therefore unavailable to the greater scholarly community, or the principal investigators have chosen to focus upon the pre-AD 106 Nabataean strata or those from later periods (i.e. the fourth century AD). Taken together, it becomes clear that a detailed analysis of the stratification and finds from other Nabataean sites occupied throughout the 2nd century AD is needed to clarify what effect (if any) the creation of the *provincia Arabia* had on Nabataean material culture, particularly the ceramic repertoire.

The fourth chapter examines the Nabataean site of Horvat Dafit, by utilising stratigraphic and artifactual information provided the 1983-1984 excavations conducted by the IAA, under the directorship of Rudolph Cohen, as a case study to test the fate of Nabataean pottery during the Antonine and Severan periods. After a brief treatment of the regional environment, attention is focused upon the two very brief (and only published) reports on that fieldwork. Cohen identified three distinct building phases, which he dated to the 1st century AD, the 2nd-3rd centuries AD, and the 3rd-4th centuries AD. The site originated as a *caravanserai* located on the road leading northward from Aila (Aqaba, Jordan) along the western escarpment of the Wadi Arabah to the south-western end of the Dead Sea, and was likely founded during the second wave of Nabataean colonisation of the region during the reign of Aretas IV (9 BC - AD 40) in the first quarter of the 1st century AD.

Cohen's dating and phasing is re-assessed, and a revised phasing then introduced based upon a detailed analysis by the author of the stratigraphic reports, sections and plans, finds reports and pottery from those excavations. This reappraisal confirms that earliest phase did indeed date to the 1st century AD, while the second phase seems to be limited to the 2nd century AD only. The final phase appears to date to the late-2nd and early-3rd centuries, based upon numismatic evidence, known and datable pottery types and a lack of African Red Slip Ware typically dated to the 4th century. The conclusion is that Cohen was out by nearly a century for the final phase, which is clearly Severan (and not Diocletianic as he assumed) in date. Following is an examination of the individual loci from each building phase, presented with relevant photographs, top plans and section drawings, after which the numismatic evidence, small finds and animal bones are analysed. Taken together, information provided by the Rudolph Cohen excavations at Horvat Dafit provides the

perfect date range for which to study the development (or lack thereof) of Nabataean pottery in the century that followed the Roman annexation.

Chapter Five introduces a typo-chronology for, and thorough examination of, the Aqaba Ware assemblage from Horvat Dafit, in order to determine the fate of that ceramic tradition after the annexation. After a detailed analysis of the vessels forms from each of the three phases at Dafit, three distinct trends emerge regarding the development of Aqaba Ware during the Antonine and Severan periods. First, some of the vessel forms continue in use from the 1st to early-3rd centuries, but the vessel walls become thicker and the ware becomes coarser. Second, other forms continue to persist uninterrupted during the 1st through 3rd centuries, demonstrating a certain amount of conservatism amongst the Nabataean potters from Aila. Third, new forms begin to appear in the 2nd century, within a generation after the annexation. Some of these appear to have replaced earlier forms that apparently go out of use during the same period, but others are entirely new, demonstrating both the innovation of the Ailan potters and perhaps their adaptation to either new or existing markets. Taken together, the Aqaba Ware from Horvat Dafit is important not only because it exhibits continuity after the annexation, but because it is one of a mere handful of ceramic assemblages from stratified excavations dating to the Antonine and Severan periods.

The final chapter presents some of the preliminary conclusions reached by this investigation on the continuity of the Nabataean ceramic tradition, and attempts to place that information within its broader historical context. Discussion first focuses upon some of the interpretive hindrances that have limited research on the period in question. This is followed by an examination of Nabataea during the Antonine and Severan periods, with an investigation into the fate of the Nabataean trade networks after the annexation. Suggestions for future research are then offered, and it is clear that more sites like Horvat Dafit are needed to both supplement and enhance our knowledge of the period in question. Finally, the dissertation concludes with summation of the importance of Horvat Dafit and its assemblage of Aqaba Ware.

CHAPTER TWO

The Nabataeans and Their Kingdom

2.1 Introduction

Before considering the ceramic evidence for cultural continuity amongst the Nabataeans at Horvat Dafit during the Antonine and Severan periods, it is necessary first to discuss who the Nabataeans were and what their historical significance was in the broader regional framework. By examining the historical sources, society, economy and material culture of the Nabataeans, as well as their interactions with Judaeans and Romans, it becomes easier to provide socio-historical context for events after the kingdom of Nabataea was annexed in AD 106 and incorporated into the Roman empire as the *provincia Arabia*.

2.2 The Origins of the Nabataeans

Both the origin of the Nabataeans and the period during which they eventually settled into the area of Transjordan remains unclear. The subject has been a matter of much speculation and debate, with many conflicting and often disparate views. There are several scholars who have contended that the Nabataeans were either members of a tribal group known as the Nebaioth identified in books of *Genesis* and *2 Isaiah* from the biblical narrative, or the Nabaiati mentioned in Assyrian documents from the 8th and 7th centuries BC and later Achamaenid texts.[1] The basis for this argument rests on the premises that the groups in question all came from the same general geographic location, engaged in a nomadic-pastoralist lifestyle, and shared similar names. Both of these interpretations are historiographically suspect because of numerous philological problems regarding the spelling and pronunciation of what these scholars deem to be referring to as the Nabataeans. First of all, there is a large chronological gap between the 8th/7th century Nabaiati and the 4th-century Nabataeans in the ancient records. Secondly, as for the idea that because these names sound the same and therefore *are* the same, this has been refuted by many scholars, beginning with Starcky (1955: 85-86; 1966: 900)

1. Musil 1927: 490-494; Kammerer 1929: 26-31; Broome 1973; Lawlor 1974: 28-29 Bartlett 1979; Baldwin 1982: 114-116.

and supported by others,[2] due to the extensive spelling changes required. One must also take into consideration that there were many groups of nomadic-pastoralists inhabiting the region throughout its history, and therefore to connect one group to another regardless of chronological breaks and linguistic problems is a rather weak argument. That being said, it is been reasonably argued that the Nabataeans were ethnically and linguistically an Arab group (Healey 1989), and although an origin in the southern Arabian peninsula has been proposed for them (Starcky 1955: 87; Negev 1976: 131-132; Parr 1969: 250-253), the current trend places their beginnings in the northern part of the peninsula (Milik 1982; Knauf 1986: 74-86; Graf 1990: 67; al-Abduljabbar 1995: 67). From there, they migrated westward over an unknown period of time to settle eventually in Transjordan, and once there, they established themselves in places formerly occupied by the Edomites, whose descendants were most likely assimilated into the Nabataean society.[3]

2.3 Principal Regions Inhabited by the Nabataeans

From the ancient literary sources and archaeological fieldwork of more recent times, especially the numerous regional surveys that have been conducted during the past century, a clearer picture of the physical and political boundaries of the Nabataean kingdom is beginning to emerge. Although little is known about the extent of the early Nabataean kingdom, we have a great deal of information about its territory during the period covering the 1st century BC through the early-2nd century AD, when the region was annexed by Rome. By classical standards Nabataea was fairly large, especially when compared with other Roman client-kingdoms, *e.g.* Judaea. The bulk of its land consisted of either deserts or rocky plateaux, and its population was widely dispersed into a few main urban centres, with several lesser-sized villages and towns.

During the apogée of Nabataean power, its territory extended from what is

2.Winnett & Reed 1970: 99; Eph'al 1982: 221-222; abu Taleb 1984: 7-11; Knauf 1995: 94 ftn. 5; and al-Abduljabbar 1995: 67-69.

3. Glueck (1935: 137-139; *idem* 1959: 193) originally associated the emergence of the Nabataeans with the destruction of the Edomite kingdom by Nabonidus in 522 BC, after which their principal sites were either destroyed or abandoned. Although this proposal has met with some criticism (i.e. Sauer 1986), the archaeological record demonstrates a clear stratigraphic break between Edomite and Nabataean occupational phases (Myers 1971: 389; Hart 1987: 287-290; Bienkowski 1990: 35-39; and *idem* 1995: 62). Bartlett (1979, 1989, 1990) has argued for a direct continuity between Edomites and Nabataeans; although this proposal seems plausible, at this point it is difficult to prove.

now modern-day southern Syria in the north, to the northwestern Arabian peninsula in the south, and from the Sinai peninsula in the west, to what is now the easternmost portion of Jordan and the northern sector of Saudi Arabia in the east. Its central position between Arabia in the south and Syria in the north made it perfectly suited for its role as a middleman in the abundant trade in aromatics and spices that passed through this region. While the map of the Nabataean kingdom offered by Negev (1977: 550) took a rather all-encompassing approach and included the entire Sinai peninsula and all of the areas to the south and west of the Wadi Sirhan (**Fig. 2.1** left), the more recent version provided by Kennedy (2000: 35), reflects a better approximation of the areas delimiting the Nabataean realm (**Fig. 2.1** right), as the latter is based upon what is know from archaeological surveys.

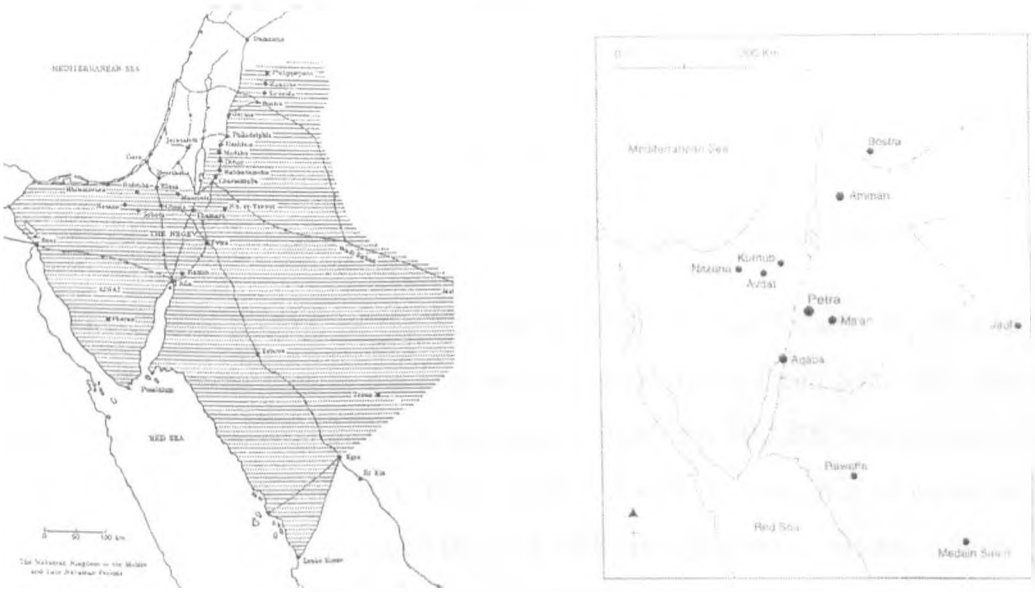

Fig. 2.1 Maps of the Nabataean kingdom produced by Negev (1977: 550), on the left, and Kennedy (2000: 35), on the right.

There were four major geographical sectors which comprised the Nabataean realm (**Fig. 2.2**). In the central part of their kingdom were the lands known as Edom and Moab in the biblical narrative. The northern part of their lands was situated in the Hauran region of northern Jordan and southern Syria. The southern Nabataean zone consisted of two mostly desert areas, the Hisma and the Hejaz. Finally, the western area of their kingdom was located in the Negev and Sinai, both of which were also extremely arid.

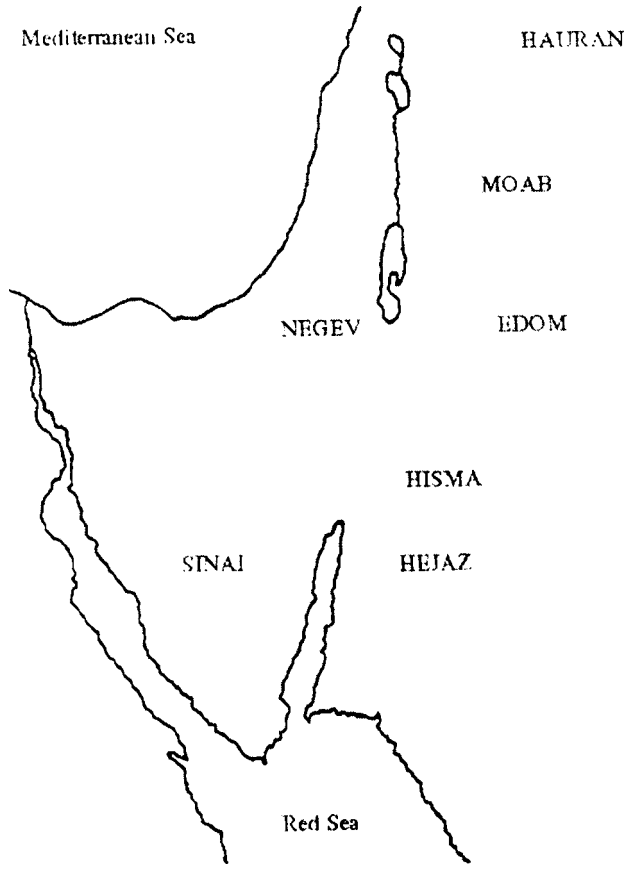

Fig. 2.2 Principal regions of the Nabataean kingdom (Dolinka 2003: 3).

The central portion of the Nabataean kingdom was located in what is now modern Jordan, in an area to the east and southeast of the Dead Sea. This region is characterised by two large plateaux that receive between 200-300 mm of rainfall *per annum* (Kennedy 2000: Fig. 3.2). This, combined with the presence of wadis and the use of run-off agriculture, provided the area with enough food to sustain a fairly large number of inhabitants (Parker 1986: 37, 87). The 'capital city' of the Nabataeans, Petra (see Chapter 3.4c below), was located in the northern part of Edom. The site was surrounded on all sides by precipitous rock formations, and a narrow passageway (i.e. *siq*) provided main access, which made it easily defensible and a well-suited location for the capital. Other major sites in this central region of Nabataea included Khirbet edh-Dharih (see Chapter 3.4b below), Udruh, Dhibān, Wadi ath-Themed and the cultic site of Khirbet et-Tannur.[4]

The northern region of the kingdom included the area known as the Hauran (Kennedy *et al* 1986; Kennedy & Freeman 1995; Peters 1977; Glueck 1942, Dentzer

4. For Udruh, see Killick 1983, 1986, 1986a, 1989; and Kennedy 2000: 168-170. For Dhibān, see Winnett & Reed 1964; Tushingham 1972; and Kennedy 2000: 128-129. For Wadi ath-Themed, see Daviau *et al* 2000. For Khirbet et-Tannur, see Glueck 1937, 1937a, 1965 *passim*, and 1993.

1986), which encompasses what is now southern Syria and northern Jordan. Although the terrain is characterised by numerous basaltic outcroppings and an almost complete lack of trees, the area is nevertheless very fertile, due to nutrients provided by the volcanic soil and a relative abundance of rainfall (Kennedy 1995). The principal settlement in this region was Bostra,[5] which became the new Nabataean royal residence during the reign of Rabbel II in the late-1st century AD, and later the seat of the Roman governor in Arabia. Other important sites in the Hauran included Umm el-Jimal (De Vries 1981, 1986, 1993, 1995, 1998), Si^{c} (Dentzer 1985a; Butler 1909) and Umm el-Quttein (Kennedy 2000: 76-81).

The southern portion of the Nabataean realm comprised of two vast expanses of desert: the Hisma, in the north, and the Hejaz in the south. The Hisma (Graf 1983, 1988; Parker 1986: 87; Kirkbride & Harding 1947) is characterised by an abundance of sand, broken up by the granite and sandstone formations of the Great Rift Valley. Temperatures in this barren region often exceed 40° C, and the area has never been densely populated. The principal settlements of the Hisma are Aila and Humayma (see Chapter 3.3b and 3.4a below) and Wadi Feinan (Barker *et al* 1997, 1999, 2000). The smaller sites include Khirbet el-Khālde and Qasr el-Kithāra (Kennedy 2000: 187-191; Parker 1986: 108-110), and most of these were located along the major trade route leading from the northern head of the Gulf of Aqaba towards Petra, a road which was later to become the *via nova Traiana* ("Trajan's new road") after the Roman annexation of Nabataea. Another important place in this region was the cultic site of Wadi Ramm (Dudley & Reeves 1997, 1998; Tholbecq 1998; Kennedy 2000: 191-192). In addition, recent archaeological fieldwork along the eastern and western escarpments of the Wadi Arabah valley have also reported the presence of some minor Nabataean villages, burial grounds, campsites and *caravanserais* in this portion of the Hisma.[6]

The Hejaz is located along the Red Sea coast of the northwestern Arabian peninsula (Musil 1926; Meigs 1966: 68; Brawer 1988: 54). In the valleys of this mostly granite mountain range are located several oases, which sustained life in a few thriving settlements in antiquity. The most prominent Nabataean site in the

5. For Bostra, see al-Megdad 1982, Miller 1983, Wilson & Sa'd 1984, Dentzer 1984, Dentzer & Blanc 1995, and Kennedy 2000: 205-206.

6. Dolinka 2006; Dolinka *et al* 2002; Smith 1995; Smith & Niemi 1994; Smith *et al* 1997; Cohen 1981a, 1982d, 1983a, 1984a, 1984c, 1988, 1991, 1993a; Cohen & Israel 1996, 1996a; Israel & Nahlieli 1982; Korjenkov & Erickson-Gini 2003.

Hejaz was Meda'in Salih (Winnett 1973; Negev 1969, 1976; Schmid-Colinet 1983; Bowsher 1986; Graf 1988; Healey 1993), known as Egra or Hegra in ancient times. This important Nabataean settlement was strategically located along the 'incense route' from the south Arabian peninsula to the Levantine littoral. In addition, it served as the southernmost military and administrative centre of the Nabataean kingdom and, like Petra, it was filled with numerous rock-carved tombs. Another site of significance in the Hejaz was the ancient harbour town of Leuke Kôme ("White Village").[7] Although the exact whereabouts of this site is still in question (Kirwan 1984), ancient texts (Strabo 16.4.23-24; *Periplus* 19) refer to it as a port along the Red Sea coast that was an emporium and a point of transhipment in the aromatics trade. Results of an archaeological survey carried out in northwestern Saudi Arabia (Ingraham *et al* 1981: 77-78) seem to indicate that Leuke Kôme was located between the modern inland town of Aynuna and the coastal village of Khuraybah, due to the presence of visible ancient architectural remains and Nabataean pottery on the surface.

The western portion of the Nabataean kingdom consisted of two regions: the Negev, west of the Edomite plateau and south of the Dead Sea; and the Sinai, which represented the western limit of Nabataea and bordered Egypt. The Negev is an arid zone that essentially covers the southern portion of modern Israel. The region is characterised by hilly limestone, chalk and marl outcroppings, large erosion craters surrounded by high cliffs, and several wadi systems. Precipitation in the central Negev highlands ranges from 120-75 mm *per annum*, but in the southern portion of this region it measures between 80-50 mm annually (Bruins 1986: 4-5, 23). To compensate for the lack of rain in the Negev, the Nabataeans developed techniques of run-off agriculture in the Negev (Evenari *et al* 1982), by controlling the flash floods caused by winter rains. This enabled the development of five large villages – Mampsis, Oboda (see Chapter 3.2a-b below), Nessana, Elusa and S'baita – and several other minor sites.[8] All of these sites were located along a network of roads associated with the caravan trade in aromatics.

7. Ward 2002: 118-132; Raschke 1978: 636, 649, 664; Sidebotham 1986: 105-107, 120-126; *idem* 1989: 490-491; and Casson 1989: 60-61, 143-144.

8. For Nessana/Nitzana, see Colt 1962; Negev 1993b; Urman 2004. For Elusa/Halutza, see Lombardi 1972; Negev 1976b; Negev 1982, 1993; Goldfus & Fabian 2000. For Rehovot and other minor sites in the Negev, see Meshel & Tsafrir 1974, 1975; Tsafrir 1988; Tsafrir & Holum 1988, 1988a *passim*, and 1993; Cohen 1982, 1982a-d, 1983, 1983a-b, 1984, 1984a-c, 1988, 1988a, 1991, 1991a, 1993, 1993a; Cohen & Israel 1996; Nahlieli & Israel 1982; Israel 1981; Rosen 1993; and Shamir 1999.

The Sinai is a triangular-shaped peninsula that lies between the Gulf of Aqaba on the east and the Gulf of Suez on the west. The region consists of several granite mountain ranges broken up by narrow and steep ravines and valleys, which offered an abundance of natural resources (Meigs 1966: 71-72; Brawer 1988: 34). The Nabataeans left numerous inscriptions (Negev 1977b) and established a few small settlements in the Sinai (Rothenberg 1961, 1970, 1979; Meshel 2000). The most prominent among these was Qasrawet, located along the northern coastal route between Gaza and the Egyptian delta, where the Nabataeans established a temple around which a village developed (Oren 1982). Two other sites from the Sinai include el-Mekharet, located near the copper and turquoise mines of Wadi Feiran (Grossmann & Reichert 1992; Grossmann *et al* 1996) and Jebel Moneijah, a cultic site located in the southern part of the peninsula (Negev 1977a).

2.4 Ancient Sources for Nabataean Society and Culture

Information about the early history of the Nabataeans comes from a variety of ancient sources. These include ancient Greek and Latin authors, papyri, inscriptions and coins. The following represents only a brief and introductory treatment of sources on the Nabataeans. The classical writers provide the basis for studying the Nabataeans. Though the accounts are somewhat vague and inexact, and decidedly biased, one can glean a great deal of information about the Nabataeans and how they fit into the overall socio-economic history of the region.

The first extant historical account of the Nabataeans occurs in the writings of Diodorus Siculus in the 1st century BC.[9] Although four books from his extensive *Library of History* – frequently cited by later authors, such as Strabo – contain our earliest collection of evidence regarding the Nabataeans, they are based upon earlier (now fragmentary) Hellenistic sources, particularly Hieronymus of Cardia and Agatharchides of Cnidus.[10] One must therefore bear in mind that his use of earlier sources reflects the Nabataeans of Ptolemaic times, and not his own.

Hieronymus of Cardia lived a long and intriguing life from *ca.* 350 to 260 BC (Hornblower 1981: 5). Although he discussed neither the history of the Nabataeans

9. Diodorus: 2.48, 2.54:3; 3.43.4-5; 19.94-100 *passim*; 40.4.
10. For the use of Hieronymus and Agatharchides by Diodorus, see Sacks 1990: 21, 41, 84-86 and 105 ftn. 92. See also Hornblower 1981: 144-153, for Hieronymus, and Burstein 1989: 33-36, 150-151, for Agatharchides

nor the geographical extent of their kingdom, he provided an account of their involvement in military conflicts with the Macedonian successors of Alexander the Great (*op. cit.*: 144-150). According to the eyewitness report of Hieronymus of Cardia, preserved in Diodorus Siculus (19.94-98), the Nabataeans make their historical debut in 312 BC when the Macedonian general Antigonus Monophthalmos ('the one-eyed')[11] sent two separate military expeditions against them in order to both seize their precious goods and to expand his territory.

The first mission comprised of a night-time sneak attack on the Nabataeans while they were gathered at Petra, and involved 4,000 infantrymen and 600 cavalry, under the leadership of Antigonus' friend Athenaeus. They were successful at first and killed many of the Nabataeans, who were caught off guard, took a number of them prisoners, and made off with a quantity of frankincense and myrrh, as well as 500 talents of silver. The Macedonians got careless, however, and after fleeing with their booty made camp a distance away from Petra. The Nabataeans, however, gave chase and made a night-time attack of their own, resulting in the death of almost all of Antigonus' troops.

The second expedition was conducted a short time later, this time under Antigonus' son Demetrius, who was entrusted with its command. While he was given the same amount of infantry, he also had 4,000 cavalry at his disposal, comprising a much larger force than the first mission. Arriving at Petra, they attempted to besiege the stronghold, but were unsuccessful and had to settle for Nabataean hostages and gifts. After the second expedition, Antigonus placed Hieronymus in charge of collecting bitumen from the Dead Sea. This encroachment upon a source of Nabataean revenue was met with overt hostility, and the Macedonians were attacked by Nabataean archers in reed boats, and incurred heavy losses. What is significant about this first mention of the Nabataeans by Hieronymus is that, already by the late-4th century BC, they were well established in the region and were indeed a force to be reckoned with.

In addition to discussing Nabataean conflicts with Antigonus, Hieronymus of Cardia (5.90a) made substantive comment, preserved in Diodorus Siculus, regarding

11. Billows 1990: 130-131. Antigonus I (*ca.* 382 – 301 BC) was a Macedonian noble and general in Alexander the Great's army; he was appointed supreme commander of Asia in 321 BC. His lust for power, military successes, and plans to control all of Alexander's former holdings caused the other *diadochoi* (i.e. successors of Alexander) to unite against and defeat him.

Nabataean culture, society and customs. Of them he said,

> "They live in the open air, claiming as their native land a wilderness that has neither rivers nor abundant springs from which it is possible for a hostile army to obtain water. It is their custom neither to plant grain, set out any fruit-bearing tree, use wine, nor construct any house; and if anyone is found acting contrary to this, death is the penalty. They follow this custom because they believe that those who possess those things are, in order to retain the use of them, easily compelled by the powerful to do their bidding. Some of them raise camels, others sheep, pasturing them in the desert" (Diodorus 19.94.2-4).

It is clear from the description that the Nabataeans, much like the modern bedouins who inhabit the region, were tent-dwelling semi-nomadic pastoralists, who led a life based upon sobriety and a lack of concern for material possessions. Hieronymus also made the following observations about the Nabataean economy:

> "While there are many Arabian tribes who use the desert as pasture, the Nabataeans far surpass the others in wealth although they are not much more than 10,000 in number; for not a few of them are accustomed to bring down to the sea frankincense and myrrh and the most valuable kinds of spices, which they procure from those who convey them from what is called Arabia Eudaemon [modern Yemen]" (Diodorus 19.94.4-6).

This passage is the first direct reference to the Nabataeans' involvement as middlemen in the lucrative aromatics trade, which brought frankincense and myrrh – expensive, high-demand products in the ancient world – from the south Arabian peninsula through their territories, whence it was distributed throughout the Mediterranean. Over time, their role would change and they would not only come to control the vast majority of the trade routes utilised for the transhipment of aromatics, but eventually they would begin to produce the unguents and perfumed oils themselves.

Another statement found in Hieronymus and preserved in Diodorus, addresses the ability of the Nabataeans to procure water in the desert or semi-arid regions they inhabited:

> "For in the waterless region...they have dug wells at convenient intervals and have kept the knowledge of them hidden from the peoples of all other nations...For since they themselves know about the places of hidden water and open them up, they have for their use...water in abundance; but...other peoples [who] pursue them, being in want of a watering place, by reason of their ignorance of the wells, in some cases perish because of the lack of water..." (Diodorus 2.48.2-4).

In addition to noting the presence of wells and cisterns throughout the Nabataean realm, Hieronymus provided details on how these were actually constructed, thereby providing insights into Nabataean hydrological engineering. From his firsthand account, he observed:

> "...they have prepared subterranean reservoirs lined with stucco...As the earth in some places is clayey and in others is of soft stone, they make...excavations in it, the mouths of which they make very small, but by constantly increasing the width as they dig deeper, they finally make them of such size that each has the length of one *plethrum* [*ca.* 100 feet]. After filling these reservoirs with rain water, they close the openings, making them even with the rest of the ground, and they leave signs that are known to themselves but are unrecognisable by others" (Diodorus 19.94.7-8).

As will be demonstrated in Chapter 3 below, particularly with regard to the site of Humayma in southern Jordan, the archaeological record is consistent with the description provided by Hieronymus. An abundance of evidence for hydrological installations has been recovered throughout the Nabataean realm, especially in the Negev, southern Jordan, and at Petra.[12] Structures associated with water-storing activities of the Nabataeans includes cisterns, basins and reservoirs, channels and conduits, canals and spillways, wells and dams.

Considered by some as one of the most significant Alexandrian writers of the 2nd century BC, Agatharchides of Cnidus wrote a geographical work entitled *On the Erythraean Sea*. The primary sources he used for this were early Ptolemaic accounts of the mid-3rd century BC, including the *Geography* by Eratosthenes of Cyrene and what he referred to as 'royal *hypomnemata*' or 'official documents and accounts' from the Ptolemaic administrative records (Burstein 1989: 30). Although little of the *On the Erythraean Sea* has survived, Burstein was able to restore much of Book V from that work, by reconciling fragments attributed to the author with known quotations from other ancient writers, particularly Diodorus Siculus and Strabo. Regarding the Nabataeans, Agatharchides informs:

> "After sailing past this...one encounters the Laeanites Gulf [i.e. Gulf of Aqaba], around which there are many villages of the so-called Nabataean Arabs. They occupy much of the coast and not a little of the adjacent country which extends into the interior and contains a population that is unspeakably great as well as herds of animals that are unbelievably numerous" (5.90a).

This statement is important in as much as it is the first to provide an idea as to some of the regions outside of Petra that were inhabited by the Nabataeans, in this case the area around the northern head of the Gulf of Aqaba and a large portion of northwestern Saudi Arabia.

In addition to the account of Agatharchides, another late Hellenistic source

12. For the Negev, see Evenari & Koller 1956; Evenari *et al* 1982: esp. 95-119. For southern Jordan, see Oleson 1992 and 1995, as well as Farajat 1991 (in Arabic). For Petra and its environs, see Hammond 1967 and al-Muheisen 1992; Bellwald *et al* 2003.

that mentions the Nabataean is the two books of *Maccabees*, written under the Hasmonaean rule (165-37 BC) of Judaea. In the first book, the Nabataeans are mentioned by name as being friends and allies of the Jews (*I Macc.* 5.25-26; 9.35). In the second book, the first reference to a Nabataean king by name is provided, that being "Aretas the Arab dynast" (*II Macc.* 5.8), or Aretas I (167-120/110 BC). Later on in the same book, that same Nabataean king fights and loses a major battle against the forces of Judah Maccabee, after which he and the 'Arabs' made peace and "went home to their tents" (*II Macc.* 12.10-12). This passage is important because it demonstrated that between the writings of Hieronymus in the late-4th century and the mid-2nd century BC, the Nabataeans were still tent-dwelling semi-nomadic pastoralists.

An important ancient source for the Nabataeans, which offers a counterpoint to the writing of Hieronymus/Diodorus, is Book 16 of *The Geography* written by Strabo in the early-1st century AD. Although he essentially reiterates their statements concerning the region inhabited by the Nabataeans, he also reported on their customs. For this information, he relied upon the eyewitness account of his philosopher friend Athenodorus, who apparently had lived in Petra (*Geog.* 16.4.21). From the account of Athenodorus, Strabo was able to provide the first description of Petra, the Nabataean capital, which he described as:

> "...the *metropolis* of the Nabataeans...it lies on a site which is otherwise smooth and level, but it is fortified all round by a rock, the outside parts of the site being precipitous and sheer, and the inside parts having springs in abundance, both for domestic purposes and for watering gardens. Outside the circuit of the rock most of the territory is desert..." (*Geog.* 16.4.21).

Strabo then goes on to mention briefly the Nabataean monarchy:

> "Petra is always ruled by some king from the royal family; and the king has as Administrator one of his companions, who is called 'brother'. It is exceedingly well-governed" (*Geog.* 16.4.21).

This form of government, with an high advisor acting on behalf of the king, will play a pivotal role in Nabataean political history (cf. section 1.5. below). The report of Strabo also provides insights into the Nabataean economy during the 1st century AD. He recounts that:

> "...they were very wealthy, and...sold aromatics and the most valuable stones for gold and silver..." (*Geog.* 16.4.22) [and] "...camel traders travel back and forth from Petra...in safety and ease, and in such numbers of men and camels that they differ in no respect from an army" (*Geog.* 16.4.23).

From this description, it is clear that not only were the Nabataeans still heavily engaged in the aromatics trade, but that they had diversified and were now dealing in precious stones (such as turquoise). More important than this passage, however, is a following one that indicates a radical change in Nabataean *zeitgeist*, especially with regard to the acquisition of material possessions. Regarding their society in the 1st century AD, Strabo informs us that they:

> "...are so much inclined to acquire possessions that they publicly fine anyone who has diminished his possessions and also confer honours on anyone who has increased them....The king holds many drinking-bouts in magnificent style, but no one drinks more than eleven cupfuls, each time using a different golden cup...Their homes, through the use of stone, are costly..." (*Geog.* 16.4.26).

This stark contrast to the account provided by Hieronymus and preserved in Diodorus represents a significant cultural shift among the Nabataeans: during the period between the two narratives, portions of their population had changed from nomadic pastoralists to sedentary village dwellers, had acquired a great amount of wealth, and had adopted customs more typical of their Hellenised neighbours. For example, the 'drinking bouts' referred to in this passage bear striking similarities to the Greek *symposia*, a practice which was dispersed throughout the Hellenistic world, whereby after a lavish feast (*deipnon*) was taken, the participants would drink quantities of wine and engage in conversation of a usually philosophical nature (Murray 1996). Whether or not this statement by Strabo is simply made up and based upon constructs used to describe other Hellenistic monarchs of the period, or whether it reflects an attempt by the Nabataean royalty to approximate a Hellenistic practice they knew little or nothing about, remains elusive. Whatever the case, the information contained in Strabo provides great insights into Nabataean government, economy and society during the Augustan era.

While the aforementioned writings of the ancient authors do provide a basic framework for Nabataean history, other sources such as papyri, coins and inscriptions have all proven very useful in supplementing the information supplied by the classical writers. In the past century or so, archaeologists have unearthed numerous papyrus rolls. These papyri, usually written in a cursive version of the Greek script, are for the most part of an economic, administrative or personal nature – such as bills of sale and receipt, communications between politicians, and letters to and from family and friends.

The most important evidence about the Roman legal and civil administration of the new province comes from the so-called 'Babatha Archive' found in the Cave of the Letters at Nahal Hever, between 'En Gedi and Masada. These documents comprise of several papyri written in Greek, Aramaic and/or Hebrew from *ca.* AD 92-132 (Cotton & Yardeni 1997; Lewis *et al* 1989; Yadin *et al* 2002; Yardeni 2000). In this archive, information about a wide variety of issues are addressed, including property rights (Cotton 1991, 1993, 1996, 1997b; Cotton & Greenfield 1994; Lewis 1989), and legal matters pertaining to guardianship of children after the death of their father (Cotton 1993a, 1997a; Cotton & Greenfield 1995). In addition, we learn that Greek was the official language of the *provincia Arabia* (Cotton 1999: 23), and that there was a census conducted for tax purposes (Cotton 1997; Isaac 1994). Finally, the Babatha Archive provides a rare view of personal life that goes beyond the more political nature of many papyri. Taken together, and in light of the paucity of evidence from excavation, these papyri offer a glimpse of life in the region after the annexation.

There are two other collections of papyri, both found in Egypt, which provide a glimpse into Nabataean history. The first is the so-called *Zenon Archive*, which is the largest collection of extant papyri dating from the 3rd century BC (Thompson 1996: 127). Found in the Fayum region, these papyri represent the account books and communiqués of a certain Zenon, who managed a huge estate for Apollonius, the chief minister of Ptolemy II, king of Egypt. One of these papyri, dated to 259 BC (Vitelli: 1917: no. 406 [= *PSI* 406]), alludes to Nabataean merchants who sold aromatics to Ptolemaic representatives in the Hauran region of southern Syria. Another Zenon papyrus (Edgar 1925: no. 59004 [= *P.Cairo Zen.* 59004]) is important because it mentions a person named Rabbel, a name typical of the Nabataean royal house. Two other papyri, which were found at Karanis in Egypt and date to AD 107 (Youtie & Winter 1951: 5-16 [= *P.Mich.* 465-466]), represent personal letters of a Roman soldier named Apollinarius. These letters were originally interpreted as having been written in Bostra (Youtie & Winter 1951: 6), where the Roman *legio III Cyrenaica* was stationed, but that idea has been recently called into question by Kennedy (2000: 43-44), who suggests that they were written in Petra instead, i.e. before the Roman troops were able to establish themselves in Bostra. These papyri are important because they describe the hard physical labour undertaken by the Roman military, who were apparently constructing either roads or

buildings in Nabataea shortly after the annexation (see section 1.6 below). These three collections of papyri therefore provide important information on both the earliest and latest phases of Nabataean history.

Coins also shed some light on the history of the Nabataeans, and an abundance of numismatic evidence has been recovered from archaeological fieldwork of the past century. The Nabataeans did not start minting their own coins until the late-2nd century BC (Bowsher 1990; Meshorer 1975: 9-10), under Aretas II (120/110-96 BC). These first mints were crudely made bronze imitations of coins from Alexander the Great, with the head of Athena on the obverse and the Greek goddess of victory (i.e. Nike) on the reverse. Some of these coins had an inscribed letter 'alpha' on them, and this is thought to represent the first letter in the name of Aretas II (Bowersock 1983: 23). Nabataean coinage developed slowly (Meshorer 1975, 2003; Schmitt-Korte 1990), and it is not until the reign of Aretas III (85-62 BC), that the first silver issues begin to appear. Among these are the commemorative coins minted in Damascus after that city had briefly fallen under Nabataean control (84-71 BC), but as has been noted, "these coins are not Nabataean coins but rather coins of Damascus" (Meshorer 2003: 21).

Nabataean coins begin production in earnest under Obodas II (62-58 BC), and it was under the rule of his son Malichus I (58-30 BC) that the motif of the cornucopia first appears. This symbol, which later developed into two entwined cornucopiae, was a symbol of abundance and in the Hellenistic world represented fertility. Another iconographic element introduced on the coins of Malichus I was the hand with an open-palm, and it has been suggested that this motif was an aniconic representation of the Nabataean god Yad-Ramah (Patrich 1990: 134). It is during this period that the first coins depicting Nabataean queens appear.

The most diverse corpus of Nabataean issues were minted under Aretas IV (9 BC–AD 40), arguably the greatest of their monarchs (see section 1.5 below). Coins bearing images of the monarch and either of his two wives (Huldu and Shaqilat), and less occasionally his son Phasa'el, were produced in abundance, and these are found at almost every Nabataean site that has been either surveyed or excavated. Of importance regarding the numismatics from the reign of Aretas IV is the steady decline in the silver content (Schmitt-Korte & Cowell 1989), which went from almost pure silver (95%) at the beginning of his reign, to as low as 50% during the years between AD 18-21. The period of the last two Nabataean monarchs saw little

development under Malichus II (AD 40-70), who essentially utilised prototypes from his father's issues, and under Rabbel II (AD 70-106) the coins completely degenerated and were, for the most part, bronze instead of silver.

While the study of Nabataean numismatics has yielded important data regarding the chronology of their monarchy, epigraphic evidence has also offered glimpses into Nabataean history, for they left numerous inscriptions (Littmann 1914; Littmann & Meredith 1953, 1954; Negev 1961, 1963, 1977b, 1981; Sartre 1993). Most of these writings represent *graffiti* that was inscribed onto rocks or boulders within the many wadis of the Nabataean kingdom, and others were carved into the walls of cliffs. Although these writings are often rather formulaic – i.e. religious or dedicatory in nature – they offer information about the construction date(s) for tombs and other monuments (Healey 1993), the ethnicity and names of the Nabataeans themselves (Negev 1991), and the Nabataean impact upon the development of the later Arabic script (Healey 1990). In addition to the inscriptions in the Nabataean script, there have also been numerous examples found that were written in either Greek or Latin. In Sartre's omnibus study on the classical inscriptions from the heartland of the Nabataean kingdom, or 'Pétra et la Nabatène meridionale' (Sartre 1993) a total of 158 inscriptions from 18 sites were examined. Of these, over half of them – 92 or 58.2% – were from Petra, of which 76 (or 82.6%) were Greek. Of the total number of inscriptions from the entire corpus, the vast majority (135 or 85.4%) were written in Greek, demonstrating the predominance of that language as the *lingua franca* for administration in the eastern Mediterranean in general, and within the Nabataean realm in particular.

A number of general works on the Nabataeans and their history have been produced during the last century. Beginning with the fundamental work of Kammerer (1929), historical syntheses on the Nabataeans have been provided by several scholars. Like that initial study, however, many that followed were decidedly focused upon the epigraphic, philological and literary aspects of Nabataean history (*e.g.* Starcky 1955, 1966), while others (*e.g.* Riddle 1961) had a more politico-military emphasis, or had a particularly biblical bias (*e.g.* Lawlor 1974). The first attempt towards an understanding of Nabataean history was provided by Glueck (1965), and while this work was based upon his extensive surveys of the region, as well as his archaeological excavations at the Nabataean cultic site of Khirbet et-Tannur, many of his interpretations were flawed and seriously outdated. Further

syntheses, based upon a reconciliation between the ancient literary sources and the evidence from new archaeological fieldwork, were provided by Lindner (1968), Hammond (1973), Negev (1977), Parker (1986: 115-122) and Wenning (1987), and these did much to further our understanding of the region and its history. Until very recently, the best synthesis was Bowersock (1983), now in its second printing (1990), but with no revisions to the original text. Some attempts have been made to ameliorate this situation, and recent publications offered by Nehmé and Villeneuve (1999), as well as Schmid (2001) have at least updated information provided by the last decade or so of archaeological fieldwork, but the focus of these works is overwhelmingly Petra-centric, and fails to take into consideration any of the other regions occupied by the Nabataeans, *e.g.* the Negev, Wadi Arabah or Hisma. The most recent attempt at synthesis has been offered by Anderson (2004, 2005). This work is valuable because of its focus on Nabataean cultural, local and national identities, and how that can be "understood as a series of fluctuating responses to both internal and external pressures" (Anderson 2004: 14). Nevertheless, the study as a whole is lacking because the author is entirely unfamiliar with Nabataean archaeology or material culture. Taken together, all of the aforementioned sources have helped to reconstruct an adequate, albeit general, picture of the Nabataeans and their political/military history, society and economy; however, there is a great need for a new comprehensive history on the Nabataeans that would incorporate all of the new archaeological evidence that has come to light in the nearly 20 years since the fundamental study by Bowersock, *i.e.* one that does no focus solely on Petra and its monuments.

2.5 The Nabataean Monarchy

The works of Flavius Josephus, a historian of the late-1st century AD, represent the most extensive account of the Nabataean monarchy, with a focus on the political and military events that tied them to their neighbours in Judaea. Although numerous references to the Nabataeans are found in Josephus' *Bellum Judaicum* ("Jewish War") and *Antiquitates Judaicae* ("Antiquities of the Jews"),[13] one must be

13. B*J* 1.99-103, 124-130, 159, 178, 181, 187, 267, 274-278, 360, 364-388 *passim*, 440, 487, 534, 566; 2.66-79 *passim*; 3.68. *AJ* 13.360-361, 375-376, 382, 391-392, 414; 14.14-21, 31-33, 46, 48, 80-81, 84, 103, 128, 370-375; 15.92, 96, 106-160 *passim*, 167-175 *passim*, 351-352; 16.220-228, 271-297 *passim*, 335-355; 17.287-296; 18.109-115, 120-125 *passim*.

cautious of his interpretations, which have received a certain amount of criticism (Lewis & Reinhold 1990: 24; Cohen 1979: 47), and bear in mind that his view of the Nabataeans is very one-sided – *i.e.* from a strictly Judaean point-of-view. Unfortunately, there is no 'Nabataean Josephus' upon whom we can rely for a differing opinion. The following discussion focuses upon the individual reigns of the Nabataean kings (**Fig. 2.3**), and details what is known about their rule from either the ancient literary sources or from archaeological evidence uncovered during the past century.

Period	Monarch	Regnal Dates
Early Nabataean	Aretas I	*ca.* 168 - 120/110 BC
	Aretas II	*ca.* 120/110 - 96 BC
	Obodas I	*ca.* 96 - 85 BC
Middle Nabataean	Rabbel I	85 BC
	Aretas III	85 - 62 BC
	Obodas II	62 - 58 BC
	Malichus I	58 - 30 BC
	Obodas III	30 - 9 BC
	Syllaeus	9 BC
	Aretas IV	9 BC - AD 40
Late Nabataean	Malichus II	AD 40 - 70
	Rabbel II	AD 70 – 106

Fig. 2.3 List of the Nabataean monarchs and their regnal dates.

Judging from what appears in the historical sources, during the first two centuries BC, the political and military fortunes of the Nabataeans were tied to their relations with the Judaeans. This situation was best summed up by Glueck:

> "The Nabataeans and Judaeans befriended or fought each other for several centuries with high-strung irregularity. This...state of affairs existed during the Hasmonean dynasty of the Maccabees [165-37 BC] and continued when the Herodians [37 BC - AD 39] replaced them as the governing family of Judaea. Political, economic, geographic and personal factors affected the connections between the two peoples, who were at varying times either closely joined or sharply inimical to one another" (Glueck 1965: 40).

In addition to tenuous ties with the Judaean kingdom, during this same period the growing wealth of the Nabataeans attracted the interests of the Romans, as it had previously with the Macedonian Greeks under Antigonus in the 4th century BC. By 62 BC, Nabataea now became a client of Rome and survived as such until AD 106, when it was incorporated into the empire as the *provincia Arabia*.

Not much is known about the first three Nabataean kings. The first to be mentioned is Aretas I (*ca.* 168 - 120/110 BC). The only evidence we have for this monarch is the aforementioned passage in *2 Macc.* 5.8 and an inscription bearing his name found at Elusa (Cantineau 1932: 44). The second Nabataean king was Aretas II (*ca.* 120/110 - 96 BC). His name appears in association with the siege at Gaza undertaken by the Hasmonean leader Alexander Jannaeus in *ca.* 100 BC, from which the inhabitants of that city had hoped to be rescued by the Nabataean king (Jos. *AJ* 13.360), who had a vested commercial interest in the port, as it represented a major point of transhipment for the aromatics that the Nabataeans conveyed there by camel caravan. It was this king who was the first to mint Nabataean coins (see above).

During the reign of Aretas III (85–62 BC),[14] the Nabataean kingdom grew considerably. He began to consolidate his territorial holdings and expanded his kingdom by founding settlements at Auara and Aila (see Chapter 3.3b-4a below), and by occupying the Syrian city of Damascus for nearly fifteen years.[15] He also pursued an aggressive foreign policy with his Hasmonean neighbours in Judaea, first fighting against Alexander Jannaeus (82 BC), and later supporting John Hyrcanus II (66 BC). Eventually, Aretas III became a client-king of the Romans (62 BC) during Pompey's eastern tour to rid that part of the Roman empire from pirates who had been interfering with maritime commerce in the region, *i.e.* the so-called 'eastern tour'. This feat was accomplished by the Roman governor of Syria, M. Aemilius Scaurus, who advanced upon Petra but was unable to take the city, so ravaged the countryside instead (Jos. *AJ* 14.78-81). At the bidding of Scaurus, the Judaean client-king Antipater, a friend of Aretas, then persuaded the Nabataean king to pay the Romans 300 talents of silver so that they would discontinue wreaking havoc on the

14. Kammerer 1929: 153-170; Starcky 1955: 91-92; Riddle 1961: 34-50; Hammond 1973: 17-19; Lawlor 1974: 40-50; Negev 1977: 537-541; Roschinski 1980: 145-146; Bowersock 1983: 25-34; Graf 1992: 374; and more recently Healey 1996: 153.

15. Bowersock 1983: 25-27, based upon Josephus *AJ* 13.392-397, 414-421; 14.14-18. The forces of Aretas III occupied Damascus at the request of its inhabitants, who faced a security threat from the invading Ituraean tribe of the Anti-Lebanon.

lands around Petra, and for this Scaurus recognized Aretas III as the king of the Nabataeans. Thus began the ties between Nabataea and Rome, which would eventually result in the annexation of the former by the latter and the creation of the *provincia Arabia*.

Little is known about the reign of the next Nabataean king, Obodas II. This monarch is mentioned in two Nabataean inscriptions (now lost) found nearly a century ago (Dalman 1912: 99 no. 90; Littmann 1914: *vii*), and there is numismatic evidence for his reign (Meshorer 1975: 16-20). That being said, there are still a number scholars on Nabataean history (Kammerer 1929; Riddle 1961; Hammond 1973; Lawlor 1974; Negev 1977; Roschinski 1980) who fail to mention an Obodas who ruled during the period from *ca.* 62 – 58 BC, and refer to Obodas II as the later king who reigned from 30 – 9 BC. This erroneous assumption totally ignores the epigraphic and numismatic evidence to the contrary. Interestingly, the start of Obodas II's reign roughly coincides with the expedition of Scaurus and the beginning of Nabataean client-ship with Rome. His coins portray him as an elderly man. Perhaps Obodas II was somehow an older relative of Aretas III, and became king after the latter was either dead or deposed by the Romans during the expedition of Scaurus, but this is only conjecture.

The status of Nabataea as a client-kingdom of Rome was maintained through the shrewd political manoeuvring of the next Nabataean king, Malichus I, who ruled from *ca.* 58–30 BC.[16] His reign was as intimately tied to events in Rome as the reign of Aretas III's was to relations with Judaea. The first mention of Malichus I informs of his defeat in 55 BC by the Roman governor of Syria, A. Gabinius, to whom he paid tribute (Josephus, *AJ* 14.103). After this event, the fortunes of Nabataea were directly intertwined with the political crisis in Rome, which was experiencing a period of strife and civil war. Malichus faced the difficult task of having to choose sides among the divided Roman leadership: Pompey or Julius Caesar; Mark Antony or Brutus and Cassius; and finally Antony or Octavian. Malichus made the right political decision when he provided military support to Caesar in 47 BC, sending a contingent of cavalry to the latter's aid against Pompey in Egypt (Caesar, *Alexandrian War* 1). He made the wrong choice when he supported Brutus and

16. Kammerer 1929: 178-189; Starcky 1955: 92-93; Riddle 1961: 51-70, where he is referred to as 'Malchus II'; Negev 1977: 541-545; Roschinski 1980: 146-148; and Bowersock 1983: 37-44. These references are based upon the account of Josephus *AJ* 14.128, 370-376 *passim*; 15.92-193 *passim*.

Cassius (the *tyrrannicides*) against Mark Antony, which according to the 3rd-century AD Roman historian Cassius Dio (48.41.5) resulted in more Nabataean tribute to Rome and the loss of huge tracts of land. But Malichus did have the foresight to side with Octavian and helped to destroy the ships of Cleopatra VII (Dio 51.7.1). As if all of this were enough to deal with, Malichus also had to maintain the tenuous ties with his Hasmonean neighbours in Judaea.

With the accession of Augustus (*i.e.* Octavian) as emperor and the beginning of the *principate*, Nabataea came under the rule of Obodas III (30–9 BC).[17] He was recognised as king by Augustus, who had remembered the kind help of Malichus against the forces of Antony and Cleopatra. The principal event of interest during the reign of Obodas III was an expedition undertaken by the Roman prefect of Egypt, Aelius Gallus, in 26/25 BC. The results of this expedition are preserved in the detailed account of Strabo (*Geog.* 16.4.22-24), who was a close friend of Gallus. The intent of this campaign was to establish Roman control over the incense-producing regions of *Arabia Felix* ('fortunate Arabia'), or modern Yemen. Syllaeus, the Nabataean minister and high advisor to king Obodas, acted as guide for the Romans. The mission was a failure for many reasons. First, after crossing the Red Sea and landing at the Nabataean emporium of Leuke Kôme, many of the troops fell ill. In addition, they suffered supply problems and did not have enough of the essential provisions – i.e. food and water – needed for such a desert campaign. In the end, more of the Roman forces died from illness instead of in battle.

With death of Obodas III, Syllaeus usurped the throne of the Nabataean kingdom (Josephus, *AJ* 10.8-9, 16.9.1-4) and attempted, unsuccessfully, to establish a political bond with the Herodian dynasty of Judaea (Josephus, *AJ* 16.224). The extent of Syllaeus' hunger for power is demonstrated by his campaign of political assassination against Nabataean nobles as well as an attempted assassination of Herod (Josephus *AJ* 17.54-55). In addition to this, it appears that Syllaeus had self-promoting coins minted in his honour, which proclaimed him as 'king of the Nabataeans' (Meshorer 1975: 36-40). However, a more recent numismatic study on these coins has demonstrated that "there is no independent coinage of Syllaeus; he only has joint issues with Aretas IV which date to 9 BC" (Schmitt-Korte 1990: 131).

17. Kammerer 1929: 190-216; Starcky 1955: 95-97; Riddle 1961: 88-102; Hammond 1973: 22-24; Lawlor 1974: 91-101; Negev 1977: 558-566; Roschinski 1980: 148-150; Bowersock 1983: 46-51; and Braund 1984: 26. For the deification of Obodas III, see Negev 1986a.

Whatever the case, the ambition of Syllaeus proved too great, and he was accused of poisoning Obodas and later executed by the order of Augustus (Strabo, *Geog.* 16.4.24). Obodas III has often been characterised as a rather weak and ineffectual ruler, whose kingdom was essentially under the *de facto* leadership of his ambitious minister Syllaeus, however, this now seems not to be the case. Conversely, it appears that he was clearly loved by the Nabataean people, as demonstrated by his deification after his death (Negev 1986a, 2003).

After the execution of Syllaeus, Aretas IV (9 BC–AD 40)[18] was recognised as Nabataean king by Augustus (Josephus, *AJ* 16.355). This is likely due to the fact that during the failed mission of Gallus it was Aretas, described as "a kinsman of Obodas [who] received him in a friendly way and offered him gifts" (Strabo, *Geog.* 16.4.24), and for this act of kindness he was remember favourably by the Roman emperor. Although not a descendant of Obodas III, Aretas was nevertheless a member of the royal bloodline, being related to Malichus I (Khairy 1981; Starcky 1971; Bowersock 1983: 52). Politically and militarily, Aretas IV was a strong leader. In order to maintain peaceful relations with the Herodian dynasty of Judaea, he offered one of his daughters (Salome) in marriage to Herod Antipas, the ruler of Galilee and Peraea, in what is today northern Israel and Jordan. When Antipas divorced the daughter of Aretas IV, the latter invaded Peraea in AD 36 and defeated Antipas (Josephus, *AJ* 18.109-114). As this action was taken without the authorisation of Rome and the emperor Tiberius, a punitive attack against Nabataea was undertaken by Vitellius and his Syrian legions in AD 37. Aretas was spared when Vitellius withdrew upon hearing of the death of the aged emperor (Josephus *AJ* 18.120-124). Near the end of his reign, Aretas IV apparently re-established Nabataean control over Damascus, as his namesake had done more than a century before. This information is preserved in the *New Testament*, which describes St. Paul's escape from the city, which at the time was governed by an official (*ethnarch*) appointed by Aretas.[19]

Nabataean society and culture reached its apogee during the reign of Aretas IV, who initiated a massive building programme. In fact, many of the administrative and religious buildings in the Petra city centre were constructed during this period

18. Kammerer 1929: 242-254; Starcky 1955: 97-100; Riddle 1961: 103-123; Hammond 1973: 24-27; Lawlor 1974: 103-118; Negev 1977: 567-569; Roschinski 1980: 150-152; Bowersock 1983: 51-69; Braund 1984: 26, 62, 81, 84, 89 ftn. 86; Graf 1992: 374-375; and, more recently, Healey 1996: 153.
19. 2 *Corinthians* 11.32-33. This passage is repeated in *Acts* 9.23-25. For discussion on the *ethnarch* of Aretas IV at Damascus, see Knauf 1983 and, more recently, Taylor 1993.

(McKenzie 1990), as was the system of cisterns and water channels (see below section 1.7) that brought down water from the spring of Ain Musa to the site (Bellwald *et al* 2003). Other projects during this era included the establishment of a major entrepôt at Egra, modern Meda'in Salih (Barger 1966; Bowsher 1986; Healey 1993) in northwestern Saudi Arabia, the foundation of a major town at the modern site of el-Mekharet in the Sinai (Rothenberg 1970: 20, 26), and the development and enlargement of the five large settlements – Oboda, Elusa, Nessana, Mampsis and S'baita – in the Negev.

After the death of Aretas IV in AD 40, Malichus II ascended the throne of Nabataea and ruled until AD 70.[20] Although there is very little in the way of literary references to this king, his reign was years were by no means a 'dark age' as some (*e.g.* Negev 1977: 569-570) would have it. As a client of Rome, Malichus was expected to provide troops to aid the Roman army in their various campaigns, which he did in AD 67 by furnishing the Roman general Vespasian with 1,000 cavalry and 500 infantry – mostly archers – during the First Jewish Revolt (Josephus, *BJ* 3.68).

Another important source mentioning Malichus II is the *Periplus Maris Erythraei*, a guidebook used by Roman merchants in the Red Sea-India trade that was written by an unknown Egyptian author in the mid-1st century AD (Casson 1989: 6-7). The reference informs us that:

> "...there is another important harbour with a fort called Leuke Kôme, through which there is a way inland up to Petra, to Malichus king of the Nabataeans. This harbour also serves...the function of a port of trade for the craft, none large, that come to it loaded with freight from Arabia...as a safeguard, there is dispatched for duty in it a customs officer to deal with the [duty of a] fourth on incoming merchandise as well as a centurion with a detachment of soldiers" (*Periplus* 19; Casson 1989: 60-63, 143-145).

This passage is significant not only because it mentions Malichus II, but also because it clarifies an important aspect of the Nabataean economy: that a great portion of its wealth was derived from a 25% duty, enforced by the Nabataean military,[21] on goods passing through their principal port.

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20. Kammerer 1929: 254-255; Starcky 1955: 94, 100-101; Riddle 1961: 125-128; Hammond 1973: 27-29; Lawlor 1974: 120-122, where he is referred to as 'Malchus III'; Negev 1977: 569-570, 635-637; Roschinski 1980: 152; and Bowersock 1983: 69-72.

21. Several scholars (*e.g.* Negev 1977: 569-570) have interpreted the terms 'customs officer' and 'centurion' in *Periplus* 19 as a reference to Romans who controlled the Nabataean port of Leuke Kôme, while others contend that it was in the hands of the Nabataeans. The debate is remarkably summed up, including a lengthy bibliography, by Raschke (1978: 982, ftn. 1350). That Leuke Kôme was indeed a Nabataean port under Malichus II is best explained by Bowersock (1983: 70-71). See also Graf 1994: 289-290, for use of the term 'centurion' by the Nabataean army, and Young (1997) for use of the term 'customs officer'.

The last monarch to rule over Nabataea was Rabbel II. Although there are no literary sources mentioning this king, numismatics and inscriptions – of which there are an abundance – provide information about the him.[22] When Rabbel II ascended the throne in AD 70, he initially ruled jointly with Shaqilat – his mother and the wife of Malichus II – as regent because he was too young (Negev 1977: 637). The early reign of Rabbel II was rocked by a major rebellion in the southern part of the Nabataean kingdom, under Damasi of Hegra in AD 71 (Winnett 1973). After this insurrection was quelled, the remainder of the reign of Rabbel II was characterised by peace and prosperity. Firstly, there was an end to conflicts with Judaeans and Romans. Secondly, agriculture flourished, even in the midst of the Negev desert (Hammond 1967; Evenari & Koller 1956; Oleson 1995). Finally, the city of Bostra witnessed a period of architectural construction and development of pre-existing structures, and became thereafter the royal residence of the Nabataean king. For all of this, Rabbel II was given the title "he who brought life and deliverance to his people" (Cantineau 1932: 9).

2.6 The Roman Annexation of Nabataea in AD 106

While the 1st century AD may be seen as the floruit of the Nabataean kingdom, in the 2nd century AD the region was incorporated into the Roman Empire. In AD 106 the Roman governor of Syria, A. Cornelius Palma, annexed the kingdom of Nabataea for the emperor Trajan; the area was reorganised under Roman rule as the *provincia Arabia* (Yadin 1963). There has been some debate as to just how peaceful this event was.[23] Numismatic evidence seems to point to a smooth transition, for the commemorative coins minted after the annexation are inscribed with the phrase *Arabia adquisita* ('Arabia acquired'), instead of the phrase *Arabia capta* ('Arabia conquered'), which is attested on the coins from the provinces of both Egypt and Judaea (Strack 1931: 194-197, taf. VII:422; Préaux 1951: 132), for which explicit military actions are known. In addition, the emperor Trajan never took the title 'Arabicus', although he did take those of 'Dacicus' and 'Parthicus' when he conquered those regions, respectively, and incorporated them into the empire as new

22. Kammerer 1929: 255-258; Starcky 1955: 101-103; Riddle 1961: 130-133; Hammond 1973: 29; Lawlor 1974: 122-126; Negev 1977: 637-640; Roschinski 1980: 152-154; Bowersock 1983: 72-75.
23. Kammerer 1929: 257-279 *passim*; Riddle 1961: 134-137; Bowersock 1970; Negev 1977: 640-645; Kennedy 1980; Eadie 1985 and 1986; Fiema 1987; Graf 1992b and 1994; Freeman 1996; Schmid 1997; and Kennedy 2000: 41.

provinces (Bennett 1997: 84-103, 183-204, respectively).

There are two ancient literary references to the annexation of Nabataea. The first account was written by Cassius Dio in the early 3rd century AD, and preserved in summary form by the 11th-century AD compiler Xiphilinus. From this source we learn that:

> "About this same time, Palma, the governor of Syria, subdued the part of Arabia around Petra and made it subject to the Romans" (Cassius Dio 68.14.5).

The term "subdued" (ἐχειρώσατο) is rather ambiguous, and it is difficult to determine from this brief passage whether or not the event was peaceful. Another account of the annexation was recorded by Ammianus Marcellinus in the late 4th century AD (Matthews 1989: 343-344, 531 ftn. 70). He informs us that:

> "Arabia was given the name of a province, assigned a governor and compelled to obey our laws by the emperor Trajan, who, by frequent victories, crushed the arrogance of its inhabitants..." (14.8.13).

The phrases "frequent victories" and "crushed the arrogance" would seem to indicate that the annexation was not necessarily a peaceful one, and might have involved some type of military action, although there are still no contemporaneous ancient sources to corroborate any sort of military action taken by the Romans against the Nabataeans.

Some scholars (*e.g.* Fiema 1987: 35; Eadie 1985: 411), prefer to take a more middling approach to the idea of military action taken against Nabataea during the Roman annexation, and do not rule out the possibility of resistance to Roman intrusion. A recent reassessment of the archaeological evidence, based upon well-dated pottery, suggests that a conflict did take place between Romans and Nabataeans, and the result was destructions at Petra, Oboda, Khirbet edh-Dharih, Khirbet et-Tannur, Dhibān, (probably) S'baita, and a handful of sites in the Wadi Arabah (Schmid 1997: 416-420). However, caution should be urged, as the destruction levels cited in that study may have been the result of an earthquake that rocked the region in the early-2nd century AD (Russell 1985; Korjenkov & Erickson-Gini 2003; Dolinka 2003: 30-32), or perhaps these ashy layers studied by Schmid represent middens and/or dumps. Whatever the case, the question of military involvement by the Romans during the takeover of Nabataea is still debated, "but the consensus of opinion remains that the process of annexation was largely uncontested" (Kennedy 2000: 41).

After the annexation, the emperor Trajan drafted six units from the Nabataean army (totalling *ca.* 5,000 soldiers) and designated them the *cohortes Ulpiae Petraeorum*; these units were likely organised to aid in Trajan's campaign against the Parthians (Graf 1994: 296-297, 300; Kennedy 2000: 42-43). Nabataea had thus become absorbed into the Roman Empire.

2.7 Nabataean Material Culture

Archaeological fieldwork of the past century has revealed a great deal about the material culture of the Nabataeans, especially their architecture and its accompanying sculptural decoration. These exhibit a wide variety of cultural influences, the most prominent amongst them being the high Hellenistic architecture of Asia Minor and Ptolemaic Egypt, exemplified in structures from Pergamon, Miletus and especially Alexandria (McKenzie 1990, 2001; Lyttelton & Blagg 1990a; Dentzer-Feydey 1990, 1992). This influence can clearly be seen on the so-called '*khasneh*' ('treasury') at Petra (**Fig. 2.4**), with its broken pediment separated by a *tholos*, a feature which is also present on the so-called '*deir*' ('monastery') at the site.

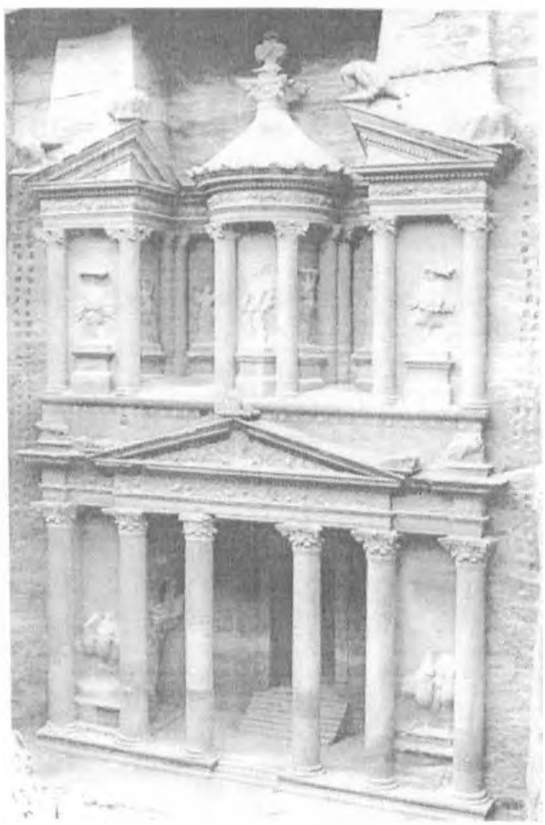

Fig. 2.4 The so-called 'khasneh' at Petra (photo by S.G. Schmid)

The main difference between the Hellenistic versions and the examples from Petra, are that the latter are not freestanding structures, but rather carved into the red sandstone of the cliff. Of interest are the two sets of double hand/foot niches on either side of the *khasneh*, which were utilised by its builders as a sort of scaffolding. The influence of Alexandria on the architecture of Petra can also be seen in the Nabataean Type 1 floral capitals (**Fig. 2.5**), such as the example illustrated below from the so-called 'Great Temple' at Petra (Schluntz 1998a: 227), which is based upon the Type IV Alexandrian capital (McKenzie 1990: 190, Diagram 14d).

Fig. 2.5 Nabataean Type 1 floral capital from the so-called 'Great Temple' at Petra (Schluntz 1998a: fig. 5.44).

Another clearly visible influence upon Nabataean architecture is the Greek (Lyttelton 1990; Augé 1990; Patrich 1990: 139-150). While the layout of many of the temples at Petra exhibit floor-plans and architectural elements common to those found in classical Greece (*e.g.* Ionic columns), an interesting adaptation found in Petra is the Main Theatre (**Fig. 2.6**). Although it has all of the essential components

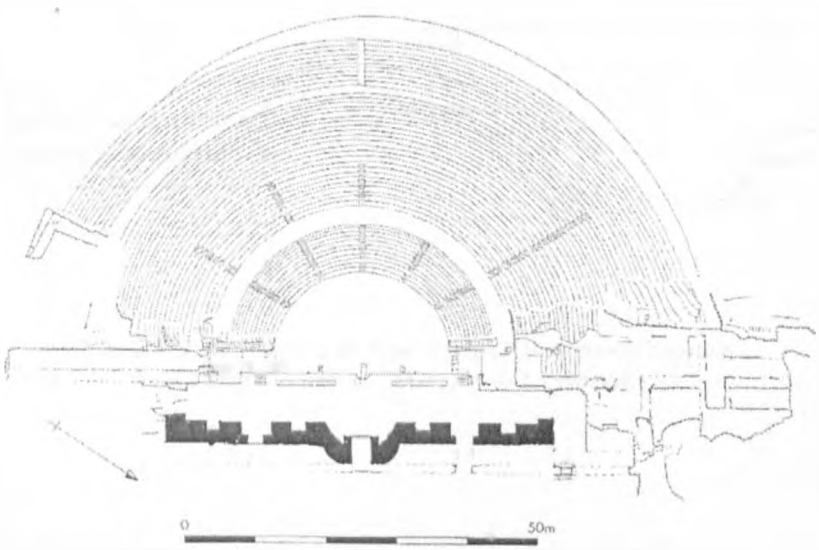

Fig. 2.6 The Main Theatre at Petra (McKenzie 1990: Pl. 90).

found in a Greek *theatron* – such as the *cavea*, *orchestra* and *scenae frons*[24] – once again, the Petra exemplar is carved into the living rock of the cliff face.

In addition to Greek and high Hellenistic influence on the architecture of the Nabataeans, there is also evidence of borrowing from the Roman and Parthian traditions (Lyttelton & Blagg 1990) and Syria as well (Hachlili 1975), especially with regards to temple floorplan. While foreign influence in Nabataean architecture – and other Nabataean art forms – is abundantly evident, the Nabataeans combined these elements in new and varied ways and added their own personal touch, thereby creating something truly original. This sentiment is best summed up by Basile, who said of Nabataean material culture that they had:

> "...a remarkably versatile and complex artistic tradition, one that...combines Arabian, Transjordanian, Mesopotamian, Egyptian and Hellenistic-Roman traditions, not in a purely derivative pastiche, but in something that is new and exciting and ultimately a product of the genius of their own artists – in short, one that is distinctly Nabataean (Basile 2002a: 258).

Although the Nabataeans did adapt a great deal of their architectural ideas from other cultures, they made some of their own innovations as well. This is clearly demonstrated by the capitals they developed and used in their structures. There are basically two types of Nabataean plain, blocked-out capitals (**Fig. 2.7**) that are commonplace throughout their kingdom (McKenzie 2001: 98; Negev 1974a). While these may seem simplistic in comparison with the aforementioned floral capitals from the so-called 'Great Temple', they are nevertheless unlike anything found in the region.

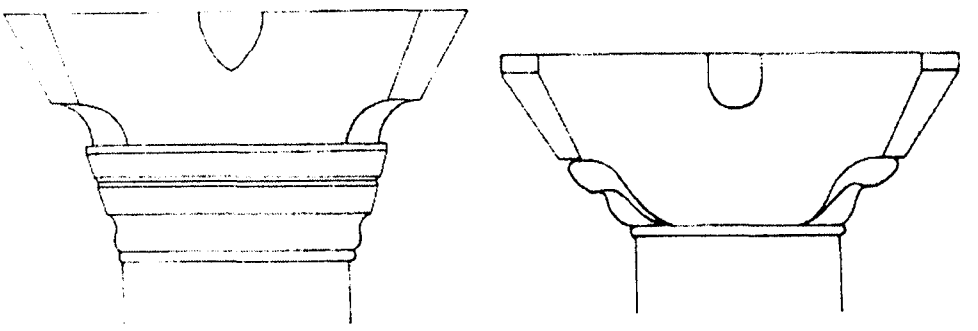

Fig. 2.7 Type 1 (left) and Type 2 (right) Nabataean capitals from Petra (McKenzie 2001: fig. 1-2, respectively).

24. McKenzie 1990: 182-185 *passim*. The *cavea* was the seating area of the theatre, the *orchestra* was the semi-circular space in front of the stage, and the *scenae frons* was the façade of the stage building.

Without question, the most innovative Nabataean architectural feature is the group of elephant-headed capitals from the so-called 'Great Temple' at Petra (**Fig. 2.8**), of which four have been recovered from the Brown University excavations. It is clear from the small ears of these animals that they are of the Indian variety, and not the African type, the latter of which have massive fan-shaped ears (Blagg 1990; Basile 1998: 197-198, pl. 35). One could argue that these capitals represent Indian influence; however, capitals of this type are as of yet unknown from the sub-continent, which makes the examples from Petra unique, and also demonstrates not only Nabataean craftsmanship, but imagination and innovation as well.

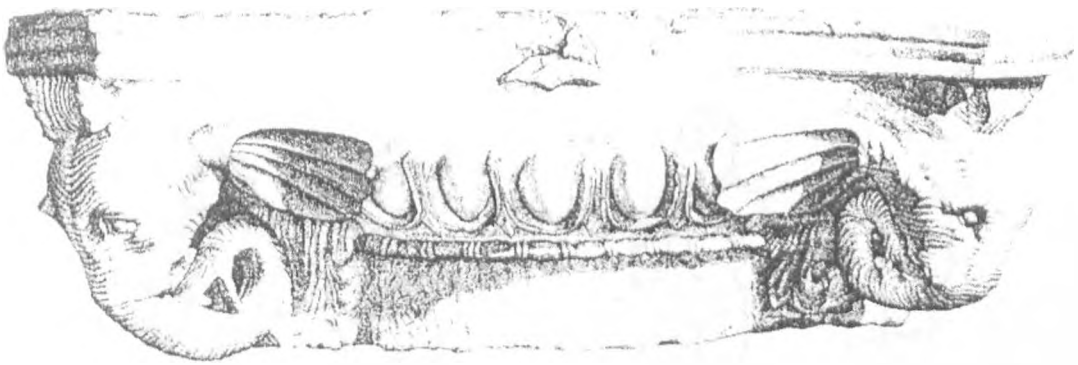

Fig. 2.8 Nabataean elephant-headed capitals from the so-called 'Great Temple' at Petra (Joukowsky 2002a: 246).

The Nabataeans had a knack for adapting to their environment, and utilising whatever was available to them, and this is evidenced in their choice of construction materials (Retzleff 2003; McKenzie *et* al 1998; Hammond 1995; Dentzer & Blanc 1995; McKenzie 1990; Patrich 1990: 123-124; Zeitler 1990; Schmid-Colinet 1983; Negev 1974a; Hammond 1965: 57-59). Unlike many of the other aforementioned cultures that had architectural influence upon them, the Nabataeans used wadi stones, basalt blocks, mudbrick and, in the cases of Petra and Meda'in Salih, the walls of cliffs.

One of the hallmarks in the Nabataean minor arts is the terracotta figurines they created. These figurines, found throughout the Nabataean kingdom, portray both anthropomorphic and zoomorphic representations. Despite the argument that the Nabataeans preferred not to portray human figures, because it went against their morés concerning the prohibition of any graven human image (Patrich 1990), they are nevertheless quite commonplace. The most comprehensive study of these mould-made figurines was recently published by El-Khouri (2002). She was able to identify

a vast repertoire of different animal and human types for this category of artefact. Of the most common anthropomorphic types are the 'enthroned goddess' and the 'nude young god' (**Fig. 2.9a-b**, respectively), while the most frequently-occurring zoomorphic varieties are represented by the camel, horse, and the horse with rider (**Fig. 2.9c-e**, respectively). These figurines were produced exclusively at Petra, and this is corroborated by excavations there, which have uncovered the clay and stone moulds from which they were made (Rosenthal-Heginbottom 2003: 26). Their production began in the late-1st century BC and reached its height during the mid to late-1st century AD. It appears that the moulds for these figurines were subsequently re-used, as demonstrated by the presence of very worn figurines attested in early-3rd century AD contexts at Petra (El-Khouri 2002: 34).

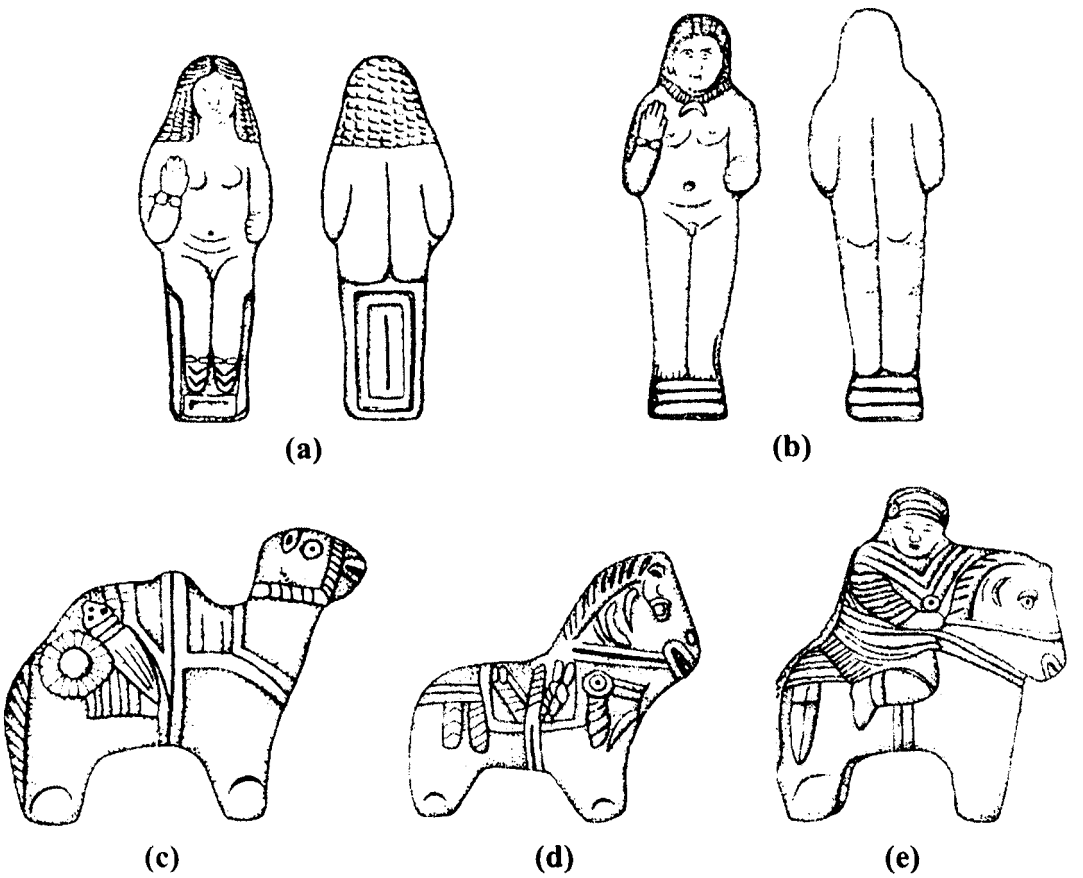

Fig. 2.9 Anthropomorphic (a-b) and zoomorphic (c-e) Nabataean terracotta figurines (Rosenthal-Heginbottom 2003: 38-39, figs. 51-55).

Perhaps the greatest achievement of the Nabataeans was their ability to procure and store water in the mostly arid and desert environs they inhabited. Based upon the description provided by Hieronymus and preserved in Diodorus Siculus (19.94.7-8), the ancient sources make it clear that the Nabataeans were masters of constructing large underground plaster-lined cisterns that were capable of holding large amounts of water. The archaeological record is consistent with this account (Oleson 2003a), as demonstrated by the numerous Nabataean cisterns uncovered in southern Jordan and Israel (Eadie & Oleson 1986; Oleson 1995; Evenari *et al* 1982: 95-119), especially the large variety found in the Negev (**Fig. 2.10**).

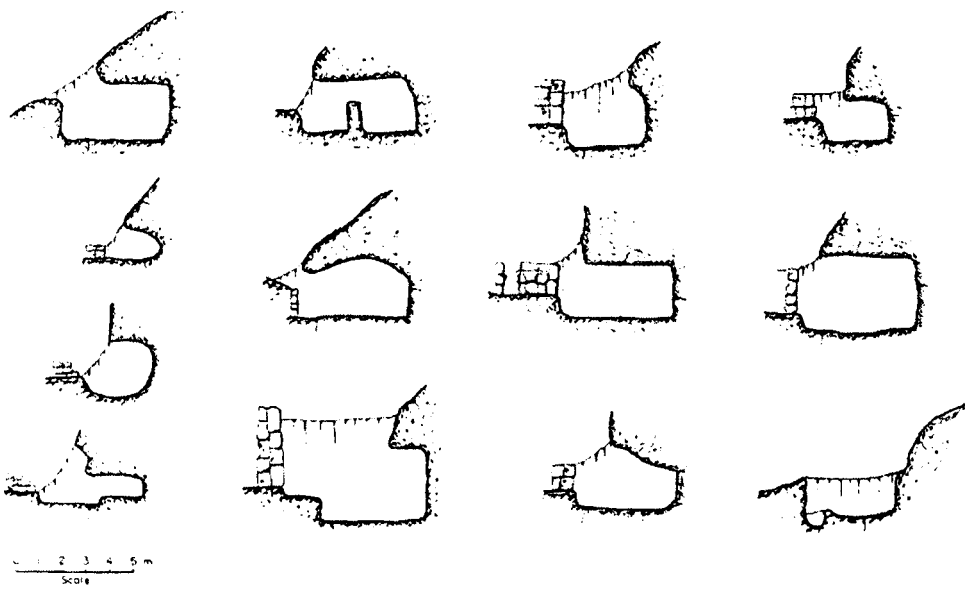

Fig. 2.10 Cross-sections of typical Nabataean cisterns found in the Negev (Evenari et al 1982: 165).

Nabataean proficiency in hydrological engineering is also attested at Petra, where according to Strabo (*Geog.* 16.4.21) there was an abundance of springs. This is also borne out by the archaeological record. During the past decade, work conducted by the Jordanian Department of Antiquities, along with Swiss archaeologists, has cleared the *siq* at Petra and restored a great deal of the water channels that supplied the city in antiquity (Bellwald *et al* 2003). These researchers have determined through excavation that this water-supply system was first constructed at the very end of the 1st century BC, under the reign of Aretas IV (*op cit*: 52), and have identified 35 inlets through which water entered the *siq* (*ibid*: 9). These inlets led to a series of pressurised pipelines and gravity flow channels which lines the sides of the *siq* (**Fig. 2.11**) and led directly into the Petra city centre.

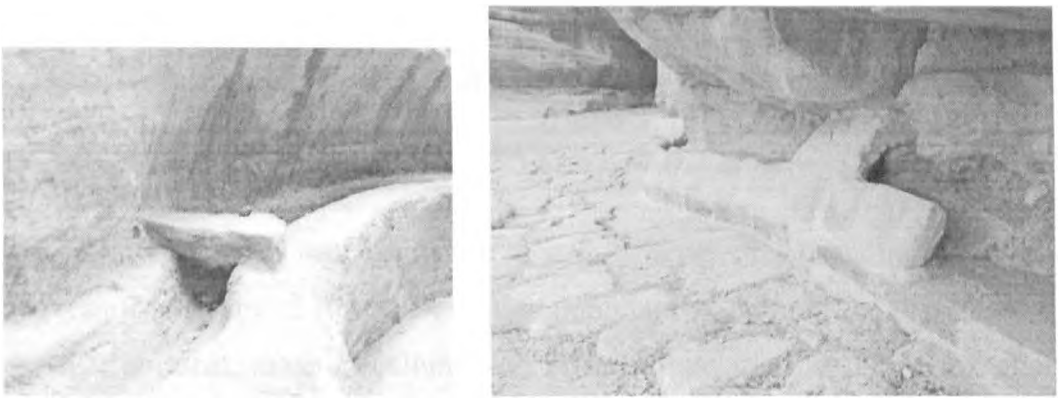

Fig. 2.11 Part of the system of water channels that ran through the siq and supplied the Petra city centre with water (photos by D. Keller).

That the Nabataeans were able to procure and store large quantities in the midst of the desert is no less than remarkable. This sentiment is best summed up by Oleson, who remarked:

> "For thousands of years before and after the period of the Nabataean cultural domination, the ways of life in the region encompassed by their kingdom have oscillated between the extremes of desperately poor nomadism and relatively comfortable settled life. The major accomplishment of the Nabataean culture, in both its nomadic and settled form, was its harmonious co-existence with the resources of the unforgiving desert environment" (Oleson 2003a: 42).

Taken together, the Nabataeans may therefore be seen as a historically important group in the region during the period covering from at least the late-4th century BC through the early-2nd century AD. They inhabited a vast kingdom, played a major role in regional political and military affairs, controlled the lucrative aromatics trade, were able to procure water in an extremely arid region, and developed a truly remarkable culture that was uniquely their own. But what happened to the Nabataeans after the Roman annexation? What happened to their society and material culture? Did Roman dominion affect them or their society and economy in any measurable way? The next chapter will examine a number of Nabataean sites with Roman-period strata, in an attempt to answer these questions, and in order to shed light upon what we do know about the region during the 2nd and 3rd centuries AD, and where there still remain gaps in our knowledge.

CHAPTER THREE

Nabataean Sites with Antonine and Severan Strata

3.1 Introduction

The purpose of this chapter is to gain a better understanding of why the Nabataean/Roman site of Horvat Dafit is so important to our knowledge of the socio-economic, political, material cultural and historical situation in the region after it became the *provincia Arabia*. This will be accomplished by examining comparative sites from both modern Israel and Jordan that were occupied throughout the 2nd and early-3rd centuries AD. A thorough analysis of previous archaeological research conducted at sites in the Negev, Wadi Arabah and southern Jordan can be utilised to shed light upon what is known about the period in question, and where there still remain gaps in our knowledge.

For each of the ancient sites contained within this chapter (**Fig. 3.1**), there is a basic description of its location and environs, followed by a brief outline of its historical occupation and, finally, an account of modern archaeological research, both survey and excavation, with a focus upon evidence from the Antonine and Severan periods. Sites located in the modern state of Israel are listed initially with their ancient name (if known), Hebrew and Arabic names, followed by Palestine Grid (hereafter abbreviated as PG) co-ordinates. Sites in the modern Hashemite Kingdom of Jordan are described similarly, using their ancient name, if known, followed by their Arabic name and UTM coordinates. It should be noted here, that many of the site descriptions are based upon personal visits to each by the writer during the course of his research in the region during the past decade.

3.2 Sites in the Central Negev

The large Nabataean settlements of Mampsis and Oboda are located in the central Negev. Both were occupied before and after the Roman annexation and have been extensively excavated. Therefore they represent good case-studies for comparison and contrast with Horvat Dafit.

3.2a Mampsis/Mamshit/Kurnub (PG 15603 / 04827)

Site Location and Brief Historical Outline

Mampsis is located on a low hill, 479 m ASL, a few kilometres southeast of the modern Israeli town of Dimona. The extant archaeological remains comprise of a walled town, the only fortified Nabataean settlement in the Negev (Negev 1988: 1). The site consists of several buildings both residential and public in nature, including two Byzantine churches, an extra-mural fort and *caravanserai*, a necropolis utilised by both Nabataeans and Romans, and a system of dams located in the ravine of Nahal Mamshit situated below the hill upon which the settlement is located.

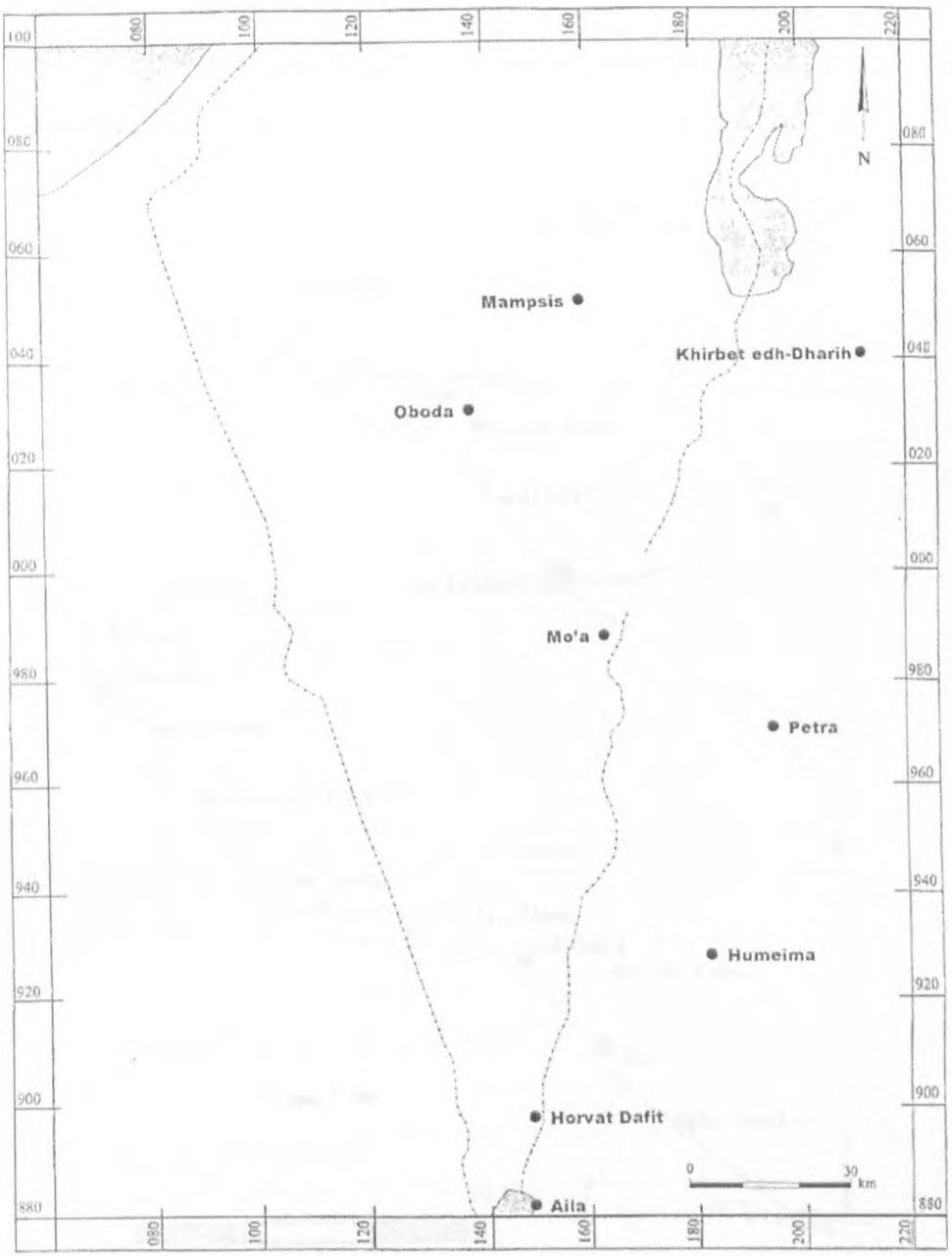

Fig. 3.1 Map of the sites discussed in this chapter (by Benjamin J. Dolinka)

The site was first settled by the Nabataeans in the mid-1st century AD, and situated at the junction of two major routes (**Fig. 3.2**). The first of these roads ran southward and to the east, from Beersheba in the northern Negev, passing through Mampsis and the important site of 'En Hazeva in the central Negev, and crossing the Wadi Arabah, where it terminated at Feinan, famed in antiquity for its copper mines. The second route led to the east, passing by the southern end of the Dead Sea and connecting with a road that led to the north of what is now modern Jordan. The site was strategically positioned above the steep slopes overlooking the gorge of Nahal Mamshit, and held a commanding view of the areas to its north and east. Mampsis was the smallest of the four other major Nabataean settlements in the central Negev (i.e. Oboda, Nessana, Elusa and Sobota). It measured *ca.* 41,700 m^2 and covered an area of 10 acres, with an estimated population of *ca.* 500 (Negev 1988: 2).

Fig. 3.2 Map showing the majorNabataean/Roman roads in the Negev and Wadi Arabah (Erickson-Gini 2004: 27).

The area within the walled town may be divided into three sectors: western, central and eastern (Negev 1988: 5). The western sector consists of *ca.* 20 large dwellings where the wealthiest portion of the town's population likely lived. The houses in the central sector, of which there are *ca.* 11, are roughly half the size of those in the western part of Mampsis. The eastern sector seems to have been devoted to public and/or administrative buildings (*op. cit.*: 111-194), such as Building XII (the 'mansion'), Building IV (the 'market'), Building V (the 'bath house'), Building VII (the 'public reservoir'), and Building VIII (the '*caravanserai*').

In the Middle and Late Nabataean periods, or the mid-1st to mid-2nd centuries AD, Mampsis thrived as a Nabataean settlement along the incense route that terminated in Gaza. While only a moderate-sized town during this period, it was built up extensively in the latter half of the 2nd century AD, after the Roman annexation of the Nabataean kingdom in AD 106 and the incorporation of the region into the Roman Empire as the new *provincia Arabia*. From this period, there is evidence for the presence of Roman military officers (see below).

During the reign of Diocletian in the late-3rd century AD, Mampsis underwent a period of new construction, when a wall with projecting towers was built around the site (Negev 1988: 4). In this period, the town was an active station connecting the Roman forts at 'En Hazeva and Beersheba, and was mentioned by Eusebius (*Onom.* 8) as being a day's journey from the former. In addition, it has been suggested that the site may have acted as a post for the *cohors Quarta Palestinorum* (Dodgeon & Lieu 1991: 344).

Mampsis appears to have suffered extensive damage during a massive earthquake that affected sites in and around the Wadi Arabah valley on 19 May 363 (Russell 1980; Korjenkov 1998). This damage predates structural changes in some of the buildings and the construction of two churches during the Byzantine period at the site. The rest of the Byzantine era at Mampsis was a period of decline, and it has been suggested that in the 5th and 6th centuries AD, the inhabitants of the town were almost entirely dependent on stipends provided by the Byzantine authorities, and when these payments to the town's inhabitants ceased, the site was largely abandoned (Negev 1990: 356-357).

Early Research and Fieldwork

The first modern research in the Negev began with the accounts of European explorers in the early nineteenth century. Many of those travellers mistakenly identified the site as that of ancient Thamara[1] mentioned by Eusebius (*On.* 8) and present on the *Tabula Peutingeriana*, or as Elusa,[2] which is in fact located far to the west of Mampsis near the modern Egyptian border. The first person to identify correctly the site was Hartmann (1913: 110-113), and his proposal was eventually accepted by those who followed.

More systematic archaeological surveys were carried out in and around Mampsis during the early part of the 20th century. The first of these was that conducted by Sir Leonard Woolley and T.E. Lawrence, whose 1913 survey described and made plans (**Fig. 3.3**) of the two Byzantine-era churches, the town walls and towers, as well as the system of dams located in the ravine of Nahal Mamshit below the settlement (Woolley & Lawrence 1914: 121-128, Figs. 55-58, Pls. XXX-XXXI). Two decades later, J.H. Iliffe (1933: 133-134) noted the presence of Nabataean painted fineware sherds at Mampsis during his survey of the Negev, and suggested that it was originally a Nabataean site. The site was also visited by Nelson Glueck

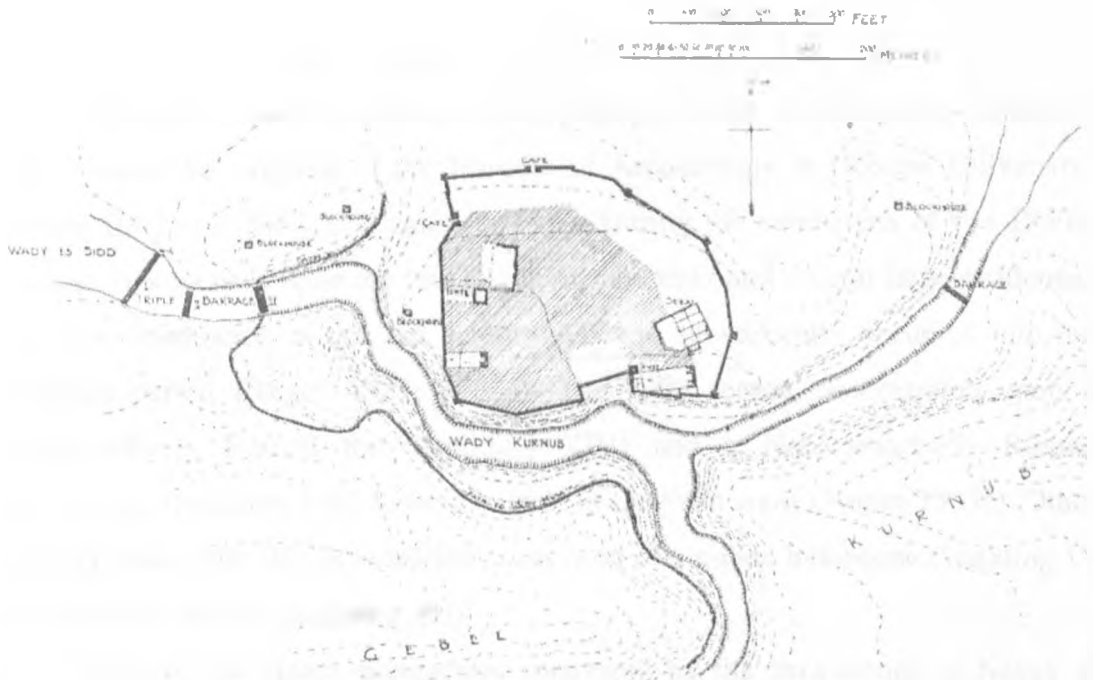

Fig. 3.3 Site plan of Mampsis made by Woolley (Woolley & Lawrence 1915: 124).

1. Seetzen 1855: 10-11, Pl. III; Robinson 1841: 580-594, 613-616, 622; Palmer 1871: 46, 75; Musil 1907: 17-28, Figs. 10-13.
2. von Schubert 1839: 447-451; Lord Lindsay 1839: 46-47.

the following year, who mentioned the walled town and churches, and noted the presence of Nabataean, Roman and Byzantine pottery (Glueck 1935: 113-115).

Mampsis was included in the Archaeological Survey of Palestine directed by G.E. Kirk in 1937-1938. In addition to describing the features of the site, as those before him had done, he made some new and important observations regarding Mampsis (Kirk 1938: 213-221). First, he noticed that there was some recent structural damage to the East Church and other buildings, which he claimed was the result of the robbing of stones for the construction of the British Mandate police station overlooking the site. Second, he identified a hitherto unrecognised necropolis *ca.* 1 km to the northeast of the town, which was excavated by Avraham Negev in the 1960s (see below). Third, and probably most importantly, he noted the architectural differences between Mampsis and the Byzantine-period remains at Sobota (S'baita) and 'Auja Hafir (Nessana), positing the idea, subsequently confirmed, that many of the buildings at Mampsis – with the exception of the churches – were of an earlier, Roman date. The first archaeological excavations at Mampsis were directed by Shimon Applebaum in the late 1950s. This fieldwork consisted of a series of *sondages* near the town walls in the western portion of the site, and revealed occupational layers dating to the 3rd century AD.[3]

The Excavations of Avraham Negev

The most extensive excavations at Mampsis were conducted by Avraham Negev, under the auspices of the Institute of Archaeology at Hebrew University, between 1965 and 1967, and again in 1990. During the campaigns of the 1960s, investigations focused upon the two Byzantine churches and several large residential structures constructed in the 2nd century AD and subsequently occupied into the Byzantine period (Negev 1988; 1988a). The 1990 season concentrated upon a Nabataean/Early Roman fort (Building XIV) and a Nabataean/Early Roman *caravanserai* (Building VIII) located outside of the town walls (Negev 1993c). Other investigations at the site included the excavation of a public bathhouse (Building V) and a public reservoir (Building VII).

Most of the extant architecture uncovered by the excavations of Negev at Mampsis date from the Diocletianic period, i.e. late-3rd to early-4th centuries AD,

3. T. Erickson-Gini: pers. comm. See also Applebaum 1956 and 1959 (both in Hebrew), which I was unable to consult.

based upon the numismatic evidence. Negev, however, suggested that most of the structures were built during the Late Nabataean period (i.e. the 2nd century AD), and a few of those structures could definitely be assigned to the Antonine and Severan periods.

Building I (**Fig. 3.4**), the so-called 'palace' (Negev 1988: 50-76), was a large structure whose outer walls were constructed of ashlar blocks. While the north and south walls were smooth and plain, those on its eastern and western sides are characterised by slightly projecting central bosses that were created using a toothed hammer, i.e. the traditional type of Nabataean construction method attested throughout the Negev. In addition to the ashlars with bosses, another distinctly Nabataean architectural feature of this building was its staircase-tower (Negev 1973). Based upon ceramic evidence found in Building I, the excavator suggested this structure was built sometime during the Late Nabataean period, or in the early-2nd century AD (Phase I) and continued to be occupied through the Severan period, during which a new wing consisting of six rooms was added (Phase II).

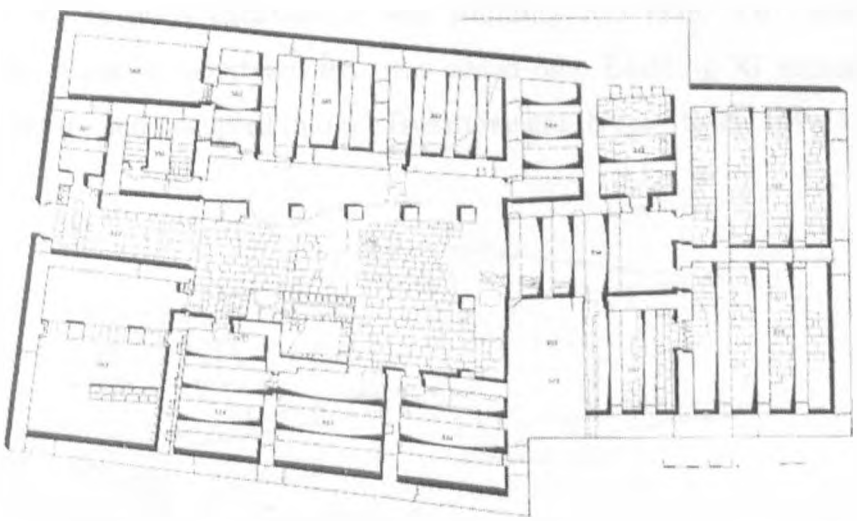

Fig. 3.4 Plan of Building I from Mampsis (Negev 1988: 53).

The plan of Building I was a series of rooms, many of which measured two storeys high, situated around a central courtyard. The entrance to the structure was located in the centre of its southern wall and measured 1.35 m wide. From there a small staircase consisting of five steps led into a 2.5 x 5 m vestibule, which then led to a courtyard with a gamma-shaped portico on its northern and eastern sides. Unlike most of the other private dwellings uncovered at Mampsis, the two cisterns that

provided the water supply for Building I (**Fig. 3.5**) were not located within the structure, but were underneath the small street that ran behind the south wall of the building.

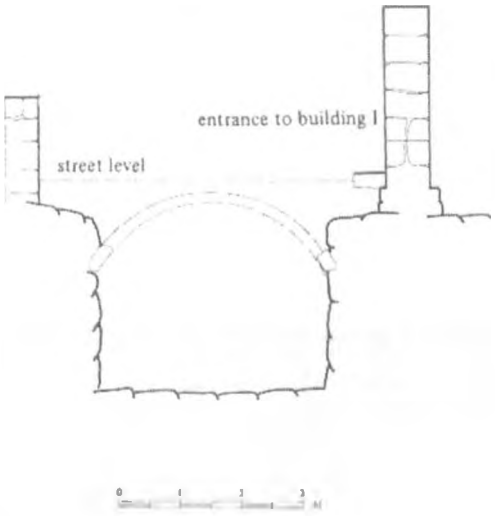

Fig. 3.5 Cistern of Building I at Mampsis (Negev 1988: 75).

Another relevant structure dating to the Antonine and Severan period uncovered by Negev's excavations was Building XIa (**Fig. 3.6**), essentially an annexe with a central courtyard that was added onto Building XI sometime in the late-2nd century and occupied into the Byzantine era (Negev 1988: 109-110).

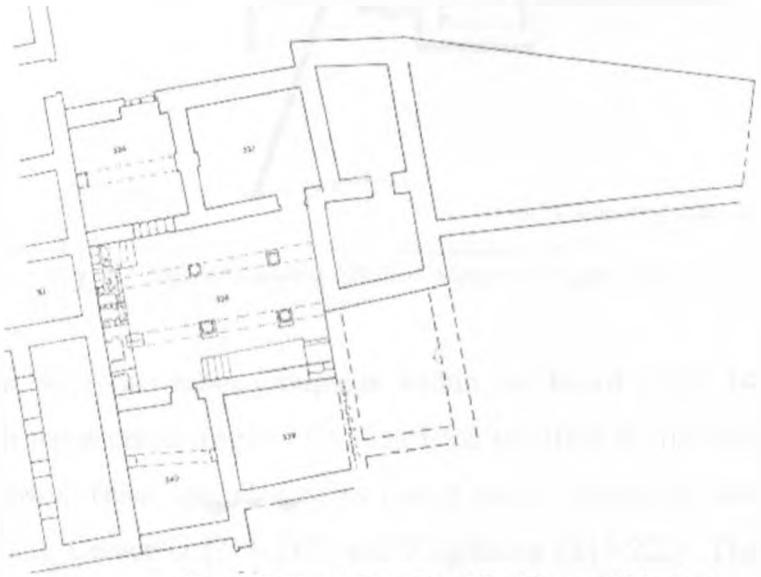

Fig. 3.6 Plan of Building XIa (Negev 1988: 111).

The largest residential structure at Mampsis uncovered by Negev was Building XII (Negev 1988: 111-147). The majority of the structure (**Fig. 3.7**) was built in the Late Nabataean period, or sometime in the 2nd century AD, and continuously occupied into the latter part of the Severan era, or the first quarter of the 3rd century AD, when it was completely abandoned. It was later reoccupied in the Diocletianic period, *ca.* AD 300. The primary dating evidence for Building XII comes from a hoard of 10,800 silver coins, found in a bronze jar that was hidden beneath the landing of the Locus 408 staircase-tower (*op. cit.*: 130).

Fig. 3.7 Plan of Building XII from Mampsis (Negev 1988: 113).

There were two main groupings within the hoard (*ibid*: 145). The largest group, which represented nearly 75%, consisted of silver *tetradrachms* dated to the Severan dynasty. These included coins issued under Septimius Severus (193-211), Geta (211-212), Caracalla (211-217) and Elagabalus (219-222). The second largest numismatic group, which made up nearly 25% of the hoard, consisted of *tetradrachms* and *denarii* of the emperors Trajan and Hadrian (AD 98-137). In addition, there were four coins of the last Nabataean monarch, Rabbel II, who

reigned from AD 70-106. The latest coins in the hoard, i.e. those of Elagabalus, provided a *terminus post quem* for the deposit.

The excavator (Negev 1988: 146) hypothesised that the hoard was the treasure of the house owners, possibly money generated from the proceeds of raising and racing horses, and suggested that the house was abandoned in the late-3rd century AD as the result of an epidemic. However, the nature of the hoard, which is made up entirely of silver coins (*tetradrachms*, in particular), points to the building's function as a military treasury or *donative* (Erickson-Gini 2004: 166). Frequent *donatives* were paid by emperors to Roman troops in silver and gold, until the practice eventually died out in the late-3rd century AD (Harl 1996: 222).

Building XII had only one entrance (Locus 401), located along the north wall of the structure. There were two distinct units in this compound (**Fig. 3.8**). The first consisted of a two-storied residential quarters situated around an inner courtyard (Locus 405). The second component of Building XII was devoted to workshops and a large stable (Locus 431) containing well-preserved mangers. These two spheres were separated by a large outer courtyard that was divided into two sectors with a central wall between them (Loci 400 and 413).

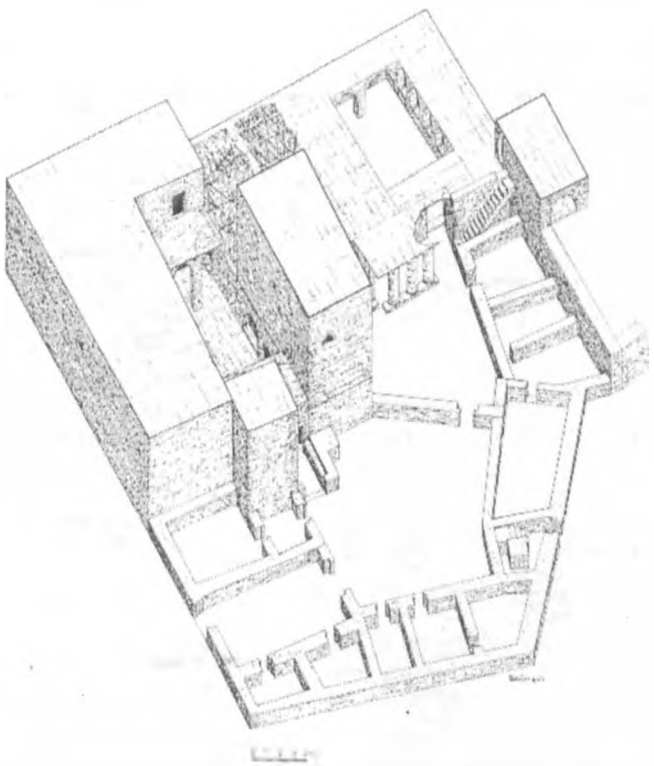

Fig. 3.8 Isometric reconstruction of Building XII (Negev 1988: 121).

Building XII had four Nabataean staircase-towers, all located within the residential quarters. These led to the upper floor where the bedrooms and other domestic facilities were located. The ground floor of the residential area seems to have been devoted to service rooms, offices and a reception room (Locus 402). Some of the rooms in the northwest wing of the structure, as well as parts of the inner courtyard, had plastered walls that were decorated with frescoes rendered in a classicising style typical of the Severan era (Goodman 1988; Negev 1971: 169-171).

Negev also excavated a necropolis used by both Nabataeans and Romans (**Fig. 3.9**), located to the east of the town. According to the ceramics and numismatic evidence, it was used during the 1st through 4th centuries AD (Negev 1971; Negev & Sivan 1977). The burial practices employed in the Nabataean necropolis at Mampsis consisted of direct inhumations, burial within cedar coffins and secondary burial, whereby newly deceased bodies were placed in the tomb after the older remains were moved to its sides.

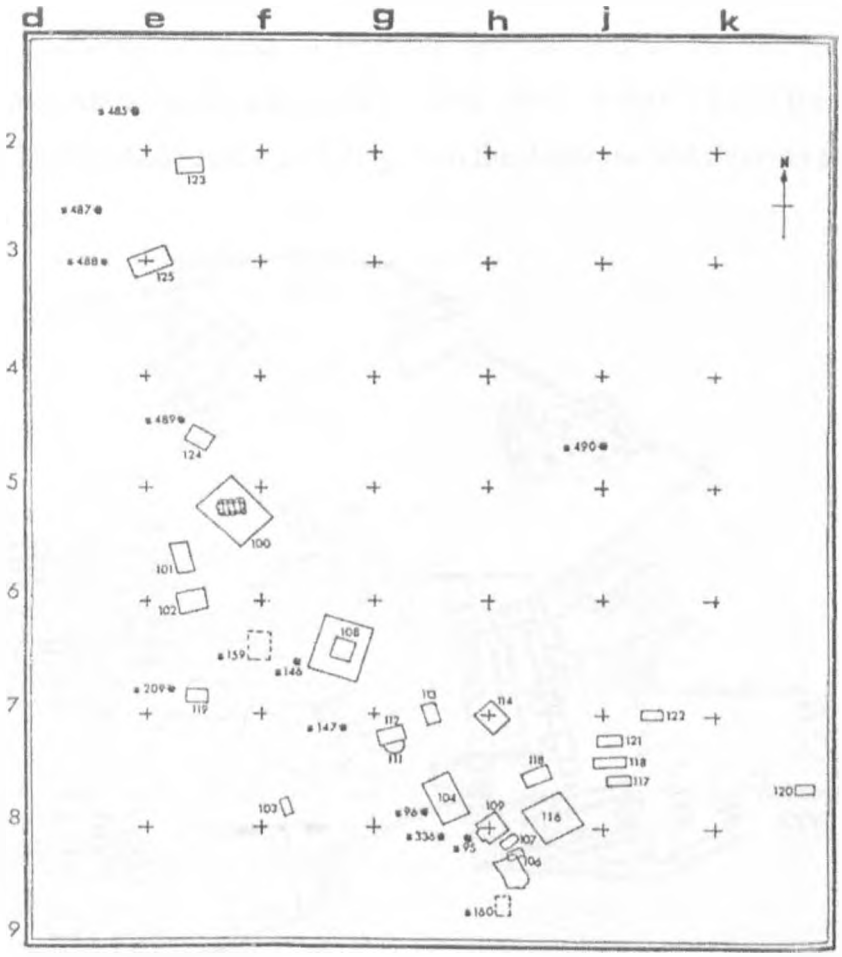

Fig. 3.9 Plan of the Mampsis necropolis (Negev & Sivan 1977: 110).

The tombs were all of the shaft type, and constructed with well-built ashlars. Many of the burials contained personal items such as gold earrings and clay seals (Negev & Sivan 1977: 169), and one tomb yielded an alabaster jug imported from Yemen (Negev 1986b: 76-78). In another grave, a wooden box containing papyrus documents was placed at the feet of the deceased and burned (Negev 1971: 119). The Roman part of the cemetery appears to be of a military nature. It revealed two Latin epitaphs belonging to a centurion of the *legio III Cyrenaica* and a cavalryman of the *cohors Augusta I Thracum* (Negev 1969: 9). The 8 burials were distinctly different from those in the Nabataean part of the necropolis, and consisted of cremations (Negev 1971: 124-125; 1986b: 83-84), an occidental practice that contrasted with Semitic traditions of body disposal (Toynbee 1971: 33-34).

The 1993-1994 Excavations

The most recent archaeological fieldwork carried out at Mampsis was conducted by T. Erickson-Gini in 1993 and 1994, under the auspices of the Israel Antiquities Authority, in order to facilitate development of the site by the Israel National Parks Authority (Erickson-Gini: 1996, 1999, 1999a). Two of the excavation areas (**Fig. 3.10**) yielded evidence dating from the Antonine and Severan periods.

Fig. 3.10 The Mampsis excavation areas, 1993-94 (Erickson-Gini 2004: 69).

The 1993 campaign (Erickson-Gini: 1996) revealed the remains of a previously unknown structure, named Building XXV (**Fig. 3.11**), located between the southeast tower of the town wall and Building XIV, both near and under the British Mandate police station. This building exhibited three phases of occupation dating from the late-1st to the early-2nd century AD, the late-2nd though mid-3rd centuries AD, and from the beginning of the 4th century AD until it was destroyed and subsequently abandoned after the earthquake of 19 May 363 (cf. Russell 1980). During Phase 2, the building underwent renovation, attested by the presence of a foundation offering – in the form of a glass vessel and a Nabataean piriform unguentarium dated to the late-2nd century AD – deposited below the flagstone floor of the structure.[4]

Fig. 3.11 Plan of Structure XXV at Mampsis (Erickson-Gini 1996: 109).

4. Erickson-Gini 2004: 237. Foundation offerings consisting of unguentaria and bowls have been found at the Nabataean sites of 'En Erga in the Wadi Arabah (Korjenkov & Erickson-Gini 2003: 42), at Petra (Cleveland 1960: 59; Joukowsky 2002:319) and at Horvat Dafit (**see below, Chapter 4**).

During the 1994 excavations (Erickson-Gini: 1999), the fieldwork focused upon Building XII South (**Fig. 3.12**), one of the earliest structures at the site that was occupied from the mid-1st through late-2nd centuries AD, after which it was partially destroyed during the construction of Building XII. The south wall and foundation trench of Building XII cut through the floor of the earlier structure. Building XII South was a domestic dwelling, and contained a large *tabûn*. Pottery recovered from immediately above the abandoned structure dated to the 3rd century AD and the ceramics found below that were characteristic of vessel forms dating from the mid-1st through 2nd centuries AD (T. Erickson-Gini: pers. comm.).

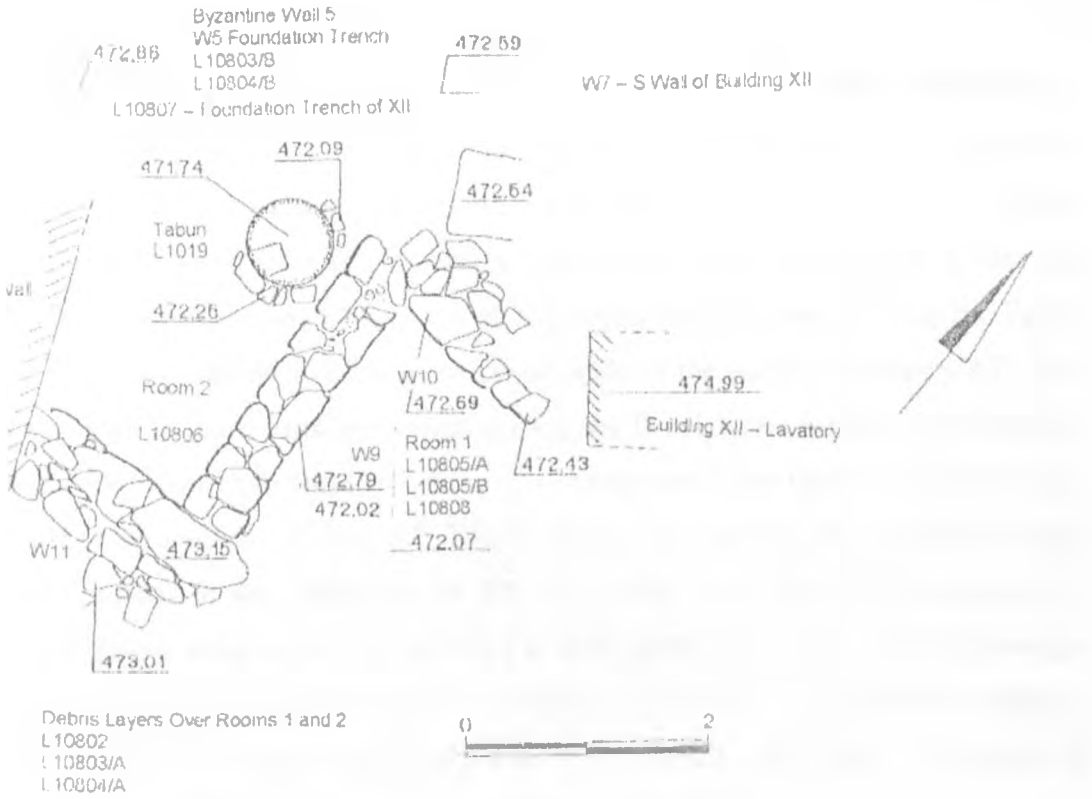

Fig. 3.12 Plan of Building XII South at Mampsis (Erickson-Gini 2004: 242).

3.2b Oboda/Avdat/Abde (PG 12813 / 02291)

Site Location and Brief Historical Outline

The site of Oboda is situated on a plateau overlooking the gorge of Nahal Zin, to the south of the spring at 'En Avdat. It is not far from the modern communities of Kibbutz Sede Boker and Midreshet Ben Gurion, located along the modern Mizpe Ramon Highway leading to Eilat.

It appears that Oboda was first occupied by the Nabataeans in the Hellenistic period until *ca.* 100 BC. Although no structural remains dating to this period have

yet been uncovered at the site, most areas of the plateau have yielded Late Hellenistic coins and pottery (Negev 1977: 626; 1986: 4-9). In this earliest phase, the site appears to have been primarily used for seasonal occupation as a camping ground, in conjunction with the trade and transport of incense resins between Petra and Gaza along the Darb es-Sultan, or the 'King's Way'. Along with other Nabataean sites dating to this period, Oboda appears to have been abandoned for several decades during the 1st century AD (Erickson-Gini 2004: 97), during the Hasmonaean conquest of Gaza by Alexander Jannaeus at the beginning of that century (Josephus, *AJ.* 13.358-364; Negev 1977: 535).

Oboda was reoccupied in the late-1st century BC (Negev 1997b: 3), at which time a temple platform and several temples were constructed at the site. After the death of Obodas III, he was deified by the Nabataeans (Negev 1986a, 2003) and the settlement took his name thereafter. During this period, a new road connecting Oboda and Moa (see section 3.3a below) via the Ramon Crater was built. Along this route, many new *caravanserais*, fortlets and cisterns were constructed. Under the Nabataeans and Romans, Oboda was an important caravan station along the Petra-Gaza road, until the decline of international trade in the early-3rd century AD. The town appears to have been revitalised during the Diocletianic period in the late-3rd century AD, when the region underwent a systematic military build-up. At its height, the site measured *ca.* 85,000 m^2 (Negev 1988a: 2). Despite the fact that Oboda suffered greatly in the earthquake of AD 363, unlike most other Nabataean sites, a comprehensive programme of re-building took place. The site was continuously occupied thereafter until the early 7th century AD, when a compressional seismic wave, most likely originating in the area of the Nafha Fault zone (Korjenkov & Mazor 1999a: 27-28), destroyed much of Oboda, after which it was abandoned.

Early Research and Fieldwork

The first modern western visitor who reported on his visit to Oboda was Seetzen (1855: 43-45; 1859: 407, Pl. II) in 1807, but as Colt (1962:3) and Negev (1997: 10-11) have pointed out, he was entirely mistaken and it was in all actuality the site of Nessana (Auja el-Hafir) that he went to. His descriptions of the large pools at the site are indeed found at other sites in the Negev (*e.g.* Mampsis), but not at Oboda. This same mistake, apparently due to the similarity of the Arabic place-names Auja and Abde, was repeated by Robinson (1841: 560-561) some 31 years

later, despite the fact the location of Oboda was known by the local Bedouins and Arabic travellers in the region (Negev 1997: 11-12). In 1870, E.H. Palmer and C.F.T. Drake were the first westerners to see the ruins at Oboda and correctly identify them with modern Abde (Palmer 1871: 410-413). They produced the first, albeit very schematic, plan of the site (**Fig. 3.13**) and provided a description of its ruins as well as an account of local oral history regarding Oboda.

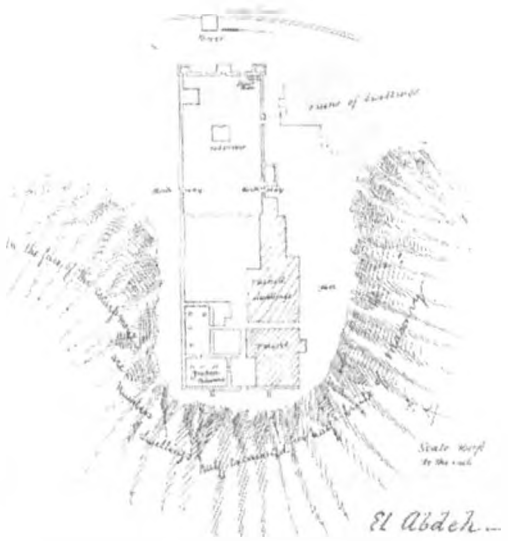

Fig. 3.13 Plan of Oboda acropolis by Palmer (after Negev 1997: 12).

In 1902, the Czech scholar Alois Musil was the first to explore thoroughly the ruins of Oboda (Musil 1907: 106-151, figs. 65-119). He was also the first to provide highly accurate and detailed accounts, plans (**Fig. 3.14**) and photographs of the site. During his five-day visit, Musil described the bathhouse, acropolis, churches, the surrounding town, the military camp to the northeast of the town, and the extensive network of man-made caves, which he interpreted as a necropolis. Finally, he was the first to record a Greek inscription from the site (*op. cit.*: 246, n. 15), dated to AD 294, which he found *in situ* on the lintel of a tower at the southern edge of the town.

The Dominican Fathers Jaussen, Savignac and Vincent visited Oboda in 1904. Like Musil, they also noted the impressive ruins of the acropolis, the town, camp and caves at the site, which they too believed to be the site's necropolis (Jaussen *et al* 1904: 403-424; 1905: 74-89, 235-244). They drew very detailed plans and the first section drawing (**Fig. 3.15**) of the site, and provided the first depictions of the Late Roman 'en-Nusra burial cave (**Figs. 3.16-17**), which they interpreted as

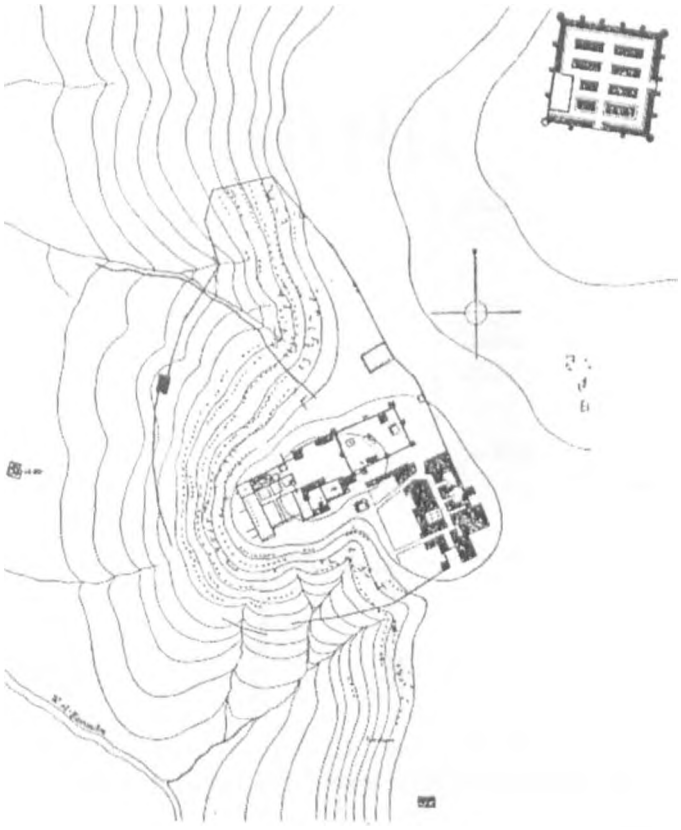

Fig. 3.14 General plan of Oboda by Musil (1902: fig. 65).

Fig. 3.15 Section drawing of the Oboda acropolis by Jaussen, Savignac and Vincent (after Negev 1997: 16).

'le tombeau d'Obodas' or the tomb of Nabataean king Obodas (Jaussen *et al.* 1905: 82-89). Of great importance, these French scholars supplied detailed reproductions of inscriptions and wall drawings made in red ochre, most likely dating from the Byzantine period, which have disappeared over the last century (*op. cit.*: 78).

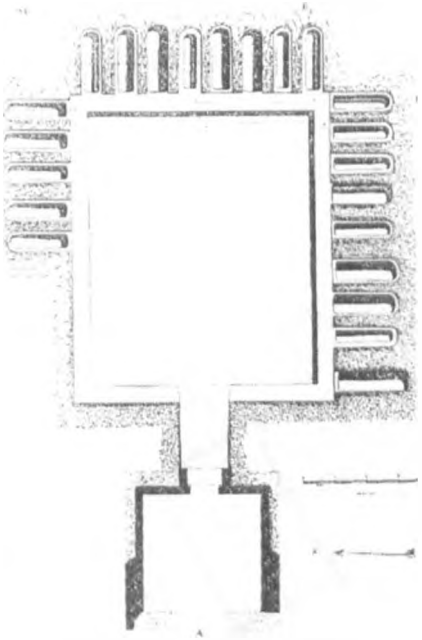

Fig. 3.16 Plan of the so-called 'Tomb of Obodas' drawn by Jaussen, Savignac and Vincent (after Negev 1997: 17).

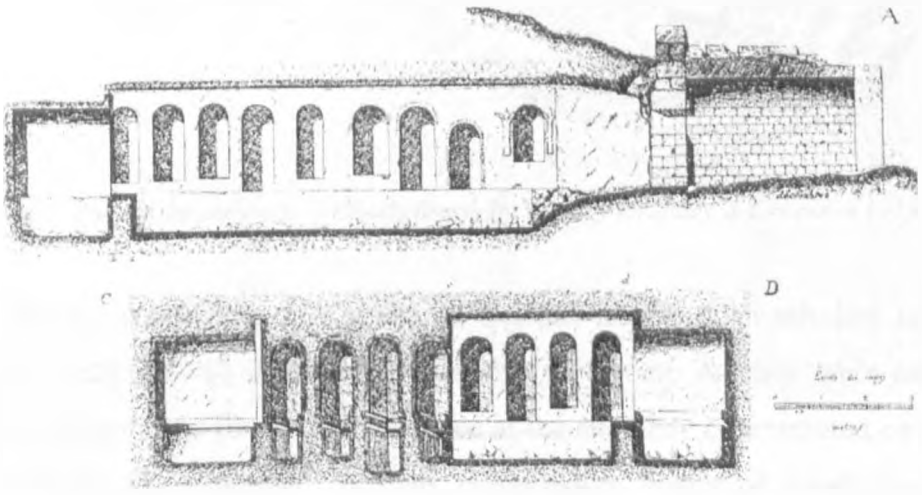

Fig. 3.17 Section drawing of so-called 'Tomb of Obodas' drawn by Jaussen, Savignac and Vincent (after Negev 1997: 17).

The last survey of Oboda to be carried out before World War I was that conducted by Woolley and Lawrence (1915: 9, 28, 93-107, Pls. XXIII.2-XXV). They provided a meticulous plan of the acropolis and drawings of the entrance to the 'en-Nusra burial cave. Woolley and Lawrence did not examine the rest of the caves at Oboda, but they did suggest that they were originally tombs that were re-used as

dwellings (*op. cit.*: 23, 99-100). Although their sketch-plan (*ibid*: Fig. 24), as aptly noted by Negev (1997: 18), was not nearly as accurate as that offered by previous visitors (*e.g.* Musil), it was the first general plan of Oboda to include the architectural remains of the town (**Fig. 3.18**).

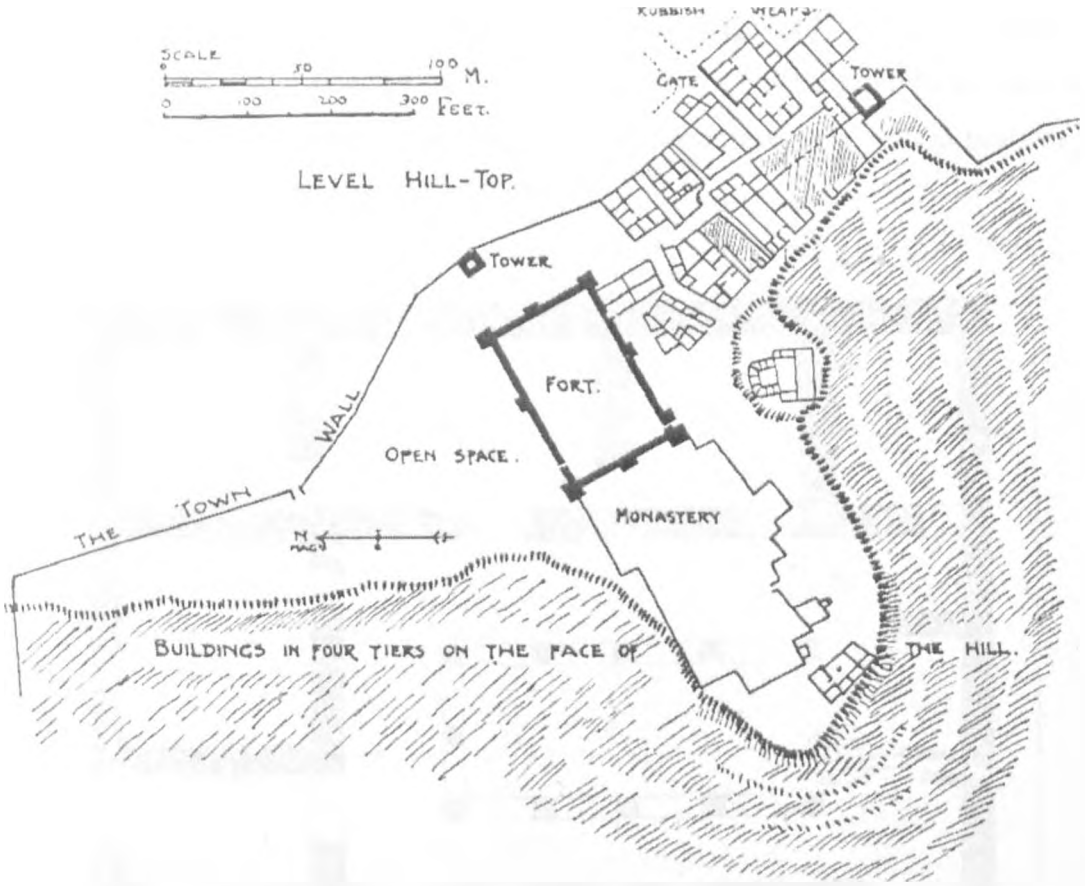

Fig. 3.18 Plan of the acropolis at Oboda drawn by Woolley (Woolley & Lawrence 1915: 94).

During World War I, a group of German and Turkish scholars led by T. Wiegand (1920: 84-99) surveyed the remains at Oboda. As they were intimately familiar with previous fieldwork conducted at the site, they concentrated on remains of monuments not examined by their predecessors, many of which have since disappeared. Of great importance was the identification of the Roman fort by Wiegand as being Diocletianic in date, and his suggestion that the town was originally Nabataean (*op. cit.*: 87). He refuted Musil's claim that the extensive cave systems were a necropolis, and noted that since the building remains of the caves were extant on their exteriors, that these were dwellings (*ibid*: 96).

The earliest archaeological excavations carried out at Oboda were conducted in the years prior to World War II by the Colt Expedition, under the auspices of New

York University and the British School of Archaeology in Jerusalem, and directed by H. Dunscombe Colt. The expedition's work focused upon a structure described as a 'villa' located to the south of the town. His team also excavated at the sites of Sobota (Crowfoot 1936) and Nessana (Colt 1962) in the Negev, but the results of the fieldwork at Oboda were never published. The plan (**Fig. 3.19**) and a description of the structure were later included in Negev's final report on the architecture from the site, and he dated this building to the 2nd and 3rd centuries AD, on the basis of its architectural features (Negev 1997: 73-79).

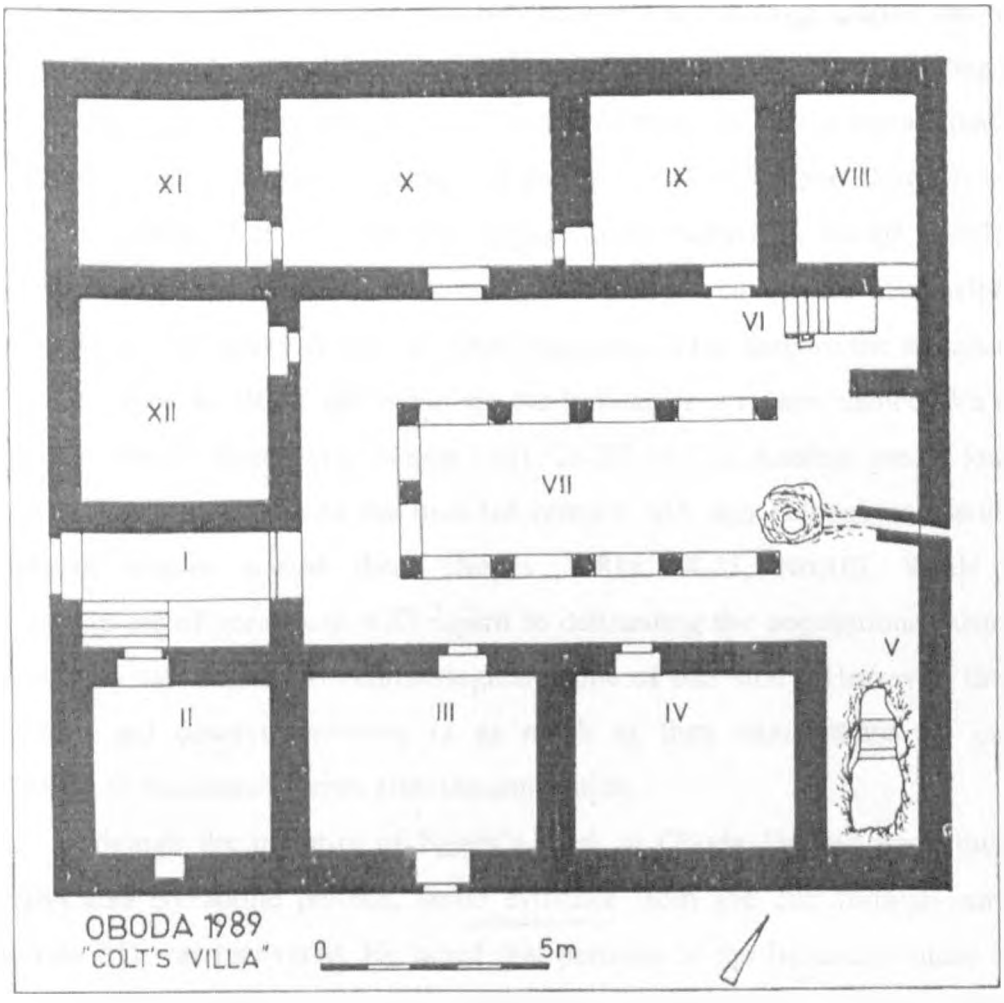

Fig. 3.19 Plan of 'Colt's Villa' (Negev 1997: 74).

The Excavations of Avraham Negev

In 1958, prior to his involvement in excavating Oboda, Negev carried out a survey of the surface pottery from the site in order to get a better idea as to its periods of occupation (Negev 1997: *x*). Later that same year, M. Avi-Yonah began excavating Oboda under the auspices of the Institute of Archaeology from the Hebrew University in Jerusalem, in conjunction with a restoration project initiated by

the Israel National Parks Authority. Negev was appointed to supervise on-site work in 1958 and took over as director in 1959, after which he conducted fieldwork at the site through 1961, with a final season taking place in 1989. The results of these excavations were published in two monographs (Negev 1986, 1997) and a series of articles (Negev 1961, 1963, 1994, 1996, 1997b, 2003).

Negev's work at Oboda concentrated mostly on the acropolis (**Fig. 3.20**). In addition to fieldwork there, he also excavated buildings that he described as the 'Roman Quarter' located to the south of the acropolis, including the Roman tower first discovered by Musil in 1902, and the 'en-Nusra burial cave. During the course of these excavations, several Late Roman inscriptions were discovered. Among these was a group of Greek inscriptions found on the western side of the temple platform. One of them was a dedicatory inscription dating to AD 267/8, and although it is in Greek, the names of the worshippers appear to be Nabataean (Negev 1997: 53). Inscriptions from the Roman tower and the 'en-Nusra cave were also helpful in reconstructing the history of the site. One, engraved on the lintel of the entrance into the tower, dates to 293/4 and mentions the builder as a mason named Wa'il – a Nabataean name – from Petra (Negev 1981: 26-27, no.13). Another group, found in the 'en-Nusra cave, dates to the mid-3rd century AD, and belongs exclusively to Nabataean women buried there (Negev 1981a 24-25, No.10). While these inscriptions are of great help with regard to delineating the occupational history of Oboda, they fall outside the chronological scope of this study. However, they are important and deserve mention, in as much as they demonstrate the cultural continuity of Nabataean names after the annexation.

Although the majority of Negev's work at Oboda focused upon the post-Severan and Byzantine periods, some evidence from the 2nd through early-3rd centuries AD was recovered. He noted that portions of the Byzantine outer citadel wall were constructed of building blocks from earlier periods (Negev 1997: 4), including two that carried Nabataean inscriptions dating to "year 2 of the eparchy" and "year 20 of the eparchy" – or AD 108 and AD 126, respectively (Negev 1963: 117-124). In addition, Negev (1997: 5) uncovered five burials similar to those he found at Mampsis, *i.e.* ashlar-lined tombs with cover slabs, which were dated on numismatic evidence to the early-3rd century AD. Finally, a hoard of coins minted at Petra and dating to the reign of Septimius Severus were found in the foundations of a wall from the so-called 'Oblong Building' (Negev 1997: 58), which led him to

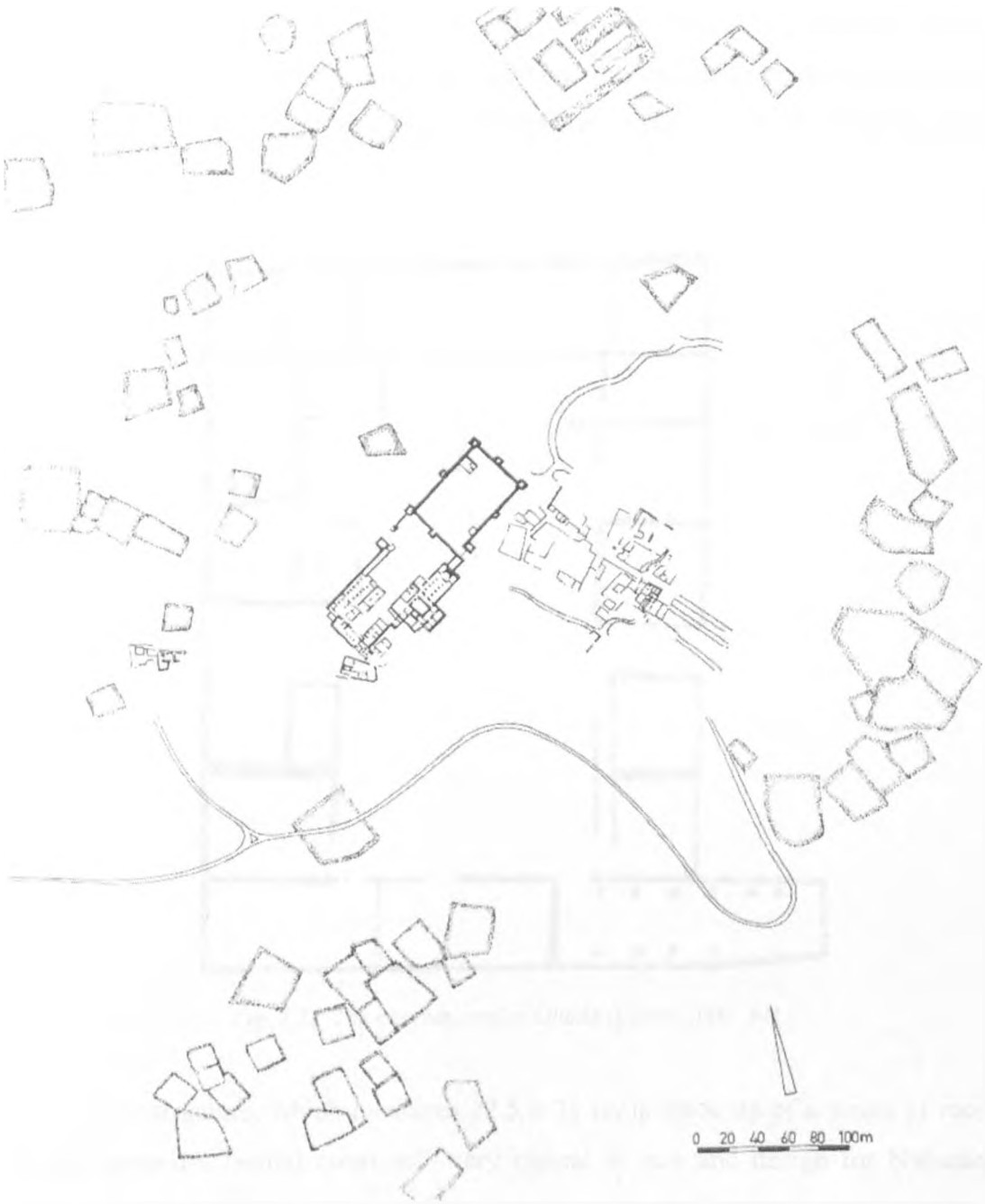

Fig. 3.20 General site plan of Oboda (Negev 1997: 2).

suggest that the hoard may date the construction (or re-construction?) of the temples in the *temenos* compound to the early-3rd century AD.

Fieldwork at the Caravanserai

Between 1975-1977, joint excavations were carried out at Oboda under the auspices of the Hebrew University at Jerusalem and the IAA, and co-directed by A. Negev and R. Cohen. Part of that fieldwork concentrated upon a purported *caravanserai* (**Fig. 3.21**) located to the south of the Diocletianic fort. Although only

two very brief reports (both in Hebrew) from that fieldwork were published (Cohen & Negev 1976; Negev 1977c), some preliminary conclusions were offered by Cohen (1977) with regard to chronology and pottery. According to him, the building dates from the 2nd and 3rd centuries AD.

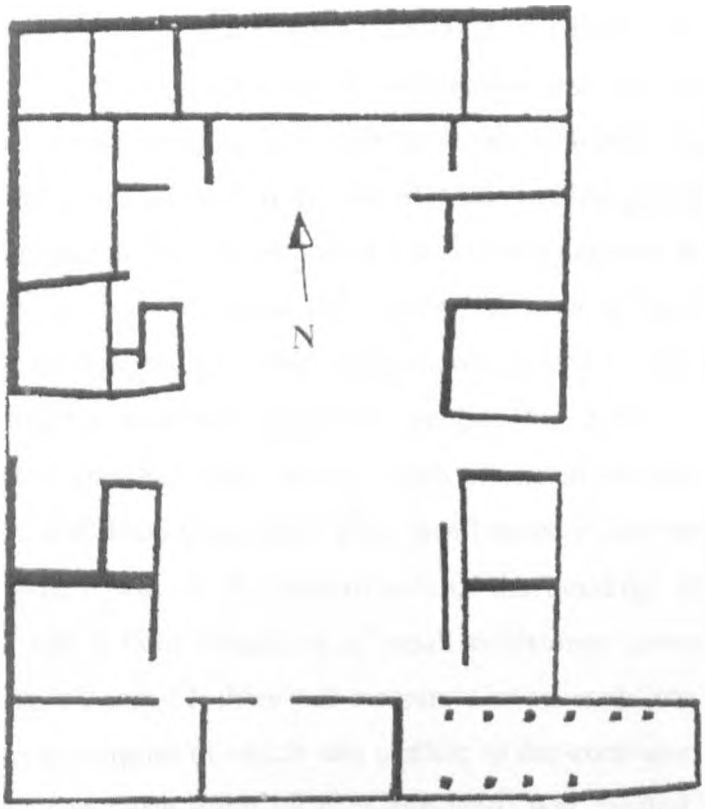

Fig. 3.21 The caravanserai at Oboda (Cohen 2000: 94).

The structure, which measures 22.5 x 31 m, is made up of a series of rooms located around a central courtyard, very typical in size and design for Nabataean *caravanserais* (Dolinka 2006: 204-205). A large number of pottery vessels, including several Debased Nabataean Fine Ware (DNFW) bowls produced in Petra and dating from the late-2nd/early-3rd century AD, were recovered from the excavations. Numismatic evidence found *in situ* on the floors of the building supported the date provided by the ceramics (Cohen 1982e: 45-46).

The Excavations of Peter Fabian

During 1993-1994, P. Fabian of the IAA conducted excavations on a domestic structure (Building T) from the so-called 'Roman Quarter' of Oboda, and also made a series of *sondages* along the town wall to the east of the acropolis. These

excavations provided new evidence that Negev's characterization of this area as being Roman was incorrect, as the artifactual material recovered – both coins and pottery – was unequivocally Byzantine in date (Fabian 1996).

The Most Recent Fieldwork, 1999-2000

The latest archaeological fieldwork undertaken at Oboda was directed by T. Erickson-Gini, on behalf of the IAA and in conjunction with the Israel Ministry of Labor and Welfare (Erickson-Gini 2001, 2001a, 2004: 254-261). One of the areas chosen for excavation was the area to the east of the acropolis located in the vicinity of the north tower. The latter area produced good sealed deposits from a domestic complex consisting of over 30 rooms and covering an area of nearly 2.7 hectares. There were three distinct building and occupational phases in this complex, with Phase 2 representing the Antonine and Severan periods (**Fig. 3.22**).

The Phase 2 structure (**Fig. 3.23**), which consisted of four rooms and an adjacent courtyard (Erickson-Gini 2004: 254), was located in the eastern part of the complex. The entrance was on the eastern side of the building, and this led into Room 13, which had a floor consisting of small fieldstones covered with packed earth. In the adjacent Room 12, there was a ceramic krater sunk into its beaten earth floor, the function or purpose of which was unclear to the excavator. The courtyard, which measured 12 m north-south by 4 m east-west, was located to the north of Room 12 and was entered from its eastern wall. On the western side of this wall, an east-west running water channel was uncovered.

Room 6 was located on the western side of the Phase 2 structure, which consisted of a staircase-tower and a small pantry that measured 1.5 x 2 m and was located beneath the stairwell (*op. cit.*: 260). Nearly 80 mostly complete and intact pottery and glass vessels were found stacked inside the room. These apparently rested on wooden shelves, which were no longer extant. In addition, several large animal bones were found within the pantry. According to the excavator, these represented the "remains of pieces of salted meat hanging under the stairs and above the shelves [which suggests] that the abandonment of the pantry with its contents intact may indicate a rapid desertion of the building, possibly as the result of an epidemic" (*ibid*).

The date range for the occupation of the Phase 2 structure excavated by Erickson-Gini was confirmed by numismatic evidence, as coins of the 2nd century

Fig. 3.22 The Late Roman / Byzantine Quarter at Oboda (Erickson-Gini 2004: 256).

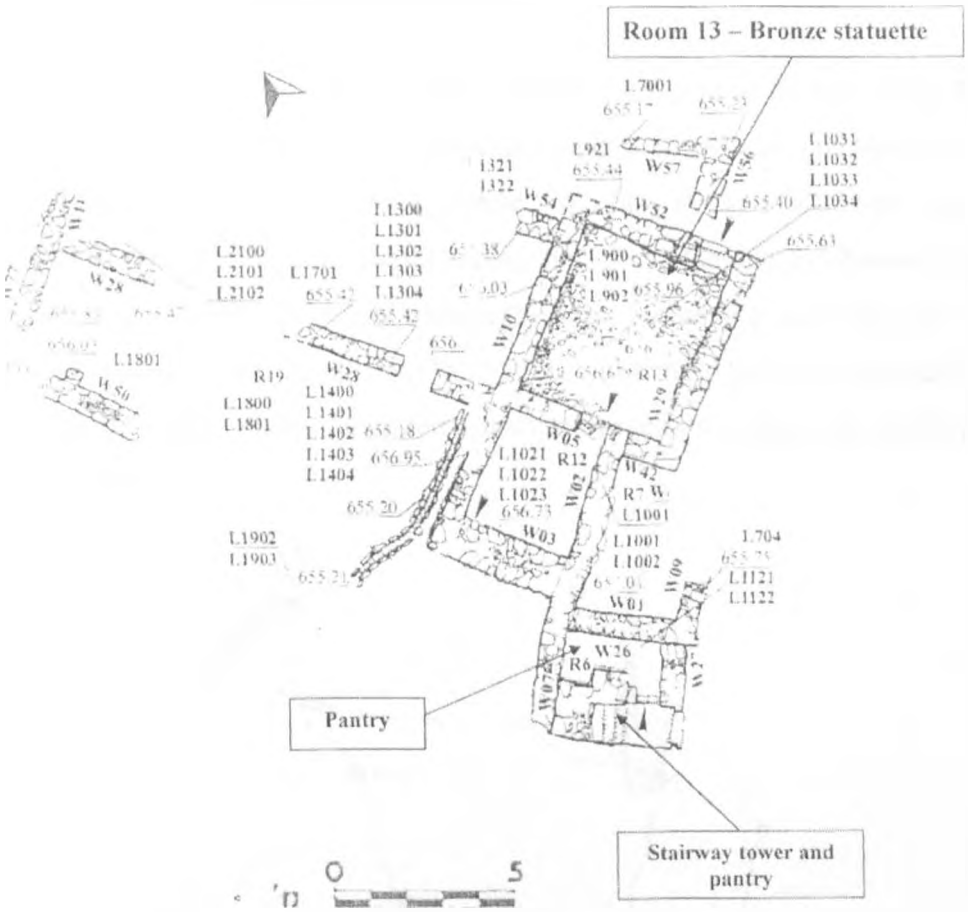

Fig. 3.23 Late Roman dwelling from Phase 2 at Oboda (Erickson-Gini 2004: 257)

AD found under its floors provide a *terminus ante quem* and those dating from the Severan era supply a *terminus post quem* for the building, after which it appears to have been abruptly abandoned (*Ibid*: 261). This numismatic evidence is supported fully by the ceramic material found within the structure

3.3 Sites in the Wadi Arabah

Two sites in the Wadi Arabah valley offer good comparanda for Horvat Dafit, as they were both founded in the 1st century AD and occupied throughout the Antonine and Severan periods. The first is the small settlement of Khirbet Moyat 'Awad and the second is Aila, the second largest Nabataean (and later Roman) settlement and producer/supplier of Nabataean pottery after Petra (Dolinka 2003).

3.3a Khirbet Moyat 'Awad/Asuada/Moa (PG 16528 / 99465)

Site Location and Early Research

The site of Khirbet Moyat 'Awad, hereafter referred to as Moa (**Fig. 3.1**), is located on the eastern side of the central Arava Valley, to the south of Mezad Hazeva and near Nahal Omer (Cohen 1982d, 1982e: 242-243, 1993: 1137-1140; Erickson-Gini 2005). It served as an important caravan stop along the ancient Petra-Gaza road (**Fig. 3.24**) and consisted of several buildings. These included a *caravanserai* located on the level ground of the desert floor, and a fort and temple that were situated on the surrounding hillsides, which contained numerous caves that served as dwellings for the site's inhabitants.

Fig. 3.24 Map of the Petra-Gaza Road, showing the location of Khirbet Moyat 'Awad (Cohen 1982e: 240).

Moa was first discovered by the German scholar Fritz Frank (1934: 274-276), who mistakenly identified the large *caravanserai* as a Roman *castellum*, and noted that its location was not well-suited for strategic defence. Nevertheless, he took measurements and drew the first plans of the site and *caravanserai* (**Figs. 3.25-26**).

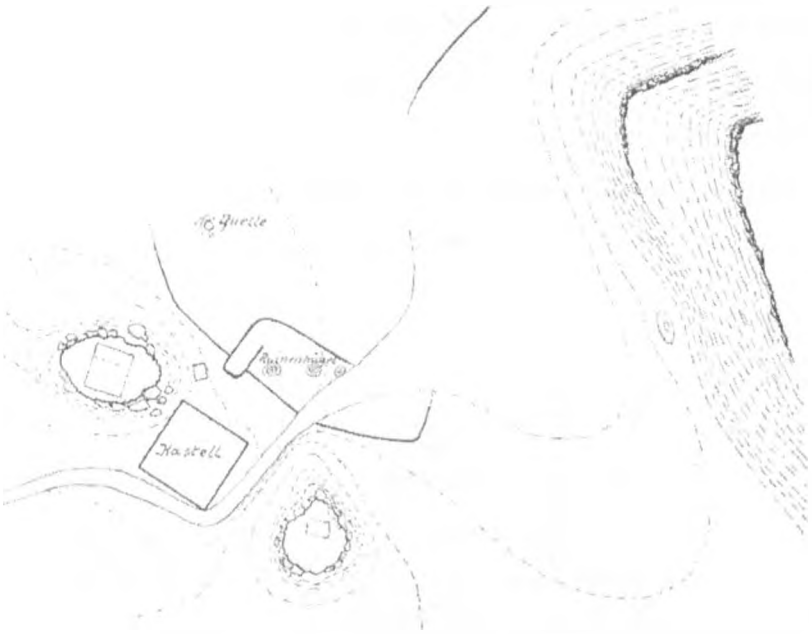

Fig. 3.25 Site plan of Moa from the survey by Frank (1934: Plan 31).

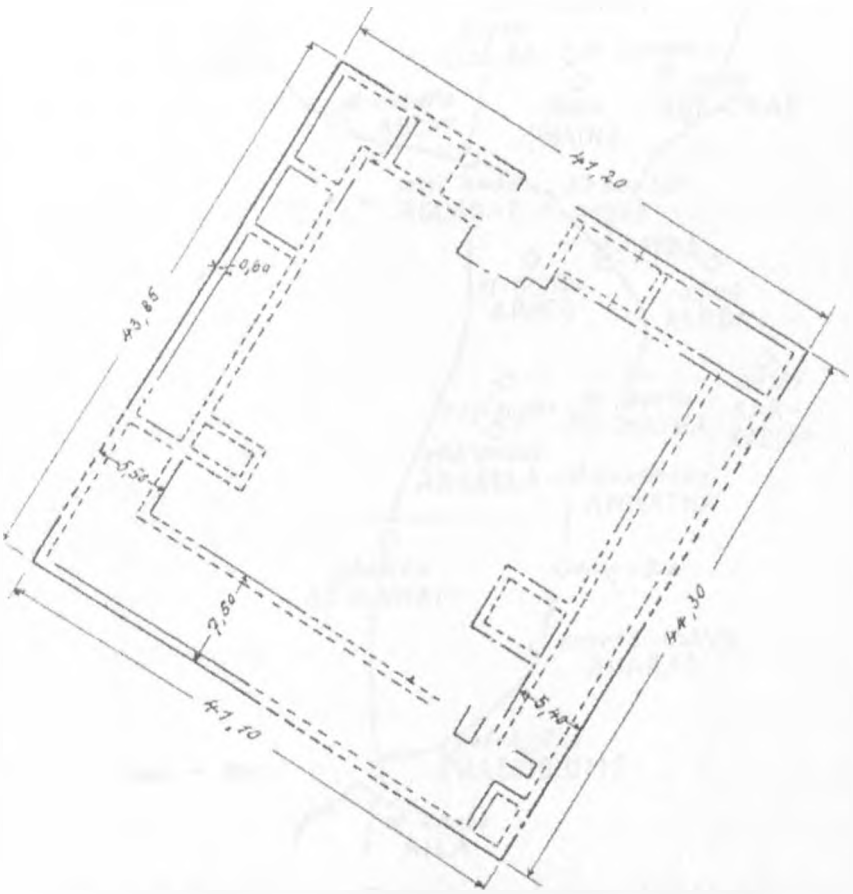

Fig. 3.26 Plan of the caravanserai at Moa drawn by Frank (1934: Plan 30B).

Based upon Frank's work, his colleague Albrecht Alt (1935: 24, 55-56) later suggested that the *caravanserai* at Khirbet Moyat 'Awad was the Roman fort of Asuada mentioned in the *Notitia Dignitatum* (*Or.* 34.32) and the Beersheba Edict, and that it therefore likely dated to the 5th and 6th centuries AD. He also indicated that he believed remains of Bir Madkhur on the eastern side of the Wadi Arava were likely the Roman site of Moa instead (**Fig. 3.27**).

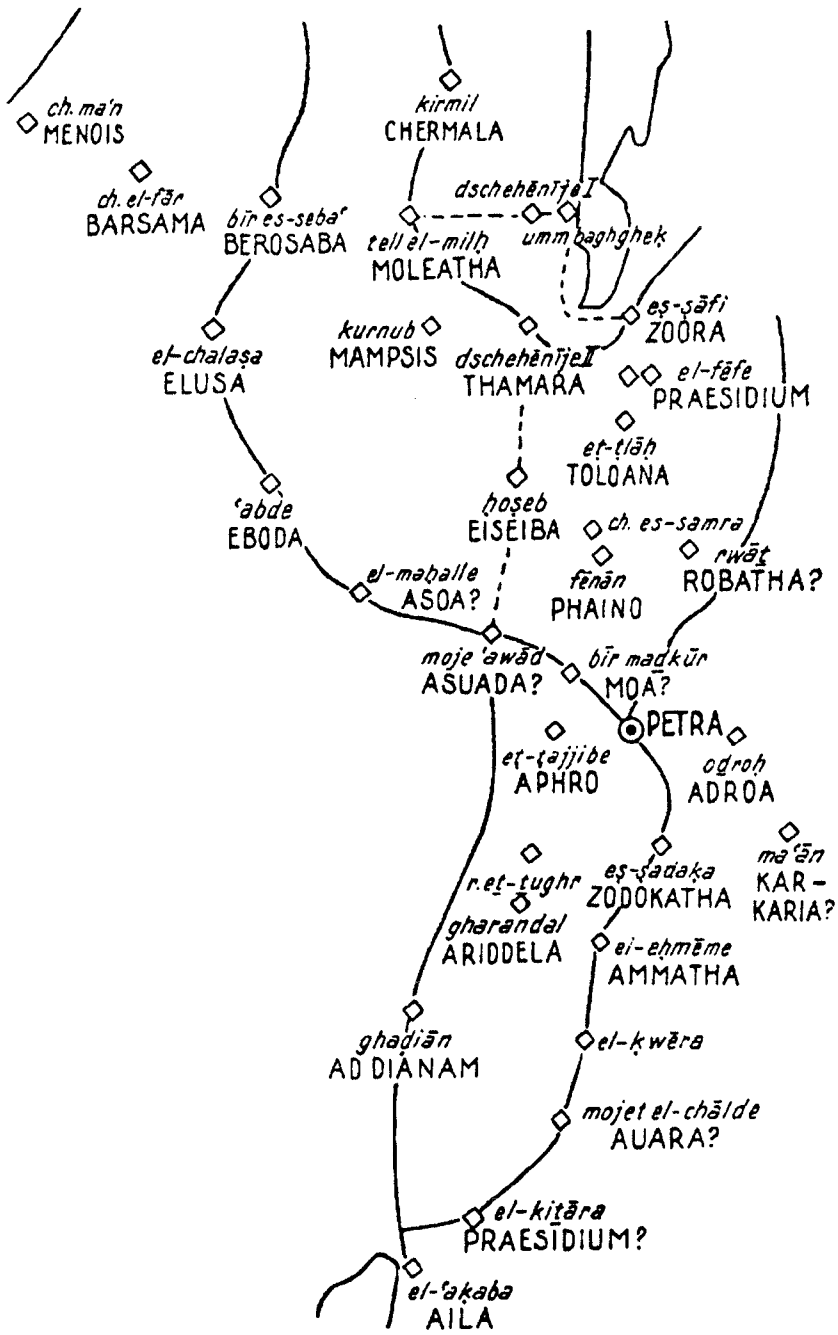

Fig. 3.27 Plan of the Late Roman forts and roads (Alt 1935: 24).

Less than a year after the German survey, Nelson Glueck (1935: 20, 118) conducted an investigation of Khirbet Moyat 'Awad. There he collected a large quantity of Nabataean pottery and suggested that the site was originally Nabataean, and then re-used by the Romans. During 1938, there were two additional systematic archaeological surveys of the area. The first, conducted by Kirk, described a "square fort of the Roman type with sides of about 40 metres...[and] a settlement about it since the site is well watered" (Kirk 1938: 232-233). He also noted the presence of Nabataean pottery there, suggested that Alt's dating was incorrect, and proposed that the site was occupied no later than the 2nd century AD (*op. cit.*: 234). The second survey in 1938 was that of Abel, who was the first to suggest that Khirbet Moyat 'Awad was indeed the Moa mentioned on the Madaba Map (Abel 1938: 181-182). This idea was later supported M. Avi-Yonah (Cohen 1982d: 164, 1982e: 242) and others who have done research in the area (*e.g.* Rothenberg 1967: 130-132; Negev 1966: 89-98), and it has now become generally accepted that Khirbet Moyat 'Awad was Moa.

The Rudolph Cohen Excavations

Between 1981 and 1985, extensive fieldwork was carried out at Moa by R. Cohen (1981a: 36-38, 1982d, 1982e: 242-243, 1993: 1137-1140, 2000: 75-80) on behalf of the IAA. Six structures (Areas A-F) were excavated, of which two had strata dating to the Antonine and Severan periods. These include the *caravanserai* (Area A) and the fort (Area B).

The *caravanserai* in Area A (**Fig. 3.28, centre**) is the largest structure at Moa, and was the primary focus of the earlier researchers at the site, many of whom thought it to be a Roman fort. It was first excavated in 1981 by Cohen's team and at least 14 rooms were cleared: 7 along the north side of the structure, 4 on its western side, and 3 along its southern wall. It measures 40 x 40 m, very similar in size and construction to the *caravanserai* at Sha'ar Ramon in the central Negev (Cohen 1982b-c, 1988a, 1993: 1145), and consists of a large central courtyard surrounded by rows of casemate rooms. A small bathhouse decorated with frescoes was constructed in the building's southwest corner. Water for the bathhouse was provided by an open pool (Area F) and transported by an aqueduct from north of the structure. An examination of bones found at the site has shown a prevalence of camels and horses, as well as goats, sheep cattle, wild animals and fowl (Cohen 1981: 38). The pottery

(Erickson-Gini 2005: 53-57) and coins (Cohen 1981a: 37) found in Area A indicate that this large structure was constructed sometime in the 1st century AD and continued to be occupied as late as the early-3rd century AD. Similar to the aforementioned *caravanserai* at Sha'ar Ramon, the structure in Area A provided road services including food, fodder and bathing facilities.

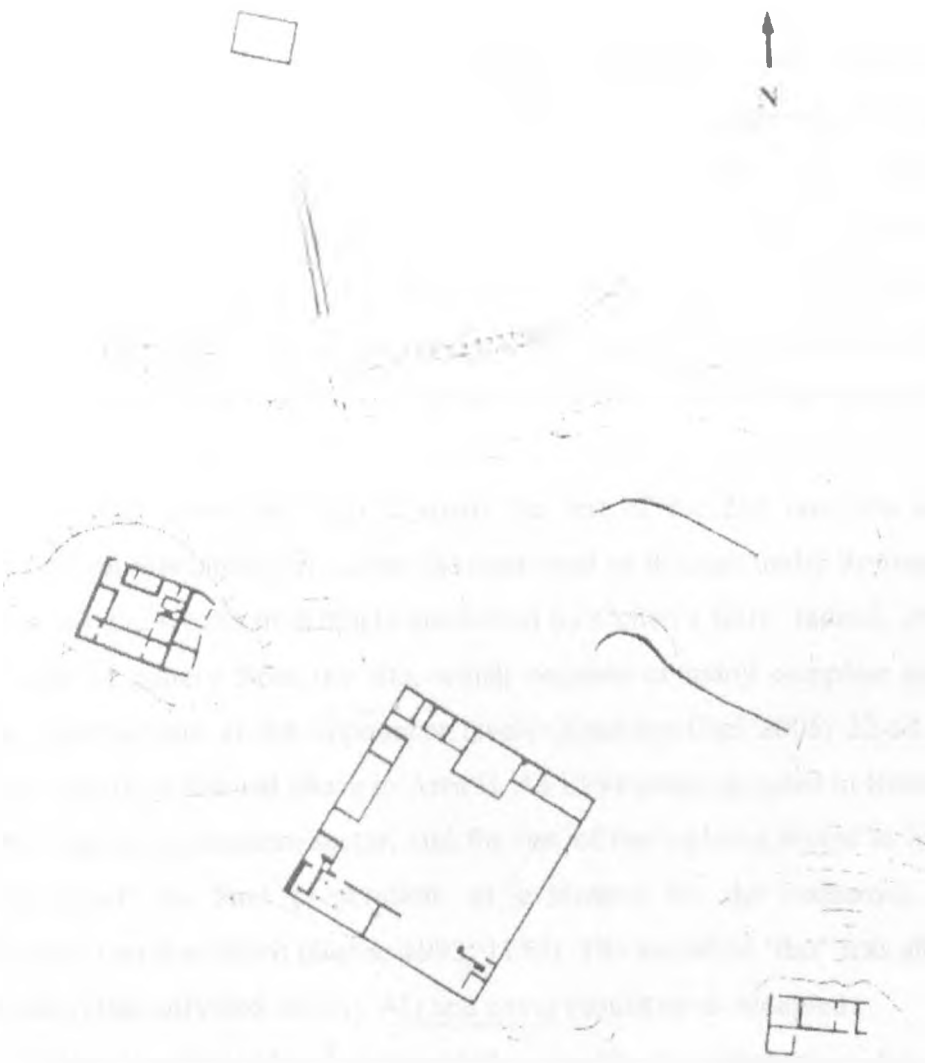

Fig. 3.28 General site plan of Moa from the work of Cohen (2000: 77).

The so-called 'fort' in Area B (**Fig. 3.28, left**) is located on a small hilltop to the west of Area A. It measures 17 x 17 m, and is similar in design to the *caravanserai*, with its small (8 x 7 m) courtyard surrounded by 11 casemate rooms. Three periods of occupation for the structure were identified. The first phase of the

building, during which it was constructed, dates to the Nabataean Hellenistic period, probably sometime in the mid-3rd century BC, as indicated by a coin of Ptolemy III (246-221 BC) found in this level (Cohen 1993: 1139) and ceramic vessel forms – *e.g.* so-called 'Megarian bowls' and 'fish plates' and bowls with incurved rims (Erickson-Gini 2005: 1-6) – typical of this period. The size and construction of this structure in its first phase of occupation is paralleled by a similar building at 'En Rahel (Korjenkov & Erickson–Gini 2003: 42-45).

The second phase in Area B is distinctly Nabataean, and represents a re-occupation of the fort in the late-1st century BC, during the first wave of Nabataean expansion and colonisation in the region (Erickson-Gini 2006). This phase lasted until parts of the site were destroyed by the earthquake of the early-2nd century AD, and contains both ceramic (Erickson-Gini 2005: 7-21) and numismatic (Cohen 1982e: 243) evidence in support of these dates, including Nabataean painted and unpainted fineware bowls, and coins Aretas IV (9 BC – AD 40) and Rabbel II (AD 70-106).

The final phase for Area B spans the rest of the 2nd until the early-3rd century AD. In this latest period, the site continued to flourish under Roman rule, as evidenced by the wealth of artifacts uncovered by Cohen's team. Indeed, the largest assemblage of pottery from the site, which consists of many complete and intact vessels found *in situ* at the uppermost levels (Erickson-Gini 2005: 22-52), comes from the final occupational phase in Area B. An olive press operated in Rooms 4 and 8 of the structure's southern sector, and the rest of the building seems to have been devoted largely to food preparation, as evidenced by the numerous cooking installations found within it (Cohen 1993: 1139). The so-called 'fort' was abandoned sometime in the early-3rd century AD and never rebuilt or re-occupied.

Taken together, Moa has provided a wealth of artifactual evidence dating from the Antonine and Severan periods. There is abundance of numismatic evidence from this era, including the so-called 'city coins' (cf. Spijkerman 1978) minted in Petra (which represent 41% of the total coins from the site), Gaza, Ashkelon and Alexandria, as well as coins of the Roman emperors Trajan (AD 98-117), Hadrian (117-135), Commodus (180-192) and Caracalla (211-217), and even a coin of Julia Domna, the second wife of Septimius Severus (193-211) and mother of emperors Caracalla and Geta (D. Ariel: pers. comm.). In addition, the ceramic repertoire from the site represents some of the best preserved and dated vessels to have been found in

the period following the annexation. The abandonment of such a large number of whole and complete vessels in Area B at Moa remains an enigma, but perhaps an epidemic, such as that suggested by the excavators of Mampsis (Negev 1988: 146) and Oboda (Erickson-Gini 2004: 260), was the reason.

The presence of an olive press that operated during the final phase of the site indicates that in the Antonine and Severan periods, the so-called 'fort' functioned as an industrial and storage installation, while the *caravanserai* below the fort in Area A provided road services and perhaps even housed Roman military personnel utilising the Petra-Gaza Road. When the site was abandoned in the early-3rd century AD, it appears that no attempt was made to remove the ceramic vessels from Area B (Erickson-Gini 2005: 22). This sudden abandonment of the site finds parallels in the aforementioned evidence discovered at Oboda (Erickson-Gini 2004: 175-176, 262), as well as the unusually rich hoard of silver coins found at Mampsis dating from the exact same period (Negev 1988: 130), and similar evidence for abandonment during the early-3rd century AD found at other sites in the Negev and Wadi Arava.[5]

3.3b Aila/Aela/Aelana/al-Aqaba (UTM: 6939 / 32684)

Site Location and Brief Historical Outline

Classical Aila is located at the northern head of the Gulf of Aqaba on the Jordanian side of the modern Israeli/Jordanian border (**Fig. 3.1**). According to the ancient authors, the site was founded by the Nabataeans and flourished under them as an entrepôt and important *polis* associated with the trade in incense and spices.[6] Aila retained its prominence after the Roman annexation, and is listed on the *Tabula Peutingeriana* (**Fig. 3.29**). It also became the base for the *legio decimae Fretensis*, when the eastern frontier of the empire underwent military re-organisation under Diocletian in *ca.* AD 300 (Eusebius, *On.* 6.17-20, 8.1-3). Aila thrived during Byzantine and Islamic periods, when it was known as 'the port of Palestine on the China Sea' (Khouri & Whitcomb 1988). Since its founding by the Nabataeans in the early or mid-1st century AD, Aila/Aqaba has been consistently inhabited to the modern era, when until fairly recently it was but a small fishing village.

5. Erickson-Gini 2004: 58-73 *passim*. Horvat Qasra, Mesad Neqarot, Mesad Beer Menuha and Horvat Hazaza all were abandoned in the early-3rd century AD.
6. Agatharchides (5.90a); Diodorus Siculus (3.43.4); Pliny the Elder (*NH* 5.12.65, 6.32.156); Strabo (16.2.30, 16.4.4, 16.4.21); Josephus (*AJ* 8.163); Claudius Ptolemy (5.16).

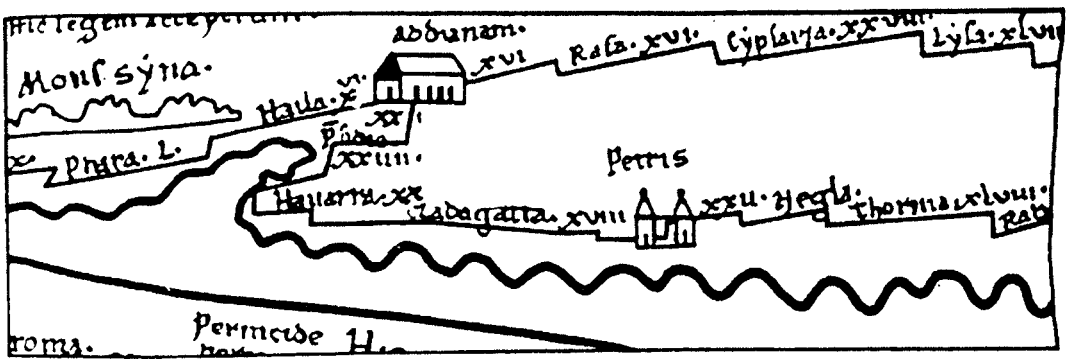

Fig. 3.29 Aila, located to the left of the building, was listed on the Tabula Peutingeriana as 'Haila' (Gregory & Kennedy 1985: 313).

Early Research

During the 18th century, the first modern visitors to include Aqaba on their itineraries seemed to be completely unaware of any ancient remains at the site (Stephens 1838: 231; de Bertou 1839: 295, 298; Doughty 1936: 84). However, later travellers did report the mounds of ruins and artefacts such as pottery and glass there, and correctly identified the site as Aila (Rüppel 1829: 248; Robinson 1841: 241; Morris 1842: 262; Olin 1843: 436, 446). In addition, a few noticed what appeared to be ancient architectural elements, such as marble column drums (Laborde 1838: 131; Burton 1879: 240; Kitchener 1884: 210).

In the late-19th and early-20th centuries, the first systematic archaeological investigations were conducted in and around Aqaba, beginning with the pioneering work of Brünnow and von Domaszewski (1904, 1905, 1909). These scholars conducted a survey of what they believed to be an 'inner' and 'outer' *limes* of the Roman empire's eastern frontier, an idea that has since been proven incorrect (Bowersock 1983: 104), as well as the Roman remains along the *via nova Traiana*. They were unable to visit the route from Aqaba to Sadaqa, and merely cited what other travellers had to say about it (Brünnow & von Domaszewski 1904: 470-474). Subsequent investigations by Musil (1907: 260, 305-309), Frank (1934: 239, 244), Alt (1935: 24-28, 47), and Sir Aurel Stein (Gregory & Kennedy 1985: 304) described the ruins they saw. These did not provide any new information because, as Glueck (1935: 3) aptly noted with regard to Frank's survey, none of these surveyors tried to reconstruct the site's occupational history through examination of its surface ceramics. This rendered their accounts rather Romano-centric, because they excluded discussion about any occupation of the site before or after that period.

The first researchers to make any substantive comment on Aila were Woolley and Lawrence, who visited the site during their survey of the region in 1914. They described the ruin mound and noted that the lack of any visible walls or other architectural elements was likely due to the fact that they were constructed of mudbrick (Woolley & Lawrence 1915: 128), a supposition that has been proven essentially correct by recent excavations (see below). In addition, they provided rough measurements of the ancient site and suggested that even at its height it was not a very large place (Woolley & Lawrence 1915: 129). A brief glimpse into the overall occupational history of Aila was first made available by the survey conducted by Glueck in 1934 (1935: 46-47). His knowledge of pottery from all periods led him to argue that the site was founded by the Nabataeans, and continued to be inhabited – as evidenced by the ceramics – throughout the Roman, Byzantine and early-Islamic periods. Contra the opinion offered by Woolley and Lawrence, Glueck characterised the site as being very extensive. After Glueck, Aila essentially became *terra incognita* and no further research was undertaken at the site for another 56 years.

Modern Archaeological Investigations

Investigation of classical Aila resumed in the mid-1980s, when Henry Innes MacAdam carried out a series of unofficial surveys in the modern city of Aqaba, during the course which he noted the outlines of mudbrick and stone walls, as well as a few column drums – one of which was imported marble – sticking out of the sand. They also found portions of two Latin-inscribed milestones dating from the construction of the *via nova Traiana*, or *ca.* 111/112, and a Latin building inscription dated to AD 324-326 (Khouri 1988: 138; MacAdam 1989)

The first proper modern archaeological survey of Aila, employing the methodology of walking overlapping grids and collecting all surface artefacts, was undertaken by Meloy in 1990, under the auspices of Whitcomb's excavations at Islamic Ayla (Meloy 1991). The area of his fieldwork was concentrated in the western portion of Aqaba, in the so-called 'circular area' bounded by King Hussein Street on the south, al-Istiqlal Street on the east, and the ring-road of al-Hashimi Street in the north (**Fig. 3.30**). Besides a small Jordanian military post located along al-Istiqlal Street, the survey area was devoid of any buildings, except for the occasional Bedouin tent (*bayt shaar* = 'house of hair') set up by the Howeitat tribe, who use the area as a summer campground. Meloy believed that the mounds of sand

in this area hid the remains of the walls of classical Aila, and the surface pottery he recovered included Nabataean, Roman and Byzantine sherds.

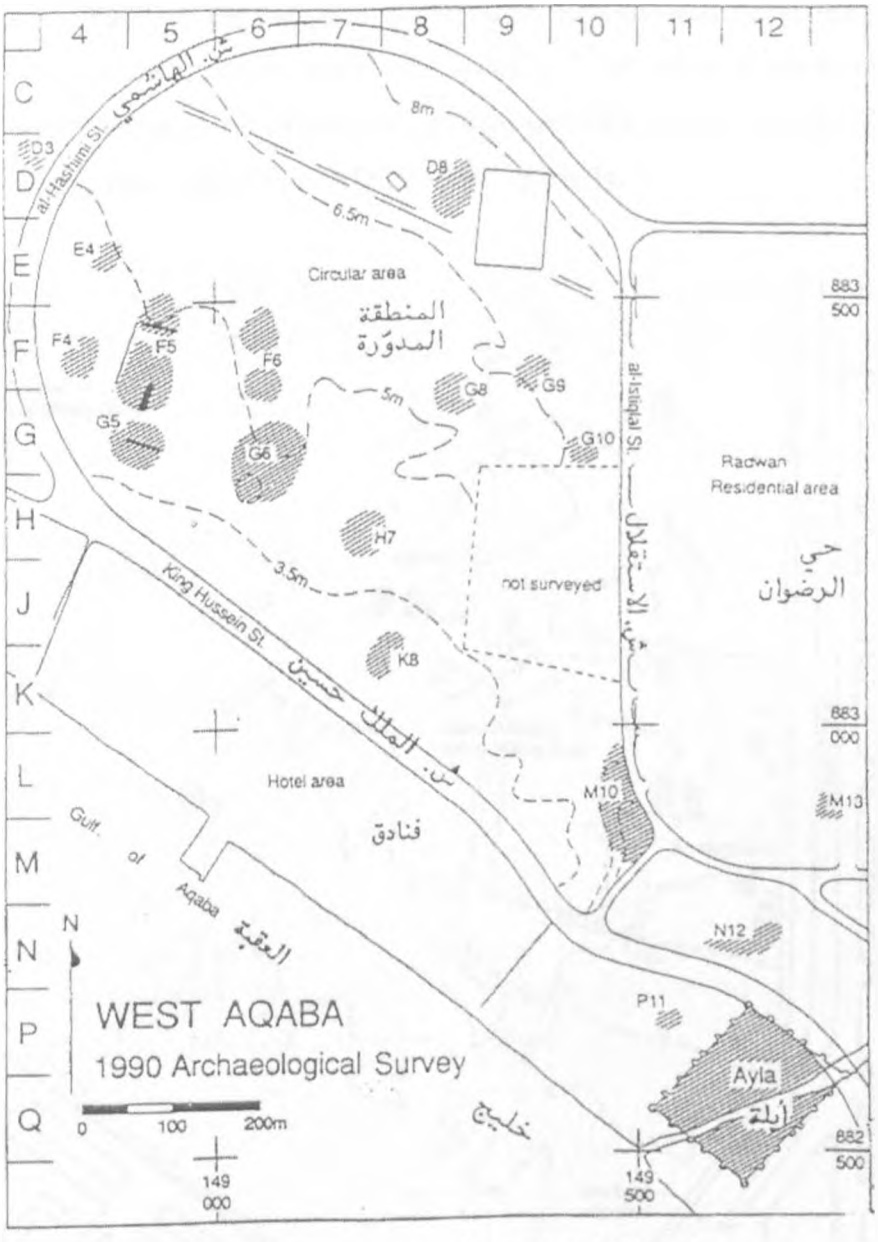

Fig. 3.30 Plan of the area surveyed in 1990 by Meloy (1991: 400).

The Roman Aqaba Project Excavations

The most comprehensive archaeological fieldwork conducted at classical Aila was that of the Roman Aqaba Project (RAP), directed by S. Thomas Parker, under the auspices of ASOR, ACOR and North Carolina State University (Parker 1997, 1998, 1999, 2000, 2002, 2003). The RAP excavations were carried out between 1994 and 2002 in the so-called 'circular area' surveyed by Meloy, and the writer acted as

assistant ceramicist (studying the Early Roman pottery from the site) and trench supervisor for that project. The Nabataean occupational strata from these excavations has been discussed elsewhere (Dolinka 2003: 23-33), and two major periods of habitation, dating from the early-1st to early-2nd centuries AD, were discerned. Of the seven excavation areas that were investigated by RAP, Areas B and M (**Fig. 3.31**) revealed strata dating to the Antonine – designated LR1, or *ca.* AD 135-193 – and Severan – designated LR2, or *ca.* AD 193-235 – periods.

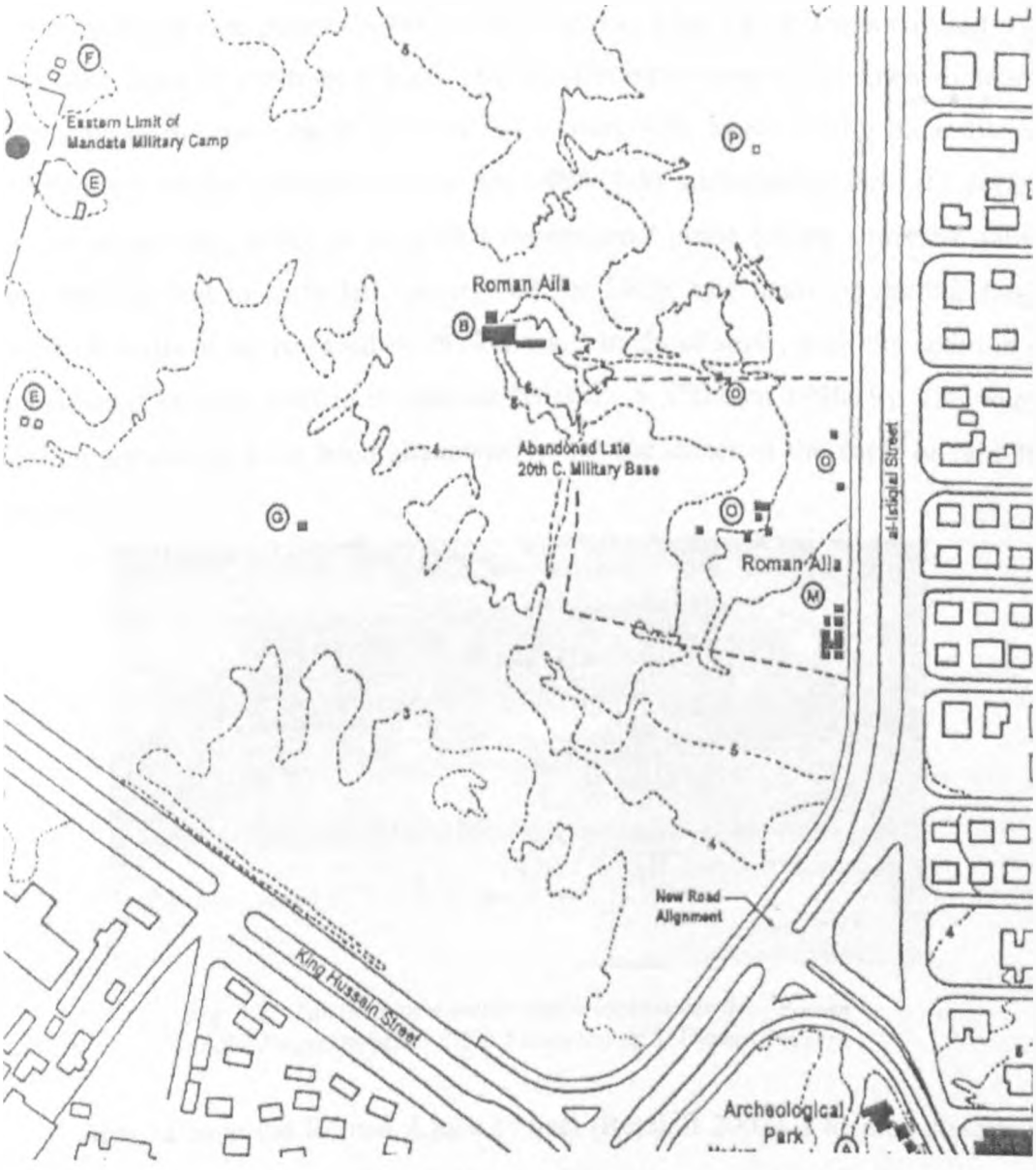

Fig. 3.31 Plan of the Roman Aqaba Project excavation areas (courtesy S. Thomas Parker).

RAP Area B is located on a small mound in the south-eastern portion of the so-called 'circular area' (Blakely & Christen 1998). The primary feature dating to the

Late Roman period uncovered in this area was a large domestic mudbrick complex (**Fig. 3.32**), covering trenches B.1 and B.3, that was sequentially enlarged over time. The structure consisted of a series of rooms with mud-plastered floors around a small central courtyard. The rooms contained several *tabûns* and grinding installations (*i.e.* mortars), and it is suggested here that at least parts of the B.1/3 complex were devoted to the baking of bread. This building (Dolinka 2003: 23, 29-32) was constructed by the Nabataeans sometime in the early to mid-1st century AD until it was temporarily abandoned in the early-2nd century AD, when parts of it were destroyed by an earthquake (Dolinka 2004: Fig. 14), after which it was covered with a massive layer of windblown sand. The B.1/3 complex was re-occupied sometime shortly thereafter, perhaps in the mid-2nd century AD, where during three distinct occupational phases (Blakely & Christen 1998: 7-8) attributed to the LR1 period, several rooms were added to it. A final occupational phase for the structure, dating from the late-2nd to early-3rd century AD (or LR2), saw many of the building's mudbrick walls being replaced by thicker walls made of stone, with the addition of an L-shaped exterior wall to its outside (Blakely & Christen 1998: 9). The whole building appears to have been abandoned sometime either in the early or mid-3rd century.

Fig. 3.32 Late Roman domestic mudbrick complex from Roman Aqaba Project trenches B.1/B.3 (courtesy of S. Thomas Parker).

Area M from the Roman Aqaba Project (Retzleff 2003) is located directly to the west of al-Istiqlal Street (**Fig. 3.31**), *ca.* 200 m south of Area B. Nine trenches were excavated in this area, which yielded the remains of another domestic mudbrick structure that was in use during the first three centuries AD. Like the complex from Area B, this building has two distinct Nabataean occupational phases dating from the

1st to early-2nd centuries AD, after which all of the rooms and accompanying installations were abandoned (Dolinka 2003: 23-28). The Late Roman strata uncovered in Area M (Retzleff 2003: 49) consisted of three phases (LR1-3), of which the first two dated to the Antonine (LR1) and Severan (LR2) periods. During the LR1 phase (**Fig. 3.33**), a house (Structure E) with granite and mudbrick walls, which were covered with mud plaster and then covered with lime plaster, was constructed in the northern sector of the area. In the south, a system of drainage channels made of re-used ceramic vessels was constructed.

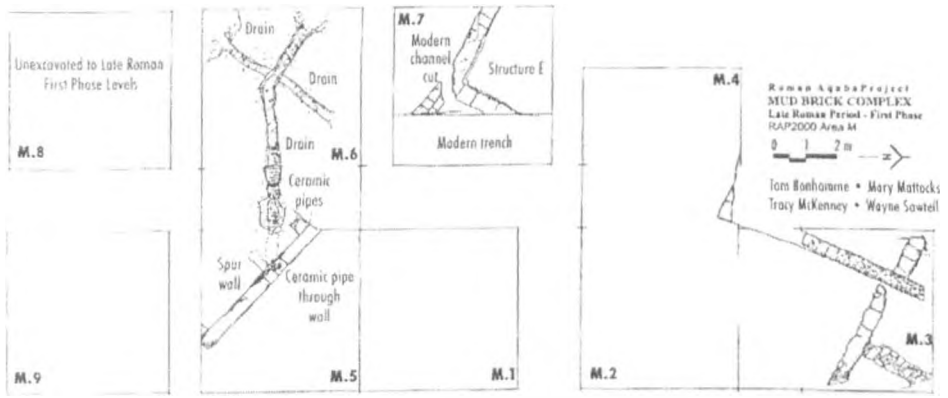

Fig. 3.33 Area M from the Roman Aqaba Project in the LR1 phase (Retzleff 2003: 50).

In the following LR2 phase (**Fig. 3.34**), dated by numismatic and ceramic evidence from the early to mid-3rd century AD, several rooms were constructed in the northern and southern sectors, while Structure E continued to be occupied. There is evidence in one of these rooms for a household industry devoted to the production of terracotta figurines.

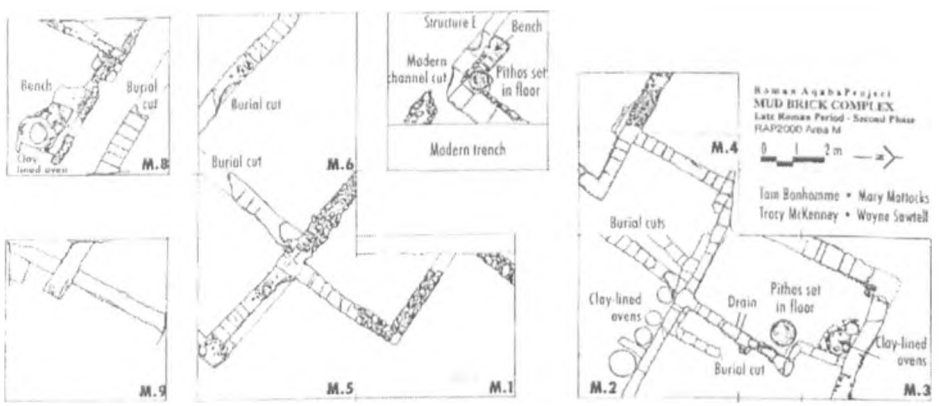

Fig. 3.34 Area M from the Roman Aqaba Project in the LR2 phase (Retzleff 2003: 50).

Artifactual evidence uncovered by the RAP excavations offers insights into the socio-economic history of this important *polis*. There is a wealth of imported

goods attested from the site during the Late Roman period, including ceramics from Egypt (*e.g.* Egyptian Red Slip and lamps) and North Africa (*e.g.* African Red Slip), and amphorae from all over the Mediterranean (*e.g.* Peacock & Williams Class 47). In addition, there is evidence for a thriving pottery industry at Aila supplied both local and regional markets (Dolinka 2003: 63-70 *passim*, 79-90), as well as the production of *garum* (Retzleff 2003: 55; Dolinka 2003: 95-96) that was stored and transported in locally-produced ceramic vessels (see below, Chapter 5.5 below). Taken together, it is clear that Late Roman Aila was an important nexus of production and trade.

3.4 Sites in Southern Jordan

The final three sites to be utilised as case-studies to compare and contrast with Horvat Dafit are all located in the southern portion of modern Jordan, i.e. south of the Dead Sea. They include Humayma, Khirbet edh-Dharih and the Nabataean capital of Petra, and were all originally Nabataean cities that demonstrated continuous occupation after the annexation. While the first two were substantial settlements, Petra was a large, internationally-known city.

3.4a Auara/Hauara/Havara/al-Humayma (UTM: 7264 / 33159)

Site Location and Brief Historical Outline

Humayma (**Fig. 3.1**) is located in the Hisma desert of southern Jordan, *ca.* 80 km north of Aila along the road that was to become the *via nova Traiana*. The site is extensive, and covers an area of some 10 hectares (Oleson 1997: 175). It consists of a large Nabataean settlement comprised of dwellings and a Nabataean sanctuary. It had an extensive Nabataean water-supply system made up of an aqueduct, reservoirs, cisterns and dams. There is also a Roman fort, *vicus* and houses, as well as several Byzantine churches and an Umayyad mosque (*qasr*).

Although there were earlier inhabitants in the region surrounding the site, significant settlement did not begin until the 1st century BC (Oleson 1986: 50; *idem* 2001: 570-571, ftn. 3). In a fragment attributed to the *Arabica* written by Uranios preserved in Stephanus of Byzantium (*FGrH* 675A.1.b), the Nabataean king Obodas (96–85 BC) commanded his son (Aretas III, ruled 85–62 BC) to found a town in response to an oracle. According to the legend, the oracle directed that the town should be located in a place called 'white' (Greek *leukē* = Nabataean *auar* or *hawar*).

After searching for some time, Aretas was inspired by the site of a white-clad man riding a white camel and founded Auara (i.e. Humayma) on the spot. It is well documented that oracular commands are a common *topos* of foundation legends in general and it seems clear that one purpose of this particular legend is to provide an aetiological explanation for the name of the town. In addition, the rock of the hillsides surrounding the site, which many of the structures there are built from, are also white, which reinforces the origin for the its toponym.

The site of the ancient town was certainly well chosen. Humayma receives significantly more rainfall than areas to the east or south: it averages 80 mm *per annum* as compared to 50 mm or less in other nearby areas. It is located at the heart of a catchment area of *ca.* 240 km^2 (Oleson 1997: 175), so it is of no surprise then that the earliest remains yet uncovered from the site consist of hydrological installations. Humayma thrived as a Nabataean centre in the Hisma throughout the 1st century AD. After the annexation, it became an important Roman and later Byzantine military post (Bowersock 1971: 239; Kennedy 2000: 182-186). The site is mentioned in Claudius Ptolemy (*Geog.* 5.16.4) as a *polis* of Arabia Petraea and it is also listed on the *Tabula Peutingeriana* as being situated about halfway between Zadagatta (modern Sadaqa) and Praesidium (modern Khirbet al-Khālde). In addition, the site appears in the *Notitia Dignitatum* (*Or.* 34.25) as the base for the *equites sagitarii indigenae*. Finally, it is mentioned on a Byzantine document known as the Beersheba Edict (Alt 1921: 4) as having the second highest annual taxes of any other military station in the eastern sector of Palaestina Tertia (Graf 1983: 657). After the Muslim conquest of the region in the mid-7th century, Humayma became the base of the Umayyad dynasty (Oleson 2001: 577-579).

Early Research

In 1828, Laborde (1838: 62-63) was the first traveller to explore Humayma. He was clearly impressed by the extent of the site, its numerous architectural remains and the network of cisterns. In addition he noted the presence of several caves on the hillsides surrounding the site, suggesting that they were used as dwellings, and he was the first to provide a sketch plan of it (**Fig. 3.35**). Nearly a half-century later, Maughan visited the site and provided a similar account, noting that it "must have been a great rendezvous or *entrepôt* for all the caravans traversing this important commercial route" (Maughan 1874: 194). The reports of both Laborde and Maughan

were repeated nearly verbatim several years later by Brünnow and von Domaszewski (1904: 476-477).

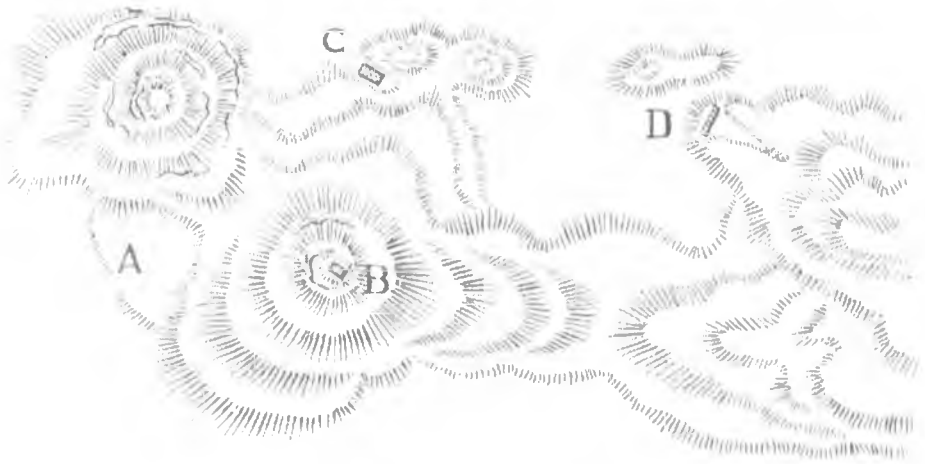

Fig. 3.35 Plan of the ruins at Humayma drawn by Laborde (1838: 63)

Musil (1926: 64) was the first to equate the ruins of the Roman fort at Humayma with the site of Hauarra mentioned on the *Tabula Peutingeriana*. He also demonstrated that the name given on that Late Roman map corresponded to the place-name attributed to the site in the Uranios fragment above (Musil 1926: 59). Frank explored the site (1934: 236-237), and noted the apse of the Byzantine church and the Roman fort, which he described as being rectangular and measuring *ca.* 272 paces long and 198 paces wide, with 1.20 m thick outer walls. The photograph that he took there (*ibid*: taf. 36B) represents the first taken at the site by its early visitors. Finally, Stein (Gregory & Kennedy 1985: 317-329, Pls. 67c-d, 68a-c) conducted the first in-depth survey and investigation of the site and its surroundings. He took four photographs there, made the first attempt at true measurements of its archaeological features and thoroughly discussed its historical sources.

More Recent Research

Despite the numerous ancient literary references mentioning the importance of Humayma, for decades the site was "generally neglected by modern archaeologists" (Graf 1983: 659). After Stein, there was a large lacuna in research and fieldwork in and around the area, and the site was not even visited by the *Limes Arabicus Project* conducted by Parker in the mid-1970s (Parker 1986). It was not until the fieldwork along the *via nova Traiana* carried out by Graf in 1979, that a modern archaeological survey of the site occurred (Graf 1979: 125, Site 5, Pl. 46). A

surface collection of the ceramics from the site, the first conducted by a true ceramicist (James Sauer of ACOR), yielded classical sherds dating from the 1st century BC through the 6th century AD, with the majority (21.8%) being Nabataean, and the Late Roman period representing 9.5% of the total pottery collected. Results of the survey by Graf produced the first detailed plan (**Fig. 3.36**) of the site and the most accurate description of its components (Graf 1983: 657-661, Map 3). More importantly, it uncovered "...over 20 milestones, several well-preserved stretches of road and a number of adjacent road stations" (Graf 1995: 257), which rendered the section of the *via nova* between Sadaqa and Humayma the most clearly delineated section of that road in all of southern Jordan. Finally, the project recorded more than 300 Nabataean, Thamudic and Greek graffiti, of which 15 originated in the region surrounding Humayma (Eadie & Oleson 1986: 49).

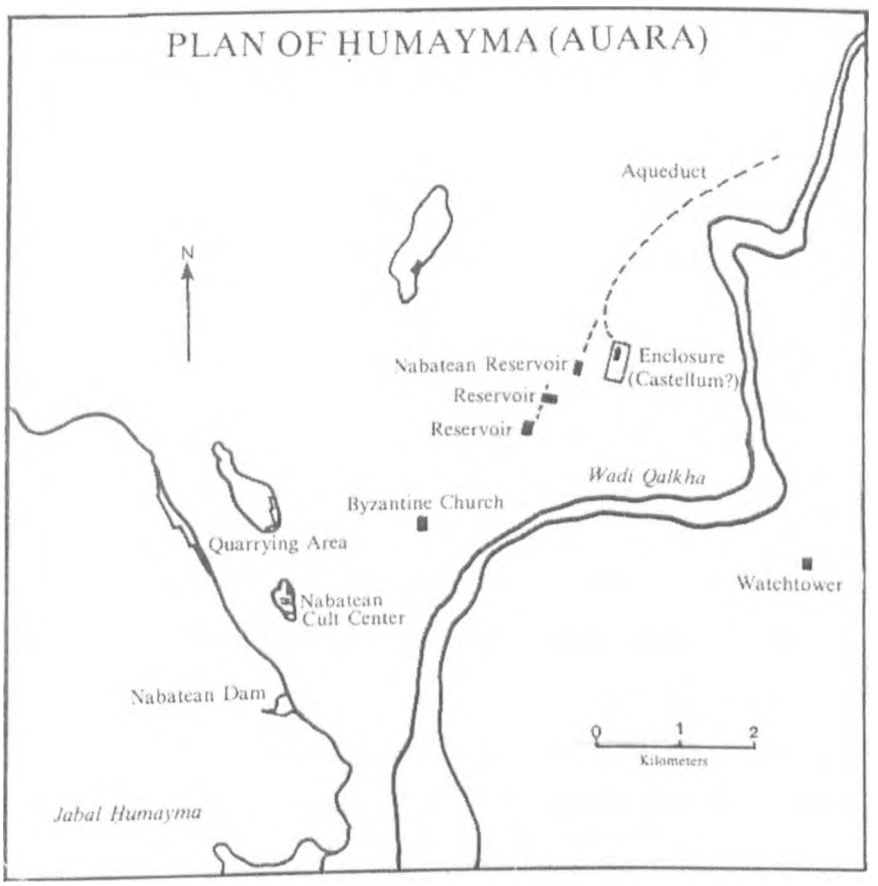

Fig. 3.36 Plan of Humayma from Graf's survey of the via nova Traiana (Graf 1983: 658)

The first collection of modern aerial photographs of the eastern frontier of the Roman empire was gathered by David Kennedy and Derrick Riley during the 1980s. From their photographs of Humayma, they were able to draw a very detailed plan of

the site's architectural features (**Fig. 3.37**), both ancient and modern (Kennedy & Riley 1990: 146-148). Since then, Kennedy and B. Bewley have conducted further aerial reconnaissance over Roman sites in Jordan (Kennedy 2000), producing some of the most spectacular colour photographs of those sites ever taken.

Fig 3.37 Plan of the archaeological and modern remains at Humayma drawn from aerial photographs (Kennedy & Riley 1990: 147).

The Humayma Hydraulic Survey

During the mid-1980s, John Eadie and John Oleson conducted an in-depth investigation of the Nabataean and Roman water-supply systems at Humayma (Eadie & Oleson 1986; Oleson 1992, 1995). Their fieldwork uncovered the remains of two large, roofed Nabataean reservoirs (Eadie & Oleson 1986: 57-61), dubbed Cisterns 1 and 2, in the centre of the site that collected surface runoff from the nearby hills. Cistern 1, located near the edge of the Roman fort, measures 30 m long by 14 m wide, Cistern 2, located in the northern part of the site's centre, measures 27.6 m long and 17 m wide. In addition, they found 51 vaulted rock-cut and/or built cisterns with stairs (Oleson 1992: 270), most of which were so well constructed and preserved that the Jordanian government has had them cleared and re-plastered for use by the local Bedouins who currently reside there (Eadie & Oleson 1986: 56).

Although many of these cisterns seem to have been built for the use of individual families or groups of families (**Fig. 3.38**), the sheer size of the two central cisterns and several other public cisterns (**Fig. 3.39**) may suggest construction by a central authority for public use.

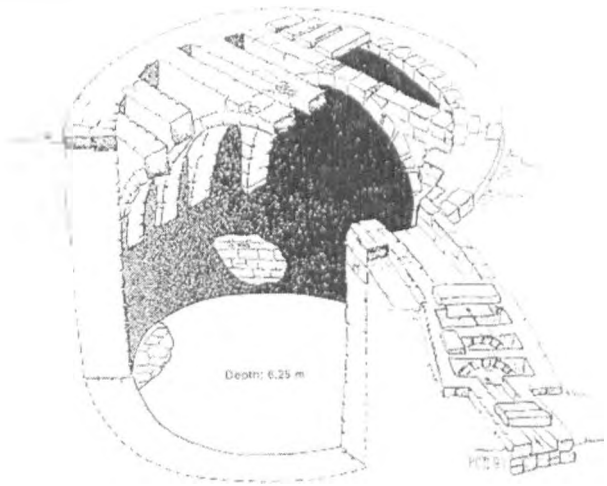

Fig. 3.38 Reconstruction of Private Cistern 54 from the Humayma Hydraulic Survey (Oleson 1995: 712).

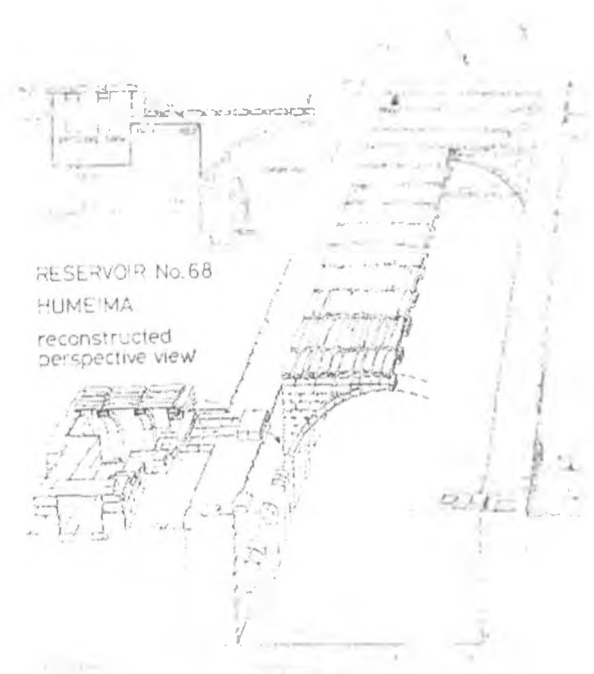

Fig. 3.39 Reconstruction of Public Cistern 68 from the Humayma Hydraulic Survey (Oleson 1995: 712).

The most prominent hydrological feature of the site is its extensive aqueduct (Eadie & Oleson 1986: 61-70), which all of the early visitors to the site made

substantive comment on. The aqueduct is an in-ground stone channel that carried water *ca.* 26.5 miles from three springs along the al-Shera escarpment (**Fig. 3.40**), located some 450 m above the site, to Cistern 2 (**Fig. 3.41**) in the city centre. It is of

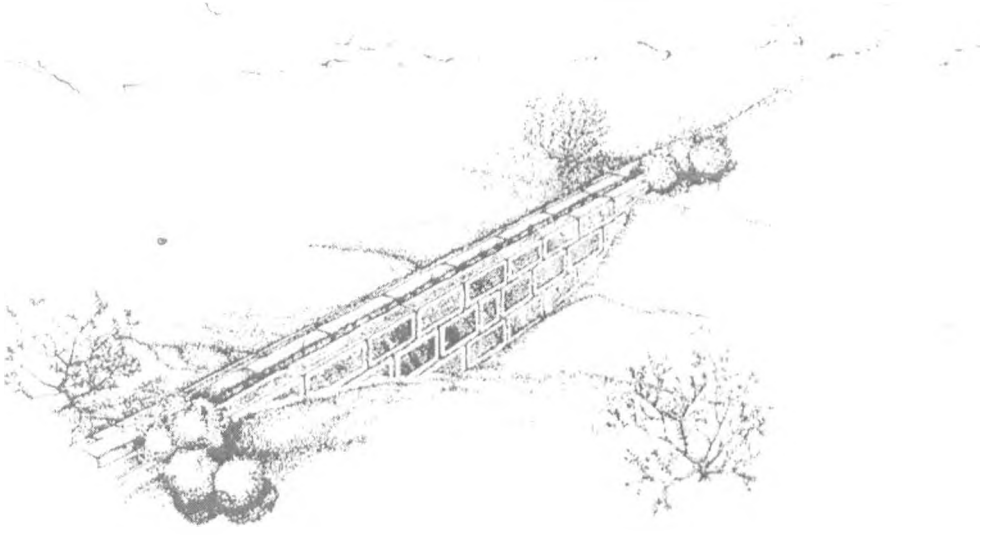

Fig. 3.40 Reconstruction drawing of the aqueduct and its support walls From the Humayma Hydraulic Survey (Eadie & Oleson 1986: 65).

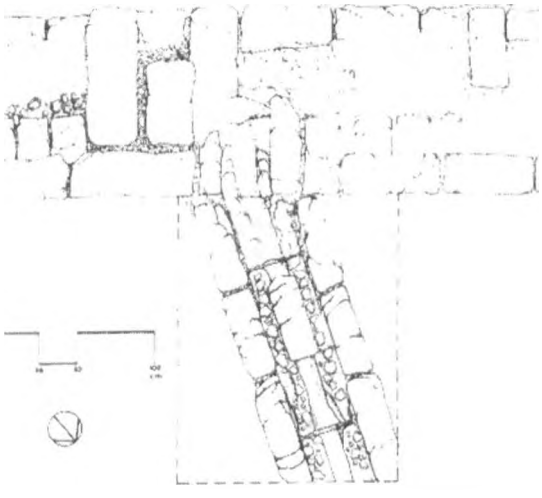

Fig. 3.41 Junction of the aqueduct and Cistern 2 at Humayma (Eadie & Oleson 1986: 60).

common Nabataean design, *e.g.* those at Wadi Ramm (Savignac 1932: 585-586; 1933: 407-411) and Petra (Bellwald *et al* 2003), and like those examples was also likely constructed in the 1st century BC. The addition of a steady supply of spring water to the site would have greatly increased the maximum human and animal population at Humayma well beyond the natural carrying capacity of the land. One estimate, based upon average water consumption figures for humans and animals and

assuming that all cisterns were functional at the same time, suggests that the site and its hinterland could have sustained a population of approximately 817 people, 183 camels and 1649 caprines (Oleson 1997: 177).

The Humayma Excavation Project

The most comprehensive archaeological investigation of ancient Auara is the fieldwork of the Humayma Excavation Project (HEP), directed by Oleson under the auspices of the University of Victoria (British Columbia) and ACOR (Oleson *et al.* 1993, 1995, 1999, 2002, 2003). Since 1991, the project has excavated on an almost annual basis many of the site's major features (**Fig. 3.42**). The primary focus of the project is the Roman remains at the site, including the fort, the *vicus*, a stone house and a bath complex.

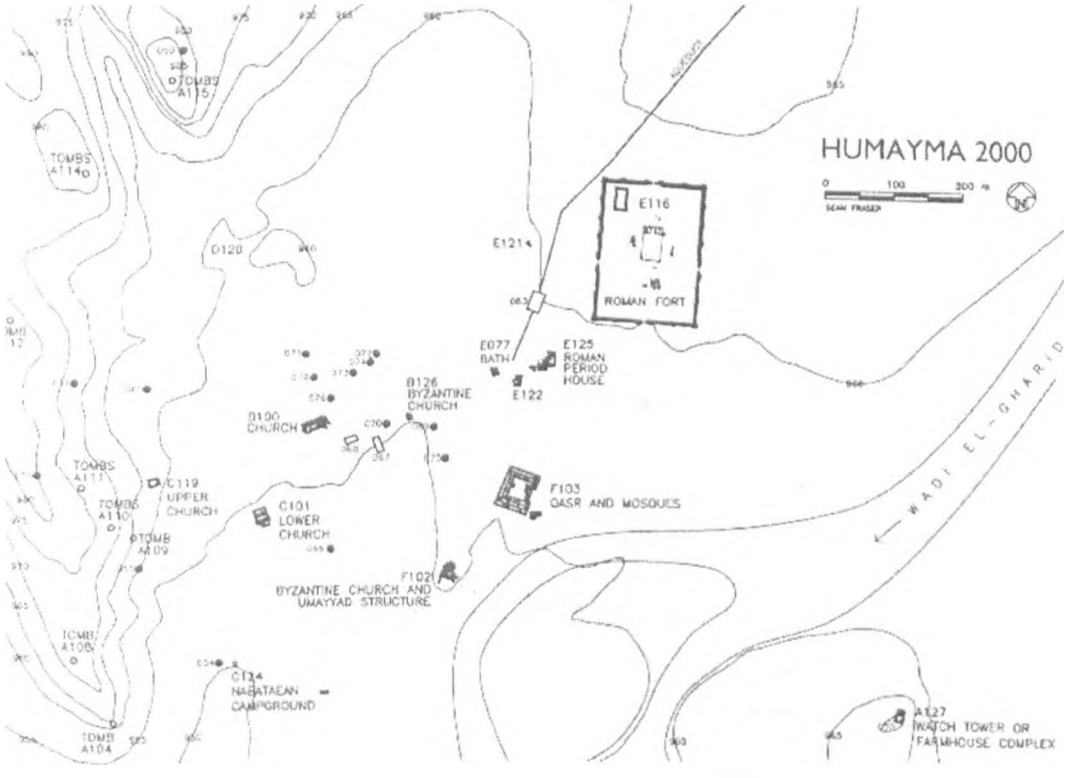

Fig. 3.42 General site plan of the principal excavation areas from the Humayma Excavation Project (Oleson et al 2003: 38)

The Roman fort in Field E116 (**Fig. 3.43**) measures 148.32 x 206.32 m. Excavations carried out there (in 1993, 1995, 1996 and 2000) have revealed the plan of its perimeter fortification walls and three primary features on its interior, i.e. the *principia*, the *praetorium* and the reservoir. Probes conducted in other areas of the fort have uncovered the remains of its barracks block, its two main streets – the *via*

praetoria (which ran N-S) and the *via principalis* (which ran E-W), and what has been interpreted as either a granary or stable. That the fort was indeed Roman has been confirmed by the dimensions of its outer walls, which measure 500 x 700 Roman feet (Oleson *et al* 2003: 37).

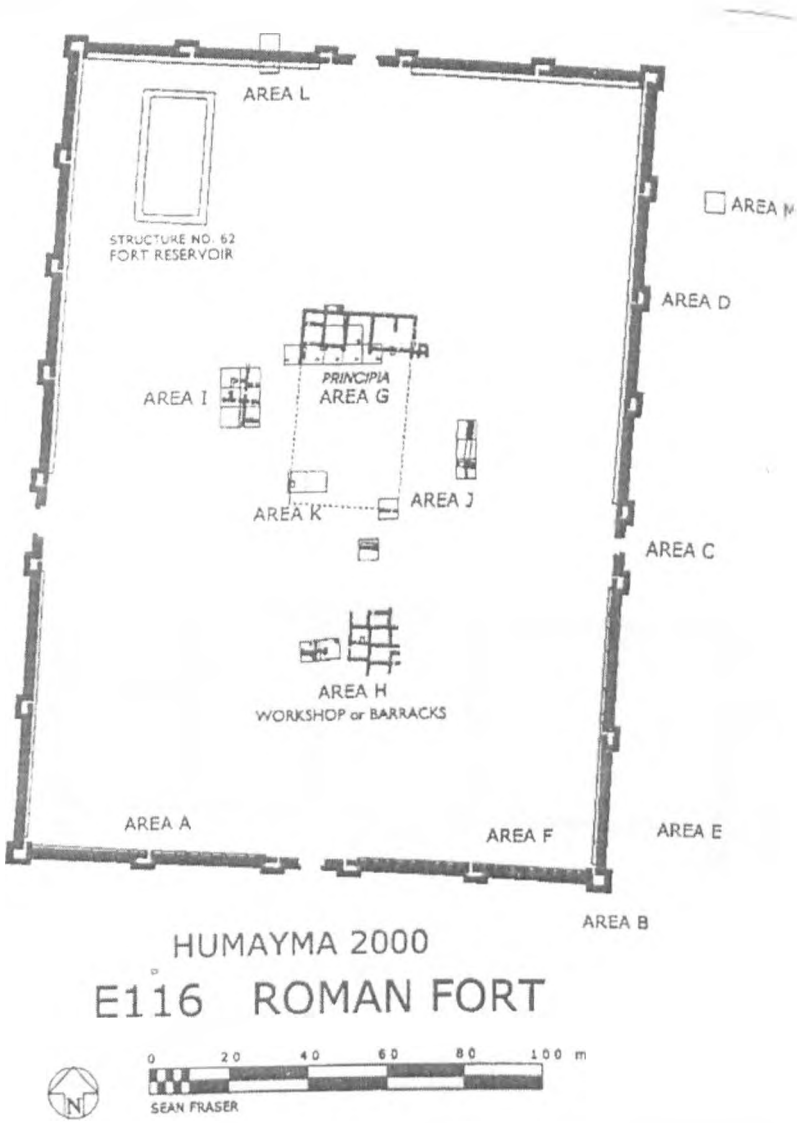

Fig. 3.43 Plan of the Roman Fort at Humayma (Oleson 2004: 354).

A large datable corpus of ceramics from the barracks in Area H during the 1996 season (Y. Gerber: pers. comm.), and numismatic evidence in the form of Trajanic coins, including one that has been described as being in mint condition (R. Cook: pers. comm.) demonstrates that the fort was active during the first quarter of the 2nd century AD. The fact that this fort was constructed almost immediately after the annexation makes it a rarity, as most Roman forts in the *provincia Arabia* are much later (i.e. Severan, Diocletianic) in date (Kennedy 2000: 182-183; Gregory 1996: 196). Indeed, most if not all scholars who have studied the fort at Humayma

have attributed its construction to the Diocletianic period, based upon its 'playing card' plan characterised by four projecting towers. The fact that this type of fort existed nearly two centuries before it was previously believed to have made its initial appearance (Parker 1986, 2002a; Gregory 1995, 1996), calls into question the later dating proposed by others.

Trenches were opened in the northern sector of the *principia* (**Fig. 3.44**), or headquarters building (Oleson *et al* 2003: 40-43). Uncovered were a series of six rooms (Rooms A-F) that had sandstone floor pavers and walls with multi-coloured frescoes (Oleson *et al* 1999: 416). The central room (D) has been interpreted as being the building's *aedes*. Found in that room were two inscribed statue bases, one in Greek and one in Latin (Oleson *et al* 2002: 110-112), a common feature in *principia* buildings throughout the empire (Johnson 1983: 113).

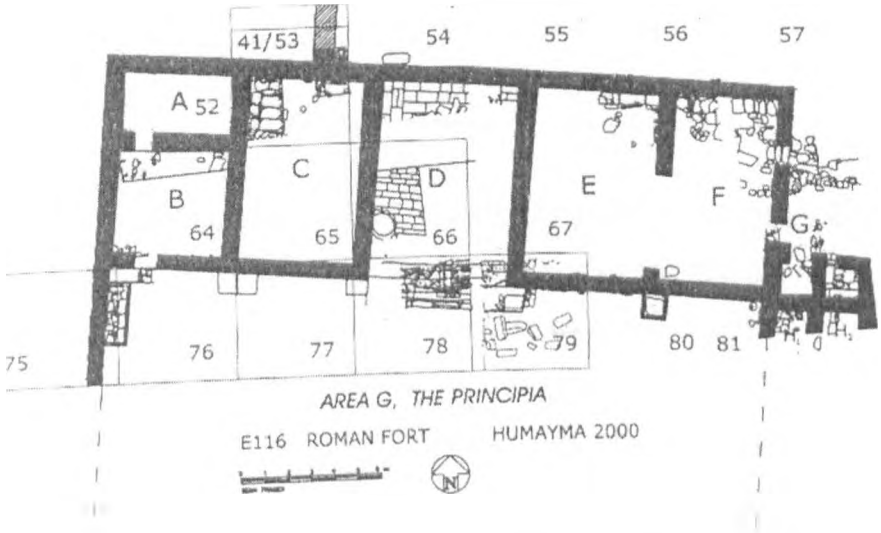

Fig. 3.44 The principia of the Roman fort at Humayma (Oleson et al 2003: 41).

In addition to fieldwork in the *principia* during the 2000 field season, excavations were also conducted in the *praetorium* (**Fig. 3.45**), or commander's residence (Oleson *et al* 2003: 43-45). The interior walls of Room D in the *praetorium* were covered with multi-coloured frescoes similar to those in the *principia*. More importantly, however, were the floors of this room, which were paved with mosaics consisting of geometric patterns, rendered in dark reddish-brown, blue and white (Oleson *et al* 2003: 44). These represent the first mosaics to be found in Jordan south of Petra (cf. Kolb 1998: 261-262, fig. 5).

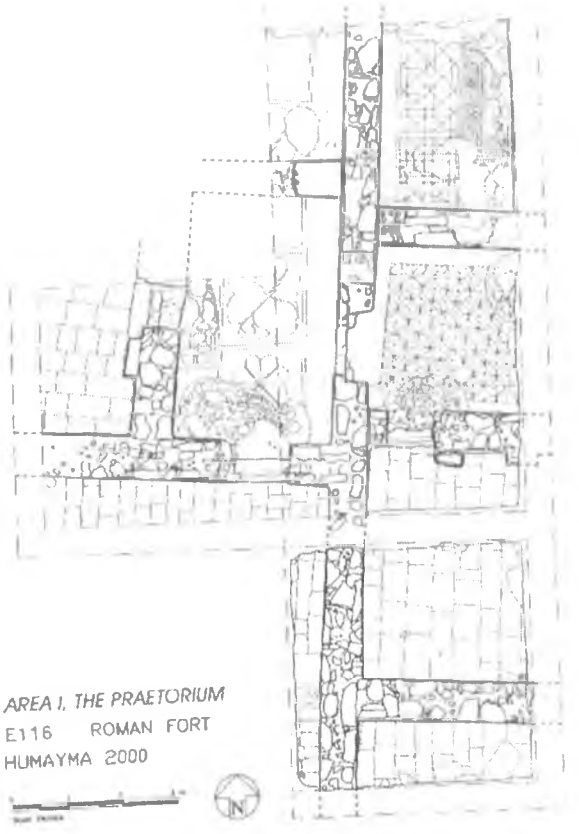

Fig. 3.45 The praetorium from the Roman fort at Humayma (Oleson et al 2003: 44).

Often found within the vicinity of Roman forts on the frontiers of the empire was the *vicus*, which was essentially the civilian settlement that provided goods and services – such as taverns, brothels, baths, shrines and shops – to the soldiers occupying the fort (Le Bohec 1994: 226; Sommer 1984, 1999). In the case of Humayma, the people inhabiting the *vicus* near the fort comprised Nabataeans who had previously lived there, and the structure that they occupied was uncovered in Field E125 (**Fig. 3.46**) at the site (Oleson *et al* 2003: 47-50; 1999: 421-426). This building, which has only been partially excavated, was constructed of mudbrick laid upon cobblestone foundations (a typically Nabataean method of construction), covers an area of more than 800 m^2 and has at least 24 rooms. Most of these had stone doorjambs, lintels and arches that supported the roof. Ceramic and numismatic evidence recovered from E125 suggests that it was built during the late-2nd century AD and continued its occupation into the late-3rd or early 4th century AD (Oleson *et al* 1999: 421-426). Some of its walls were decorated with painted frescoes depicting anthropomorphic and zoomorphic figures (Oleson *et al* 2003: 49).

One of the rooms in E125 served as a shrine dedicated to worship of a local, Nabataean deity, most likely Dushara (Graf 1992d), as well as to Jupiter Ammon and

Zeus Serapis (Oleson *et al* 2002: 112-119; 2003: 47-49). Perhaps the most important find in this shrine was the Latin inscription on an altar dedicated to Jupiter Ammon. It strongly suggests that a detachment of soldiers from the *legio III Cyrenaica*, one of the two legions (the other being the *legio VI Ferrata*) involved in the Roman annexation of Nabataea, was stationed at the fort. In addition to the inscription found within this shrine were luxury goods including several Egyptian faience items (Oleson *et al* 1999: 423).

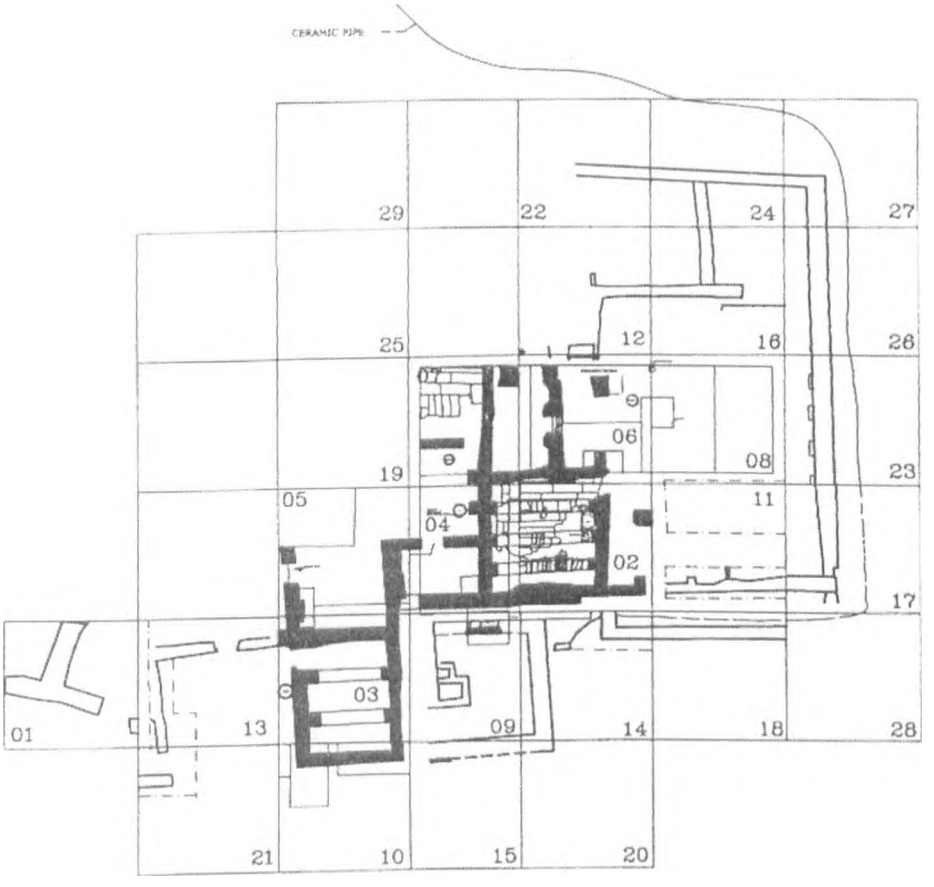

Fig. 3.46 Plan of what has been interpreted as a vicus from the Roman fort at Humayma (Oleson et al 2003: 48).

After the arrival of the Roman soldiers at Humayma, a bath-house was constructed in Field E077 (**Fig. 3.47**). This structure is a rarity in the former Nabataean kingdom, and its construction was only made possible by the ample supply of water at the site and the fact that the Romans diverted water from the aqueduct to supply it (Oleson 1990; Reeves & Oleson 1997). Bath-houses such as the one at Humayma are a typical feature associated with Roman forts, and over 170 of them have been found throughout the Roman empire near them (Reeves 1996).

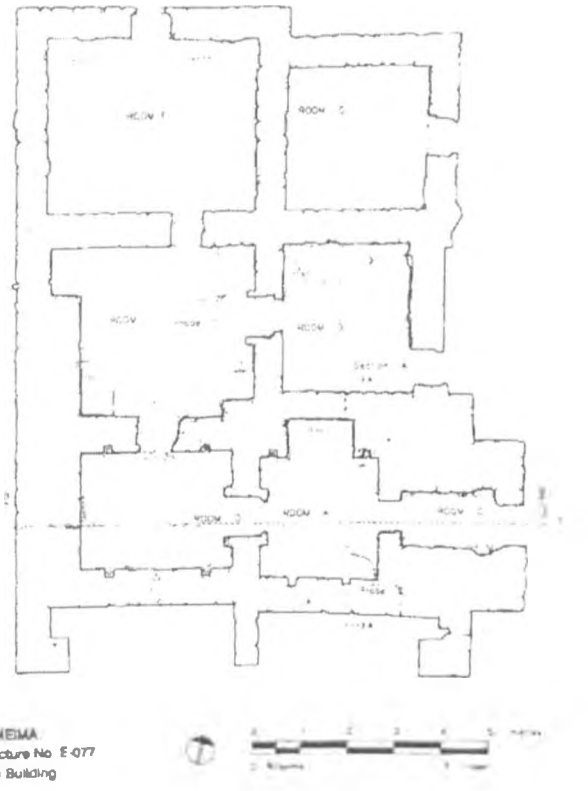

Fig. 3.47 Roman bath house at Humayma (Oleson 2001: 574).

Pottery Production at Humayma

Although the ceramic repertoire from Humayma dating to the 2nd century AD consists of pottery in the Nabataean tradition produced in Petra or Aila, as well as imported finewares (*e.g.* ESA, ARS) from outside of the region, many of the 3rd and 4th century cooking wares (Oleson 2001: 575) and drinking vessels are unique to the fort. A kiln site, located *ca.* 500 m west of the fort and containing kiln wasters of these distinct vessels, was discovered during the 2000 season, and it has been suggested that these locally-produced forms from Humayma most likely represent a 'military cooking kit' or 'mess kit' used either individually or in groups by the soldiers at the fort (R. James Cook: pers. comm.). This idea finds support in light of the recent excavations at the Jerusalem kilnworks used by the *legio X Fretensis* (Magness 2005) as well as evidence from recent fieldwork at the Roman army camp in Oboda (Erickson-Gini 2002), which have demonstrated that the Romans employed local potters who not only made vessels in their tradition, but who also created those outside of their normal ceramic repertoire that were better suited to the needs and/or tastes of the Romans.

3.4b Khirbet edh-Dharih (PG: 2172 / 03524; no UTM available)

Site Location and Brief Historical Outline

Khirbet edh-Dharih (**Fig. 3.1**) is located on the slopes of the Wadi Laaban to the south of Wadi el-Hesa, *ca.* 15 km south-east of the Dead Sea and 70 km north of Petra, and represents the northernmost site under discussion. The site measures over 12 hectares in area, and contains the remains of the following: a sanctuary and temple complex; a village consisting of around 20 structures including a large rectangular building and private houses; two oil factories; and an extensive necropolis. All of these buildings were occupied from the 1st century AD until the site was destroyed by the earthquake of AD 363 and subsequently abandoned. The site was later reoccupied in the 6th and 7th centuries AD.

Early Research

Not one of the 19th century visitors to the other sites mentioned in this chapter explored the remains of Khirbet edh-Dharih. The only archaeological investigation of the site in the first half of the 20th was the survey by Glueck, who visited the site on 16 June 1934. Of the site, he remarked:

> "It is a very large Nabataean settlement...The sides and bed of the wadi are intensively cultivated for a considerable distance...Ain edh-Dherih...is a very strong spring, whose waters irrigate the rich gardens and fields. Qasr edh-Dherih represents the much battered ruins of what was evidently...a beautiful Nabataean temple, which may have been rebuilt by the Romans" (Glueck 1935: 101).

In addition, he also noted the presence of Nabataean pottery scattered throughout the site (*ibid*: 15, 102) there. After Glueck, the site was completely ignored for more than 50 years.

During the mid-1980s, Burton MacDonald conducted a survey of the region surrounding Wadi el-Hasa, which included an examination of Khirbet edh-Dharih (MacDonald 1988: 370-371). The sanctuary/temple complex (Qasr edh-Dharih) corresponds to his Site 253 and the settlement (Khirbet edh-Dharih) to his Site 254 (*ibid*: 8, 204-205). And at both he collected a large sample of Nabataean and Roman pottery (*ibid*: 196, 216, 223-224). In addition, he noted that the settlement covered several thousand square metres and that there were architectural elements from the temple area that appeared to be Julio-Claudian in date.

The Franco-Jordanian Fieldwork

In 1983, a preliminary survey and reconnaissance was carried out at Khirbet edh-Dharih (Villeneuve 1984). Since then, 11 seasons of excavation, co-directed by F. Villeneuve and Z. al-Muheisen have been conducted at the site, under the auspices of IFAPO, the CNRS and the Jordanian Department of Antiquities (Villeneuve 1985, 1986, 1988, 1990, 1994, 2000; Villeneuve & al-Muheisen 2003). To date, this project has recovered a great deal of information regarding the site's monuments and occupational history (**Fig. 3.48**).

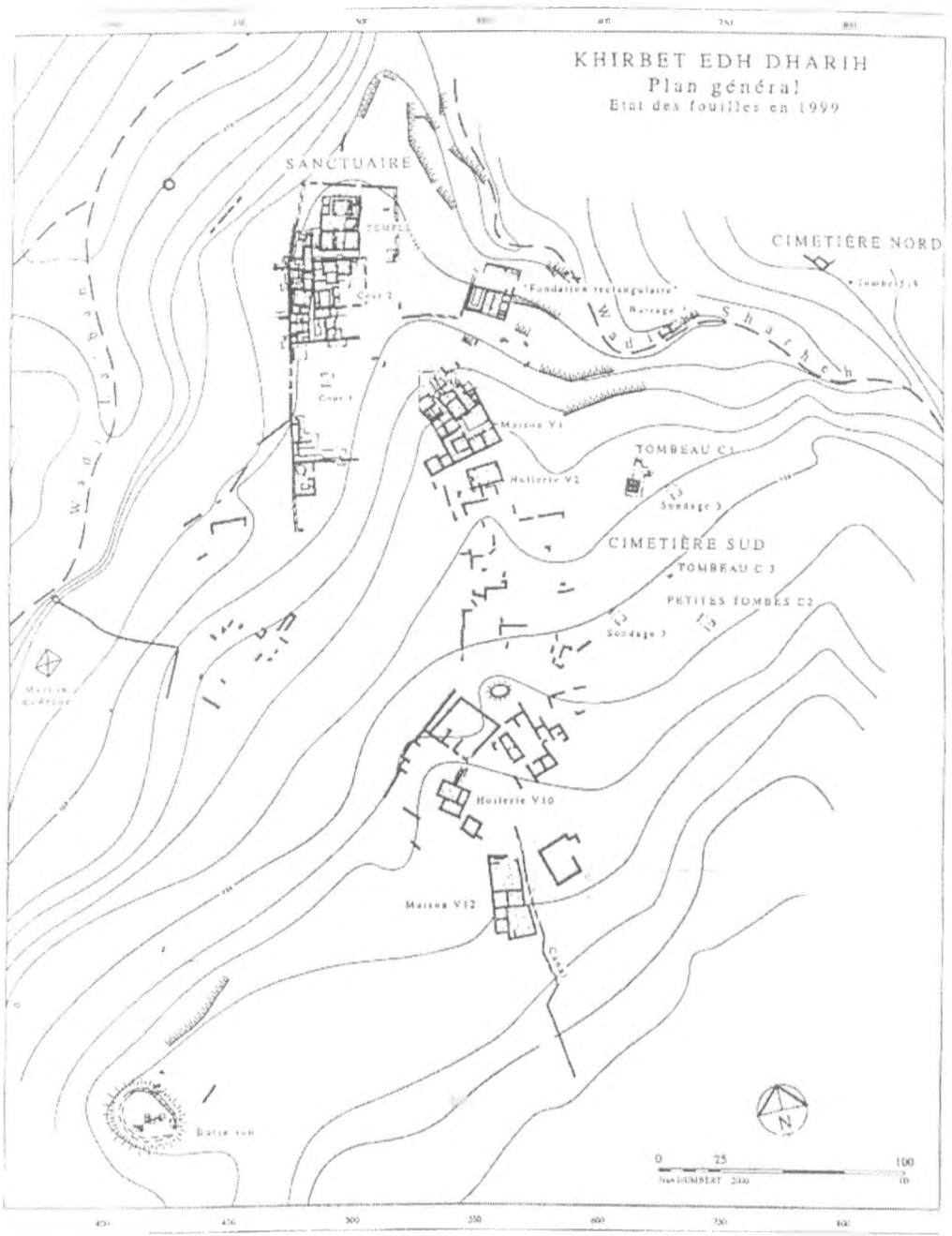

Fig. 3.48 General site plan of Khirbet edh-Dharih (Lenoble et al 2001: 91).

A primary focus of the Franco-Jordanian project has been the sanctuary, which consists of a temple (Villeneuve 1988: 471-477; Dentzer-Feydey 1990) and its *temenos* enclosure. Three building phases have been discerned by the excavators. The sanctuary seems to have been constructed by the Nabataeans in the 1st century AD. During the early-2nd century AD (Villeneuve & al-Muheisen 2003: 88-89), the sanctuary was dismantled over the course of a generation or so and rebuilt, with the addition of several new rooms added in the southern sector of the *temenos*, most likely in the late-2nd or early-3rd centuries AD (**Fig. 3.49**). This second phase lasted until the site's destruction in the 4th century.

Fig. 3.49 Sanctuary at Khirbet edh Dharih (Villeneuve & Muheisen 2003: 89).

The temple itself (*ibid*: 92-97) is rectangular in shape and measures 17 x 23 metres. It had four Corinthian columns along its façade, and had two windows situated on opposite sides of the entrance above the level of its lintel (**Fig. 3.50**). The temple is separated into two distinct parts divided by a wall and gateway. The southern room is essentially an open-air vestibule and the northern sector contains

the *cella*, a square-shaped raised cultic platform (**Fig. 3.51**) surrounded by 10 columns, of which the four corner ones are heart-shaped double columns. The cella has two sets of rooms directly to its east and west. The entablature of this temple was decorated with anthropomorphic relief sculptures representing the signs of the zodiac and minor deities such as Nike. One of the reliefs portrays the Gemini (**Fig. 3.52**), and demonstrates the use of drills to create ringed voids to depict the hair.

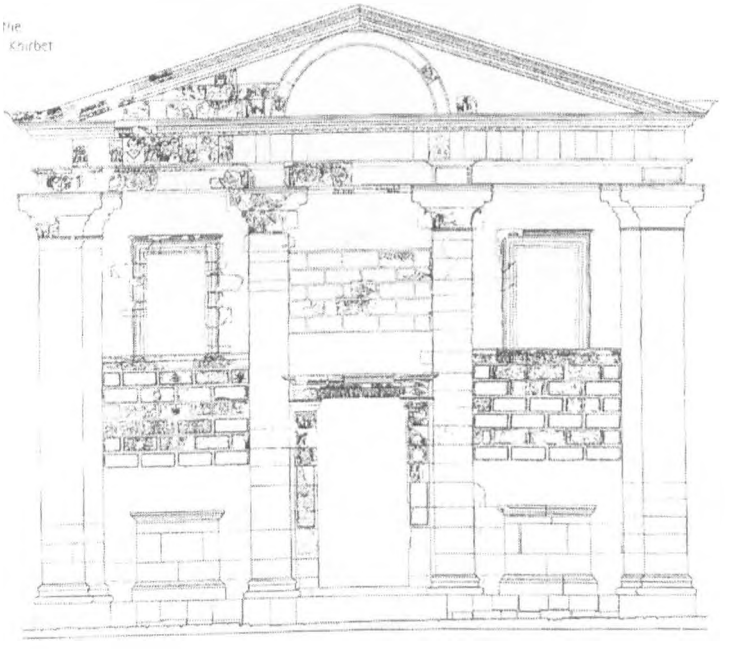

Fig. 3.50 Reconstruction of the façade of the temple at Khirbet edh-Dharih, Phase 2 (Villeneuve & Muheisen 2003: 92).

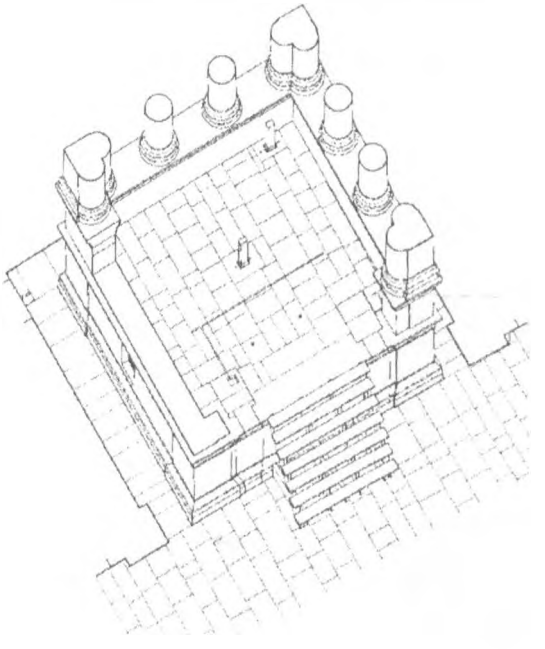

Fig. 3.51 Raised cultic platform from the temple at Khirbet edh-Dharih (Villeneuve & Muheisen 2003: 93).

Fig 3.52 Gemini panel from the Zodiac limestone frieze at the temple of Khirbet edh-Dharih (Villeneuve & Muheisen 2003: 95).

The village at Khirbet edh-Dharih consists of *ca.* 20 buildings, mostly small houses and a few oil presses (Villeneuve 1988: 463). The largest of the dwellings at the site is House V1, which is situated directly south-east of the sanctuary (Villeneuve 1988: 465-466). It consisted of at least 18 discernable rooms, had a paved inner and outer courtyard and its own bath with a hypocaust system. In the southern sector of the village, there was an olive-oil factory (Villeneuve 1988: 463-465; 1990), named Huilerie V10 (**Fig. 3.53**). The building contained olive presses of

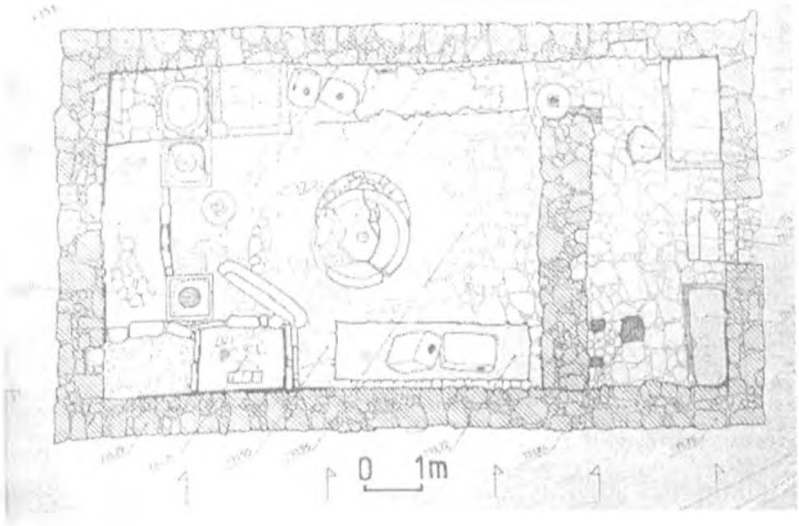

Fig. 3.53 Plan of the olive-oil factory at Khirbet edh-Dharih (Villeneuve 1988: 464).

the *mola olearia* type and several collection vats. This structure was partially destroyed in the early-2nd century earthquake, a date which is substantiated by the presence of *in situ* coins of Rabbel II dating from AD 100-102 found directly on the floor below a layer of ash and tumbled-over architectural remains.

Khirbet edh-Dharih had an extensive necropolis, located on both the northern and southern banks of Wadi Sharheh to the west of the sanctuary and village, which was in use from the 1st to the 4th centuries AD. The results of the 1984-1987 excavations in the southern cemetery were recently published (Lenoble *et al* 2001) and have provided a great deal of information regarding Nabataean and Roman burial customs, a subject which has received little scholarly attention, due to the fact that almost every necropolis in both Jordan and Israel has been the victim of extensive looting. A small but substantial collection of Nabataean funerary stelae of the *nefesh* and pyramid type (**Fig. 3.54**) that were used during the first three centuries AD were recovered from the necropolis, (Lenoble *et al* 2001: 92-94), and these represent the first published examples of such rare grave markers.

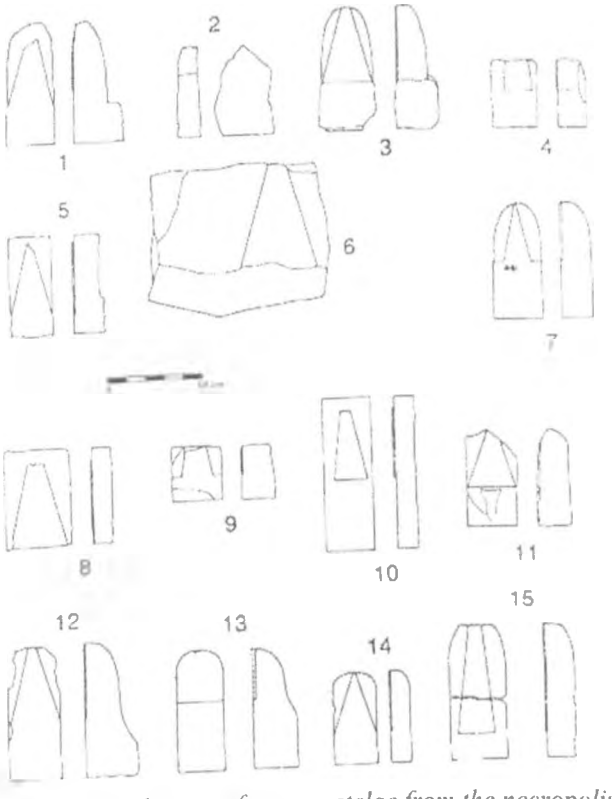

Fig. 3.54 Nabataean funerary stelae from the necropolis at Khirbet edh-Dharih (Lenoble et al 2001: 93).

The largest feature in the cemetery is a monumental communal tomb, named Tomb C1 by the excavators (**Fig. 3.55**). It was built sometime after AD 100, a date

supported by the presence in this tomb of Trajanic coins from AD 112-117, and re-used by successive generations of the same family until the 4th century AD (Villeneuve & al-Muheisen 2003: 89; Lenoble *et al* 2001: 100-132). The tomb consisted of six shafts and 30 graves (**Fig. 3.56**), which yielded the remains of 36 adults and 21 sub-adults (Lenoble *et al* 2001: 114-116) and rich grave offerings of jewellery, bronze vessels and seals.

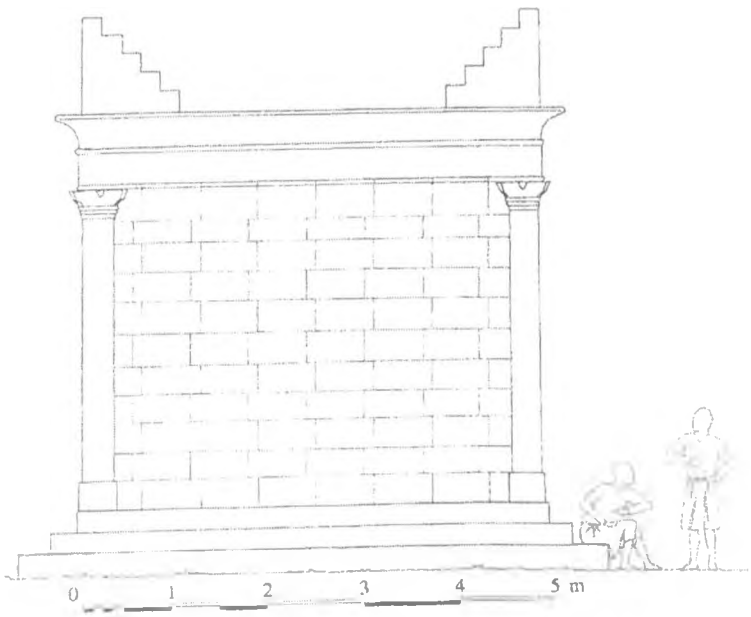

Fig. 3.55 Reconstruction of the façade of Tomb C1 at Khirbet edh-Dharih (Lenoble et al 2001: 108).

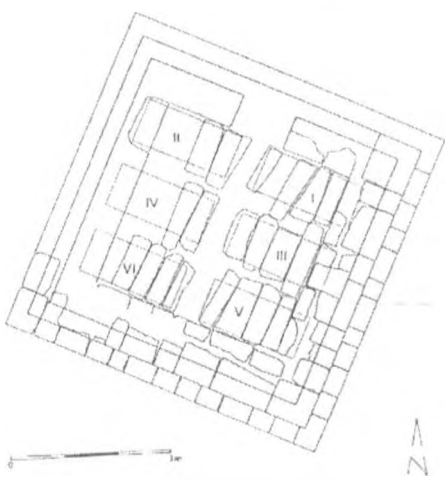

Fig. 3.56 Plan of Tomb C1 at Khirbet edh-Dharih (Lenoble et al 2001: 101).

The rest of the tombs in the cemetery consist of single interments in stone-lined cist tombs, with the bodies being completely covered in a leather shroud, as has been seen in the Nabataean cemetery excavated at Khirbet Qazone near the south-

eastern shore of the Dead Sea (Politis 1999). A total of 15 burials, including six adults and nine sub-adults, were found within the cist tombs, though they demonstrated a paucity of grave goods (Lenoble *et al* 2001: 143-144).

Taken together, the excavators of Khirbet Dharih have suggested that there was a powerful priestly family involved with the running of the temple and sanctuary complex, and that this family not only owned the large mansion (House V1) and the monumental tomb (C1), but that they also oversaw the religious rites and ran the Nabataean sanctuary at nearby Khirbet et-Tannur, excavated by Glueck (1937, 1937a, 1965, 1993). The other inhabitants of the village were characterised by the excavators as 'peasants' (Lenoble *et al* 2001: 89), who were participants in the religious rites that took place at Khirbet edh-Dharih.

3.4c Petra/Reqem (UTM 7346 / 33579)

Site Location and Brief Historical Outline

Petra (**Fig. 3.1**) is located *ca.* 80 km south of the Dead Sea and to the east of the Wadi Arabah escarpment. The archaeological site is surrounded by high red sandstone cliffs, and in antiquity the only way to gain access to the settlement was through a narrow passageway (the *siq*), which rendered the city easily defensible. It receives its first mention in association with the Nabataeans, as their capital, when in 312 BC the Macedonian successors of Alexander the Great tried to conquer them twice (Diodorus 19.94-100). Not much is known about Petra during the next three centuries, as we do not hear of it again in the classical authors until the writings of Strabo in the early-1st century AD (*Geog.* 16.4.2, 18, 21-26). Coinciding with the lack of written information about the site during the Hellenistic period is an apparent lacuna in the archaeological record as well, which is currently being addressed by the Hellenistic Petra Project (Graf *et al* 2006). Petra thrived under the Nabataeans as a centre of trade and commerce and continued to do so after the Romans annexed their kingdom. The site was largely destroyed in the earthquake of AD 363, but recovered and became a major bishopric during the Byzantine period, when the site witnessed the construction of several Christian churches. An even greater earthquake in AD 551 signalled the death-knell for Petra (Russell 1985), and by the time of the Muslim conquest in the mid-7th century AD, it lay abandoned and in ruins.

The archaeological site at Petra itself is immense in size, and consists of several monuments, structures, tombs and a theatre, all carved into the soft sandstone

of the cliffs that encompass it. In addition, the site has several temples, churches, houses, structures associated with water supply and display, and a colonnaded street. As there has been a great deal of archaeological fieldwork conducted at Petra, almost entirely focusing upon the Nabataean elements of the site, and a thorough synthesis of that material could fill an entire volume, the discussion provided in the section below does not pretend to be exhaustive and offers only a brief synopsis.

Early Research and Archaeological Fieldwork[8]

During the modern era, Petra has been thoroughly explored by travellers and archaeologists alike. The site was first rediscovered by westerners when John Louis Burckhardt visited in 1812 (Burckhardt 1822), opening the floodgates to a horde of other European and American explorers that followed. By the time Brünnow and von Domaszewski had completed and published their monumental survey of Petra and its environs in 1903 (Brünnow & von Domaszewski 1904: 125-427), they were able to compile an enormous list of westerners who had visited the site from the time of Burckhardt (*ibid*: 481-510). The most important aspect of their research at Petra was the cataloguing, drawing and planning of 851 tombs and monuments at the site (*ibid*: 195-419).

The first excavations were conducted by George Horsfield and Agnes Conway in 1929 (Horsfield 1930, 1942). Along with William Albright, the Horsfields carried out further soundings in 1937 (Cleveland 1960). They were followed by Margaret Murray during that same year and by Diana Kirkbride nearly 20 years later (Murray & Ellis 1940; Kirkbride 1960). None of this early fieldwork is of any real value, however, because of the rather poor excavation techniques employed – *viz.* the focus was more upon finding museum pieces than on any real stratigraphical distinction.

Truly modern excavations at Petra are represented by the fieldwork of Peter Parr (1960, 1970), conducted along the colonnaded street during the years 1958 to 1964, and by Philip Hammond (1965) at the theatre between 1961 and 1962, where the former was able to distinguish 18 occupational phases broken down into distinct stages (Parr 1970: 369-370) and the latter was able to isolate 269 strata from eight

8. For a comprehensive bibliography on excavations conducted at Petra through 1989, see McKenzie 1990. For the period between 1990 and the present, the reader is referred to pertinent articles in *ADAJ*.

phases (Hammond 1965: 8, 10, Plate Folder B2). Neither of these excavations yielded any contribution to our knowledge of Roman-era Petra, with the focus firmly entrenched in the site's Nabataean occupation. In addition, while Hammond did produce a final report for his fieldwork, Parr has yet to do so, even more than 40 years after his excavations concluded (Dolinka 2003: 39). After the work of Hammond and Parr, excavation at Petra effectively ceased until the early 1980s.

Archaeological investigation of the site resumed with the excavations at al-Katūte in 1981, directed by Nabil Khairy on behalf of the Jordanian Department of Antiquities (Khairy 1990). Work was concentrated in three sectors (Areas A-C) of the site, and these provided an occupational sequence consisting of five phases ranging in date from the 1st to 6th centuries AD. However, these excavations failed to produce any evidence from the Antonine and Severan periods, as there was a stratigraphic lacuna between Phase III, or the late-1st to early-2nd centuries AD, and Phase IV, which was only present in Area C and has a beginning date in the mid-3rd century AD (Khairy 1990: 8).

Evidence for Petra during the provincia Arabia

Despite the archaeological fieldwork and research conducted at Petra throughout most of the 20th century, little evidence dating from the Antonine and Severan periods has been uncovered, as the scholarly focus has overwhelmingly been upon either its Nabataean or Byzantine periods. Even in her groundbreaking study on the architecture of Petra, McKenzie could only identify one category, (Group F) made up of only three monuments, from the entire site as being dated to the post-annexation period (McKenzie 1990: 33, 46-47, 52-53, 122). This group consists of the Tomb of Sextius Florentinus, a governor of Arabia, which is dated by its inscription to *ca.* AD 129 (*Ibid*: 33). Also in Group F are the so-called 'Renaissance Tomb' and Tomb 154, which are assigned to Group F on the basis of decorative mouldings. Even the so-called 'Tomb of the Roman Soldier' is attributed to Group B, which is dated to the 1st century AD (*Ibid*: 42).

The fact that there has remained such a huge gap in our knowledge about the site during the era between the annexation and the reign of Diocletian has prompted one researcher to very recently characterise Roman Petra as a "neglected subject" (Fiema 2003). This is due to the fact that there is a paucity of literary references to the site during the period in question. Another reason lies in the erroneous

assumption that the city was in a state of decline due to the shifting of the capital from Petra to Bostra under the last Nabataean monarch Rabbel II (AD 70-106), where it retained its status as the capital of the new Roman province. Finally, scholars have long thought that the overland trade passing through Nabataea ceased to operate after the annexation, causing economic decline as well.

Despite the apparent lacuna in our information on Roman Petra, we do have some evidence as to the fate of the site in the early years of the *provincia Arabia*, *i.e.* during the reign of emperors Trajan (AD 98-117) and Hadrian (AD 117-138). After the annexation, a monumental arch dedicated to Trajan was set up near the entrance to the so-called 'Upper Market' (Bowersock 1983: 84-85). Although there are no longer any extant remains of this arch, one can get an idea of what it may have looked like from a rendering provided by the 19th century painter David Roberts (Guiterman & Llewellyn 1986: 117 no. 154). Accompanying the arch, but perhaps not atop the arch itself (Kanellopoulos 2002) was a Greek inscription, initially thought to be attributed to Hadrian, but clearly dedicated to Trajan and proclaiming Petra's new honorific title of *metropolis* (Bowersock 1985; Tracy 1999). The city's title also appeared on the first Roman coins minted there (Spijkerman 1978: 220-221 no. 1, Pl. 48 top, left). This numismatic tradition was sustained under Hadrian, who bestowed his name upon the city, *i.e.* Hadrianē Petra Metropolis (Spijkerman 1978: 220-223 nos. 4-6, 8, 11, Pls. 48-49), when he visited it during AD 129/130 (Bowersock 1983: 110-111; Birley 2000: 231, 234, 347 ftn. 47) and continued until the last city coins were minted in Petra under Elagabalus between AD 218-222, who gave the city the honorific title of Petra *Colonia* (Bowersock 1983: 121; Spijkerman 1978: 236-237).

Recent Excavations of Roman-era Petra

In addition to what we *do* know about Petra after the annexation from the aforementioned evidence, there have also been some recent excavations that have shed more light on the material-cultural aspects of the city during the subsequent Antonine and Severan periods. One such example is a pottery workshop and series of kilns uncovered at az-Zurrabah in Wadi Musa just outside of Petra. These were found during the course of salvage excavations conducted by the Jordanian Department of Antiquities intermittently between 1979 and 2003. The unearthing of these kilns is of the utmost importance because they provide direct evidence for

uninterrupted pottery production in the vicinity of Petra during the first six centuries AD. The first four kilns (**Fig. 3.57**), dated to the Late Roman and Byzantine periods, were uncovered between 1979 and 1981 (Zayadine 1982). Further work carried out a decade later produced evidence for more kilns, and the chronology of those previously discovered were reinterpreted ('Amr 1991: 320). Salvage work at az-Zurrabah in 1997 revealed the presence of yet another two kilns (Kilns VI and VII), that were in continuous use from *ca.* AD 100-300 ('Amr & Mommani 1999: 192).

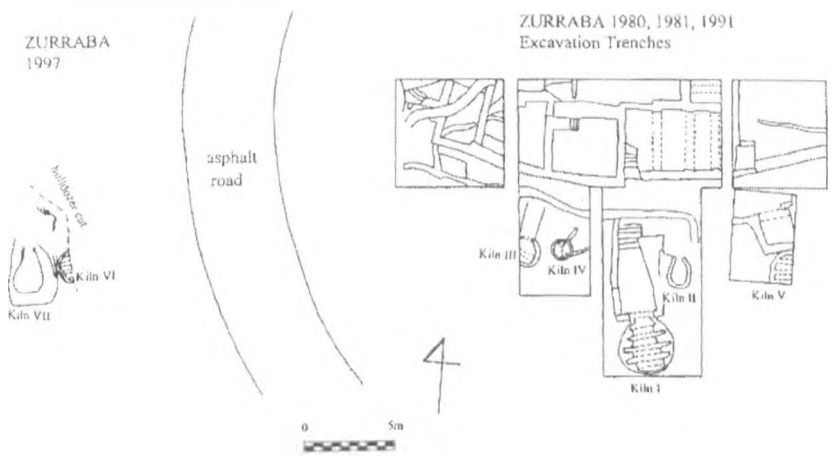

Fig. 3.57 Plan of the kiln complex at az-Zurrabah ('Amr & Mommani 1999: 175).

In the past decade there have been a series of excavations carried out in the environs of the colonnaded street in the city centre of Petra (**Fig. 3.58**). Although the street itself was likely first laid out in *ca.* 9 BC and subsequently re-constructed in *ca.* AD 76 (McKenzie 1990: 35-37), the road and its surrounding buildings saw extensive use and renovation after the annexation. Recent fieldwork has concentrated on the sacred precinct of the Great Temple, a pool and garden complex, the Small Temple, and in the shops along the colonnaded street below the Upper Market.

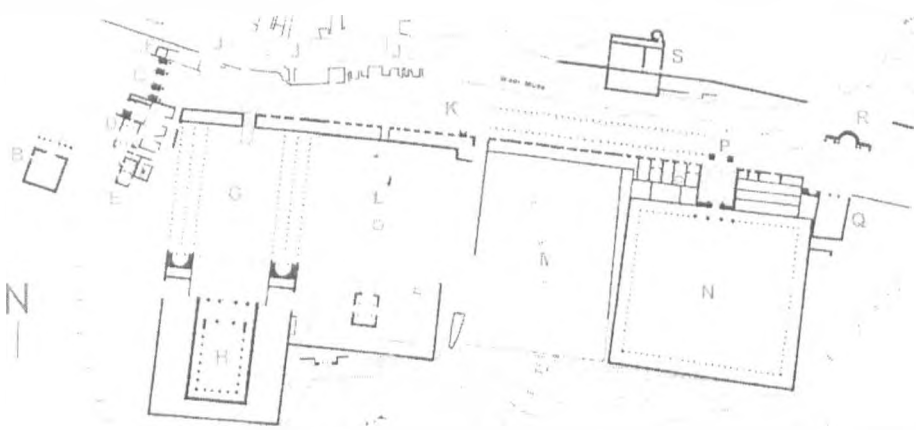

Fig. 3.58 Plan of the Petra city centre, showing the area along the colonnaded street (Kanellopoulos 2003: 252-253).

The Great Temple

Since 1993, teams from Brown University have excavated the upper and lower *temenos* of the so-called Great Temple (**Fig. 3.58**G/H).[9] After 13 seasons of fieldwork, a great deal of new information on this temple and its sacred precinct has come to light. The Great Temple consists of two components (**Fig. 3.59**). The first sector is the lower *temenos*, which was entered through a stepped *propylaeum* that led into a large forecourt with a monumental staircase and an *exedra* on both of its sides. It was flanked by triple colonnades on its east and west. The second sector contained the upper *temenos* and its temple, which is tetrastyle-in-antis and has a *theatron* just beyond its *pronaos*. The entire precinct measures 135 m N-S x 56 m E-W, and covers an area of 7560 m^2, or .75 hectares (Joukowsky 2000). The excavators have identified 12 distinct phases for the Great Temple (Joukowsky & Basile 2001: 50). The first three are Nabataean, after which there was some collapse to the structure, most likely associated with the earthquake of the early-2nd century AD. Phases IV and V are dated from the mid-2nd to mid-3rd centuries AD. Unfortunately, the principal investigator of this site has provided either little or no ceramic or numismatic data with associated stratigraphy in support of the proposed chronology for the building, so any interpretation of it will remain elusive until such time as proper artefact reports for both types of finds – and their contexts – can be produced.

Of great interest from the so-called Great Temple is its *theatron*, which occupies a prominent place just inside the entrance of the structure and could seat between 565 and 620 people, depending upon their size (Joukowsky 2000). The presence of a theatre in this building has caused some scholarly controversy as to its function. Its principal excavators have argued consistently, based upon the building's general floorplan and architectural elements, that it is indeed a temple with a theatre (Joukowsky 2001; Joukowsky & Basile 2001: 52-53). Others such as Schluntz (1998: 221-222; 1999: 1435), who was senior staff on the Petra Great Temple Project and a former PhD student of Joukowsky's, have argued convincingly that the structure served as a civic *odeum* and assembly hall under the Nabataeans, after which the Romans converted it into a *bouleuterion* that acted as a law court. This latter proposal finds support in one of the papyri from the Babatha Archive

9. Joukowsky 1994, 1996-2004; Joukowsky & Basile 2001; Joukowsky & Schluntz 1995; Basile 2002, 2002a; Schluntz 1999.

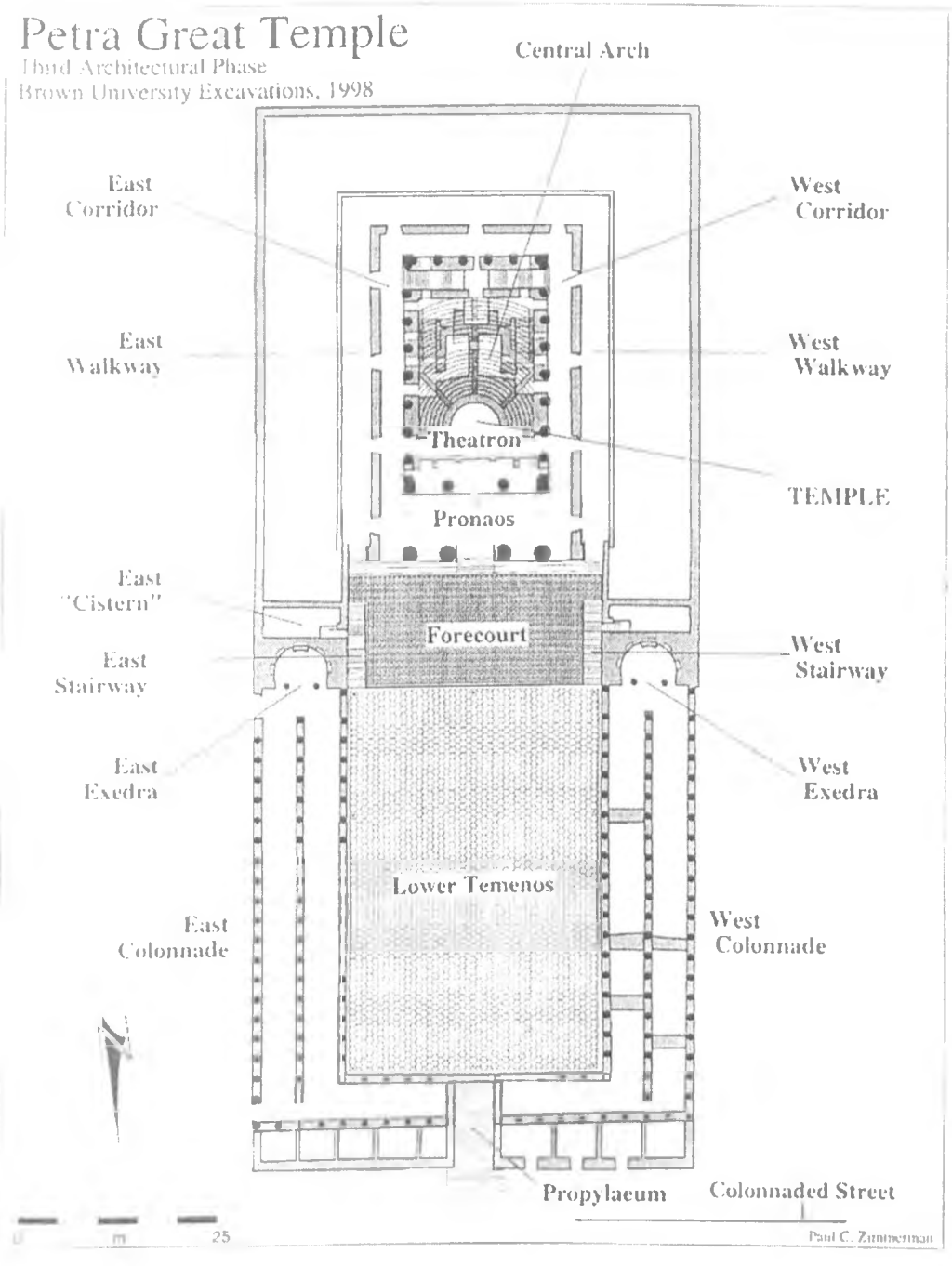

Fig. 3.59 Plan of the upper and lower temenos of the 'Great Temple' at Petra (Joukowsky 1999: 196).

(*P.Yadin 12*), where it states that Babatha's son was appointed a guardian after the death of her husband, and that this guardianship was mandated by the *boulē* in Petra (Lewis 1989: 61-62; Cotton 1993a, 1997).

The Pool and Garden Complex

During the summer of 1998, in the area of the so-called Lower Market located above the colonnaded street (**Fig. 3.58**L), a team of archaeologists under the direction of Leigh-Ann Bedal uncovered the remains of a public park complex, or *paradeisos* (Bedal 1999, 2001, 2002, 2003). This park consisted of a large pool, located directly east of the Great Temple, and a spacious park situated to the east of the lower *temenos* of the temple precinct (**Fig. 3.60**).

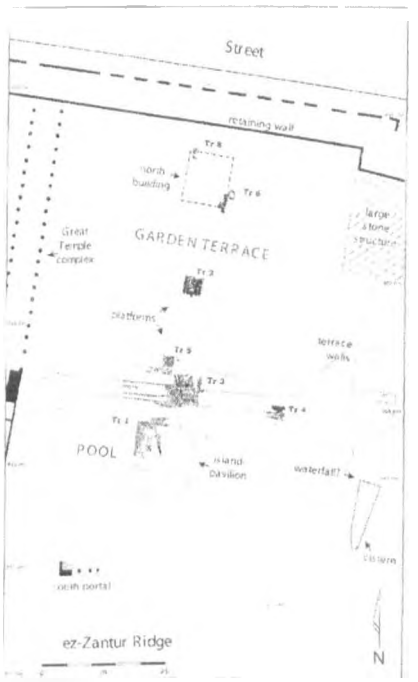

Fig. 3.60 The Pool and Garden Complex at Petra (Bedal 2002: 226).

The pool is a rectangular structure, that measures 43 m E-W x 23 m N-S, was originally 2 m deep, and had the capacity to hold over 2,000 m^3 of water. The walls and floor of this pool were covered with a substantial layer of hydraulic concrete similar to that which lined Cistern 2 at Humayma (Eadie & Oleson 1986: 58-59). The main feature of this pool was its central island pavilion (**Fig. 3.61**), which is rectangular and measures 11.5 m E-W x 14.5 m N-S. The exterior of its foundations was also covered hydraulic concrete and it stood some 0.5 m above the pool's water level. The pavilion had four columns supporting its roof, and from the artifactual evidence recovered by the excavations, it is clear that the interior of this small structure was decorated with sculptures and painted stucco walls.

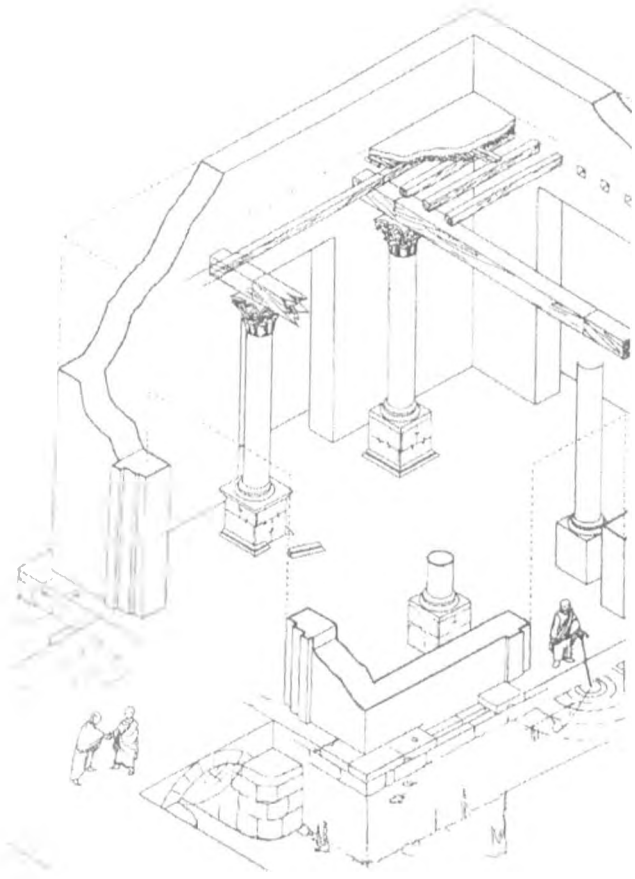

Fig 3.61 Isometric reconstruction of the island pavilion from the pool at Petra (Kanellopoulos 2001: 31).

Fieldwork was conducted in the garden, which measured 53 m E-W x 43 m N-S. While GPR readings in the majority of the garden indicate that it was largely devoid of any structures within its boundaries and most likely contained plants and/or trees, excavation carried out in four trenches revealed the presence of two platforms and a building near the garden's northern wall that was similar in most respects to the pool's pavilion. The design, layout and features of the Pool and Garden Complex at Petra has parallels with similar installations found at earlier and contemporaneous Herodian palaces (Bedal 2002: 232), and its proximity to both the South and North Nymphaea (**Fig. 3.58**Q/R), located only *ca.* 150 m to its east, supports the statement by Strabo (*Geog.* 16.4.21) that Petra was indeed a well-watered place. Analysis of the numismatic and ceramic evidence (Bedal 2001: 30-32, Table 1) indicates that the complex was constructed during the early reign of Aretas IV in the late-1st century BC, and that it was renovated in the early-2nd century AD, sometime after the Roman annexation. It fell into disuse during the 3rd century AD and was eventually destroyed by the earthquake of AD 363.

The Small Temple

To the west of the so-called 'Great Temple' lies what has been described as the Small Temple (**Fig. 3.58**B). This structure was excavated in 2000 and 2001 by Sara Karz Reid, under the auspices of Brown University and the Great Temple Project. The building (**Fig. 3.62**) measures *ca.* 13 m E-W x 11 m N-S and consists of a series of raised platforms and basins on its interior and a portico situated just outside of its northern entrance.

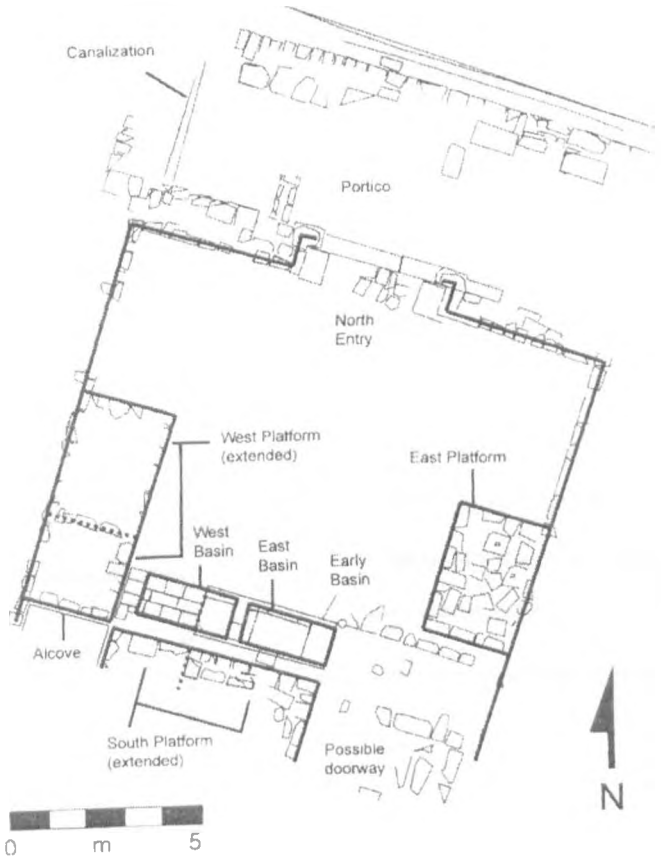

Fig. 3.62 Plan of the Small Temple at Petra (Karz-Reid 2002: 367).

Although the fieldwork carried out at the structure has been of a rather limited nature, the excavator has been able to recognise at least four building phases (Karz-Reid 2002: 370-371), but was unable to assign any relative dates to them. Several thousand pieces of marble were recovered from the Small Temple, many of which were pieces of revetment, but some were inscribed with Greek and Latin characters. One of the inscriptions represents a dedication to the emperor Trajan, most likely from a statue base, which has been difficult to date due to a crucial piece that is unfortunately missing (Bodel & Karz-Reid 2003).

The Petra Street Project

A major investigation of the row of structures (**Fig. 3.58**N/P) between the colonnaded street and the so-called 'Upper Market' was carried out between 1996 and 1998 by the Petra Street Project, under the auspices of ACOR and directed by Zbigniew Fiema. Excavations revealed that these buildings were a series of shops with columned porticos and arched roofs with stone ceiling beams, one of which served as a tavern (Fiema 1998, 2001; Kanellopoulos 2002). Shops 23-28 were situated to the west of the monumental staircase leading to the Upper Market and Shops 29-32 were located to its east (**Fig. 3.63**). These were constructed in the 1st

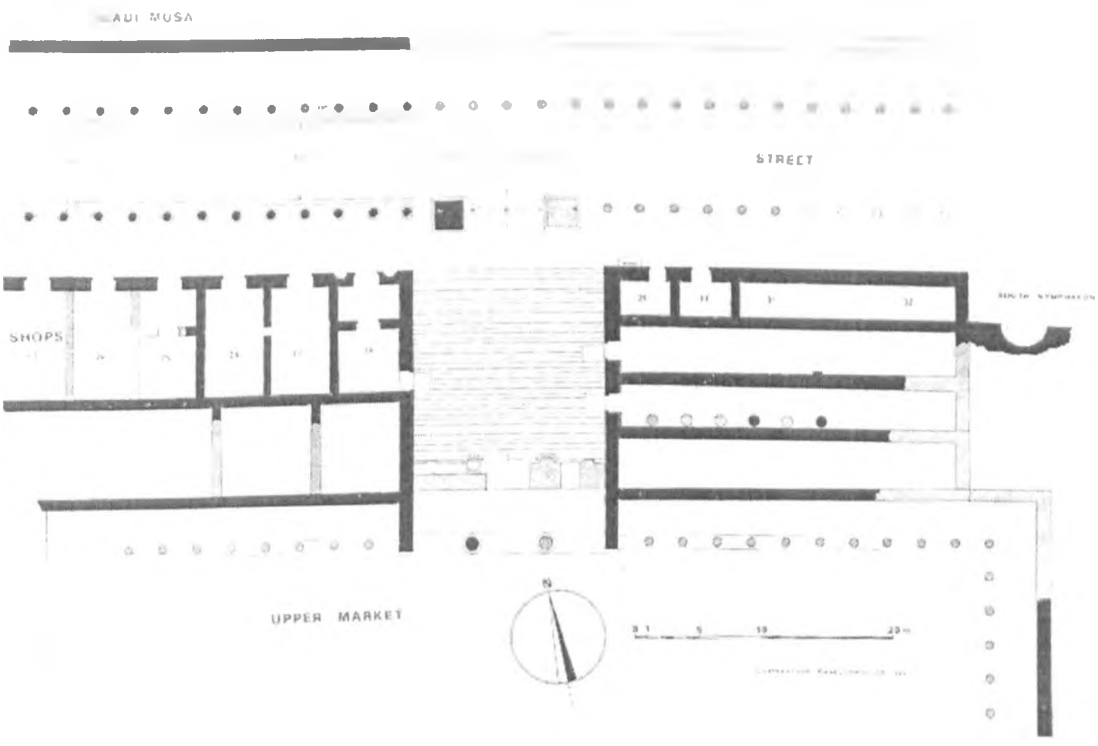

Fig. 3.63 The shops along the colonnaded street (Kanellopoulos 2001: 10).

century AD, possibly under Rabbel II, and in continual use well into the Byzantine period. It should be noted that in the early-2nd century AD, i.e. after the annexation, is when the shops were expanded and the columned porticos were added.

The Mansion on ez-Zantur

Perhaps the most significant excavations to ever take place in Petra are those of the Swiss on the slopes of ez-Zantur (**Fig. 3.64**), which is situated above the Pool and Garden Complex. The first phase of fieldwork was directed by Rolf Stucky

between 1988 and 1992, and concentrated on the remains of two Nabataean houses, one on the lower terrace (EZ III) and one on the upper terrace (EZ I), and the so-called 'stratigraphische abschnitt' (EZ II). The results of the first phase of those excavations (Stucky *et al.* 1990, 1991, 1992, 1994; Bignasca *et al.* 1996) provided great insights into the urban development that took place in Petra, which in its earliest habitational phase consisted of people dwelling in tents and in its later phase consisted of buildings constructed of both stone and mudbrick (Stucky 1995).

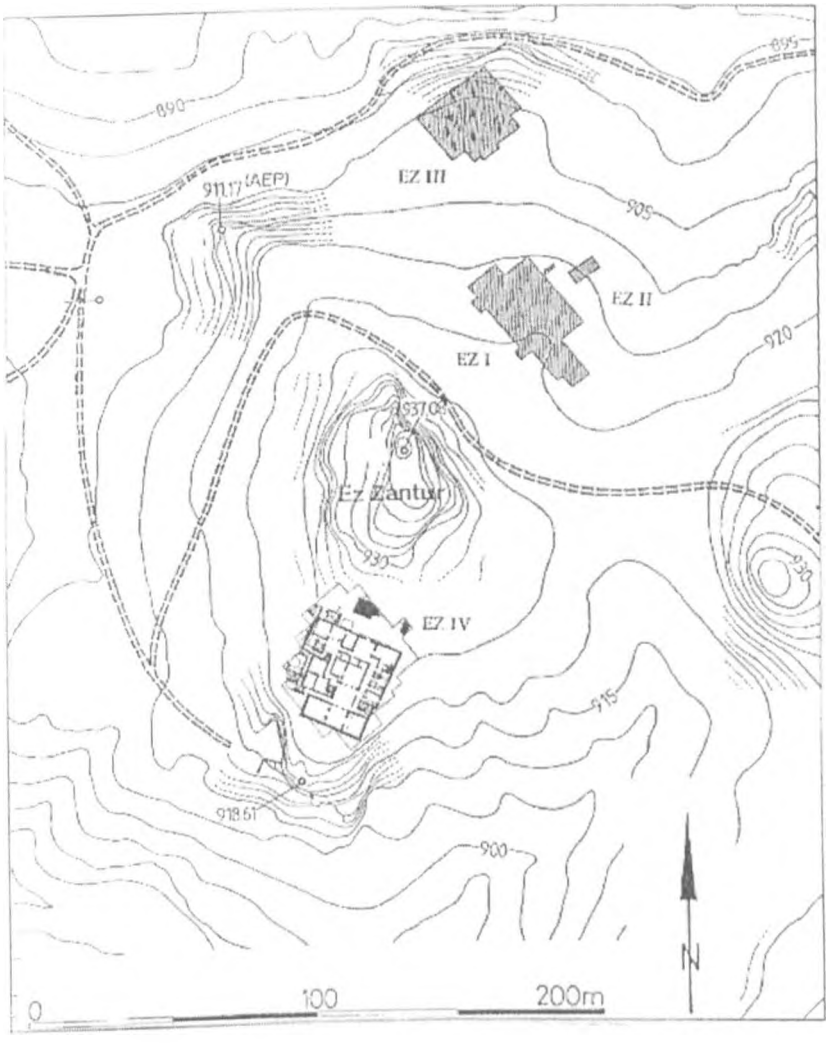

Fig. 3.64 The ridge of ez-Zantur in Petra, showing the areas excavated by the Swiss (Kolb 2002: 260).

Without a question, the most important result of the Swiss project was the first development of a true typo-chronology for the Nabataean fine and coarse wares (Schmid 1996, 2000, 2003; Gerber 1996, 1997), which has enabled excavators at other Nabataean sites to better date the contexts and loci from their fieldwork.

The second phase of the Swiss excavations was carried out between 1996 and 2001 under the direction of Bernhard Kolb, and the focus of that project was a Nabataean mansion (**Fig. 3.65**) on the summit of ez-Zantur (Kolb *et al.* 1997, 1998, 1999; Kolb & Keller 2000, 2001, 2002; Kolb 2001, 2002, 2003). This large two-storied structure covers an area of *ca.* 1,100 m^2 was occupied from the 1st century BC to the 5th century AD.

Fig. 3.65 The mansion of ez-Zantur IV (Kolb 2002: 261).

There were three separate zones within the mansion. The first was a group that has been interpreted as servants' quarters, located in the eastern sector of the building. In the structure's southern and central portions were situated reception areas and opulent rooms that had mosaic and *opus sectile* floors and ornately painted stuccoed walls, one of which (Room 1) bears a striking similarity to the Second Pompeian Style, which is characterised by portrayals of architectural façades (Kolb 2001: 443-444). These rooms served as a public area, where the residents of the house could entertain guests and dine. In the western part of the mansion there were

private bedrooms, and a monumental staircase led to more bedrooms on the first floor. The substructure of the building contained three large arched cisterns (Kolb & Keller 2002: 286-287, figs. 11-12), which provided the house with an ample supply of water.

3.5 Concluding Remarks

Taken together, the detailed examination of archaeological evidence from a representative sample of Nabataean sites in the central Negev, Wadi Arabah and southern Jordan, provides a good deal of information as to their fate after the Roman annexation and defines the present state of knowledge on the subject. Conversely, the study of these sites demonstrates the shortcomings in much of the previous research and fieldwork, showing that there are indeed gaps in our understanding of the region during the period in question.

The excavations conducted at Mampsis uncovered an abundance of ceramic and numismatic evidence. The latter alone, especially the hoard of 10,800 coins found in Building XII, provide firm evidence for the site's occupation during the Antonine and Severan periods. However, those eras are only represented by a few structures from that large settlement, and most of the extant buildings are Diocletianic or later. In addition, the only pottery published by Negev is that from the necropolis, and not from stratified layers within the walled town. This issue has been resolved to a great extent by the work of Erickson-Gini, whose well-stratified excavations yielded a solid ceramic sequence, dated with good coin control.

Fieldwork carried out at Oboda mirrors that at Mampsis. The excavations of Negev, and to some extent the work of Fabian, provide little information about the site's Late Roman nature. In the case of Negev's so-called 'pottery workshop' it has been demonstrated that the excavator's interpretation is quite incorrect, and that he had in reality excavated an unstratified midden rather than a 'kiln' and pottery production centre (Dolinka 2003: 40). Cohen's work at the *caravanserai* is important in as much as it demonstrated that many of the DNPW actually dated to the late-2nd / early-3rd centuries AD, instead of the 1st centuries BC/AD as Negev had proposed. This work was further reinforced by Erickson-Gini, whose pantry represents a 'Pompeian-type' sealed deposit that offers a snapshot in time – a rarity in excavated sites dating to the Antonine and Severan eras.

The site of Moa is a good example of the hit-or-miss quality one can expect from the voluminous amount of fieldwork conducted by Cohen in the 1980s. It is poorly published, with the first plan of the site finally appearing only as recently as 2000. The coins he uncovered do provide dates for the occupational phases at the site, but the lack of stratigraphic information available, due to the fact that many of the field notes and records have gone missing, make any interpretation of the site's artefacts problematic to say the least. Erickson-Gini has done much to place the pottery from Moa in its typo-chronological context, based upon what she has learned from her experiences with the ceramics from Oboda and Mampsis, and when her report is finally published, it will represent the most comprehensive treatment of the site and its occupational history.

Fieldwork conducted by the Roman Aqaba Project has also made a contribution to the study of Nabataean sites during the Late Roman period. The site continued to be occupied throughout the 2nd and early-3rd centuries AD, with the houses being built of stone instead of mudbrick. Unfortunately, the remains from this era are rather scant, as they were in most cases literally below the modern topsoil and disturbed. The final report for the domestic mudbrick structure in Area B, in association with ceramic and numismatic analysis from it, will go a long way towards clarifying the true nature of Aila's occupational history during the Antonine and Severan periods. Finally, a detailed study of the Aqaba Ware from the site during its LR1 and LR2 phases could enhance the typo-chronology developed by the author (Dolinka 2003).

Humayma represents perhaps the best example in Jordan of the status of the Nabataeans and their interactions with Romans after the annexation. It is evident that the two cultures peacefully co-existed with one another, aptly demonstrated by the mosaics from the *vicus*, which were made by Nabataean craftsmen within a few years of the annexation. While the publication record of the excavators is admirable, with good explanations of the stratigraphy and careful interpretations with regard to its chronology and the nature of the site's occupation, there is as of yet no report on the pottery from the site, most likely due to the fact the project has had to change ceramicists at least thrice. Publication of the large assemblage of pottery from the site, including the very important 'mess kit' forms, is essential, as is the excavation of the kiln site near the fort.

The northernmost site examined in this chapter, Khirbet edh-Dharih, is probably the least understood, because of the exceedingly poor publication record. The few reports that are available essentially say the same thing, and the focus is almost entirely on the architecture. With the exception of the necropolis, none of the reports offers any ceramic or numismatic evidence in support of its proposed chronology, leaving the reader of those reports to have to take them at face value. In addition, the only report on the ceramics from the site (Villeneuve 1990), does not even consult the most basic sources on the typo-chronology for Nabataean pottery, and indeed some of the Nabataean painted fine wares are assigned a date that is off by an entire century. Until a detailed stratigraphical report in association with finds analysis is provided by the excavators, Khirbet edh-Dharih will be of little interpretive use for archaeologists studying the region's history after the annexation.

As the Nabataean capital and an important Roman metropolis, Petra has yielded a great deal of information about the post-annexation city. Excavations have demonstrated that major renovations took place along the colonnaded street and the buildings surrounding it. However, detailed analysis of the Roman-period strata from all of the fieldwork recently conducted there remains elusive and only cursory at best, once again with focus upon the architecture and not the pottery or coins, which could provide a better basis from which to make interpretations regarding the city's occupational history during the Antonine and Severan periods. In addition, the important and groundbreaking work of the Swiss with regard to Petra's ceramic repertoire is lessened because there is a decided lack of publications dealing with the period spanning the early-2nd through 3rd centuries AD, even though the mansion on ez-Zantur was occupied throughout the period in question.

Taken together, a detailed examination of archaeological evidence from Nabataean sites occupied after the Roman annexation paints a highly different picture from that offered by the almost purely text-driven interpretations of Millar, Sartre and Bowersock. Instead of the Nabataean kingdom becoming depopulated and backwater, we see a Roman Nabataea that remains populated throughout the period in question, with no evidence for site abandonment and despite a massive earthquake during the early-2nd century AD that caused damage to many of the structures located at sites throughout Nabataea. In addition, there appears to have been an active building programme after AD 106 at Petra, a site which gained in importance enough to have honorific epithets bestowed upon it by three Roman emperors.

In conclusion, previous fieldwork conducted at Nabataean sites occupied into the Late Roman period has provided the scholarly audience with a basic framework for the occupational history and character of the major sites discussed in this chapter. But the information from that fieldwork gives us only a broad and impressionistic view of this important era. Furthermore, literally all of the aforementioned case-study sites previously discussed consists of major settlements with many structures. What evidence that excavations have uncovered tells us little about the fate of the Nabataean trading networks after the annexation. Therein lies the importance of Horvat Dafit. It is a small isolated *caravanserai* and not a village or cultic site with many buildings. Its sole purpose was to facilitate Nabataean trade in aromatics that passed though the site, by providing travellers with a place to rest, eat, bathe and water their camels. In addition, the site was occupied throughout the Antonine and Severan periods. Finally, as the first caravan stop north of Aila along the western Wadi Arabah trade route leading north and passing through the important Petra-Gaza road, its proximity to Aila makes the site a perfect case study to trace the development of the Aqaba Ware ceramic tradition after the creation of the *provincia Arabia*.

CHAPTER FOUR

The Excavations at Horvat Dafit

4.1 Introduction

Having examined several Nabataean sites with Roman-period strata in the preceding chapter, it becomes clear that between what has been excavated and what has been published, there are still gaps in our knowledge regarding the fate of the Nabataean trade networks, as well as their ceramic tradition, after the Roman annexation of AD 106. While the major settlements mentioned previously demonstrate continuous occupation after the creation of the *provincia Arabia*, little is known about what happened to the network of small *caravanserais* and the trade that passed through them during the period in question. This chapter focuses upon the Nabataean site of Horvat Dafit, which due to its continuous occupation from the 1st through early-3rd centuries AD provides a contextual backdrop for the region during the Antonine and Severan periods, sheds light on what happened to the Nabataean trade networks and associated structures, and also makes it a perfect case study to trace the development of the Nabataean Aqaba Ware ceramic repertoire.

It should be stressed here that Horvat Dafit represents one of the very few sites excavated by Rudolph Cohen that has an unusually complete and accurate archive of records remaining intact. Unlike Mo'a, a site where almost all of the documents from the fieldwork have gone missing, the Dafit archive contained several versions of the locus sheets, all of the top plans and sections, numismatic and faunal reports, a listing of the small finds, and a collection of over 300 photographs. In addition, the primary excavators of the site, Yigal Israel and Yeshayahu ("Shaike") Lender, had a solid command of the stratification of Nabataean *caravanserais* that were occupied into the 2nd and 3rd centuries AD. For two solid years before the Dafit excavations, these professional field archaeologists had worked under the supervision of Cohen at Neqarot and Sha'ar Ramon (1981), En Tamar, Be'er Menuha, Har Massa and Ma'ale Mahmal (1982), as an integral part of the Negev Emergency Survey team.

This chapter begins with a brief description of the site's regional environment, after which attention then turns to the 1983-1984 excavations conducted at Horvat Dafit by Rudolph Cohen under the auspices of the Israel Antiquities Authority (hereafter IAA). As the original date for Phase 3 proposed by

Cohen may now be seen as inaccurate in light of recent research by the author and others, a new and revised phasing for the site – based upon the ceramic evidence uncovered by those excavations – is suggested. Following that is a detailed locus-by-locus analysis of the stratigraphy and finds from Horvat Dafit, organised by chronological phase. The chapter concludes with an examination of the dating criteria for each phase, followed by an assessment of the site's place within its regional historical and socio-economic context.

4.2 Site Location and Regional Environment

Horvat Dafit is located in the southernmost portion of the western Wadi Arabah Valley of modern Israel (Palestine Grid Ref. 149991/900091, 72 m ASL), *ca.* 16 km north of Eilat and 1 km due east of Highway 90 (**Fig. 4.1**). The well-known

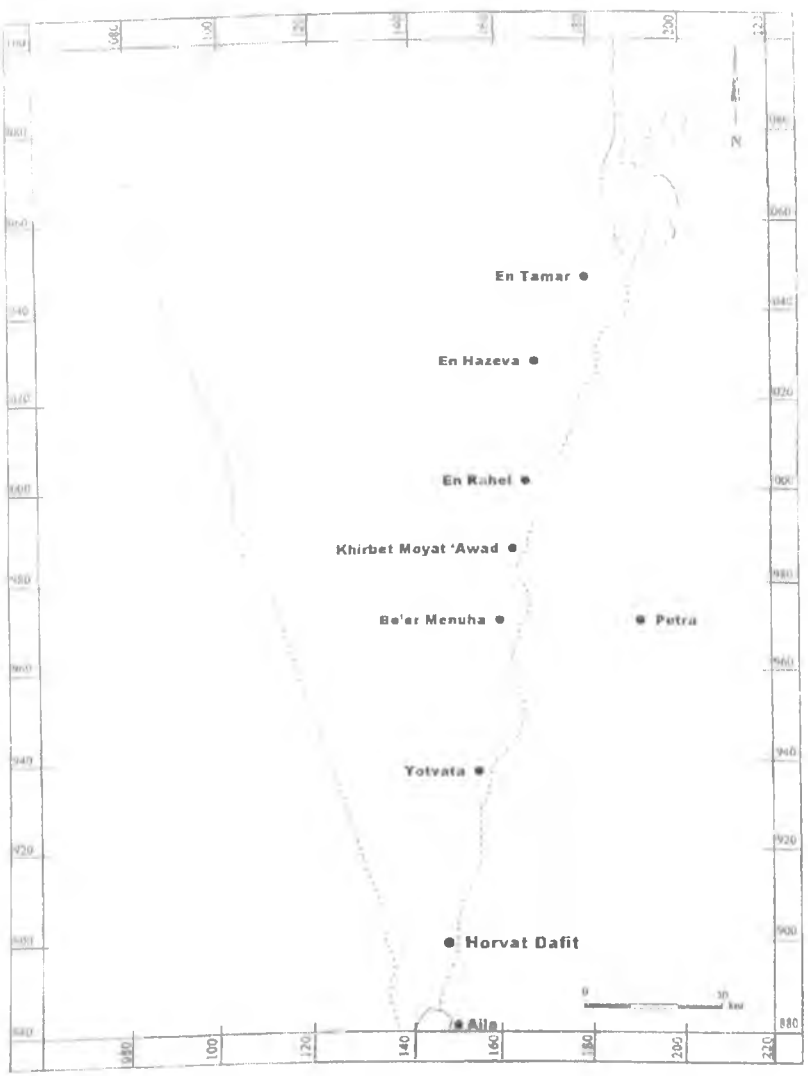

Fig. 4.1 Map showing the location of Horvat Dafit, Petra, Aila and the principal sites situated along the Nabataean route on the western escarpment of the Wadi Arabah valley (by B. Dolinka).

landmark and important regional water source known as Ein Avrona lies some 3 km almost due east and *ca.* 1 km south of the site. In antiquity, the site served as a *caravanserai* along the major Nabataean route that ran northward along the western escarpment of the Wadi Arabah from Aila – passing though Horvat Dafit, Yotvata, Be'er Menuha, Khirbet Moyat 'Awad, En Rahel, En Hazeva and En Tamar – to the southwest coast of the Dead Sea.

Geologically, the region immediately to the west of Horvat Dafit is part of the Pre-Cambrian and Phanerozoic zone that makes up the western escarpment of the Wadi Arabah, a hard and jagged component of the Great Rift Valley. The site itself is situated within the Avrona Playa (**Fig. 4.2**), a 10-km long and 0.5- to 2-km wide basin (Amit *et al* 1999: 78) that is essentially a mudflat (or *sabkha* in Arabic), *i.e.* a place in the desert where water accumulates and the soil is made up of very fine sedimentary, alluvial particles – mainly clay and silt – that become a crusted surface when the water evaporates (al-Eisawi 1996: 101).

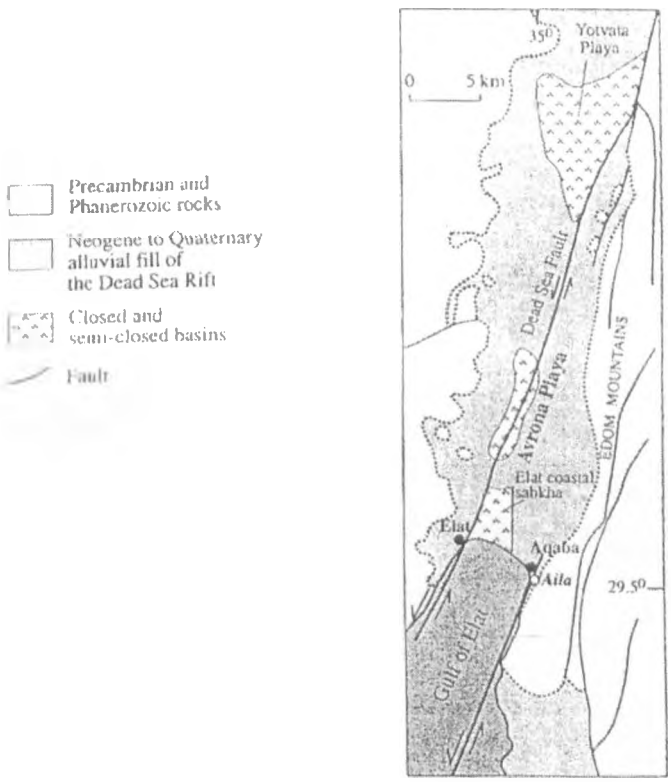

Fig. 4.2 Map of the Dead Sea Rift showing the southern Wadi Arabah and the Avrona Playa (after Amit et al 1999: 77).

The climate is extremely hot and arid in the regional environment surrounding Horvat Dafit (Amit *et al* 1999: 78). With a mean annual precipitation of only 30 mm, usually the product of one or two rain events, surface soil temperatures

can reach as high as 50° C during the day, with night-time lows dropping to 20° C, although the annual mean temperature averages 25° C. While the annual potential evaporation levels measure 2600 mm, due to the region's aridity, amounts of up to 5000 mm can occur (Rosenthal *et al* 1990: 340).

The geographic position of Horvat Dafit places the site within a major area of seismic activity. Situated along the Dead Sea Transform, where the African and Asian Tectonic Plates meet (*i.e.* the Great Rift), as well as its proximity to the nearby Avrona Fault Zone, which runs diagonally across the Avrona Playa, the region has been plagued by numerous earthquakes of varying magnitude throughout its history (Ambraseys *et al* 1994; Amiran *et al* 1994; Shapira *et al* 1996). Several substantial seismic events impacted the area in antiquity, including an earthquake that caused severe damage at sites along the Wadi Arabah and beyond during the early-2nd century AD (Russell 1985; Korjenkov & Erickson-Gini 2003).

The archaeological site of Horvat Dafit is located along the base of a rounded alluvial fan radiating from the western escarpment of the Wadi Araba (**Fig. 4.3**), *ca.* 1.5 km from the spring of Ein Avrona. The structure itself was constructed on the slightly higher and more stable ground of the desert floor below the escarpment. In

Fig. 4.3 The regional environment in the vicinity of Horvat Dafit; view to the east (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 169352).

addition to the plentiful supply of water near the site, the granitic field of the alluvial fan provided a large quantity of relatively uniform and easily accessible building stone, whereas the Avrona Playa provided raw material suitable for the making of mudbricks.

4.3 The Rudolph Cohen Excavations, 1983-1984

As Horvat Dafit received no mention in the ancient authors, it essentially remained *terra incognita* until it was first discovered during the 1965 survey of the southern Negev and Wadi Arabah conducted by Rothenberg (1967: Site 47). He attributed the remains of an 18 x 18 m structure there to the Byzantine period. The site was excavated between December 1983 and February 1984 by the IAA, under the direction of Rudolph Cohen, District Archaeologist for the Southern Negev Region, as part of the Negev Emergency Project (Permit No. 1239/1983). Cohen believed the site to be connected with the Nabataean trading network that ran through the region, from previous fieldwork he had directed at sites to the north of Horvat Dafit. The principal excavators were Shaike Lender, Yigal Israel and Dov Nahlieli. Work was concentrated on a structure identified as either a fort or way station that had three distinct building phases during the first few centuries AD. The earliest phase (Stratum 3) was dated to the 1st century AD, the second phase (Stratum 2) was assigned to the 2nd-3rd centuries AD, and the final occupational phase (Stratum 3), was given a date in the 3rd to 4th centuries AD, based upon the ceramic evidence uncovered from the site and by Rothenberg's dating of the building there.

Unfortunately, the only publications in English arising from this fieldwork were two very brief reports (only four paragraphs in length), the first of which appeared in *Excavations and Surveys in Israel* (Cohen 1984), the English equivalent of the Hebrew-language journal *Hadashot Arkheologiyot*, and the second published nearly a decade later in the *New Encyclopedia of Archaeological Excavations in the Holy Land* (Cohen 1993). Both reports are preliminary in nature (at best), and the latter is an almost verbatim version of the former. In addition, there were no top plans, section drawings, photographs, pottery illustrations, finds reports and/or locus information included in either offering, leaving the reader to take the information therein at face value.

After the conclusion of the brief excavation season at Horvat Dafit, the artefacts were stored for some time at an IAA facility in Sede Boker, some 130 km to

the north of the site, while Cohen was conducting a major archaeological survey of that region (Cohen 1981, 1985). In the early 1990s, all of the materials from the Negev Emergency Project – including those from Horvat Dafit – were transferred, for the most part, to Cohen's new office and storage rooms at the Israel Museum in Jerusalem, where they remained for yet another decade, still unexamined and unpublished. In 2001, the IAA removed Cohen from his office in the Israel Museum, due to both his failing health and lack of publication, and dispersed all of the archaeological materials from his voluminous fieldwork to various IAA storage facilities scattered throughout Israel. Unfortunately, the materials were removed from the Israel Museum in a rather piecemeal fashion, making access to study the materials thereafter problematic at best.

Later in 2001, the IAA decided to release for study and publication, '...old, as-yet unpublished excavations carried out in Israel since the founding of the State...by holders of permits and licenses who have passed away' (*ASOR Newsletter* 52/3 [2002]: 17); this included all of the materials from Cohen's fieldwork during the 1980s. Due to the fact that the writer is recognised in both Israel and Jordan as a specialist on Nabataean pottery and particularly the Aqaba Ware, which was present in great quantities at Horvat Dafit, the IAA gave formal permission to the author to publish the final report from the site in November 2004, the results of which are included in this chapter.

During an intensive research trip to Israel in November and December 2004, the writer was able to locate and examine the vast majority of the archaeological materials and written archives from the Cohen excavations at Horvat Dafit. The photographic archive and copies of the pottery drawings were housed at the IAA's Har Hotzvim facility in west Jerusalem. The written material and reports were stored at the IAA Archives in the Rockefeller Museum in East Jerusalem. The bulk of the artifactual material was stored at the new, state-of-the-art IAA warehouse facility in Beit Shemesh, located *ca.* 20 km west of Jerusalem, being held in a transport container typical of those that are loaded onto trains or ships. The numismatic evidence still remains at the Israel Museum in Jerusalem, under the care of D. Ariel. Taken together, the available materials from Horvat Dafit proved adequate enough for the author to analyse, synthesise and produce the following report on those excavations, which took place more than two decades ago.

4.4 Revised Occupational History of the Site

After a thorough review of the written and artifactual archive from Horvat Dafit by the writer, it is now possible to test the occupational history and phasing proposed by Cohen in light of recent research and new knowledge that has been gained since his excavations took place. The first, most obvious feature of Cohen's work that needs adjustment is his nomenclature for each of the occupational and/or building phases. The latest strata from the site were assigned the title of 'Phase 1' whilst the earliest levels were deemed to be 'Phase 3'. This approach seems utterly contradictory to established methodology for the phasing of an archaeological site, whereby the earliest phase receives the lowest number, with subsequent (*i.e.* later) phases being assigned a higher number (or Roman numeral). Therefore, for the purposes of this study, the first and earliest occupational phase from Horvat Dafit will be referred to as 'Phase 1', followed by 'Phase 2' and a final 'Phase 3'.

For Phase 1, Cohen was essentially correct in the dates he assigned to it, *viz.* the 1st century AD. This is borne out by the fact that the earliest Nabataean Painted Fine Ware (hereafter NPFW) from Horvat Dafit can be assigned stylistically to the Dekorphase 3a proposed by Schmid (2000: 28, 184, Abb. 89) for the materials from Petra ez-Zantur, or *ca.* AD 20-70. Strangely enough, however, Cohen had none of the NPFW from any of the phases at the site drawn or photographed, and it was not until examination of the ceramic evidence from the site by the author that this evidence came to light. In addition, Cohen's date range is supported by the numismatic evidence as well, the earliest of which comes from the second half of the reign of the Nabataean king Aretas IV (*i.e.* after AD 25), and the latest dating from the rule of the last Nabataean monarch Rabbel II (AD 70-106). It is suggested here that Horvat Dafit was established as a *caravanserai* in the first quarter of the first century AD, during what Erickson-Gini (2006) refers to as the 'second wave' of Nabataean expansion and settlement throughout the Negev and Wadi Arabah. The end date of Phase 1 seems to coincide with the earthquake of the early-2nd century AD that caused widespread destruction throughout Nabataean sites in the Wadi Arabah and beyond (Russell 1985; Korjenkov & Erickson-Gini 2003; Dolinka 2003: 30-32), and there is clear stratigraphic evidence for both cleaning activities and reconstruction and/or repair to the architectural elements at Horvat Dafit during Phase 2 which followed that event.

Once again, Cohen's dating for Phase 2, which he placed in the 2nd-3rd centuries AD, was accurate. The ceramic material all conforms to known types from throughout the 2nd century AD, especially the well-known and well-dated late forms of imported Eastern Sigillata A (hereafter ESA) found within Phase 2 loci. These dates are also supported by numismatic evidence as well, including a so-called 'City coins' and another exemplar from Gerasa dating to the period in question uncovered from Phase 2 strata. Additional evidence for this period is provided by non-stratified numismatics found either on the surface or Locus 18, the Phase 2 dump (see below), which yielded coins of Trajan (AD 98-117) minted in Rome, denominations of Hadrian (117-138) minted in Petra, and a coin initially interpreted as that of Marcus Aurelius (139-161) minted in Bostra (Meshorer 1984), that upon a recent re-examination (D. Ariel: pers. comm.) may indeed represent Commodus (180-192).

It is with the latest occupational/architectural phase at Horvat Dafit, which he placed during the 3rd-4th centuries AD, where Cohen was misguided in his dating. In part, his interpretation was likely based upon previous research conducted at the site by Rothenberg, who determined the structure to be Byzantine in date. After a thorough examination of the pottery from Phase 3 at the site by the writer, however, there is nothing whatsoever within that ceramic assemblage to suggest a date that late, and the reason for that is two-fold. First, there was absolutely no African Red Slip pottery (hereafter ARS) present in the entire ceramic corpus from Horvat Dafit. As ARS is a hallmark of Diocletianic strata dating to the 3rd-4th centuries AD throughout the Mediterranean basin (cf. Hayes 1972), the lack of its presence at the site, especially given the large quantities of ARS uncovered at nearby Aila in those contexts, convincingly refutes the late dating proposed by Cohen. Second, and not through any fault of his own, Cohen – like many others before him as well as his contemporaries – was unfamiliar with the typology and chronology for Aqaba Ware, which has only recently been published (Dolinka 2003), so he tended to date any and all cream-coloured wares later rather than earlier (cf. 'Amr 1992). Clearly Phase 3 from Horvat Dafit, based upon the ceramics alone (see below Section 5.5c, Locus 01, Fig. 5.28), should be placed within the late-2nd/early-3rd century AD.

4.5 Interpretation of the Loci by Phase

In order to better understand the occupational history of the Nabataean *caravanserai* at Horvat Dafit, it is necessary to discuss in some detail the individual

loci – as well as the finds and features from each – for the three distinct occupational/architectural phases at the site. The writer examined the entire available site archive for Horvat Dafit, and what follows is an overview of its stratigraphy.

As with any report on an excavation conducted many years ago and produced by an archaeologist who did not participate in any of the fieldwork at the site, problems with regard to interpretation of the phasing of the loci often arise. These are complicated further by the incomplete nature of some of the archived material, by typographical errors contained within some of the reports, and by the fact that many different people at many different times, and in many different locations, had access to these materials and may have altered them in some way or another.

There were three principal challenges to interpretation of the stratification from Horvat Dafit encountered by the author during his research of the site archive. First were the locus sheets from the excavations, of which there were four versions. The original handwritten locus sheets were produced by the excavators themselves while in the field during 1983-1984, and these included notations and addenda as the field season progressed. A second, typed rendition of these was produced sometime shortly thereafter, most likely within a year of the completion of the excavations. A third version was produced on 14 November 1995, for inclusion on a new IAA database for all of Cohen's fieldwork from the 1980s. However, only Loci 1-45 were completed, and the remaining loci (46-70) were not to be found in the IAA Archives at the Rockefeller Museum. A final draft of the locus sheets appeared in August 1996, and this version represented a complete and typed version of the original handwritten locus sheets. These were all translated for the writer by Dr. Tali Erickson-Gini, and what follows below is, for the most part, based upon the primary locus sheets produced in the field.

Another problem with regard to interpretation of the phasing had to do with the photographic archive for Horvat Dafit, located at the IAA Har Hotzvim facility in west Jerusalem. While all of the nearly 300 negatives from the excavations were present on the IAA database, there was no accompanying photo log or registry for each negative from the excavations. This problem was resolved successfully by the writer, by comparing the individual photos with descriptions from the locus sheets and analysis of the top plans for each phase at the site.

A final challenge of interpretation rested on the methodology employed by the excavators themselves. For each room of the structure, a locus number was given

for each of the three phases. So, for example, the southeast corner room was assigned Locus 05 for the latest strata (Phase 3), Locus 25 for the middle strata (Phase 2), and Locus 35 for the earliest strata (Phase 1). While this may seem to be an overly simplistic approach, the excavators were careful to distinguish between each of the three phases for each room by changing locus numbers after a floor or occupational surface for each had been reached and then removed. While not an ideal situation, this methodology was nevertheless useful enough in as much as it provided a relatively good stratigraphic sequence for each room in the structure.

4.6 Phase 1 Loci

The Nabataean *caravanserai* was constructed sometime in the early-1st century AD, during the second wave of Nabataean colonisation of the Wadi Arabah and Negev under King Aretas IV (9 BC-AD 40). The building was laid out on a relatively flat portion of the pinkish soil of the alluvial fan in a roughly square plan, with 14 rooms surrounding an interior courtyard (**Fig. 4.4**). The excavators suggested

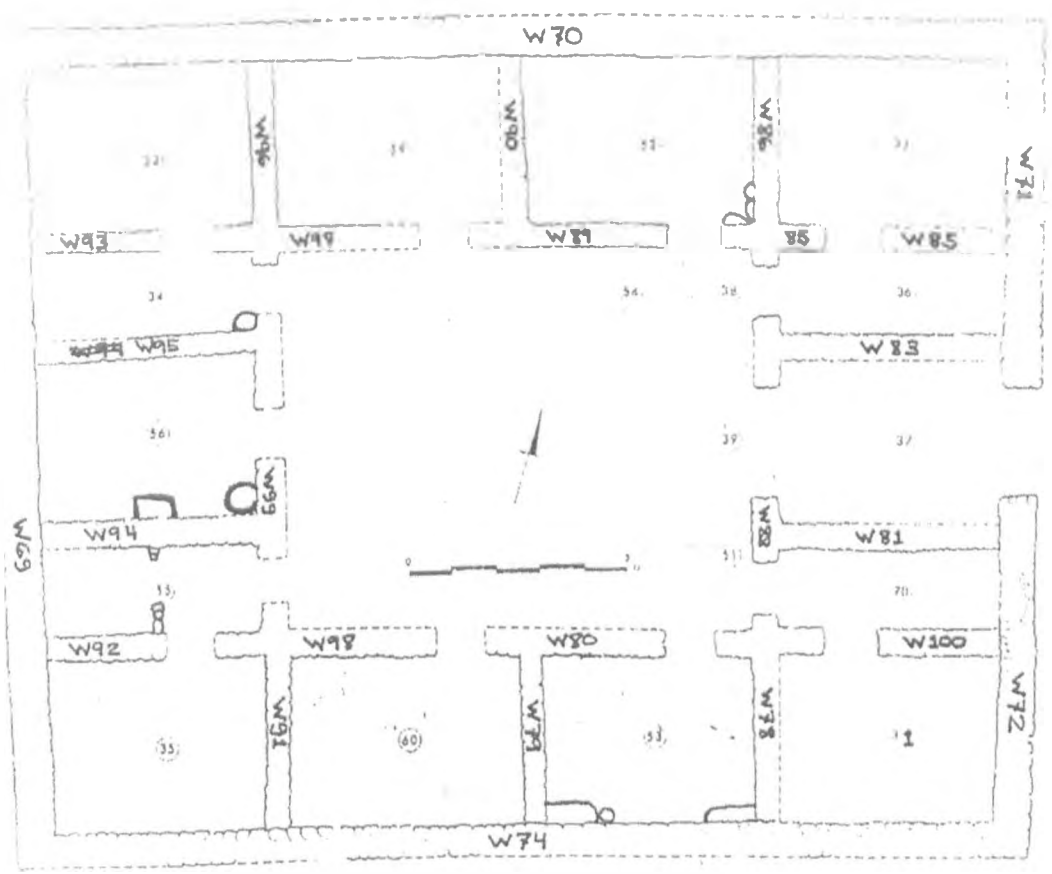

Fig. 4.4 Plan of the Phase 1 structure at Horvat Dafit (courtesy IAA Archives, Rockefeller Museum).

that the building during this initial phase was constructed entirely of stone, although it is suggested here that the Phase 1 structure was built of mudbrick that rested on a foundation course of cobblestones, such as is the case in many of the contemporaneous Nabataean domestic structures at nearby Aila (Retzleff 2003: 46).

The maximum depth for the Phase 1 strata measured 30 cm and the minimum was 11 cm, with an average depth of 25 cm for the loci. Most of the rooms were devoid of any interior features, however it appears that Loci 34, 52 and 53 were utilised as cooking areas for the building, while the installation in Locus 56 most likely served the function of water storage. This phase ended with the earthquake of the early-2nd century AD, and several of the rooms within the structure exhibited collapse of the architectural elements as well as ashy layers associated with that event.

Locus 31 [Top Level: 51.20; Bottom Level: 51.07] was the southeast corner room of the structure and is exactly symmetrical to Locus 33 (the northeast corner room), measuring 5.20 x 3.80 m. It lies directly below Locus 21, which itself was situated below the Phase 3 corner tower. The room was bounded by Wall 74 on the south, Wall 72 on the east, Wall 78 on the west and Wall 100 – which served as an entrance to the room from Locus 70 – on its north. This stratum had an average depth of only 13 cm and rested on the pinkish virgin soil of the alluvial fan.

Locus 32 [Top Level: 51.35; Bottom Level: 51.10] is a 5.10 x 3.60 m room situated in the northwest corner of the *caravanserai*; it was uncovered after the dismantling of the *tabûn* level (Locus 22) in the floors from Phase 2. It was bounded by Wall 70 on the north, Wall 60 on the west, Wall 96 on the east and Wall 93, which acted as the doorway to the locus from Locus 34. The floor from this 25 cm layer was of beaten earth, below which was the natural pinkish sand.

Locus 33 [Top Level: 51.30; Bottom Level: 50.60] was a 70 cm probe dug into the fill below what was determined to be the floor of Locus 23, in the northeast corner of the building. The room measured 5.20 x 3.80 m and was enclosed by Wall 70 on the north, Wall 71 to the east and Wall 86 to the west. It was entered from Locus 36 through a gap in Wall 85 (**Fig. 4.5**). The outer walls of the fort (Walls 70 and 71) were preserved to four courses in depth, but the excavators found it difficult to discern the differences between Phases 1 and 2 in this room, and suggested that there were perhaps some cleaning or clearing activities which resulted in the ambiguous stratification.

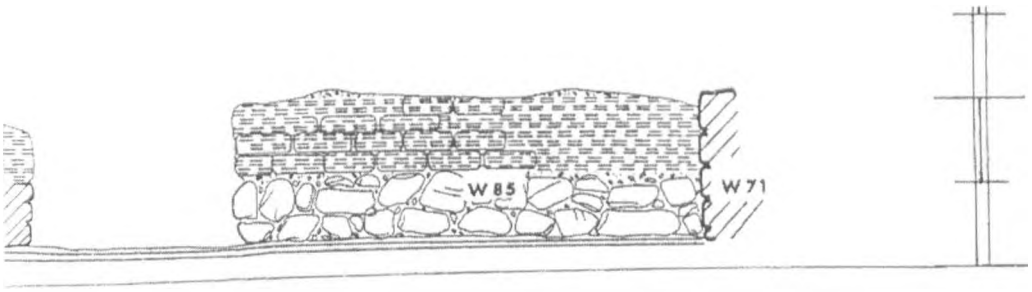

Fig. 4.5 Section drawing of the entrance to Locus 33, the northeast corner room, in Phase 1; view from the south in Locus 36 (courtesy IAA Archives, Rockefeller Museum).

Locus 34 [Top Level: 51.40; Bottom Level: 51.20] is a long, narrow room in the northwest sector of the *caravanserai*, measuring 1.90 x 5.20 m. It is located along the building's main west wall (Wall 69) in between the rooms representing Loci 32 and 56 from Phase 1. The main feature of this locus was a hearth in southeast corner of the room, which sat on a beaten-earth floor directly above a foundation of wadi material, which is the virgin soil in the area. Locus 34 was relatively void of finds compared to its use in Phase 2 and 3 (Loci 24 and 4, respectively), which – much like Locus 33 – seems to indicate some sort of cleaning activity.

Locus 35 [Top Level: 51.40; Bottom Level: 51.20] represents the southwest corner of the building (**Fig. 4.6**) and measured 5.10 x 3.80 m. It was bounded by Wall 69 on the west, Wall 74 in the south, and Walls 92 and 91 making up its northern and eastern walls, respectively. The entrance to the room is on the north side, along Wall 92, where it entered Locus 55 and from there into the courtyard. Like most of the other loci from this phase, Locus 35 had a packed-dirt floor over wadi material and a relative lack of artefacts when compared with the later strata.

Fig. 4.6 Southern side of the structure in Phase 1; from the west. In the bottom centre of the image is Locus 35, the corner room, and immediately to its left is Locus 55. Above those, along Wall 74 are Loci 60, 53 and 31 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175388).

Locus 36 [Top Level: see Locus 26 below; Bottom Level: 51.24] is the long and narrow room to the north of the Phase 1 gate, and is almost exactly symmetrical to and of the same measurements (1.80 x 5.20 m) as Locus 34 on the opposite side of the building. Like Locus 33, situated immediately to this room's north, the stratification between Phases 1 and 2 was unclear to the excavators, who again suggested that in Locus 36 there were some cleaning activities. Interestingly, while this locus does appear on the top plan for Phase 1, there were no official Locus Sheets – out of all four versions housed at the IAA Archives in the Rockefeller Museum – for the room in this phase, and it appears to have been collapsed into Locus 26 (see below), which on a matrix should read 26=36.

Locus 37 [Top Level: 51.30; Bottom Level: 51.17] represents the gateway and entrance to the Nabataean caravanserai at Horvat Dafit during Phase 1. It is slightly wider (5.10 x 3.70 m) than Locus 56, its counterpart located on the exact opposite side of the building, and lacks what the excavators have determined to be arch springers (i.e. Walls 82 and 84), which were added onto the gateway in Phase 2. A probe was conducted in the northeast corner of Locus 37 along Walls 83 and 71, and they were found to be three courses deep. A similar probe along Wall 81 in the southern sector of Locus 37 demonstrated that it was not as well preserved, with only one course found in situ.

Locus 52 [Top Level: 51.55; Bottom Level: 51.30] is a 5.30 x 3.80 m room on the north side of the structure along Wall 70. The floor was the virgin soil of the alluvial fan and not of beaten earth as in the other rooms (e.g. Locus 35). Several hearths were uncovered in its southeast corner and the locus contained a lot of organic material, including bones from both gazelle and goats (Hacker 1995), but not much in the way of artifactual evidence.

Locus 53 [Top Level: 51.50; Bottom Level: 51.35] is situated along Wall 74 in the southern sector of the building, and measures 5.00 x 3.70 m. Like Locus 52, the natural wadi material served as the floor and there was a paucity of artefacts. Two installations (numbered 1 and 3) were uncovered in the southwest corner of the room. Installation 1 was rectangular and measures 1.20 x 0.65 m and was 70 cm deep; it is not clear whether or not it was plastered, but its fill did contain mostly organic material and there was a heavy ash layer at its bottom, suggesting perhaps some type of cooking activities. Installation 3 was a small, circular depression that was likely utilised for the placement of either a pithos or storage jar. Installation 2

was located in the southeast corner of Locus 53 and of similar size and shape (1.10 x 0.60 m) to Installation, 1 but less than half as deep (40 cm); its fill also contained an ashy layer at the bottom.

Locus 55 [Top Level: 51.40; Bottom Level: 51.15] is a long, narrow room on the southwest side of the building, measuring 5.00 x 1.90 m. It had a beaten earth floor upon which was found organic material (most likely the remains of the roof), pottery and a bronze fibula (**Fig. 4.7**). In the centre of the room, a thin wall measuring one course high (Wall 102) and running N-S was constructed, essentially creating an extra room in the western portion of the locus (**Fig. 4.8**). This wall was constructed of wadi stones on its southern side and of mudbrick on its north. The eastern sector of Locus 55 served as both the entranceway into the newly created room formed by Wall 102 as well as the doorway to adjacent Locus 35.

Fig. 4.7 Bronze fibula found in Locus 55 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 233982).

Fig. 4.8 Western side of the caravanserai in Phase 1; from the north. In the bottom of the image is Locus 56 with its two installations, and behind that is Locus 55, with Wall 102 barely visible in its centre, and Locus 35 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175421).

Locus 56 [Top Level: 51.40; Bottom Level: 51.10] is a 5.00 x 3.60 m room located on the western side of the structure along Wall 69 and directly opposite the gateway (i.e. Locus 37). This locus had the typical beaten earth floor, on top of which was found a black ashy layer that contained mudbrick collapse and tumble. The room has a circular installation in the southeast corner that was likely used during Phase 2 as well. In the middle of the south wall (Wall 94) was a square installation (**Fig. 4.9**) that was built of mudbrick and covered with white lime plaster, likely a basin for water storage used only during Phase 1.

Fig. 4.9 Detail of the square, plaster-lined installation from Locus 56 in Phase 1; from the north (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 172898).

Locus 59 [Top Level: 51.48; Bottom Level 51.20] is situated on the north side of the *caravanserai*, along Wall 70. It has the same basic dimensions (5.30 x 3.80 m) as its counterpart in the southern sector of the building, Locus 60. Unfortunately, only half of the room was excavated, but it appears that floor of this locus was the natural alluvial sand and not of beaten earth as many of the floors from this phase were. Directly above the floor was a thin layer of fine grey ash.

Locus 60 [Top Level: 51.50; Bottom Level: 51.20] lies directly opposite Locus 59 along Wall 74. As with its counterpart, there was also a thin layer of ash above the floor, which in this case was of beaten earth, upon which rested the bones of gazelle, sheep, goat, and camel (Hacker 1995).

Locus 70 [Top Level: 51.35; Bottom Level: 51.24] is the long and narrow room to the south of the Phase 1 gate and north of Locus 31, the southeast corner room. It has the same general shape and measurements as Loci 36, 34 and 55 (*ca.*

1.80 x 5.20 m). Due to the presence of several installations (see **Fig. 4.22** below) – *e.g.* low shelves and platforms – it is most likely that Locus 50=70 was utilised as a storeroom (T. Erickson-Gini: pers. comm.). Much like Locus 26=36, the stratification between Phases 1 and 2 were unclear to the excavators, who provided the suggestion of cleaning activities for their lack of understanding regarding the deposition this room during Phases 1-2. It seems that this locus too was collapsed together with Locus 50, and so this would appear on a matrix as 50=70. This suggests that the room exhibited continuous use during both the first and second centuries AD, an idea supported by the fact that the only notation to be found on all of the locus sheets for the room during Phase 1 simply reads "see Locus 50".

4.7 Phase 2 Loci

The Nabataean structure at Horvat Dafit during Phase 2 (**Figs. 4.10-11**) continued in use as a *caravanserai* involved with the aromatics trade throughout most of the 2nd century AD, despite the earthquake and the damage it caused. The

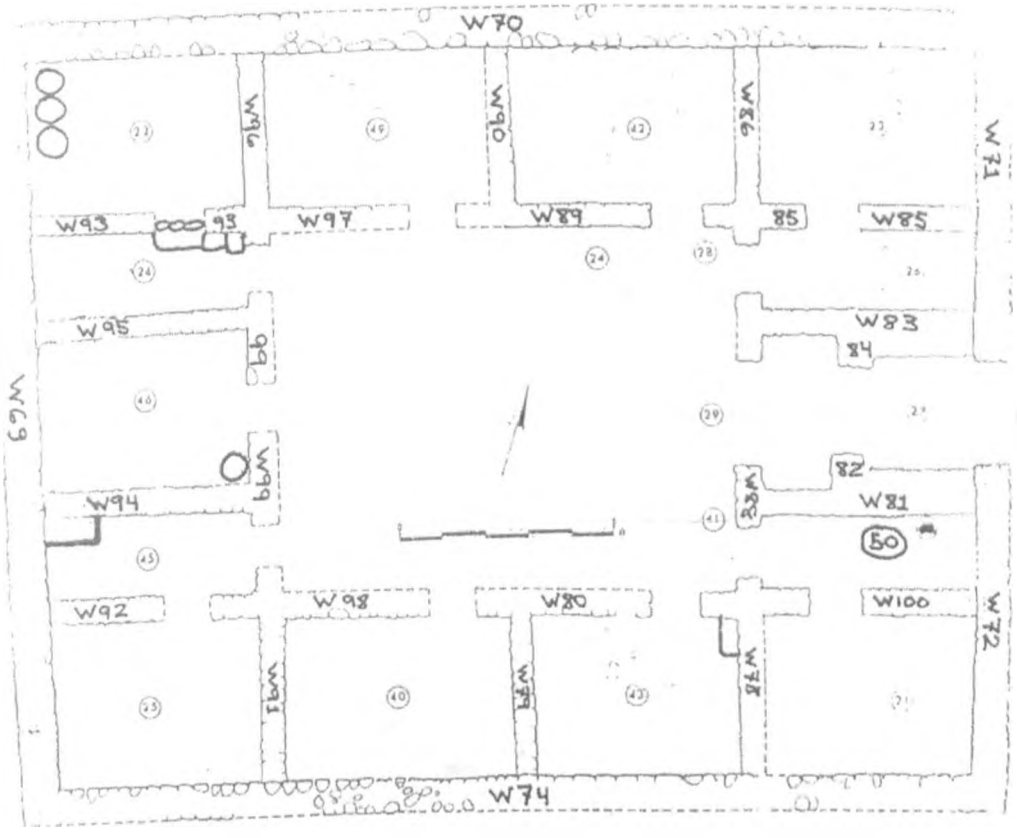

Fig 4.10 Top Plan of the Nabataean caravanserai at Horvat Dafit in Phase 2, 2nd century AD (courtesy IAA Archives, Rockefeller Museum).

Fig. 4.11 The southwest corner of the structure during Phase 2; from the southwest. On the right side of the image – from bottom to top – is the southern row of rooms along Wall 74, represented by Loci 25 (bottom, centre), 40, 43 and 21. On the left side of the image – from bottom to top – is the western row of rooms along Wall 69, represented by Loci 25, 45, 46, 24 and 22 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175438a).

earliest levels of this phase are characterised by mudbrick collapse and/or building debris (*e.g.* Locus 46), cleaning of the interior of some of the rooms (*e.g.* Loci 23, 26 and 50), repair to damaged walls (*e.g.* Locus 45), and re-construction of the main entrance and gate (Locus 27). The maximum depth of the Phase 2 deposits was 73 cm, while the minimum was 20 cm, and the average deposition measured 33 cm. New installations were built in Loci 43, 45, and 24, a major cooking area was established in Locus 22 with the construction of three *tabūns*, and the *tabūn* from Phase 1 in Locus 46 continued to be used. This phase represents the floruit of the building at Horvat Dafit, represented by a wealth of artefactual evidence.

Locus 21 [Top Level: 51.29; Bottom Level: 51.20] represents the southeast corner room of the structure and is exactly symmetrical to Locus 31 from Phase 1, situated directly below it. This locus measures 5.20 x 3.80 m and was entered from the north through a doorway in Wall 100 from Locus 50. At 9 cm in depth, this stratum was even lesser in depth than its predecessor (Locus 31), and there was a paucity of artifacts recovered from it. The Phase 3 tower (Locus 01) was built

directly over this room, and it is most likely that a large portion of the Phase 2 remains from Locus 21 were destroyed or levelled during its construction.

Locus 22 [Top Level: 52.08; Bottom Level: 51.35] was essentially the cooking area for the Phase 2 structure and was constructed of mudbrick walls on stone foundations. Located in the northwest corner of the building, this room had the same measurements as Locus 32 from Phase 1, situated directly below it, and was covered by the sandy Locus 02 of Phase 3 above. The primary feature from this room was a series of three *tabūns* arranged in a N-S row along Wall 69 in the western sector. *Tabūn* 1 (**Fig. 4.12** bottom) had a radius of 67 cm and was filled with black ash. *Tabūn* 2 (**Fig. 4.12** middle) measured 65 cm in diameter, was preserved to a height of 67 cm above the floor, had a packed mud floor and contained some ash. *Tabūn* 3 (**Fig. 4.12** top) was the largest of the three with its 80 cm radius and had a floor similar to that of *Tabūn* 2 but was shorter, measuring only 50 cm tall. The tabūns from Locus 22 all sat on a beaten earth floor, upon which was found a great deal of organic material and a large amount of camel bones (Hacker 1995).

Fig. 4.12 The tabūns from Locus 22, from the west (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 172823).

Locus 23 [Top Level: 51.70; Bottom Level: 51.30] was the northeast corner room in Phase 2. It lay above Locus 33 and below Locus 03, which was part of the large Phase 3 courtyard in the structure. The mudbrick walls of this room sat on a stone foundation and the thin, beaten earth floor was covered with a large layer of sandy fill and relatively devoid of artifacts, leading the excavators to believe, once again, that this may have represented some type of cleaning activities during the Phase 1-2 transition.

Locus 24 [Top Level: 51.70; Bottom Level: 51.40] is the long and narrow room located immediately to the south of the Phase 2 cooking area (*i.e.* Locus 22). It was situated above Locus 34 and below Locus 04, and had a hard-packed dirt floor upon which was found many bones from sheep, goats and gazelle (Hacker 1995). The primary feature from this room was a long, rectangular installation constructed of mudbrick with a stone shelf (**Fig. 4.13**). A grouping of installations with a similar

Fig. 4.13 The installations from Locus 24, Phase 2; taken from the south (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175423).

appearance but slightly earlier date was uncovered in trench M.5 of the Roman Aqaba Project excavations at Aila (**Fig. 4.14**). It is suggested here that this room acted as a place for the preparation of food that was to be cooked in the *tabūns* from adjacent Locus 22.

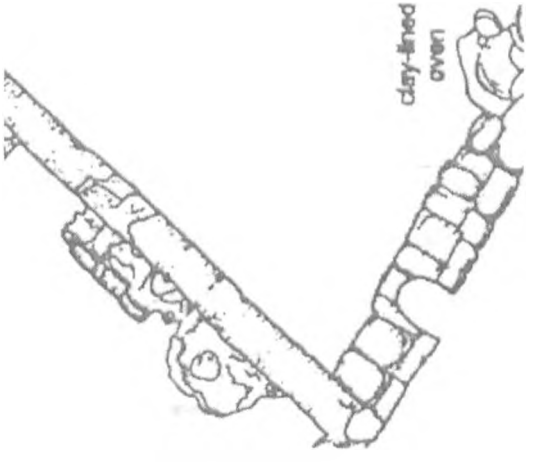

Fig. 4.14 Trench M.5 from the Roman Aqaba Project, excavated by the author(Parker 2002: 413); note the similarities of these installations to those from Locus 24 at Horvat Dafit.

Locus 25 [Top Level: 51.60; Bottom Level: 51.40] was the southwest corner room during Phase 2 (**Fig. 4.15**). It lay above Locus 35 and below Locus 05, which was part of the Phase 3 courtyard, and was entered from Locus 45 to its north. There were no installations in this locus and its fill from was sandy and contained very little in the way of artefacts, although there were some bones of sheep and goats uncovered (Hacker 1995).

Fig. 4.15 The western side of the caravanserai in Phase 2; from the south. From the bottom to the top of the image are Loci 25, 45, 46, 24 and 22 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175438).

Locus 26 [Top Level: 51.60; Bottom Level: see comments this paragraph] was the Phase 2 room immediately to the north of the entrance gate (Locus 27) on the eastern side of the building (**Fig. 4.16**). It was situated between Locus 36 below it and Locus 06 above it. The excavators had a difficult time discerning the stratigraphic boundary between Phases 1 and 2 for this room, due to both the homogeneity of its fill and an apparent lack of any floors or occupational surfaces, so for the purposes of this study both loci have been compressed as 26=36.

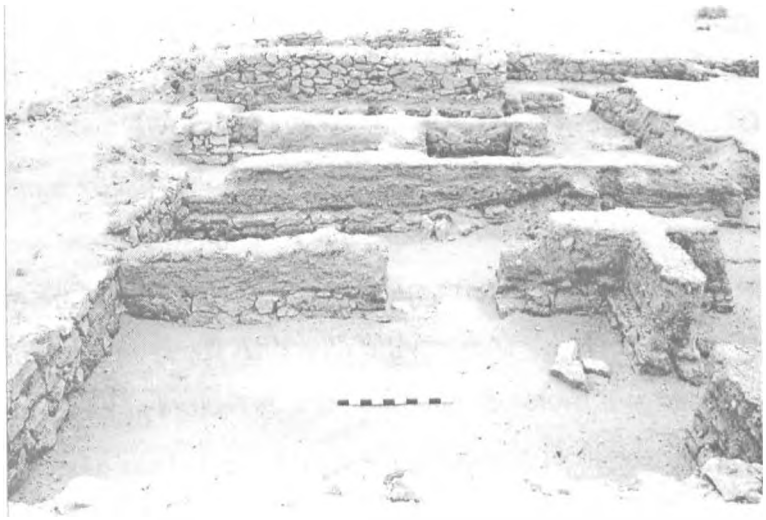

Fig. 4.16 The eastern row of rooms during Phase 2; from the south. From the bottom to the top of the image are Loci 23, 26, 27 (the entrance gate), 50 and 21 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175407).

Given that the highest and lowest measurements ASL for the bottom levels of strata from Phase 2 at Horvat Dafit range from 51.55 to 51.20, respectively, the bottom level for Locus 26 likely falls somewhere within that range; however, no levels whatsoever were recorded by the excavators for the artefacts (Basket 58) that were recovered from the fill of Phases 1 and 2 in this room. This is unfortunate, because found within this context was the complete profile of an imported alabaster vessel (**Fig. 4.17**). The presence of this alabaster vessel at Horvat Dafit is of utmost importance because it represents a direct link to the Nabataean trade and transport in aromatics, as these 'bee-hive' shaped containers were produced in Yemen, are known to have contained raw incense resins, and have been found at Nabataean sites including Petra (Horsfield 1942: Fig. 15.143, 145), 'En Rahel, Moa and 'En Hazeva (Erickson-Gini 2006a: 2), Mampsis (Negev 1986b: 76-78) and Nessana (Colt 1962: Pl. 26.1, 3, 5).

Fig. 4.17 Profile of the alabaster vessel found within Locus 36=26 (drawing by A. Dudin).

Locus 27 [Top Level: 51.80; Bottom Level: 51.30] was the Phase 2 entrance and gate-room for the Nabataean *caravanserai* at Horvat Dafit (**Fig. 4.18**). It was situated above Locus 37 and below Locus 07. Of considerable interest from this room is a ceramic vessel that was uncovered in the NE corner of the entrance to the gate, just below the threshold. It is an Aqaba Ware drinking vessel (Cat. No. 48) similar in form and shape to a modern coffee mug, that was incised with Nabataean characters before it was fired. Although only two of the three extant letters could be deciphered, the vessel is broken at that point and therefore it is unclear as to what the inscription may have read (D. Graf: pers. comm.). It is suggested here that both its placement and location (T. Erickson-Gini: pers. comm.), as well as that fact that it is inscribed with Nabataean characters, would seem to indicate that perhaps this vessel was a foundation offering.

Fig. 4.18 Locus 27, the Phase 2 gateway (centre of image) to the caravanserai at Horvat Dafit; view from the east. To the left of it is the storeroom represented by Locus 50 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 170253).

The entrance and gate-room (Locus 27) to this structure were architecturally modified during Phase 2. Originally in Phase 1 the gate was wider and had the same dimensions as Locus 45, located opposite it on the west side of the building. Two spur walls, interpreted as arch springers by the excavators (Walls 82 and 84), were

added onto Walls 81 and 83, i.e. the original walls (**Fig. 4.19**). It also appears that the entrance leading into the courtyard was widened during Phase 2.

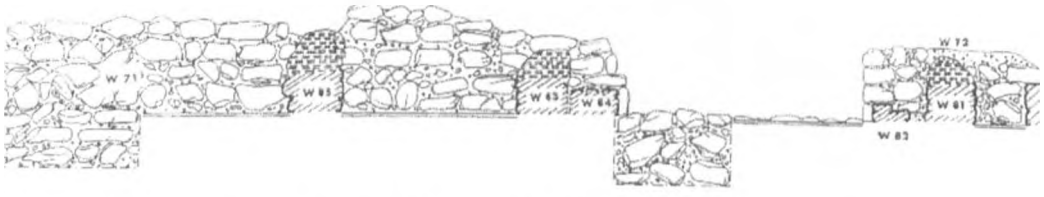

Fig. 4.19 Section drawing of the east façade of the Nabataean caravanserai at Horvat Dafit in Phase 2. (courtesy IAA Archives, Rockefeller Museum).

Locus 40 [Top Level: 51.70; Bottom Level: 51.35] is a room on the southern side of the building along Wall 74 that was situated stratigraphically above Locus 60 and below Locus 20. The entrance is in the northeast corner of the room and leads into the courtyard. Although there were no apparent *tabūns* or other installations present, there was a thick layer of ash and pottery on the floor, as well as the bones from camels, deer, sheep and gazelle (Hacker 1995).

Locus 42 [Top Level: 51.90; Bottom Level: 51.55] was situated above Locus 52 and below Locus 12, along the northern row of rooms in the structure. A hearth was located in the southeast corner of this room, as was its entrance, which led into the courtyard. The floor of this locus was covered with a great deal of organic material and some dung as well, which the excavators suggested may be the remains of its collapsed roof. In addition were found the bones of goats, gazelles, camels, deer, rabbits, chicken, fish and even a pig (Hacker 1995). Locus 42 was by far the richest room in any of the phases at the site, and it produced a wealth of artefactual evidence and the small finds included pieces from a fresco and a ring.

Locus 43 [Top Level: 51.75; Bottom Level: 51.50] lay directly opposite Locus 42, along the building's southern row of rooms. In the northeast corner there was a square installation built from small stones (**Fig. 4.20**). The entrance was also located in the northeast part of the room, and it entered into the courtyard. This locus yielded a large amount of cooking wares including 21 separate cooking pots and sherds from several others, suggesting that the room may have been used for the preparation of food.

Fig. 4.20 View of Locus 43 (Phase 2) and its northeast corner installation; view from the west (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 172868).

Locus 45 [Top Level: 51.75; Bottom Level: 51.40] was a long, narrow room along the western side of the structure. It had a beaten earth floor which overlay a large ash layer from the top levels of its predecessor, Locus 55 from Phase 1, and was covered by Locus 15 above. In the northeast corner of the room was a rectangular mudbrick installation (**Fig. 4.21**). Of interest, it appears that Wall 92, on the southern side of the room and separating Locus 45 from Locus 25, seems to have been damaged in Phase 1, but repaired in Phase 2.

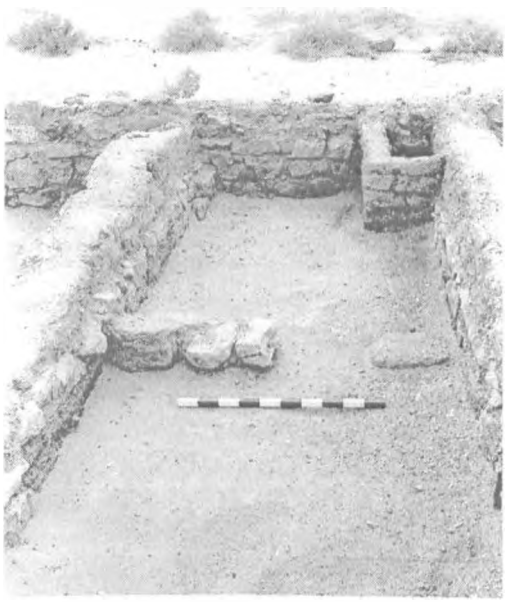

Fig 4.21 The installation from Locus 45, Phase 2; taken from the east. Similar installations have been uncovered at other Nabataean caravanserais in the Negev (e.g. Sha'ar Ramon), where they have been interpreted as 'bathtubs' (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175420)

Locus 46 [Top Level: 51.60; Bottom Level: 51.40] is the central room on the west side of the structure, located directly opposite the entrance gate (Locus 27). It was situated above Locus 56 and below Locus 16, and was entered on its east side

from the courtyard. The lowest levels from this room contained ash and mudbrick debris, organic material, and the bones of camel, sheep and goats (Hacker 1995). The round *tabūn* in the southeast corner of the room that was constructed during Phase 1 continued its use in Phase 2.

Locus 49 [Top Level: 51.70; Bottom Level: 51.48] was located in the northern sector of the building along Wall 70, between Loci 22 and 42. This stratum rested on top of Locus 59 from Phase 1 and was covered by Locus 19 from Phase 3. Only half of the room was excavated. There were no installations uncovered in the portion of Locus 49 that was dug, however a thick layer of sheep dung was found covering the floor of the room, which led the excavators to suggest that this locus was used as a sheepfold or animal corral.

Locus 50 [Top Level: 51.70; Bottom Level: 51.35] was a long, narrow space with several shallow installations built only one row high (**Fig. 4.22**) that was situated between the Phase 2 gate and entranceway (Locus 27) and the southeast corner room (Locus 21). It lay above Locus 70, the Phase 1 storeroom, and continued in use as such during Phase 2, after which it was covered by a massive layer of windblown sand, *i.e.* Locus 10.

Fig. 4.22 Detailed view of Locus 50, the Phase 2 storeroom, view from the west (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175418).

Locus 18 [no levels taken] was a midden located on an embankment to the north of the structure at Horvat Dafit. It appears that it was built to protect the building from the flooding of a nearby streambed, which was likely to have filled with water during seasonal flash flooding. A probe was conducted along a section of this dump, which consisted of ash, organic material and bones. A variety of artefacts were uncovered from the probe in Locus 18. This included pieces of leather, textile and metal, Nabataean painted and unpainted fine ware bowls, and two almost complete and intact discus lamps (**Fig. 4.23**).

Fig. 4.23 Discus lamp found in the Locus 18 dump (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 181975)

4.8 Phase 3 Loci

The structure at Horvat Dafit underwent a major renovation during Phase 3, sometime during the late-2nd or early-3rd century AD. A tower was constructed in the SE corner of the building on top of the earlier rooms (*i.e.* Loci 21 and 50), and the rest of the Phase 2 rooms went out of use and became a large courtyard for the building (**Fig. 4.24**). The interior of this new courtyard measured 21.50 m E-W by 16.80 m N-S, and was covered by a large layer of windblown sand that averaged between 20-30 cm, sometimes reaching nearly 1 m in depth. All of the walls of the structure were rebuilt using stone, in contrast to the earlier rooms, which were constructed of mudbrick with stone foundations.

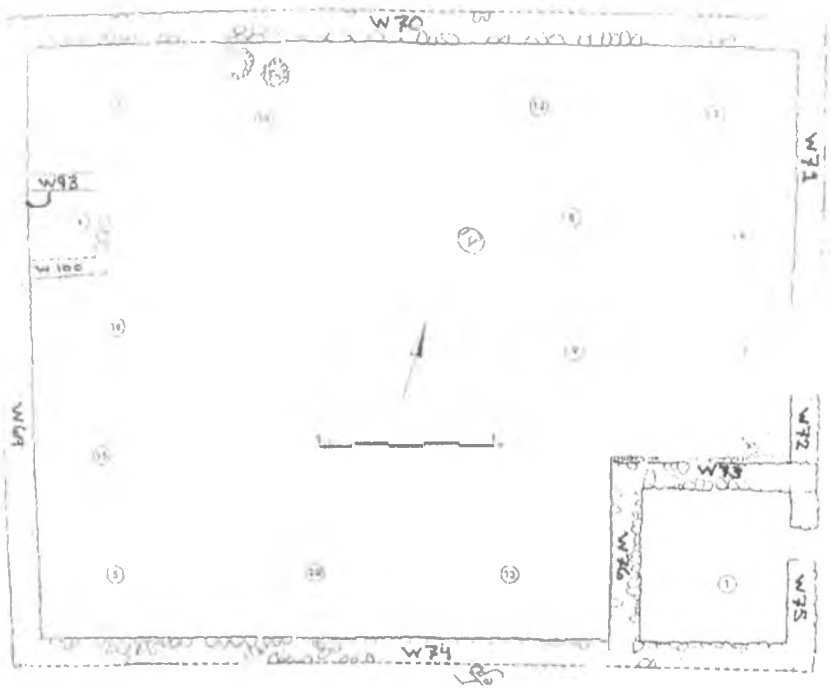

Fig. 4.24 Plan of the Phase 3 structure at Horvat Dafit (courtesy IAA Archives, Rockefeller Museum).

Locus 01 [Top Level: 52.99; Bottom Level: 51.29] was the primary architectural feature of the Phase 3 building at Horvat Dafit, and consisted of a roughly square, well-built stone tower (**Fig. 4.25**) located in the southeast corner of the structure. The interior space of the tower measured *ca.* 4.25 x 4.00 m and the walls averaged 95 cm in thickness. These newly constructed walls were preserved to a height of 1.70 m and a few of them (*e.g.* Walls 73 and 76) were built directly over

Fig. 4.25 Locus 01, the southeast corner tower of the structure during Phase 3, served as the new entrance for the building; view from the northeast (courtesy IAA Photo Archives, Har Hotzvim Facility Negative No. 175398).

the earlier mudbrick walls (e.g. Walls 100 and 78). The foundation of the walls went at least three courses below the floor of Locus 01, which was made of hard-packed wadi material. Access to the tower was gained on its eastern side (**Fig. 4.26**), and the excavators suggested that this served as the new entrance to the building. However, there is no other doorway into Locus 01 and the main gate (i.e. Locus 07) during Phase 3 most likely continued in use as an entrance to the courtyard.

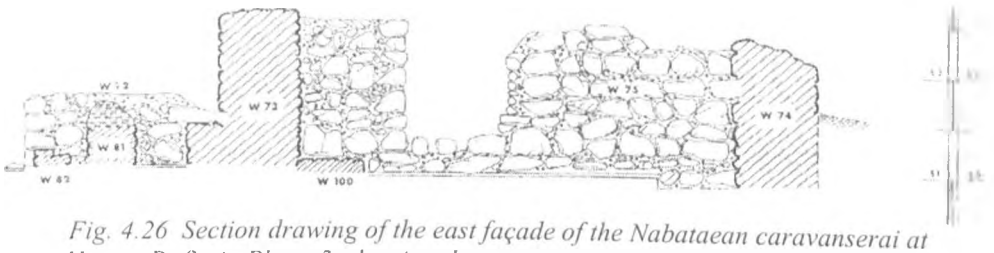

Fig. 4.26 Section drawing of the east façade of the Nabataean caravanserai at Horvat Dafit in Phase 3, showing the entrance cut into Wall 75 of the Locus 01 corner tower (courtesy IAA Archives, Rockefeller Museum).

Locus 04 [Top Level: 52.30; Bottom Level: 51.70] was the only locus in which there was any construction during Phase 3. Located on the western side of the building along Wall 69, this room was enclosed by two short walls (93, 100) and contained an installation (**Fig. 4.27**) built directly over the walls of Locus 24 from Phase 2. This area was characterised by a great amount of organic material – particularly straw and sheep dung – and it is suggested here that this room served as an animal pen or sheepfold for the structure during Phase 3.

Fig. 4.27 The only locus in which there was any construction inside the courtyard during Phase 3 was Locus 04 (centre, rear of the image), where an installation was built in its northwest corner (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175422).

Locus 03 in the northeast corner [Top Level: 52.30; Bottom Level: 51.70], *Locus 05* in the southwest corner [Top Level: 52.00; Bottom Level: 51.50] and *Locus 06* in the northeast sector [Top Level: 52.23; Bottom Level: 51.60] were all part of the Phase 3 courtyard for the structure. One common theme that binds these loci together is the nature of their fill, which contained large amounts of sand, ash, organic material and a lot of collapsed building material, particularly mudbricks. This would seem to suggest that the constructors of the Phase 3 southeast corner tower (Locus 01) levelled the remnants of the associated Phase 2 rooms for these loci in order to create the Phase 3 courtyard.

Of particular interest from Locus 06, was the discovery by the excavators of an iron sword and possibly the point of a *pilum* resting upon top of it (**Fig. 4.28**). Unfortunately, the photograph below represents the only image available for either item, as neither was recorded in the small finds register or drawn. While the sword is listed on the locus sheets(s) for Locus 06 and in the accompanying brief, handwritten report on the finds, there is no other record of these items in any of the IAA databases or archive materials, and the whereabouts for both are unknown. In fact, the IAA specialist for Roman military equipment was unaware of the existence of any such items from Horvat Dafit (G. Stiebel: pers. comm.). Re-discovery of either of these items – or both – and detailed examination of them by a specialist could provide important insights as to the nature of their presence in the structure at Horvat Daft during Phase 3.

Fig. 4.28 The iron sword (and perhaps the tip of a pilum?) from Locus 06 in Phase 3 in situ (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 170248).

Locus 13 [Top Level: 52.30; Bottom Level: 51.75] and *Locus 16* [Top Level: 51.80; Bottom Level: 51.60] were located in the southern and western sectors, respectively, of the courtyard. Both loci exhibited the remnants of collapsed roof materials, *e.g.* organic material – particularly straw – and dung, and their fill contained a large amount of ceramics. The majority of the pottery from these loci was cooking pots: 12 of which were recovered from Locus 13, and 24 uncovered in Locus 16. As both of these loci rested upon cooking installations and *tabūns* from Phase 2, it is suggested here that the ceramic evidence from the Phase 3 loci represent secondary deposition from the earlier levels.

Locus 19 [Top Level: 52.30; Bottom Level: 51.70] was situated in the northwest sector of the courtyard, overlying Locus 49 from Phase 2. The floor was made up of a lot of packed organic material, mainly sheep dung. The primary feature of this locus was two circular stone installations (**Fig. 4.29**) measuring *ca.* 70 cm in diameter. Perhaps these installations served as collection basins for the building's water supply.

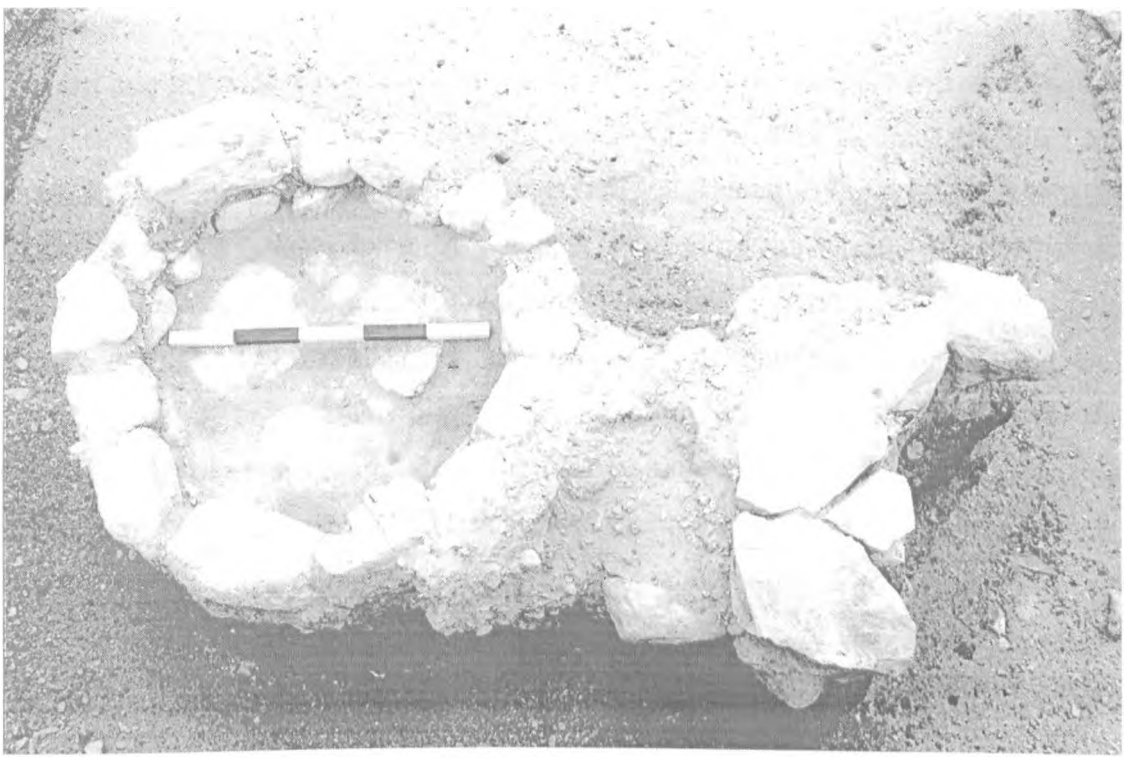

Fig. 4.29 Detailed view of the two circular stone installations of Locus 19 from Phase 3; view from the north (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 175415).

4.9 The Dating Evidence

After examining the loci from the structure at Horvat Dafit, it becomes clear that there are three distinct architectural and occupational phases. In order to assign relative dates for these phases, one must consider the ceramic and numismatic evidence found in stratified loci, which can be supplemented by similar materials from un-stratified contexts, such as the Locus 18 dump. Additional information with regard to date can be assessed by considering ceramic types with a known production period, especially imported finewares and lamps, that are found in secondary contexts, and may be seen as 'heirlooms'. The following section presents an analysis of the dating evidence for each phase at Horvat Dafit in order to provide a chronological framework in which to place relative dates for each.

Stratified data for Phase 1 consists of numismatics only. A bronze Nabataean coin was discovered in Locus 32 (Basket 117, unregistered). Although it was too worn to be precisely dated (Meshorer 1984), it most likely represents a coin of Aretas IV from the latter part of his reign (9 BC – AD 40), based upon its weight and flan size (D. Ariel: pers. comm.). The most important numismatic evidence for Phase 1 comes from Locus 60, which yielded two coins. The fill above the floor in this room yielded another bronze coin (IAA No. 15694), but only the obverse was well enough preserved to be read. It has the style of cornucopiae typical of Nabataean coins from the late-1st century AD (D. Ariel: pers. comm.) attributed to the reign of Rabbel II (AD 70 – 106), thought by most scholars – including the writer – to be the last Nabataean monarch before the Roman annexation. Of even more interest was a coin of Aretas IV (IAA No. 15693), minted after AD 25 (D. Ariel: pers. comm.), that was found on the floor of Locus 60, thereby providing a *terminus ante quem* for the construction of that room. Non-stratified numismatics also corroborate pre-annexation presence at Horvat Dafit. These include coins that were surface finds, including a Nabataean coin of Malichus II (IAA No. 15699), who reigned from AD 40 – 70, and a coin minted in the Decapolis city of Gerasa (IAA No. 15697) dated to the late-1st/early-2nd century AD (D. Ariel: pers. comm.).

Ceramic evidence for Phase 1 consists of well-known types of imported finewares and lamps that were produced during the 1st century AD, but come from secondary (i.e. Phase 2) contexts at Dafit. Amongst the finewares were a few sherds of Eastern Sigillata A (ESA), including a Form 111 jug (**Fig. 4.30a**), which dates to the end of the 1st century AD (Hayes 1985: 45, tav. X:3), and the base of a Form 50

bowl (**Fig. 4.30b**), which Hayes (1985: 36-37, tav. VI:18) provides a date range of AD 60/70 – 100 for. Additional evidence is attested by the presence of Nabataean Painted Fine Ware bowls (**Fig. 4.31**) dating to the late 1st century AD, or Dekorphase 3b (Schmid 2000: 28-29, abb. 91). The final ceramic finds which reinforce Nabataean presence at Dafit in the 1st century AD are represented by the top discus portion (**Fig. 4.32a**) and inscribed base (**Fig 4.32b**) of a Khairy Group II lamp, produced in Petra during the mid- to late-1st century AD (Khairy 1990: 10-12, figs. 10-11).

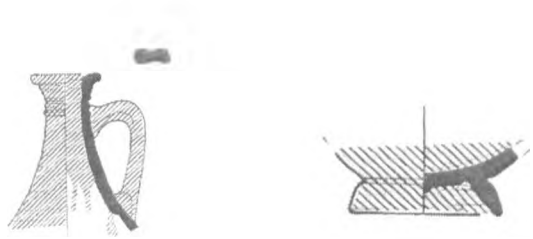

Fig 4.30 Imported Eastern Sigillata A jug (a) and bowl base (b) produced during the 1st century AD and found at Horvat Dafit in secondary contexts dating to the 2nd century AD (not to scale).

Fig. 4.31 Nabataean Painted Fine Ware Bowls produced in Petra during the late-1st century AD from Phase 2 loci at Dafit.

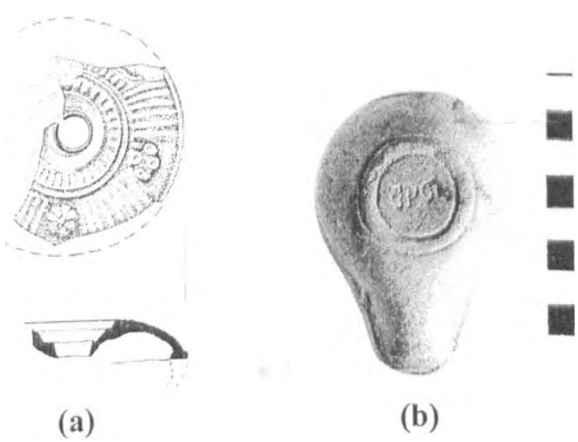

Fig. 4.32 Nabataean lamps produced in Petra during the mid- to late-1st century AD from Phase 2 loci at Dafit.

Relative dating evidence for Phase 2 at Horvat Dafit is provided by both numismatic and ceramic evidence. One of the so-called 'city coins' – Roman imperial coins produced at mints in major cities throughout the eastern empire – was found in Basket 57 from Locus 23 (Meshorer 1984). It was too corroded to pinpoint either a minting authority or a date for it, but its size and weight are typical of 2nd century coins from both Petra and Gerasa (D. Ariel: pers. comm.). Another coin, albeit a surface find (IAA No. 15701), was minted in Bostra and likely represents the emperor Marcus Aurelius (AD 161 – 180) as Caesar (Meshorer 1984), however a recent re-examination of the coin (D. Ariel: pers. comm.) suggests that it may be a coin of Commodus (AD 180 – 192).

Many of the ceramic vessels found in the artefact-rich Locus 42 provide solid evidence for this Phase 2 room being occupied during the mid- to late-2nd century AD Among these were two known and datable vessel forms, one produced in Petra and the other represented by an imported ESA bowl. The first datable example is a so-called 'honey pot' (**Fig 4.33**) in the Debased Nabataean Fine Ware. The form gets its name because it resembles the so-called 'hunny jars' from the Winnie the Pooh stories. Negev decided that these vessels were "certainly not drinking vessels" (Negev 1986: 62), although that idea has been recently called into question (S. Schmid: pers. comm.). Thinner and finer versions of these are well attested at Petra, where they make their appearance during the first quarter of the 1st century AD (Schmid 1995: 641) and continue in that same form until the early-2nd century AD. Recent excavations in Kiln VII from az-Zurrabah have demonstrated that the form was indeed produced there during the mid-2nd century AD ('Amr & Mommani 1999: 192, fig. 13.6), but the later versions are thicker and have a much coarser ware (Erickson-Gini 2004: 284, fig. 2.25).

Fig. 4.33 DNFW 'honey' jar' from Locus 42 (courtesy IAA Photo Archives, Har Hotzvim Facility, Negative No. 176520).

Another piece of ceramic evidence from Locus 42 provides relative dating for Phase 2, and that is an Eastern Sigillata A bowl (**Fig. 4.34**) corresponding to Hayes Form 56, which he dates to *ca.* AD 225-250 (Hayes 1985: 39, tav. 7:7). It has a rounded rim that is slightly upturned, and the vessel walls are straight but slightly carinated near the base and just below the rim zone. This bowl conforms to Samaria Form 7, Antioch Forms 615 and 618, and Hama Forms 4 and 7, and is attested in mid-2nd century AD contexts at Moa, Aila, Mampsis and Petra (Dolinka 2003: 71-72, ftns. 166-171).

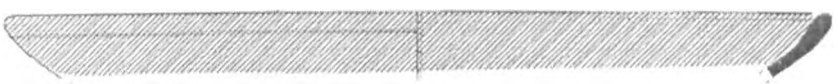

Fig. 4.34 Hayes Form 56 ESA bowl from Locus 42 (courtesy IAA Archives, Har Hotzvim Facility).

Unstratified evidence dating from the post-annexation period also attests to Nabataean/Roman presence at Horvat Dafit during the early- to mid-2nd century AD. Five coins (Meshorer 1984) were found in the Locus 18 dump, dated by the excavator to Phase 2. Four of these coins were of the emperor Trajan (AD 98 – 117) minted in Rome (IAA Nos. 15729, 15730, 15731 and 96052), and the other was a coin of the emperor Hadrian (AD 117 – 138) minted in Petra (IAA No. 15695).

Of particular importance for the dating of Phase 3 at Horvat Dafit, was a nearly complete flask (**Fig. 4.35**), found in Locus 01. Theses vessels are referred to as 'football flasks' because of their unique shape, and have been found exclusively in early-3rd century AD contexts at Moa (Erickson-Gini 2005: 51-52, fig. 3.20.12), the pantry at Oboda (Erickson-Gini 2004: 288, fig. 2.39), Shiqmona (Elgavish 1977: pl. II:13) and Mesad Neqarot (T. Erickson-Gini: pers. comm.). Another significant find

Fig. 4.35 The 'football' flask from Locus 01 (courtesy IAA Photo Archives, Har Hotzvim Facility Negative No. 176517).

from Phase 3 that confirms its date in the late-2nd to early-3rd century is represented by a Nabataean rounded lamp (**Fig. 4.36**), which is an imitation of Broneer Type XXV (Broneer 1930: 83-87, Pl. X no 507). It was found complete and intact in the Locus 01 tower (Basket 49). Unlike the Roman versions, this type had a plain discus and lacked any slip or burnishing. The example from Dafit has a convex ridge surrounding its concave discus and a small, rounded nozzle. Lamps of this type were found in early excavations at Petra (Murray & Ellis 1940: Pl. 36.16; Horsfields 1942: Pl. 21.161) and were also uncovered at Oboda (Negev 1986: 129-130 nos. 1131-2). It is clear that they were produced at Petra during the Antonine and Severan periods, as their moulds have been found in the pottery workshop at az-Zurrabah (Zayadine 1982: Pl. 143.6). The form corresponds to 'Amr Type 9 ('Amr 1987: Pls. 16-17 nos. PL34-35), and several of these lamps were found in the latest occupational phase at Moa (Erickson-Gini 2005: Fig. 4.3 nos 1-5).

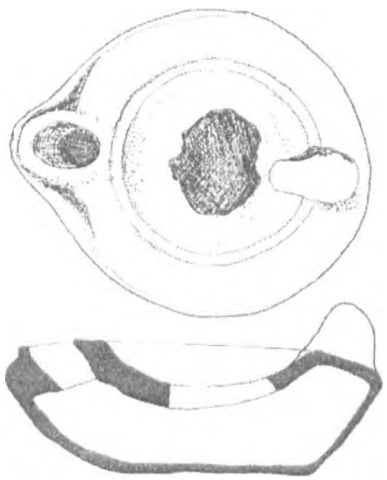

Fig. 4.36 'Amr Type 9 lamp found in Locus 01 (courtesy IAA Archives, Har Hotzvim Facility).

A final well-dated ceramic specimen found at Horvat Dafit, in the Phase 3 courtyard (Locus 13, Basket 83) is a Nabataean piriform unguentarium (**Fig. 4.37**) that conforms to Johnson's Form XII (Johnson 1987: 66-67; 1990: 238-239, Fig. 4). These vessels were produced in great quantities during the Severan period, and are attested in the uppermost strata from Room 6 at Oboda, dated to the late-2nd/early-3rd century AD (Erickson-Gini 2004: 286, fig. 2.38).

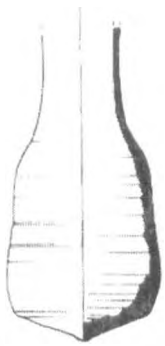

Fig. 4.37 Johnson Form XII piriform unguentarium found in Locus 13 from the Phase 3 courtyard (courtesy IAA Archives, Har Hotzvim Facility).

Unfortunately, there were no coins found in either stratified Phase 3 loci or on the surface, so the presence of the 'football' flask, the 'Amr Type 9 lamp and the Johnson Form XII ungientarium represent the only datable evidence from Phase 3.

4.10 Concluding Remarks

Having examined in detail the stratigraphy, individual loci and overall phasing for the excavations at Horvat Dafit, a clearer picture begins to emerge as to the site's occupational history. Three distinct and individual phases for the site can be discerned: the first covering the period from the first quarter of the first century AD until the earthquake of the early-2nd century AD; the second, spanning most of the remaining part of the 2nd century AD; and the final one occurring sometime between the late-2nd and early-3rd centuries AD. All three occupational phases are present in all of the rooms of the structure at Horvat Dafit, with the exceptions of Locus 36=26 and Locus 70=50. These two are found on either side of the Phase 2 entrance room and gate (Locus 27) for the building, and it is suggested here that the difficulty in discerning the division between Phases 1 and 2 in those loci was due to activities associated with the re-construction of the gate after the earthquake, which likely disturbed the floor levels from those loci. Taken together, the stratigraphy may be expressed in a simplified matrix (**Fig. 4.38**).

It should be noted that while there are three distinct phases at Horvat Dafit, these in reality are only discernable in the architecture and plan of the structure and demonstrated by clear changes in layout, plan and construction method. The ceramic repertoire from the site, especially the commonwares from Phases 2 and 3, is relatively homogenous and exhibits little change over time. However, the presence of

vessel types known to date from the late-2nd/early-3rd centuries, such as the ledge-rimmed bowls and the 'football' flask, found in association with the Phase 3 stone tower, indicate a change in the occupational history of Horvat Dafit.. That being said, it is clear that the site was occupied throughout the first two-and-a-half centuries AD. It therefore provides a unique stratigraphic profile not discernible – or as of yet unpublished – at many Nabataean sites, and can therefore be utilised as a case study to test the fate of the Nabataean trading networks and the Aqaba Ware ceramic tradition after the Roman annexation of AD 106.

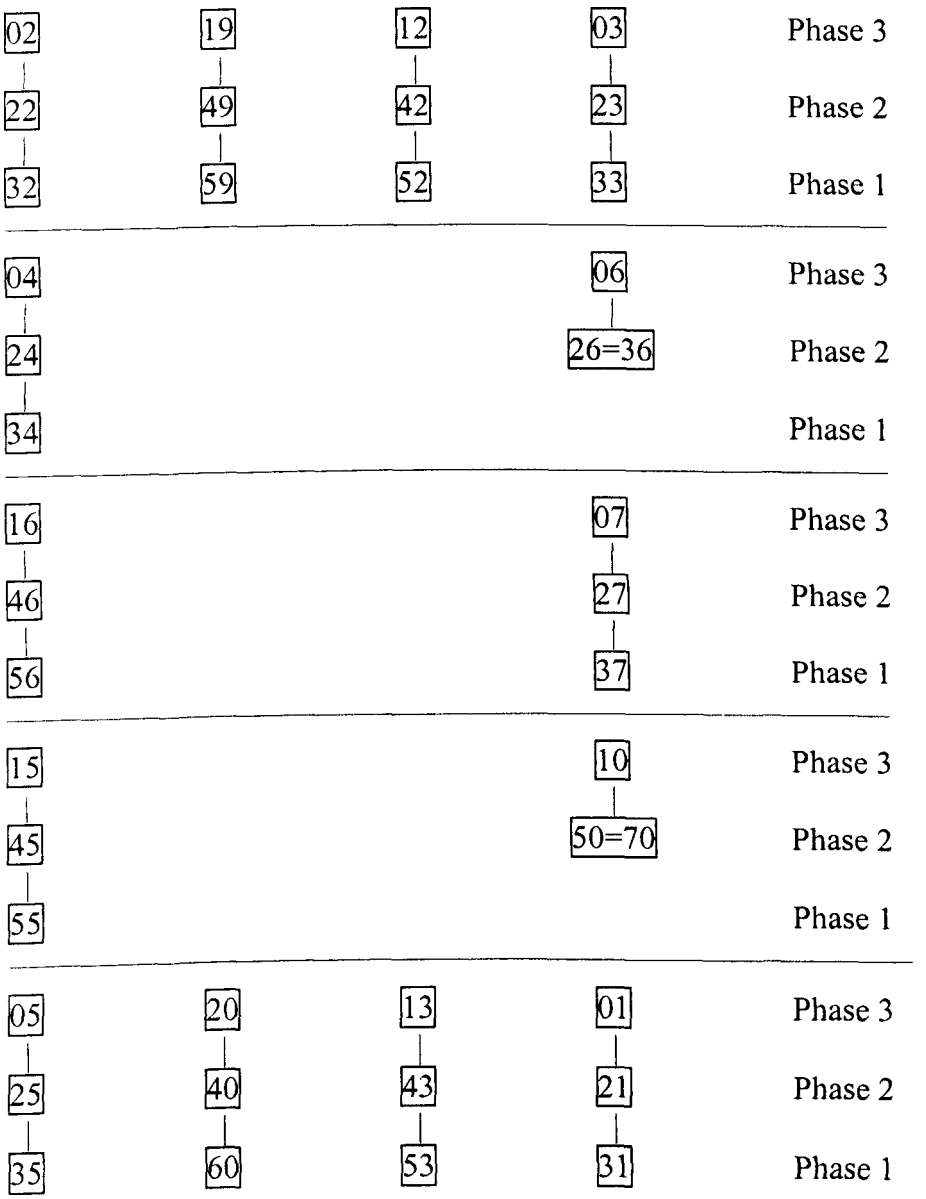

Fig. 4.38 Matrix of the structure at Horvat Dafit, detailing the three loci (i.e. phases) for each room.

CHAPTER FIVE

The Aqaba Ware from Horvat Dafit

5.1 Introduction

Now that it is clear that Horvat Dafit was occupied throughout the 2nd and early-3rd centuries AD, an examination of the Aqaba Ware from the site is necessary in order to determine the fate of that ceramic tradition after the annexation. The purpose of this chapter is to provide a typo-chronology for the Antonine and Severan (*i.e.* Phases 2 and 3) assemblage of Aqaba Ware pottery from Horvat Dafit. It is based upon the nomenclature and methodology developed for and published in the initial report on this distinct ceramic type, first uncovered and identified as such during the excavations of the Roman Aqaba Project (Dolinka 2003: 64-70). The main difference between this and the previous study lies in the fact that the first was chronologically limited to the period covering the 1st to early-2nd centuries AD, or 'Early Roman'. In addition, the emphasis of that study was on the ware's qualitative and quantitative distribution throughout the region, in order to assess socio-economic implications regarding the site whence it was produced. Therefore, the results of the analysis from the original report on Aqaba Ware is limited because it could not demonstrate either development or degeneration of vessel forms, whether or not there was any continuity in the ceramic repertoire, or if new forms were added in the centuries that followed.

The present study aims to augment and supplement the original typo-chronology proposed for Aqaba Ware. It seeks to determine whether or not there was continuity of the ceramic repertoire produced at Aila, or if new vessel forms were introduced. If new forms do appear, was this perhaps as the result of the new Roman presence in the region, or was it perhaps due to innovations of the Ailan potters themselves? Taken together, a detailed analysis of specific Aqaba Ware vessel types will supplement and enhance knowledge regarding the fate of the Nabataean Aqaba Ware ceramic tradition during the era of the *provincia Arabia*.

5.2 Methodology

As the writer was invited by the IAA to publish the final report on Rudolph Cohen's excavations at Horvat Dafit, it was necessary as part of that exercise to

create a comprehensive catalogue that was representative of the entire ceramic assemblage from the site. During November and December 2004, the author conducted research on the pottery from Horvat Dafit, stored at the IAA warehouse facility in Beit Shemesh, *ca.* 20 km west of Jerusalem. Sherds and reconstructed vessels from the site selected to be drawn by the excavators were marked with red dots next to their registration number before they were sent to the IAA illustrators. The profiles of these ceramics were compared by the writer with the pottery drawings from the site that are housed in the IAA archive at Har Hotzvim in Jerusalem, in order to ensure that the vessels and their drawings matched.

There were 264 vessels from Horvat Dafit drawn by the IAA, and because of the unnecessary repetition of forms, 98 were not included in the final catalogue produced by the writer. Taken together, 62.8% of the entire drawn corpus of ceramics from Horvat Dafit – a good representative sample – was included in the final catalogue, which comprised 166 vessels in 17 different categories. Of these, 101 vessels, or 60.8% of the entire drawn corpus of pottery, were Aqaba Ware forms. If one were to deduct the imported lamps and finewares, and vessels produced at Petra from the entire assemblage (53 in total), Aqaba Ware would then represent 89.3% of the corpus from Horvat Dafit. A total of 57 vessels were selected for the present study. These have been divided into 12 different categories: cooking pots, casseroles, cooking bowls, cooking lids, bowls, kraters, flasks, jugs, drinking vessels, jars, amphorae and pithoi. Unless otherwise stated, all vessels are illustrated at a 1:4 scale and all dates referred to are AD.

5.3 A Note on the Aqaba Ware Types

Aqaba Ware is easily distinguishable from the Nabataean pottery produced in Petra because of its cream colour, as opposed to the 'Petra red' – usually characterised by a 2.5YR 5/8 hue ('Amr 1987). The predominant colour of Aqaba Ware is due to the fact that the potters who produced it, much like the modern potters of Hebron, added salt to the clay mixture before the vessels were formed and fired ('Amr 1992). In addition to the calcite inclusions typical of the Petra pottery, Aqaba Ware contains inclusions of biotite mica [$(H,K)_2$ $(Mg,Fe)_2$ $(Al,Fe)_2$ $(Si,O4)_2$] in its matrix that are clearly visible to the naked eye. This type of mica is common in the sands of the southernmost portion of the Wadi Arabah, and ranges in colour from yellowish-brown to gold, with the latter being most prevalent. Finally, Aqaba Ware

has a much coarser and thicker fabric than the Petra wares, is not as hard, and has a very sandy, gritty feel to it.

As was recognised in the initial study, Aqaba Ware essentially consists of four ware types (**Table 1**). Ware Type 1 has a light or pale red fabric and a very pale brown interior and exterior, and is found on almost all vessel types. Ware Type 2 is very pale brown throughout and also represented by a variety of vessel forms as well. Ware Type 3 is characterised by either a light or pale red fabric and interior, and a very pale brown exterior. This type is common on cooking wares and jars, but is also attested on fineware bowls, where it occurs as an exterior slip that is either on the rim only, or extends from the rim to the upper shoulder of the vessel. Less occasionally, this same rim treatment is present on cooking lids as well. Ware Type 4, is unequivocally restricted to cooking pots and cooking bowls, and consists of a red or light red fabric and interior with either a dark reddish grey or very dark grey exterior slip. By far, the most common Munsell reading for both fabrics (65.7%) and interiors (44.2%) on Ware Types 1, 3 and 4 is light red (10R 6/6). For Ware Type 2, the very pale brown (10YR 8/3) predominates.

Ware	Fabric	Interior	Exterior
Type 1	10R 6/6 (Light Red) 10R 6/4 (Pale Red)	10YR 8/3 10YR 8/2 (very pale brown)	10YR 8/3 10YR 8/2 (very pale brown)
Type 2	10YR 8/3 (very pale brown)	10YR 8/3 (very pale brown)	10YR 8/3 (very pale brown)
Type 3	10R 6/6 (Light Red) 10R 6/4 (Pale Red)	10R 6/6 (Light Red) 10R 6/4 (Pale Red)	10YR 8/3 (very pale brown)
Type 4	10R 6/6 (Light Red) 10R 5/8 (Red)	10R 6/6 (Light Red) 10R 5/8 (Red)	2.5YR 5/1 (dark reddish grey) 5YR 3/1 (very dark grey)

Table 1: Aqaba Ware Types

With regard to individual vessel forms, it can indeed be said that there is a Nabataean ceramic *koine*, and most of the Aqaba Ware pottery finds parallels within the Petra repertoire. Due to the striking similarity in vessel forms attested at both sites, it is suggested here that perhaps a potter or group of potters from Petra travelled to Aila and set up a workshop there, using their traditional Petra forms whilst utilising the clays local to the Aqaba region.

The format employed for the pottery illustrated in this chapter corresponds to that found in the final report for the Roman pottery and lamps from the Temple of Demeter and Kore at Corinth (Slane 1990), whereby the vessel drawings are integrated into the text. Unlike other formats, which often tend to separate the ceramic forms into a catalogue placed at the end of the volume, this arrangement enables the reader – and especially the ceramicist, who represents the target audience for this study – to avoid needlessly flipping back and forth from text to catalogue in order to gain a visual image of the written descriptions. It also enables the reader to recognise any changes in specific vessel form (if any) over time. For each example presented here, discussion focuses first upon vessel form in general and rim type in particular, followed by its Ware Type, and the phase(s) from Horvat Dafit for which the vessel is attested. This is followed by a discussion of each form's development, or lack thereof, over time. As the scope of this study is limited to the Aqaba Ware from Horvat Dafit and its comparison and contrast to earlier examples of this type of pottery from Aila, no attempt is made to list exhaustive parallels for each vessel type. For some of the forms, the reader is provided with types from Yvonne Gerber's unpublished work on the commonware pottery from the Petra ez-Zantur excavations. Where the Gerber typology is unavailable for comparison of vessel forms, parallels from other regional assemblages are cited.

5.4 Cooking Wares

Cooking Pots

As one of the primary functions of the *caravanserai* at Horvat Dafit was to provide meals for those temporarily staying there, it is of no surprise that cooking pots comprise the vast majority of vessel forms found at the site. Major cooking activity occurred in the structure, as evidenced by the four *tabûns* from Loci 22 and 46, and the numerous amounts of cooking pots found in Loci 42, 13 and 16. A total of 78 cooking pots from Horvat Dafit were drawn by the IAA. Of these, only nine were not Aqaba Ware, the latter of which represented 88.4% of the entire drawn corpus. In the final catalogue of ceramics for the site, 25 cooking pots were chosen. Of these, 16 of them (64%) were Aqaba Ware.

Some of the Aqaba Ware cooking pot forms from Horvat Dafit demonstrate continuity throughout Phases 2 and 3, and many of them have their forebears in the 1st century AD vessels presented in the original study (Dolinka 2003: 65). This

continuity is attested at other sites in the region, for example Kefar Hananya in the Galilee region (Adan-Bayewitz 1993: 111-130 *passim*), where most of the cooking pot forms have a relatively long suggested date range, many of which span two centuries or more.

The standard type of cooking pot in the region, descended from earlier similar forms dating to the Persian and Iron II periods, was of the globular variety with a relatively short vertical or angled neck and two handles that ran from the rim to the shoulder (Berlin 1997: 84). Most of the vessel walls are deeply grooved with horizontal ridges. The dark-coloured exterior slip on these vessels aided in their heat retention abilities (Arnold 1985: 23), as did the carbonisation the bottoms of these vessels experience by being placed upon cooking fires or in *tabūns* (Rye 1976: 113).

The first cooking pot is represented by type CP1 (**Fig. 5.1**). These large vessels bear the hallmark rim form of the standard Nabataean cooking pot, a collared and everted rim that almost triangular in section. The neck is usually straight but can often be inclined as well. A complete reconstructed example was uncovered at Aila in an early-2nd century context (Dolinka 2003: 118). The CP1 from Horvat Dafit was found in Locus 03, has a rim diameter of 11 cm and was originally *ca.* 14 cm in height. It is in Ware Type 4 and has pale red (10R 6/4) fabric and interior and a reddish-grey (10R 5/1) exterior slip. Like the Ailan exemplar, the vessel from Dafit is largely re-constructed, but it is missing the somewhat pointed base attested on the piece from Aila.

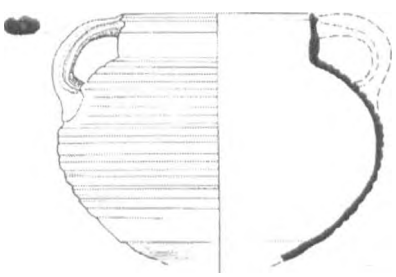

Fig. 5.1 Type CP1 cooking pot from Phase 3 at Dafit (courtesy IAA).

The CP1 form is ubiquitous and found throughout the Nabataean realm, particularly at Petra, where it conforms to Gerber Type A.1k and first appears in the mid-1st century. An exact parallel for the Aqaba Ware version of this vessel was recently discerned in the ceramic assemblage from the Nabataean *caravanserai* at Sha'ar Ramon, where it was found in a late-2nd/early-3rd century context next to a *tabūn* in Room 10 (T. Erickson-Gini: pers. comm.). The fact that the earliest

examples of this form come from 1st century contexts, that it is also found in early-2nd century strata at Aila, and that the piece from Dafit was uncovered in Locus 3, dating to the late-2nd/early-3rd century, clearly demonstrates a lengthy continuity for this vessel form.

Another cooking pot form that is very common in the Nabataean ceramic repertoire is the CP2 (**Fig. 5.2**), which is essentially a variation of the CP1. The main differences between them is that the CP2 necks are more incurved, the rims are more often bevelled on the interior to receive a lid, there is much more variation in size, and the bases are rounded instead of slightly pointed. The form corresponds to Gerber Type A.1a from Petra (Gerber 1996: Taf. 32F; 1997: Fig. 7) and, like the CP1, it has a wide distribution.

The first example (**Fig. 5.2a**) comes from Locus 42 (Phase 2) at Dafit, which dates to the 2nd century. It has a smaller rim diameter than the CP1, and measures only 8 cm. An exact parallel, albeit of a slightly earlier date, was found in trench M.1 at Aila (Dolinka 2003: 119 no. 2). Many of these vessels found by the Roman Aqaba Project were in Ware Type 2, being very pale brown (10YR 8/3) throughout, and were most likely used as serving pots, although they retained the cooking pot form. The piece from Dafit is in Ware Type 4 with a reddish-grey (10R 6/1) exterior slip, and the carbonisation near its base clearly indicates that it was used as a coking pot. The second CP2 (**Fig. 5.2b**) comes from Locus 03 (Phase 3), dates from the late-2nd/early-3rd century and is in Ware Type 1. Like the CP1, this vessel has a fairly large rim diameter of 12 cm, and its neck has a pronounced single interior ledge.

(a) **(b)**

Fig. 5.2 Type CP2 cooking pots from Phase 2 (a) and Phase 3 (b) at Dafit (courtesy IAA).

A new variation on the CP2 was discerned in the assemblage from Horvat Dafit, and this has been designated CP6 (**Fig. 5.3**), as forms CP3-5 were previously assigned to Aqaba Ware cooking pots types of an earlier date that were identified in the original study (Dolinka 2003: 65, 120-121). These vessels have a rim diameter

that ranges between 12 and 13 cm. The first example of CP6 from Dafit (**Fig. 5.3a**) was found in Locus 43 from Phase 2 and is in Ware Type 2, with a very pale brown colour (10YR 8/3) throughout, and the second piece (**Fig. 5.3b**) comes from Phase 3 Locus 16 and has the light red (10R 6/6) fabric and interior and very pale brown (10R 8/2) exterior slip typical of Ware Type 3. The main difference that separates this form from CP2 is the fact that there is a pronounced inner ridge where the bottom of the neck meets the top of its shoulder. As the form develops through time, this internal ridge becomes thickened and more squared in shape.

(a) **(b)**

Fig. 5.3 Type CP6 cooking pots from Phase 2 (a) and Phase 3 (b) at Dafit (courtesy IAA).

Three new types of cooking pot dating from the Antonine and Severan periods at Horvat Dafit have been identified. The first is represented by CP7 (**Fig.5.4a**), which was found in Phase 2 Locus 25. It is in Ware Type 3, with a pale red (10R 6/4) fabric and interior and very pale brown (10YR 8/3) exterior slip. It has a very short double-collared neck, with a carination separating its upper and lower zones. The lip is rounded and slightly bevelled to receive a lid. The form is similar to those excavated at the Tenth Legion's kilnworks in Jerusalem, which are contemporaneous in date to the vessel from Dafit (Magness 2005: fig. 43:4-5), but the former examples are more flared and lack the carination on the neck.

(a) **(b)** **(c)**

Fig 5 4 Types CP7 (a), CP8 (b) and CP9 (c), represent new forms of Aqaba Ware cooking pots dating to the Antonine (a-b) and Severan (c) periods at Dafit (courtesy IAA).

The second new type of Aqaba Ware cooking pot from Phase 2, Locus 42 at Dafit has been designated CP8 (**Fig. 5.4b**). While this cooking pot is essentially in Ware Type 4, it lacks the typical grey-coloured exterior slip, which in this case is simply a darker red (10R 5/8) than the vessel's fabric an interior (10R 6/6). CP8 has a very short neck and a collared, flared rim that has a depressed groove incised horizontally on its exterior. An exact parallel for this vessel was uncovered by the

Roman Aqaba Project in Locus 6 from trench M.2 (Reg. No. 3729, unpublished), which is dated to the LR1/LR2 period.

A final hitherto unknown form of Aqaba Ware cooking pot, Type CP9, dates to Phase 3, Locus 16 from the site. With a rim diameter of less than 8 cm, this is the smallest of the cooking pots presented here. It is in Ware Type 3 and has a short neck and an incurved rim with a rounded lip. No parallels for this vessel could be found.

Casseroles

Unlike the cooking pots, casseroles are open formed vessels that are perfectly suited for a variety of cooking techniques and are often one of the most prevalent vessel types to be found in domestic assemblages (Berlin 1997: 94), so their presence in the *caravanserai* at Horvat Dafit is of no surprise. If there is any one particular form amongst the Aqaba Ware cooking vessels that is distinct and very different from those in the Petraean repertoire, it is without question the Ailan casserole. While the basic form is known from Petra, where it conforms to Gerber Types C.17e and C.39c and dates from the late-1st to early-2nd centuries (Gerber 1996: 150, taf. 32:M; Schmid 2000: 50-51, abb. 155-158), the Petraean examples differ in many respects from the Ailan casseroles. The former are much more sharply carinated, not nearly as deep and were clearly used as bowls and not for cooking purposes.

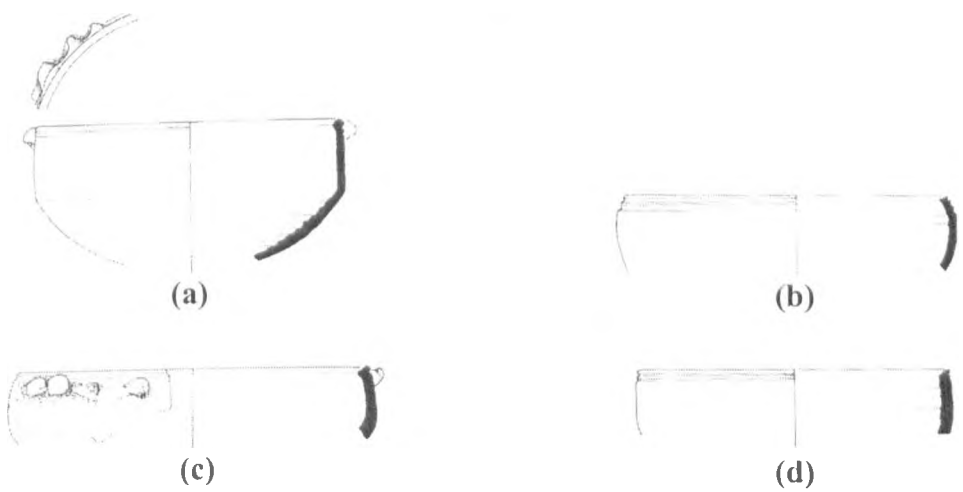

Fig. 5.5 Ailan casseroles from Phase 2 (a-b) and Phase 3 (c-d) at Horvat Dafit (courtesy IAA).

The Aqaba Ware casseroles are all very standardised in size, shape and form (Dolinka 2003: 65, 122-123). They are characterised by a carinated body with a

rounded base, usually a series of incised horizontal lines across the rim zone, and either a bevelled of flanged lip made to receive a lid. Many of these vessels have pressed-on, finger-indented (i.e. 'pie crust') handles, and unlike the Petra types, were made exclusively for cooking. Rim diameters for these vessels average 16 ¾ cm.

Out of the nine examples included in the final catalogue of ceramics from Horvat Dafit, four of which are illustrated here (**Fig. 5.5**), 100% of them were Aqaba Ware and each of those illustrated here correspond to Ware Type 3. The first two (**Fig. 5.5a-b**) come from Phase 2 at Dafit (Loci 43 and 46, respectively) and the second pair (**Fig. 5.5c-d**) are from Phase 3 (both from Locus 16). In the initial study on this vessel form at Aila, it was theorised that sometime during the 2nd century, they were replaced by the Late Roman type of cooking bowl with vertical loop handles. Results from the present study indicate rather that they continued in use throughout the 2nd and early-3rd centuries, but as time progressed the vessel walls became much thicker and the ware more coarse than the exemplars from the 1st century uncovered at Aila.

Cooking Bowls

While cooking pots and casseroles comprise the vast majority of the Aqaba Ware cooking assemblage, other vessels were utilised for food preparation. Amongst those is the cooking bowl, which does not make its appearance at Horvat Dafit until Phase 2. Cooking bowls are more common in the Petraean repertoire than they are in the Aqaba Ware, and of those listed in the final catalogue for the site, only three of the eight examples (37.5%) were produced at Aila, two of which are presented here (**Fig. 5.6**).

Fig. 5.6 Aqaba Ware cooking bowls from Horvat Dafit (courtesy IAA).

The first example, CB1 (**Fig. 5.6a**), comes from Phase 2 Locus 43, in which numerous cooking wares were found. It is similar in many respects to the Ailan casseroles in as much as it has a carinated body and a series of horizontal grooves below the rim zone, but differs in its rim form, which lacks the bevelled or flanged

lip and is more everted. In addition, the vessel is in Ware Type 2 and very pale brown (10YR 8/3) throughout, very uncommon for a cooking ware, however the bottom is heavily carbonised from being placed upon a fire. This cooking bowl, which has a 17 cm rim diameter, was not discerned in the assemblage from Aila.

The second type of cooking bowl, CB2, has a slightly smaller rim diameter (15 cm) than the CB1, and was found in Locus 01, the corner tower from Phase 3 (**Fig. 5.6b**). It has the typical fabric and interior of most of the Ailan cooking vessels (10R 6/6) and is in Ware Type 4, but the exterior slip is much darker and is a very dark grey (5YR 3/1) in colour. The rim form of this vessel is similar in most respects to CB1, but the body is much more rounded and not as sharply carinated. An exact parallel for CB2 was uncovered in trench M.2 (Locus 29) at Aqaba, which dates to the LR1 period, and is therefore contemporaneous with the example from Dafit.

Cooking Lids

One of the rarer vessels forms attested in the assemblage from Horvat Dafit is the cooking lid. Only five of them, all Aqaba Ware, were found in the entire ceramic corpus from the site, and three of them are illustrated here (**Fig. 5.7**). They measure between 14 and 16 cm in diameter. This paucity of cooking lids is most likely due to the fact that the majority of the Aqaba Ware cooking vessels are cooking pots, which are closed forms and do not require a lid. Another reason that few lids are found is "because many other vessels (such as saucers or bowls) could serve as covers" (Berlin 1997: 115). The cooking lids from Aila and Horvat Dafit were clearly designed to fit the Ailan casseroles, and like them they are all fairly homogenous in size, shape and form. All three of the illustrated examples are in Ware Type 3, with a very pale brown exterior slip. The first Ailan cooking lid (**Fig. 5.7a**) comes from Locus 40 and dates from Phase 2, while the other two (**Fig. 5.7b-c**) are from Phase 3, Loci 05 and 16, respectively. Of interest is the lid in the middle, which has the typical knob handle with a central steam hole in its top.

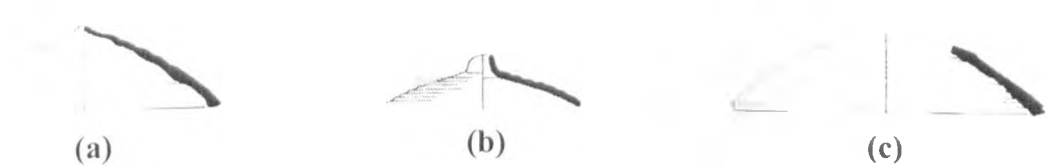

Fig. 5.7 Aqaba Ware cooking lids from Horvat Dafit (courtesy IAA).

5.5 Bowls

Besides the cooking pots and jars (see below), bowls comprise one of the largest vessel categories from the ceramic assemblage at Horvat Dafit. Out of the 34 bowls selected for the site's final pottery catalogue, 24 of them (70.58%) were Aqaba Ware. By far, the most common form of Nabataean bowl in general, and Aqaba Ware bowl in particular, is the carinated bowl originally designated form B2 from the Roman Aqaba Project. These vessels were ubiquitous in the 1st and early-2nd century ceramic assemblage at Aila (Dolinka 2003: 125-126), and even a few kiln wasters of this form were attested at their place of manufacture. They conform to Gruppe 6 at Petra (Schmid 2000: 8, 181-182, abb. 44-51), where they first appear in mid-1st century BC contexts. Aqaba Ware B2 bowls have been found at Be'er Menuha and the Mampsis necropolis (T. Erickson-Gini: pers. comm.), and in Field E125, the *vicus* at Humayma,[1] in 2nd century contexts.

The B2 bowls have inclined walls and a short, rounded rim that is either vertical (Form B2a) or inverted (Form B2b). Rim diameters for these bowls averages *ca.* 12.5 cm. Four examples from Horvat Dafit are illustrated here (**Fig. 5.8**). The first three of them (**Fig. 5.8a-c**) are the most typical kind of Ailan B2 bowl, as they are in Ware Type 3 and characterised by a light red (10R 6/6) fabric, interior and exterior with a very pale brown (10YR 8/3) slip applied to the rim exterior only. The last example (**Fig. 5.8d**) represents a degenerate version of the form, and instead of having the typical depressed ring-base found on most other B2 bowls, it has a string-cut base. In addition, it is a darker colour than the others (10R 5/4 – weak red) and lacks the exterior slip on its rim.

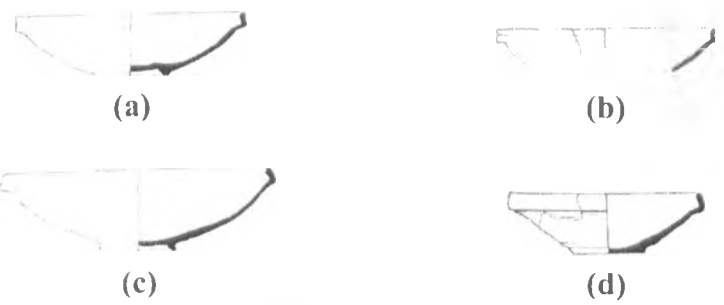

Fig. 5.8 Aqaba Ware Type B2 carinated bowls from Horvat Dafit (courtesy IAA).

1. I would like to thank John P. Oleson, Director of the Humayma Excavation Project, for letting me examine a large sample of his ceramic corpus during August 2000.

Of importance regarding these B2 bowls from Horvat Dafit is their date: they all come from Phase 3. In the initial study on this form of Aqaba Ware bowl, it was suggested that the vessel walls became thicker and coarser toward the end of the 1st century and then the form disappeared altogether sometime in the mid-2nd century (Dolinka 2003: 66). Their presence in Severan-era deposits from Dafit, with vessel walls that are as thin as their 1st-century counterparts, demonstrates a strong continuity of the form into the early-3rd century and perhaps beyond. Therefore this form cannot and should not be used as a dating tool for strata in the absence of other ceramic or numismatic evidence.

Another type of Aqaba Ware bowl identified in the original study is the Type B3 flat-bottomed bowl. These are often referred to by other ceramicists as either pans (*e.g.* Berlin 1997: 34) or basins because they are fairly deep and have relatively wide rim diameters when compared with other bowl types such as the B2. The flat-bottomed bowls from at Aila and at Horvat Dafit, however, vary greatly and can be large or small, deep or shallow. In addition, they are usually found in association with cooking wares, so may have been used as serving bowls. To demonstrate the great variability of the B3 bowls, two examples from opposite ends of the spectrum are illustrated here (**Fig. 5.9**).

(a) **(b)**

Fig. 5.9 Type B3 flat-bottomed bowls from Horvat Dafit (courtesy IAA).

The first B3 bowl (**Fig. 5.9a**) is of the larger variety. This sub-variant has rim diameters that measure between 23 and 28 cm, and heights of between 6.5 and 9 cm. It is an exact parallel to the B3 published from Aila (Dolinka 2003: 66-67, 126), which was dated to the mid-1st century AD. It is in Ware Type 1, with the typical very pale brown interior and exterior (10YR 8/3) and a pale red (10R 6/4) fabric. It has a flared and rounded rim with a flattened lip, and there is a horizontal ridge that protrudes just below the rim zone. The smaller version of the B3 (**Fig. 5.9b**) has a simple flared and rounded rim that measures only 16 cm in diameter and the vessel is less than 4 cm in height. This sub-variant is in Ware Type 2 and is very pale brown

(10YR 8/3) throughout. Once again, as with the B2 carinated bowls, the date of the examples from Dafit is important. Both of the B3 bowls from the site illustrated here come from Locus 03, which is Severan in date, demonstrating a continuity of this vessel form over at least two centuries.

The Type B4 incurved bowl is a new type of Aqaba Ware vessel attested at Horvat Dafit that was not discerned in the initial study of the ceramic assemblage from Aila. It is highly reminiscent of similar types of incurved bowls that are commonplace in Late Hellenistic contexts at Petra (Murray & Ellis 1940: Pl. 31:119) and throughout the region (Lapp 1961: Type 51.2). The B4 bowls (**Fig. 5.10**) have a tapered lip that is rounded not pointed, and sometimes externally thickened. The rim diameters for these vessels average 11 cm. Illustrated here are two examples, the first from Locus 22 (**Fig. 5.10a**), the Phase 2 room with three *tabûns* in it, and the second from Locus 16 (**Fig. 5.10b**), which dates to Phase 3. Like many of the B1 and B2 bowls, both of these are in Ware Type 3, with a light red (10R 6/6) fabric, interior and exterior, and a very pale brown (10YR 8/3) exterior slip that runs from the top of the rim to the mid-shoulder of the vessel.

(a) **(b)**

Fig. 5. 10 Type B4 incurved bowls from Horvat Dafit (courtesy IAA).

Another new Aqaba Ware bowl form discerned in the assemblage from Horvat Dafit is the Type B5 ledge-rimmed bowl (**Fig 5.11**). These rather shallow bowls have an everted rim that is rounded, and there is a slight carination in the vessel walls just below the rim zone. They are similar in most respects to the 'shelf-rim basins' from Jerusalem (Magness 1993: 202; Hershkovitz 2005: 287 no. 4) and to 'bowls with flaring rims' found at Oboda (Negev 1986: 88 nos. 712, 726), but these lack the carination below the rim zone.

(a) **(b)**

Fig. 5.11 Type B5 ledge-rimmed bowls from Horvat Dafit (courtesy IAA).

An almost exact parallel was uncovered from an early-3rd century context at 'En Hazeva (Erickson-Gini 2004: fig. 2.19), and that fits well with both of the Dafit examples, which date from Phase 2 (**Fig. 5.11a**) and Phase 3 (**Fig. 5.11b**), respectively. Both vessels are in Ware Type 1, but the Phase 3 bowl is of interest because of its pinkish-white (7.5YR 8/2) rather than the typical very pale brown (10YR 8/3) interior and exterior.

A third category of new Aqaba Ware bowl types is the B6 bowls with flared rim and an s-shaped body profile. While the Phase 2 version (**Fig. 5.12a**) has two handles, thin vessel walls, occurs in Ware Type 1, and has a relatively small rim diameter of only 10 cm, the Phase 3 sub-type (**Fig. 5.12b**) is thicker-walled, handle-less, in Ware Type 2 and is much larger, with a rim diameter of 16 cm. This form is unique to the Aqaba Ware. While some of the bowls from Oboda exhibit similarities in shape to the B6 bowls (Negev 1986: 91 no. 757, 92 no. 769), no exact parallels for these vessels could be discerned in any of the ceramic assemblages from the region.

(a) **(b)**

Fig. 5.12 Type B6 bowls with flared rims from Horvat Dafit (courtesy IAA).

A final new type of Aqaba Ware bowl was discovered in the ceramic assemblage from Horvat Dafit, and that is the Type B7 large bowl with horizontal handles (**Fig. 5.13**). This category of bowl was not discerned from the excavations of the Roman Aqaba Project. These vessels are characterised by carinated body profile that sat on a high *omphalos* ring-base that is the most common form of base found

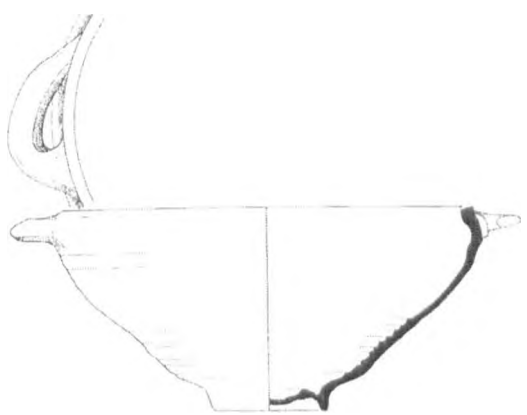

Fig. 5.13 Type B7 bowl from Phase 2 at Horvat Dafit (courtesy IAA).

on the Aqaba Ware jars (see below). The example from Phase 2 found in Locus 40 (**Fig. 5.13**) has an upturned rim with a bevelled lip, perhaps to accommodate a lid, and two very thick rounded handles. It is in Ware Type 2, but instead of the typical very pale brown (10YR 8/3) colour it is pink (7.5YR 8/3) instead.

The B7 bowl from Phase 3 (**Fig. 5.14**) was found in the courtyard of the *caravanserai* (Locus 13). It is in Ware Type 3, with a light red (10R 6/6) fabric throughout and covered with an exterior slip that is very pale brown (10YR 8/3) in colour and extends from the rim zone to just below the carination. Several examples of this sub-type of the B7 bowl made from red wares were found in the latest phase – i.e. early-3rd century – of the fort at Moa, including an exact parallel to the vessel illustrated here (Erickson-Gini 2005: 54, fig.6.1.4), a date that agrees with this form's appearance at Horvat Dafit.

Fig 5.14 Phase 3 variant of the Aqaba Ware Type B7 bowl from Horvat Dafit (courtesy IAA).

5.6 Kraters

It was noted in the initial study on Aqaba Ware that kraters were a rarity in the Nabataean levels at Aila (Dolinka 2003: 67, 127), and only one was illustrated in that catalogue. This trend continues into the Late Roman period, and only one such vessel was attested in the ceramic corpus from Horvat Dafit. This new type of krater has been designated Type K2 (**Fig. 5.15**), and was found in Locus 42 from Phase 2. It has an everted rim with a diameter of 17 cm and is in Ware Type 3, but the fabric and interior of this vessel are of a lighter shade of red (2.5YR 7/6) than is usually present on the Aqaba Ware. An exact parallel for this krater was found in an early-3rd century context at Oboda (Erickson-Gini 2004: fig. 2.29), and the form is known from Petra as well (Cleveland 1960: fig. 7:7, pl. 16:C; Bikai & Perry 2001: Fig. 8:4).

Fig. 5.15 Type K2 krater from Phase 2 at Horvat Dafit (courtesy IAA).

5.7 Flasks

Flasks, jugs and other small, closed forms were not well represented in the Nabataean strata from the Roman Aqaba Project (Dolinka 2003: 69), but after the annexation they begin to appear with more frequency. One of the most distinct vessel types represented in the Aqaba Ware amongst these is the so-called 'pilgrim flask'. For the purposes of this study, they are simply referred to as flasks. This form is one of the most time-consuming and difficult to make, and requires a potter with an adept hand. Flasks are created by first constructing two hemispherical bowls that are joined together, after which a spout and two handles are added onto the body. The bodies of these vessels take on a variety of forms including lenticular, barrel-shaped, and either horizontal or vertical ovoid, and the form has a long history in the region stretching back to the Late Bronze Age (Berlin 1997: 140 ftns. 306-308).

Out of the seven flasks compiled for the final pottery catalogue for Horvat Dafit, six of them (85.7%) were Aqaba Ware. Four distinct types of flask have been discerned in the ceramic repertoire from the site, and all occur in Ware Type 3, with a light red (10R 6/6) fabric and interior, and a very pale brown (10YR 8/3) exterior slip. The first sub-variant of Aqaba Ware flask from Horvat Dafit is Type F1, which has an upright, collared and rounded rim (**Fig. 5.16**). A primary feature of this flask is the carinated ridge in the middle of the neck, which is situated in the central portion of where the handle attaches to it. Although Aqaba Ware flasks make their initial appearance in the assemblage from Aila in the early to mid-2nd century,[2] they are attested in all three phases at Horvat Dafit. The three examples illustrated here come from Phase 1 Locus 60 (**Fig.5.16a**), Phase 2 Locus 42 (**Fig. 5.16b**), and Phase 3 Locus (**Fig. 5.16c**). An exact parallel of this form has been uncovered in an early-3rd century context at Moa (Erickson-Gini 2005: fig. 6.1.7), but unfortunately no description for the vessel's ware is available.

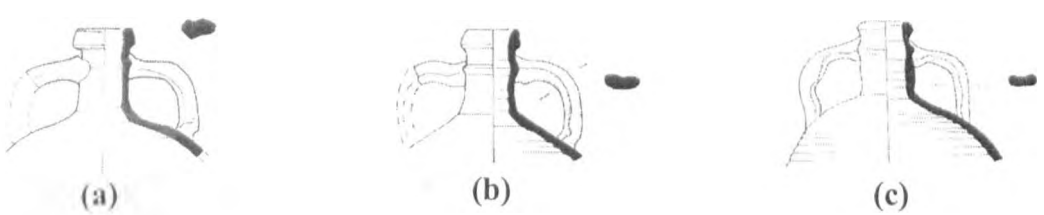

Fig. 5.16 Type F1 flasks from Horvat Dafit

2. For example, flasks from 2nd century contexts were found in trenches M.2:9.55 (Reg. No. 10551) and trench M.6:12.26 (Reg. No. 23859) from the Roman Aqaba Project (drawings courtesy of RAP).

Three other forms of Aqaba Ware flask have been identified at Horvat Dafit. Type F2 was found in Locus 43 from Phase 2 (**Fig. 5.17a**). It is essentially the exact same form as the F1, but it lacks the carination on the middle of the neck. Type F3, from Locus 04 in Phase 3 (**Fig. 5.17b**), has a three-tiered neck and incurved rounded lip. Type F4 (**Fig. 5.17c**) is also from Phase 3 (Locus 12) and represents another variant of the F1. It has a carinated neck and the main difference is its rim form, which is pendent.

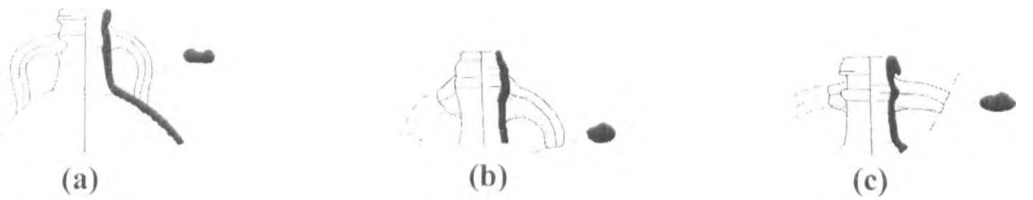

Fig. 5.17 Aqaba Ware Type F2 (a), F3 (b) and F4 (c) flasks (courtesy IAA).

The Ailan flasks have a fairly wide distribution in the Wadi Arabah and Negev during the Late Roman period, with examples having been found in the ceramic assemblages from 'En Hazeva, Sha'ar Ramon, Rehovot, the Oboda *acropolis* and the village at Mampsis.[3] Many of the interiors of these vessels, including three of those illustrated here (Fig. 5.16b-c, Fig. 5.17c), have either a black or very dark brown coating on the vessel interiors, which can cause difficulties when trying to take Munsell readings of the inner part of the flask. As it has been suggested that there was *garum* production taking place at Aila during the Late Roman period (Retzleff 2003: 55; Dolinka 2003: 95-96, ftns. 245-252), perhaps the Aqaba Ware flasks were used to store and transport that Roman fish sauce, and the dark coating on the interior of those vessel perhaps represents *garum* residue.

5.8 Jugs

Jugs are a commonplace vessel form in household assemblages, and their presence at Horvat Dafit fits well with the *caravanserai*'s rôle in providing food and beverages for those who stayed there. With regard to Aqaba Ware, however, they are a rarity, and only one jug type was represented in the original study on the Ailan assemblage (Dolinka 2003: 69, 132). A total of eight jugs were included in the final

3. Dolinka 2003: *iii*. The author was able to examine over 50 ceramic assemblages in both Jordan and Israel between August 2000 and May 2001, as a United States Information Agency Pre-Doctoral Fellow at the American Center of Oriental Research in Amman, Jordan.

catalogue of ceramics for Horvat Dafit, and of those, six (71.4%) were Aqaba Ware.

While it has been suggested that the size difference between jugs and juglets is that the latter measure less than *ca.* 15 cm (Berlin 1997: 142), the only vessel amongst the jugs from Dafit that has enough of its body walls preserved to fit into that category is one that dates from Phase 1 at the site, and is therefore not presented here. The one Late Roman Aqaba Ware jug from Dafit, Type JG2 (**Fig. 5.18**), has been provisionally assigned to this category, although the only extant remains of it are its neck, rim and handle vestige. It was found in Locus 03 from Phase 3 and is in Ware Type 1. It has a short neck and a direct rim that measures 4.6 cm in diameter, and a rounded lip. There are two incised horizontal grooves on the rim exterior and a single-ridged handle that runs from the rim zone to (presumably) the vessel's shoulder.

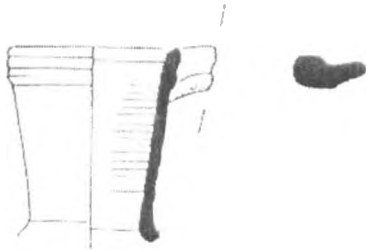

Fig. 5.18 Type JG2 Aqaba Ware jug from Horvat Dafit (courtesy IAA).
(scale 1:2)

5.9 Drinking Vessels

This category is termed drinking vessels because all of the examples presented here appear to have functioned as containers for the consumption of liquids. Negev (1986: 80-83) published a group of drinking vessels from Oboda that included beakers and cups in Nabataean Fine Ware, which he suggested were locally produced, but were made at Petra ('Amr & Mommani 1999: 187 nos. 4-5). The Aqaba Ware versions differ in that they are of a much coarser fabric. A total of seven drinking vessels were included in the final pottery catalogue from Horvat Dafit, and of these six (85.7%) were Aqaba Ware, four of which presented here.

The first example is Type DV1 (**Fig. 5.19**), which was found in Locus 27, the Phase 2 gate room for the *caravanserai*. It is in Ware Type 1, has a rim diameter of 9 cm and stands 9.4 cm high. Two aspects of this vessel are unique and unattested in the ceramic assemblages found at any other Nabataean site in either Jordan or Israel. The first is its overall form, which is in the shape of a modern coffee mug. Second,

and more importantly, it is inscribed with two-and-a-half Nabataean letters on the central portion of its exterior wall. This inscription was made before the vessel was fired. Unfortunately, the inscription is broken in the middle of one of the letters, and there is not enough of it to determine what the inscription said (D. Graf: pers. comm.). In addition, the vessel was found in the entrance to the *caravanserai*, which suggests that it may have been placed there as a foundation offering when the gate, and the two rooms on either side of it, was reconstructed and enlarged after the early-2nd century earthquake.

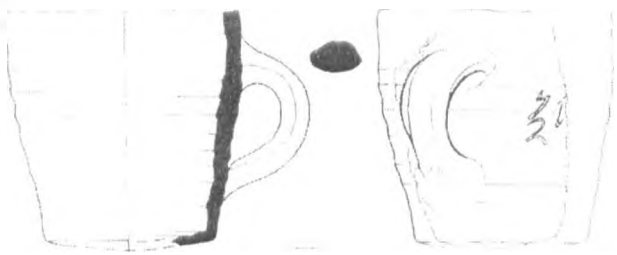

Fig. 5.19 Nabataean-inscribed 'coffee mug' (Type DV1) from the Phase 2 entrance gate at Dafit (courtesy IAA).
(Scale 1:3)

Another category of drinking vessels is represented by Type DV2 (**Fig. 5.20**). These have a single, thin, either round or ovoid handle that runs from the rim to the mid-body. The DV2 has a flared rim with either a rounded or flat lip. Aqaba Ware parallels for this type have been found in 2nd century contexts at Khirbet edh-Dharih (Villeneuve 1990: pl. V:4) and in the Room 6 pantry at Oboda, dated to the early-3rd century (Erickson-Gini 2004: fig. 2.46). The first example (**Fig. 5.20a**) was found in Phase 2 Locus 43. It is in Ware Type 1 and has a rim diameter of 6.6 cm. The other piece is from Phase 3 Locus 13 (**Fig. 5.20b**). This vessel is in Ware Type 3 and has a rim diameter is 6.2 cm.

Fig. 5.20 Variants of the Type DV2 drinking vessels from Dafit (courtesy IAA).

Sometime during the Severan period, the DV2 form seems to have developed into Type DV3 (**Fig. 5.20c**), which lacks the handle of its predecessor, has thicker walls, and the rim form is more rounded and lacks the interior corner point. This

vessel was found in Phase 3 Locus 06 and is in Ware Type 2. Its rim diameter is 6.6 cm and it measures 9.8 cm in height. An exact parallel was uncovered by the Roman Aqaba Project in trench M.2 Locus 03 (Basket 35, Reg. No. 10427), which is also dated to the early or mid-3rd century.

5.10 Jars

Jars are a category of large vessels that were utilised to store and/or transport either liquids or foodstuffs. They are an essential element in any domestic assemblage, and their presence in the *caravanserai* at Horvat Dafit demonstrates that Aila was supplying the occupants of the building with consumables. A total of 26 jars were placed in the final pottery catalogue for Horvat Dafit, and 24 of them (92.3%) were Aqaba Ware. The jars fall into three categories, two of which were discerned in the original study on the Ailan ceramic assemblage and another which represents a new type that was discerned by the writer from that corpus, but was not studied due to chronological limitations placed upon that study.

Type J2 Jars

The first jar form presented here is the Type J2 ribbed-neck jar (**Fig. 5.21**), which first appears at Aila in the early-1st century (Dolinka 2003: 67), and continues to be produced throughout the Late Roman phases at the site, *e.g.* trench M.3 Locus 26 (Basket 48, Reg. No. 15269). Without a question it is the most frequently-occurring jar type found at Aila. At Horvat Dafit, numerous J2 jars were uncovered, with 20 of them being drawn by the IAA, of which four examples are illustrated here.

The form is characterised by a series of deep horizontal ribs on the neck exterior. The rim is upturned and collared and has a rounded lip with an internal ledge to receive a lid. These vessels usually have two thick double-ridged handles that run from the rim to the shoulder, however there are examples of J2 jars that are handle-less. Similar jars were produced in Petra, where they conform to Gerber Type A.10a and date from the late-1st to early-2nd centuries. The Ailan exemplars differ vastly in both ware and surface treatment, with the Petraean types having the typical 'Petra red' fabric usually accompanied by a reddish-grey (2.5YR 7/1) slip.

In the study on the Ailan assemblage it was noted that the 1st and early-2nd century versions of the J2 were predominantly in Ware Type 2, being a very pale brown (10YR 8/3) in colour throughout, but most of the J2 jars from Phases 2 and 3

at Horvat Dafit occur in Ware Type 3, which has the same exterior colour but the fabric and interior are light red (10R 6/6). These vessels had a far-ranging distribution throughout the Nabataean kingdom, with examples being found at sites in close proximity to Aila such as Khirbet Khālde and Qasr Kithāra, some 80 km to the north at Humayma, and as far afield as Berenike on the Egyptian Red Sea coast.

The first ribbed-neck jar from Horvat Dafit (**Fig. 5.21a**) was found in Phase 2 Locus 49. It has four ribs on the neck exterior, a rim diameter of 10 cm, and has an exact parallel from Aila (Dolinka 2003: 128 no. 21). This jar type continues in the same basic form in Phase 3, as evidenced by an example from Locus 16 (**Fig. 5.21b**). This vessel has three ribs on the neck exterior, a rim diameter 9.8 cm, and is also known from Aila (Dolinka 2003: 128 no. 120).

Although over 100 J2 jars were excavated by the Roman Aqaba Project, no complete profiles were found, raising questions as to what the entire vessel form looked like and what type of base it had. This was due to the fact that, like three of the examples here, only the uppermost portions of these vessels – i.e. the rims, necks handles and shoulders – were present. This situation has been resolved by the excavations at Dafit, where a completely reconstructable J2 jar was found in Phase 3

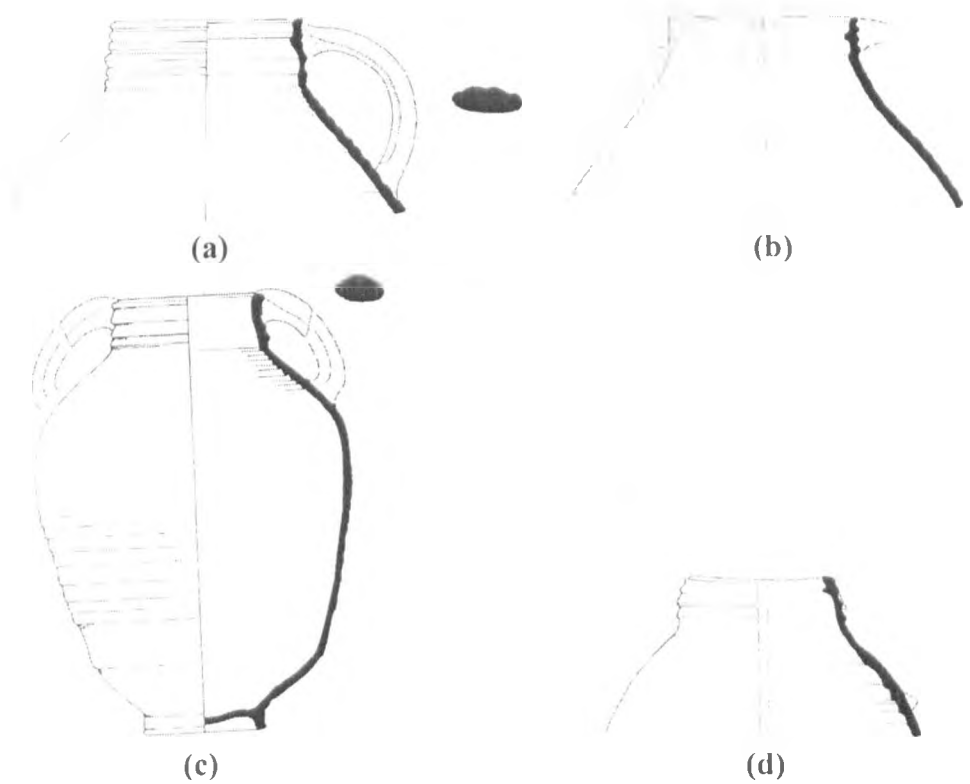

Fig. 5.21 Type J2 rib- necked jars from Horvat Dafit (courtesy IAA)

Locus 03 (**Fig. 5.21c**). This version has four ribs on its neck exterior and a rim diameter of 8 cm. It stands 22.4 cm. in height, and sits on high ring-base with an *omphalos*, the most common type of base for all of the Aqaba Ware jars. An exact parallel to this jar was found at Aila in trench B.1 Locus 53 (Basket 51, Reg. No. 10312). The final piece illustrated here (**Fig. 5.21d**) is placed within this corpus because of its light-greenish grey (5GY 7/1) colour. This is due to the fact that the vessel was in the kiln for too long, as exhibited by the vitrification present on its walls and the melted and misshapen rim and lip. The fact that this J2 jar is virtually kiln waste, betrays the proximity of Dafit to the site of its production, only *ca.* 14 km to the south.

Type J3 Jars

Without question, the most ubiquitous type and most widely distributed Nabataean jar form is the strainer-neck jar. They are characterised by a globular body that sits on the typical high ring-base with *omphalos*, a high and slender neck that has a strainer with several piercings attached to its interior bottom, and a short tubular spout that is usually triangular in section and placed upon the exterior of the vessel just above its middle (*e.g.* Dolinka 2003: 129 fig. 22). Most of these jars have two slender handles that are attached to the middle of the neck and its upper shoulder. The bodies of these vessels are often decorated with incised wavy-band combing on the upper shoulder, and many times have 'pie-crust' relief indentations placed either horizontally or vertically on the vessel exterior. In addition, these vessels occur in different wares, a fact that has rendered the place(s) of manufacture for some of them elusive. They are usually in a reddish or buff fabric with a buff exterior slip that varies in colour. While this jar type is attested at Petra (Schneider 1996: 138-139, 148) in great numbers, neutron activation analysis has clearly demonstrated that they were produced neither there nor in Parthia (Bedal 1998: 353), as both Schneider and S. Schmid (pers. comm.) have suggested.

While the place of manufacture for some of these vessels remains elusive, they are attested in Aqaba Ware as Type J3 jars in the early-1st century at Aila (Dolinka 2003: 67-69). They continue to be produced as late as the early to mid-3rd century, as demonstrated by an example from Humayma (Dolinka 2002: fig. 39). The Aqaba Ware J3 jars have a wide distribution throughout the Nabataean kingdom, and

have been found at Mampsis, En Hazeva, Mesad Neqarot, Rehovot, Ain ez-Zara, Masada, Humayma and Madaba (Dolinka 2003: ftn. 144).

Two J3 jars dating from the Antonine and Severan periods were found at Horvat Dafit. The first example comes from Phase 2 Locus 42 (**Fig. 5.22**), but only the uppermost portion of the neck has survived. It is in Ware Type 1 and has diagonal wavy-band combing on the neck that begins at the lip of the vessel and runs around its entire exterior. The rim diameter is 7.6 cm and it is inverted with a flat lip. Like many of these vessels, it has interior ribbing. No exact parallels for this vessel could be discerned, but it is very similar in form to examples found at Petra ez-Zantur (Schneider 1996: abb. 584), Ain ez-Zara (Clamer 1997: pls. 3:25, 13:1) and from the fort in Area B at Moa (Erickson-Gini 2005: fig. 2.6.5)

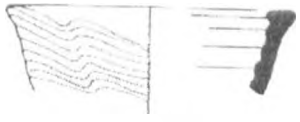

Fig. 5.22 Rim and partial neck of a Type J3 strainer-neck jar(courtesy IAA).
(Scale 1:2)

A second Aqaba Ware J3 jar was found in Phase 3 Locus 01 (**Fig. 5.23**). It is in Ware Type 2, and has a flared rim with a diameter of 5.6 cm. An exact parallel for this vessel was uncovered in a late-2nd to early-3rd century context at En Hazeva,[4] and a very similar specimen of contemporaneous date to the Dafit example was

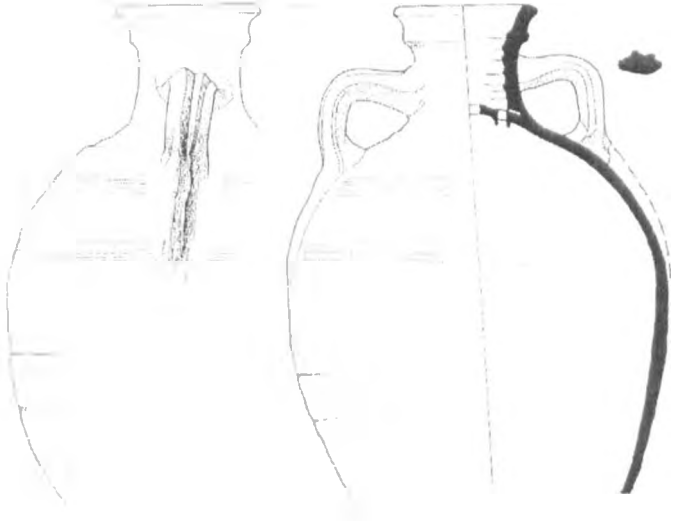

Fig. 5.23 A variant of the J3 strainer-neck jar (courtesy IAA).
(Scale 1:3)

4. I would like to thank T. Erickson-Gini (IAA) for the unpublished profile drawing of this vessel

found at Humayma (Dolinka 2003: 68, fig. 39).

A final category of Aqaba Ware jars attested at Horvat Dafit is the Type J7, which is characterised by its upright rim (**Fig. 5.24**). This jar type does not appear in the Aila assemblage until sometime after the annexation, most likely in the mid-2nd century, and was not included with the jars published for the 1st and early-2nd centuries at that site. The form seems to be based upon the earliest versions of the famous Gaza wine jar,[5] which dates from the 1st to 3rd centuries and was manufactured at kilns in Ashkelon (Israel 1993). The examples from Horvat Dafit are all very similar in size, shape and rim form, and have rim diameters that measure between *ca.* 9 to 11 cm. They mostly occur in Ware Type 3, and have a light red (10R 6/6) fabric and interior, but occasionally are attested in Ware Type 2 and are very pale brown (10YR 8/3) throughout. Two of the examples presented here come from Phase 2 at Dafit (**Fig. 5.24a-b**), while the rest are from Phase 3 (**Fig. 5.24c-e**). Out of the six drawings of this vessel form from the Roman Aqaba Project held by the writer, no parallels for any of them could be found, but they were clearly produced at Aila.

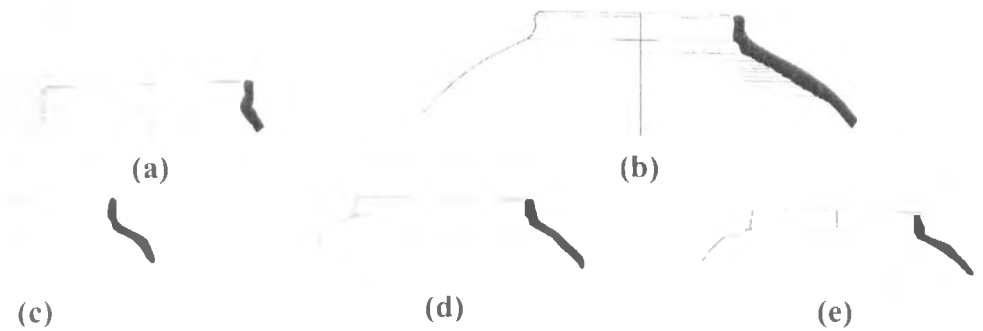

Fig. 5.24 Varieties of the Type J7 jars with upright rim (courtesy IAA).

5.11 Large Vessels

Amphorae

Much like the jugs and other closed vessels, amphorae are not very prevalent in the Aqaba Ware assemblage. Only two types were published in the initial study on this ceramic type. One of them, Type A2, began its production at Aila in the mid-1st century (Dolinka 2003: 69, 132 no. 127). This form is characterised by a high neck with an everted, collared rim that is almost triangular in section. It is similar to jars

5. Majcherek 1995: pl. 4:1-2, Type 1. For the later versions attributed to the Byzantine period, see the following: Peacock & Williams 1986: 196-197, Class 48; Zemer 1978: 43, pl. 12, Type 36; and Riley 1975: 30.

found at Oboda (Negev 1986: 118 no. 1127) and Petra (Khairy 1975: pl. 168:79), but no exact parallels for this type could be found. The form continued its production well into the 2nd century, as demonstrated by its presence in Locus 23 from Phase 2 at Dafit (**Fig. 5.25**). Like the earlier version, this one is in Ware Type 1 and has a rim diameter of 10.8 cm.

Fig. 5.25 Type A2 Ailan amphora (courtesy IAA).
(Scale 1:2)

A new type of Aqaba Ware amphora, unknown from the excavations of the Roman Aqaba Project, was found in the ceramic assemblage from Dafit, and that is the Type A3 (**Fig. 5.26**). It comes from Phase 3 Locus 03, is in Ware Type 2, and has a rim diameter of 9 cm. It has a very thick collared and pendent rim with a rounded lip and a horizontal protruding ridge on its neck, where the centre of the handles joins it. The handles themselves are unique, and of a type not attested on any other Aqaba Ware vessel uncovered so far. They are characterised by a very deep and incised central depression that measures a little over 2 cm. in depth.

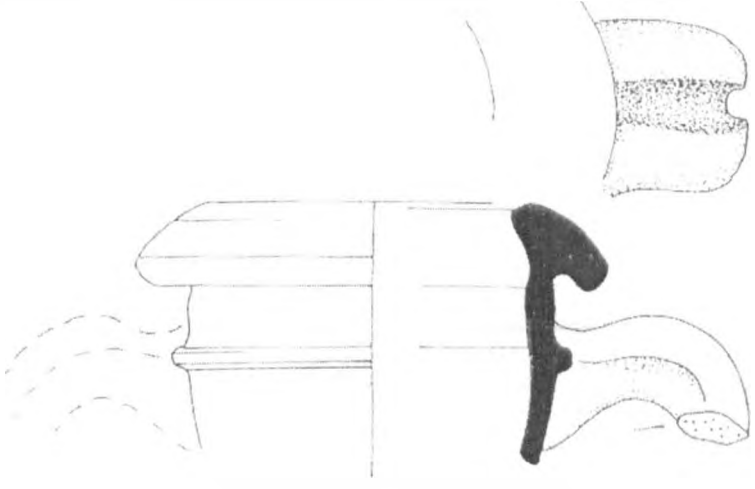

Fig. 5.26 Type A3 Ailan amphora (courtesy IAA).
(Scale 1:2)

Pithoi

The largest vessels in the Aqaba Ware ceramic repertoire were the Ailan *pithoi*. These huge storage containers had very thick walls and a globular body. They

had a collared rounded rim that was flared and externally thickened rim. A reconstructed example from Aila measured nearly a meter in height (S.T. Parker: pers. comm.). A number of these *pithoi* were found by the Roman Aqaba Project, particularly in the domestic mudbrick complex from trenches B.1/3 (cf. Fig. 3.32 above), where they dated to the LR1 and LR2 periods. Three Ailan *pithos* rims from different vessels were also found in late-2nd/early-3rd century contexts from the *vicus* (E125) at Humayma,[6] which is noteworthy because it means that these exceedingly large and heavy vessels were transported to a site that is nearly 80 km away from their production centre. Conveying these cumbersome *pithoi* by camel over such a distance was likely a very expensive venture (Peacock 1982: 27). Some of the Ailan *pithoi* are plain, while others exhibit a wide variety of deeply incised surface decoration on the upper shoulder of the vessel. Motifs include wavy-band combing, lozenges, heart-shaped impressions and rouletting. Only the rims of the three examples from Horvat Dafit survived (all from Phase 3), so it is not known whether they were decorated or not. The Type P1 *pithos* from Horvat Dafit presented here (**Fig. 5.27**) was found in Locus 06. It is in Ware Type 2, has a rim diameter of 25 cm, and has an exact parallel from Locus 21 in trench M at Aila (Basket 24, Reg. No. 10700), which dates to the Severan era.

Fig. 5.27 Ailan pithos from Phase 3 at Horvat Dafit (courtesy IAA).

5.12 Concluding Remarks

The Aqaba Ware ceramic repertoire from Horvat Dafit provides a great deal of information about the development over time for this unique ceramic type, and three distinct trends related to this pottery have been discerned. The first pattern that emerges relates to the CP2 cooking pots and the Ailan casseroles. Their forms continue in use from the 1st century through the early-3rd century, but they begin to changedeg sometime in the mid to late-2nd century, with the ware becoming coarser and the vessel walls becoming much thicker. This phenomenon is also evident in the

6. The registration numbers for the three Ailan pithos rims from Humayma are 12.26-271, 14.21-386 and 19.06-384. I would like to thank John P. Oleson for allowing me to examine the ceramics from E125 during August 2000.

Nabataean painted and unpainted fine wares produced at Petra. Schmid (2001: 418) noted that those ceramic types retained their already established features but in a very 'degenerate' form, a fact which he seemingly attributes to Nabataean loss of political independence after the creation of the *provincia Arabia*.

A second recognisable trend for the Aqaba Ware is the continuity with either little or no change to many of its vessel forms from the 1st through 3rd centuries. By comparing the ceramic assemblages from both Aila and Horvat Dafit, it becomes evident that the A2 amphorae, J2 and J3 jars, CP1 cooking pots, the cooking lids, and the B2 and B3 bowls in many cases retain the same exact form and vessel-wall thickness, so much so that they – especially the B2 bowls – cannot be used as criteria for the relevant dating of strata whence they came. This trend of continuity in vessel forms over a long period of time is also reflected in the commonware pottery assemblages from Petra ('Amr 2004, Gerber 2001), Jerusalem (Magness 1993) and Kefar Hananya (Adan-Bayewitz 1993), and clearly demonstrates a "remarkable degree of conservatism among the...potters, even in the production of table wares" (Magness 2005: 105).

A third and final development in the Aqaba Ware is the introduction of new vessel forms during Phase 2 at Dafit, or sometime within a quarter of a century of the Roman annexation. These include, but are not limited to, the cooking pots (CP6-9), cooking bowls (CB1-2), bowls (B4-7), kraters (K2), jugs (JG2), drinking vessels (DV1-2), jars (J7), amphorae (A3) and pithoi (P1). Some of these new forms were clearly meant to replace those that had eventually gone out of use, as is the case with the casseroles being replaced by the cooking bowls. Others, *e.g.* the drinking vessels and flasks, may have been introduced because of the presence of new peoples from the western empire into the region. Whatever the case, the existence of these new forms at Horvat Dafit, to the writer at least, suggests that the Nabataean potters from Aila who created the Aqaba Ware were capable not only of innovation, but also of adaptation to either new or previously existing markets as well.

By creating a chart which illustrates the presence of each Aqaba Ware vessel form according its presence in each of the phases at Horvat Dafit (**Fig. 5.28**), one can glean valuable information about the fate of that ceramic tradition after the Roman annexation. A total of 24 vessel categories are listed on the chart. These represent the most frequently-occurring forms with enough quantifiable data to be of use. Vessel types such as cooking lids, kraters, jugs and amphorae – for which the numbers are

too few to quantify any meaningful trend – are not included. The smallest group is comprised of the F3 and F4 flasks, which were only present in Phase 3 and encompass only two of the 24 categories (or 8.3%). Vessel forms that exhibit continuity in all three phases at Dafit make up the next largest category, with eight out 24 forms (or 33.3%) represented. By far, the largest group is the vessel forms that were introduced during Phase 2, *i.e.* after the Roman annexation. These make up 14 of the 24 categories (or 58.4%).

Form	Phase 1	Phase 2	Phase 3
CP1	X	X	X
CP2	X	X	X
CP6		X	X
CP7		X	X
CP8		X	X
CP9		X	X
C*	X	X	X
CB1		X	X
CB2		X	X
B2	X	X	X
B3	X	X	X
B4		X	X
B5		X	X
B6		X	X
B7		X	X
F1	X	X	X
F2		X	?
F3			X
F4			X
DV2		X	X
J2	X	X	X
J3	X	X	X
J7		X	X
P**		X	X

Fig. 5.28

In addition to demonstrating continuity with ware becoming coarser and vessel walls becoming thicker, continuity with little or no change, and the introduction of new forms in the Aqaba Ware, the assemblage from Horvat Dafit presented here is also of great importance because of its chronological indications. To date, there are only a handful of sites in both Jordan and Israel that have ceramic repertoires dating from the Antonine and Severan periods. A significant portion of those, however, come from either tomb contexts – such as those at Mampsis (Negev & Sivan 1977), Jerash (Fisher 1938) and Petra (Bikai & Perry 2001) – or from wells (Baramki 1938) and pits (Elgavish 1977). But, as has been aptly noted, "For archaeologists, these installations are inherently problematic as a source of dating parallels due to the deposition of material in them over a period of time" (Erickson-Gini 2004: 278).

Furthermore, the only assemblages that contain stratified ceramics from excavations during the periods in question, are those from the az-Zurrabah kilns ('Amr & Mommani 1999), Caesarea (Bar Nathan & Adato 1986: 161), Tel Dor (Guz-Zilberstein1995: 324-325), and the most recent work at Mampsis and Oboda (Erickson-Gini 2004). By and large, the bulk of pottery from Nabataean sites with strata from the 2nd and 3rd centuries remains unpublished, and therefore is of no use to the ceramicist or archaeologist and/or historian attempting to provide an adequate synthesis for the region during that era. Therein lies the importance of the Aqaba Ware from Horvat Dafit. First, the site's occupational history is clear and understandable, with Phases 2 and 3 dating to the Antonine and Severan periods. In addition, the site has a distinct type of pottery that demonstrates clear development over time.

CHAPTER SIX

Conclusions and Suggestions for Future Research

6.1 Introduction

It is clear from an examination of the occupational history at Horvat Dafit, and of its Aqaba Ware pottery, that sites associated with the Nabataean trading networks can provide a wealth of information about the region during the 2nd and 3rd centuries. The purpose of this final chapter is to place Horvat Dafit into its broader historical context, in order to provide a clearer picture of what happened to Nabataean society, economy and material culture after the annexation. Discussion first focuses upon previously existing syntheses on this subject matter, and how flawed interpretations by some scholars have in reality obscured our view of the Nabataeans during the Antonine and Severan periods. Next is an examination of what is known about the region from the paucity of written and artifactual sources that are available. Within this framework, an assessment of how Horvat Dafit can supplement that information is offered. Following that are suggestions for future research, which can further augment our understanding of what happened to the Nabataeans after the annexation. Finally, this study concludes with a discussion of the importance of Horvat Dafit and the assemblage of Aqaba Ware found at the site. Taken together, this information will offer the reader a clearer image of what the present-state-of-knowledge is on the region during this period.

6.2 Interpretive Hindrances

Despite what is known about the Nabataeans in the 2nd and 3rd centuries, there still remain gaps in our knowledge, and this is due to a number of factors. First, many scholars have chosen to focus their study and their archaeological fieldwork on the earlier Nabataean occupation or the later Byzantine period at sites. Good examples of this phenomenon are represented by Negev's excavations at Mampsis and Oboda, Parker's work at Aila, and that of the Swiss at Petra ez-Zantur. In addition, what research has been conducted at Roman sites in Jordan has focused upon those situated in areas to the north of the region discussed in this study. These include the Decapolis cities and southern Hauran (Kennedy 1982a, 1995; Kennedy & Freeman 1995; Kennedy & MacAdam 1985; Kennedy *et al* 1986; Segal 1997, Ball

2000, MacAdam 1986) and the Jordan Valley (MacDonald 1988; Miller 1991). Meanwhile, the southern part of the former Nabataean kingdom, *i.e.* the portions of Jordan which lie to the south of the Dead Sea littoral, has been for the most part essentially ignored (Freeman 2001: 438). Excavation has been carried out at southern sites such as Humayma and Aila, as have comprehensive regional surveys of the south-eastern Wadi Arabah (Smith 1994; Smith & Niemi 1994; Smith *et al* 1997) and the *via nova Traiana* (Graf 1995a), but these remain largely unpublished to date. This is also the case with sites in the Negev and Wadi Arabah in Israel, although an effort is currently underway to publish most of Cohen's work, and those results are eagerly awaited.[1]

This apparent northern bias is due to a number of ideas posited by respected scholars. First, it has long been thought that the south was rendered backwater and became "le sud désertique" or "the barren south" (Sartre 1985: 54-56) when the Nabataean capital was moved from Petra to Bostra, after which Bostra became the capital of the *provincia Arabia* (MacAdam 1986a). According to these same scholars, Petra then diminished in importance, and became a "smallish provincial town...with little development" (Millar 1993: 421). Both of these ideas have been thoroughly refuted (Fiema 2003), and recent archaeological excavations in the Petra city centre (cf. Chapter 3.4c above), as well as papyrological evidence referring to the site (*P.Yadin* 12), have clearly demonstrated that Petra was a thriving place that underwent major renovations after the annexation, was continuously occupied through the Byzantine period, and served as an important administrative and judicial centre for the region.

Another major misinterpretation about the southern Nabataean kingdom, based upon the previous one, is the supposition that since the administrative focus had shifted from Petra to the north, the economic focus did as well. This theory then goes on to imply that because of this shift, the Nabataean roads and *caravanserais* fell out of use, with the trade in aromatics being diverted to either the Wadi Sirhan (situated to the northeast), or to the Egyptian Red Sea coast (Bowersock 1983: 64). These suggestions are also clearly wrong, as attested to by the fact that all of the

1. Several Nabataean/Roman sites that were excavated by Cohen during the 1980s are currently being re-examined and prepared for publication, under the general editorship of Yizhar Hirschfeld from the Institute of Archaeology at Hebrew University in Jerusalem. To be included in that study are Moa, Sha'ar Ramon, Mesad Neqarot, Har Masa, Horvat Qasra, Mesad Ma'ale Mahmal and Horvat Ma'agora (Y. Hirschfeld: pers. comm).

major Nabataean settlements in the Negev, Wadi Arabah and southern Jordan examined in Chapter 3 above were not abandoned, but rather thrived after the annexation. The evidence from Horvat Dafit supports this idea of continuity, and clearly demonstrates that the Nabataean trade networks did not go out of use, but in contrast, flourished throughout the Antonine and Severan periods.

6.3 Nabataea in the Antonine Period

After the reigns of the emperors Trajan (AD 98-117), who annexed the Nabataean kingdom, and Hadrian (117-138), who visited the region in 130/131 (Halfmann 1986: 206-207), the *provincia Arabia* fell under the dominion of the Antonine dynasty. Founded by Antoninus Pius (138-161), the family line was continued through his adopted heirs Marcus Aurelius (161-180) and Lucius Verus (161-169), and ended with the reign of Commodus (176-192), the son of Marcus Aurelius. The Antonine period was one of stability, prosperity and relative peace during which the Roman empire flourished.

For the *provincia Arabia* during this period, however, we have very little in the way of either historical references by the ancient authors or artifactual evidence, and most of this comes from areas to the north (*e.g.* Bostra, Palmyra), or beyond the Nabataean realm. We know from papyrological evidence, for example, that there was a severe plague that depopulated the region, Egypt in particular, during the reign of Marcus Aurelius (Duncan-Jones 1996). In addition, there is epigraphical evidence in the form of a bilingual Greek and Nabataean inscription from Ruwaffa, located *ca.* 225 km south of Aila and dated to AD 166, which mentions the dedication of a temple in honour of Marcus Aurelius and Lucius Verus (Bowersock 1975; Kennedy 2000: 37-38). This inscription represents one of the earliest references to a tribal confederation of Arabs (*i.e.* the Thamudeni) and their cooperation with Roman authorities in the region. Furthermore, from other epigraphical evidence, we know the names and dates for several of the senatorial legates of the *provincia Arabia* (Sartre 1982: 77-120). Also in this period, we see the first minting of the so-called 'city coins' throughout the province (Spijkerman 1978; Patrich 1990: 186).

The most important evidence about the Roman legal and civil administration in Arabia comes from the so-called 'Babatha Archive' fully discussed in Chapter 2 section 4 above. These documents comprise of several papyri written in Greek, Aramaic and/or Hebrew from *ca.* AD 92-132, and provide a rare view of personal

life that goes beyond the more political nature of many papyri. Taken together, and in light of the paucity of evidence from excavation, the inscriptions and papyri offer a glimpse of life in the region after the annexation.

6.4 Nabataea in the Severan Period

The year following the death of Commodus was one of civil war, and emerging victorious was Septimius Severus (AD 193-211), who was born at Leptis Magna in north Africa. He founded a dynasty of his own, and his emperorship was followed by his son Caracalla (211-218), and his two nephews Varius Avitus Bassianus, also known as Elagabalus (219-222), and Gessius Alexianus Bassianus, also known as Severus Alexander (222-235). Of interest about this dynasty were its ties to Syria. Septimius Severus married a woman named Iulia Domna, who was born into an equestrian-class family from Emesa. It was her sister, Iulia Maesa who gave birth to Elagabalus and Severus Alexander. These Syrian women held a great deal of power, and were even portrayed on coins from the period (Turton 1974).

Septimius Severus fought two wars against the Parthian empire (Dio 75.1-3, 9-12; *HA Sept.Sev.* 9.9-11, 16; Herodian 3.9.3-12; Birley 1999: 116-132). The first took place in AD 194-195, after which Severus took the title 'Arabicus'. At the end of the second war against Parthia, the emperor made two unsuccessful siege attempts against the Parthian stronghold of Hatra (Sommer 2003, 2003a, 2004), but was able to capture the Parthian capital of Ctesiphon, for which he took the epithet 'Parthicus'. According to the most common version of the 3rd-century historian Cassius Dio, compiled by Xiphilinus in the 11th century, after the second siege of Hatra, Severus went from Syria through Palestine to Egypt.[2] Another compiler, however, makes it clear that Severus went 'into Arabia' on his way[3] and this has been borne out by the archaeological evidence. From that data, it appears that the emperor, or perhaps either the governor of Arabia or the commander of the *legio III Cyrenaica* at the time, endeavoured upon a massive re-fortification process of the *provincia Arabia*. This can be seen in the region's former Nabataean structures, some of which were renovated and strengthened, as well as in the construction of new ones altogether.

In the northern part of the province, milestones of Severus have been found

2. Dio 76.13.1. This has been repeated by other scholars, e.g. Murphy 1945: 28, and more recently Halfmann 1986: 220 "direkt über Palästina nach Ägypten reiste".
3. Boissevain 1955: 350; Hasebroek 1921.

along the *via nova Traiana*, and a series of forts was constructed along the length of the Wadi Sirhan (**Fig. 6.1**), from al-Azraq in the north to al-Jawf (Dumata) in the south (Bowersock 1983: 119-120; Kennedy 1980b, 1982a, 2000; Speidel 1987).

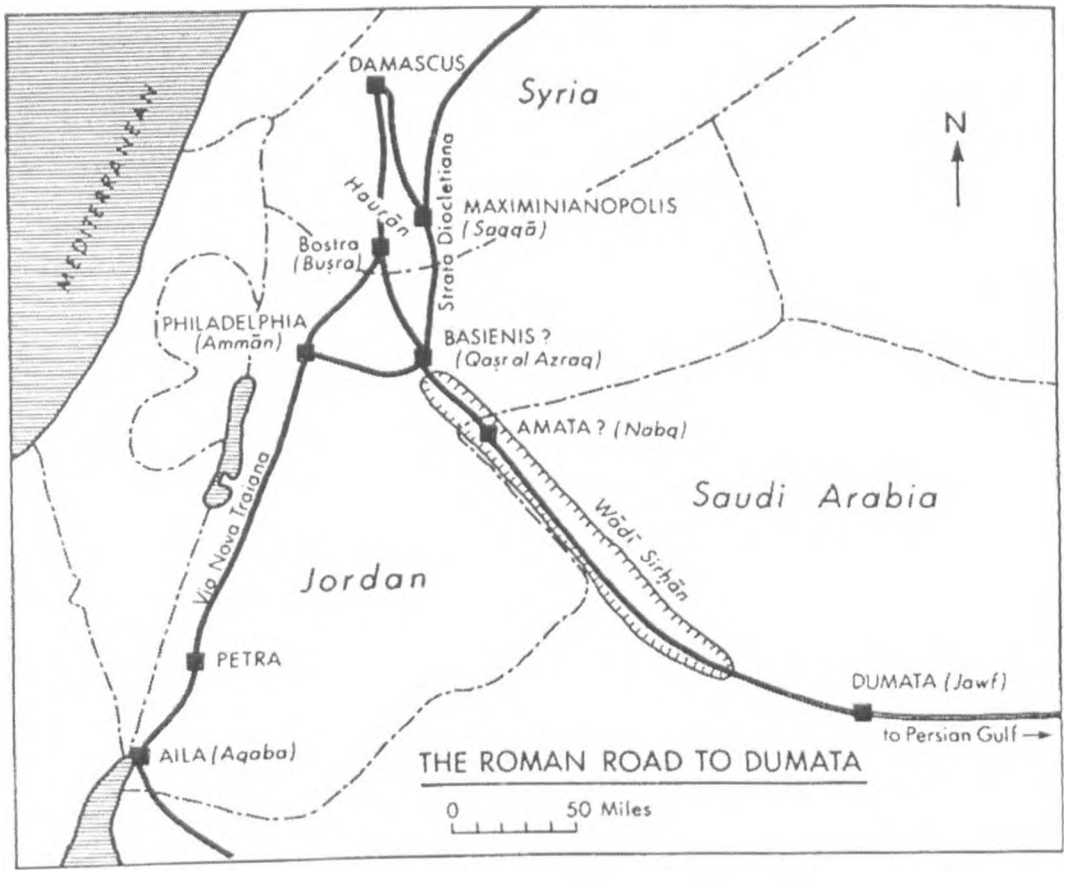

Fig. 6.1 Map showing the roads of Roman Arabia, including the road in Wadi Sirhan from al-Azraq to al-Jawf (Speidel 1987: 216).

This Severan re-fortification programme is also attested throughout the Wadi Arabah and Negev. Evidence of renovation is demonstrated in Phase 3 at Horvat Dafit, where the entire structure was rebuilt in stone, with all of the other rooms being levelled to make a large courtyard, and a thick well-built corner tower was added. It is interesting to note the similarity of the corner tower at Dafit (Fig. 4.30) to that from the Severan-era fort at Qasr el- Uweinid in the Azraq oasis of northern Jordan (**Fig. 6.2**).

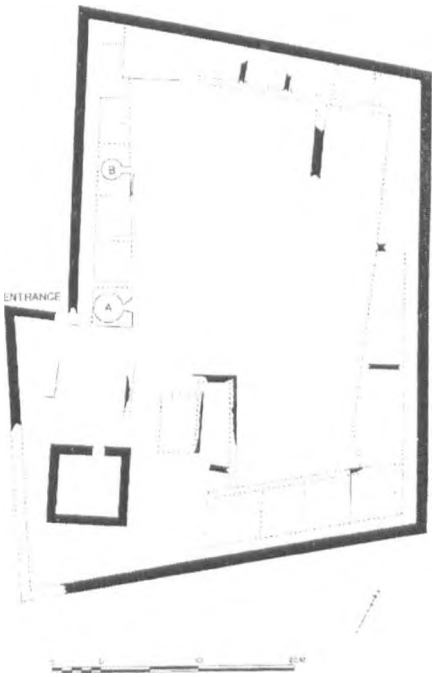

Fig. 6.2 Plan of the Severan fort at Qasr el-Uweinid. Note the similarity of the tower to that at Dafit (Kennedy 1982a: 115)

Other sites that experienced renovation with the addition of towers to the structure during the Severan era include Be'er Menuha in the western Arabah and Ma'ale Mahmal along the Petra-Gaza road in the central Negev (Dolinka & Erickson-Gini 2006). In addition to those sites, other locales in the region appear to date only from the Severan era and many of those have the fortified towers within their structure as well. These include the fort at Mesad Neqarot, which was constructed next to the Nabataean caravanserai at the site, as well as the sites of Horvat Haluqim, Horvat Qasra and Ma'ale Shaharut (Dolinka & Erickson-Gini 2006).

It may be the case that this re-fortification of sites was linked to the arrival of Severus or under an administrative directive from him, with the work carried out by the local and/or regional authorities. This does not necessarily imply that there was a full-scale reorganisation of the entire eastern frontier, as happened under Diocletian, but rather an attempt to shore up defences against the possibility of a Persian invasion.

Besides the defensive initiative of Septimius Severus in the *provincia Arabia*, the rest of the Severan dynasts had little to do with the former Nabataean realm, for they were dealing with the onset of what has been termed the '3rd century crisis'. This period in Roman history was characterised by an economic decline brought about by a combination of depopulation from the Antonine plague, which eroded the

empire's tax base, a devaluation of the currency whereby the coinage began to contain less and less of its precious metals, and rampant inflation. There was also a crisis in leadership, with the emperors having to rely more and more upon satisfying the needs of the army, while the army began to take initiative and challenge the authority of the emperors. Finally, there was a rising threat from the east.

For nearly 300 years, the Romans had co-existed with the Parthian empire. During this period, Rome increasingly extended her influence in the east at Parthian expense. As we have seen, Septimius Severus made major attempts to take their stronghold of Hatra, and did conquer some of the lands that acted as a buffer zone between the two powers. In the 220s, the Parthian Arsacid empire was replaced by an ambitious, militaristic regime from Fars named the Sassanids (Sartre 2001: 959), whose first ruler was Ardashir I (AD 226-241). This new power was actively opposed to Roman expansion in the region (Isaac 1993: 52), and sought to counteract it by taking the battle to the Romans. The Sassanid threat was recognised by contemporaneous writers, such as Cassius Dio (80.3.4), who feared that the Roman troops stationed in the east were too ill-disciplined and weak, and therefore unable to resist an onslaught by the Sassanids. A study on this issue has suggested that it was not the eastern legions that worried Dio so much, but rather their western contingents (Wheeler 1955: 251-252).

In *ca.* AD 230, the Sassanids attacked Roman Mesopotamia, prompting the young Roman emperor Severus Alexander (222-235) to lead a counter-attack. He raised an army comprised of soldiers from Egypt to the Black Sea region, and 'from the desert' (Enßlin 1965: 128), and employed a three-pronged offensive strategy (Dodgeon & Lieu 1991: 353). According to Herodian, Ardashir attacked the southern column near the confluence of the Tigris and Euphrates rivers. He informs us that, "The Romans suffered a staggering disaster; it is not easy to recall another like it, one in which a great army was destroyed" (Herodian 6.5.1-6). Despite the heavy casualties inflicted on the Roman forces, the overall battle did not end in a decisive victory for either side, and Severus Alexander was forced to sign a treaty with the Persians (Amit 2003: 695-696). This event was sufficient enough to weaken the Roman army, who seemingly withdrew from the eastern empire shortly thereafter.

The archaeological record is essentially consistent with the historical account. Most of the sites examined in Chapter 3 demonstrate continuous occupation through the early-Severan period and then abandonment sometime between the early-3rd, *e.g.*

Mampsis sometime after AD 222, or mid-3rd century, *e.g.* Aila or Khirbet edh-Dharih. Perhaps this coincides with a Roman withdrawal from the region, as suggested by T. Erickson-Gini (pers. comm.), but did that really have an effect upon the settlement patterns of the southern *provincia Arabia*? There is growing evidence that the reason for depopulation in region was an epidemic, as was suggested by Negev (1988: 146) in the case of Mampsis, and appears (perhaps) in the archaeological record by the seemingly rapid abandonment of the Room 6 pantry at Oboda (Erickson-Gini 2004: 423). Whether or not the inhabitants of that structure died, they may have taken flight in order to escape the town if others were infected. This flight from disease (ἀναχωρήσις), seems to have been a commonplace occurrence in the Nile delta during the Antonine plague, as indicated by the papyrological record (Bagnall 2000: 291-292). It is reasonable to assume that other towns amongst the Nabataean trade network may have been affected by such an outbreak as well, and experienced the same phenomenon.

6.5 The Fate of the Nabataean Trade Network

But what of the Nabataean trade network at this point in history? As for their system of roads and *caravanserais* during the Antonine period, they continued in use and, contrary to the opinion of some, the overland trade in aromatics actually increased. With the onset of crisis during the Severan era, international trade began to decline and eventually ceased to exist in any measurable way.

The major settlements of the former Nabataean kingdom continued to flourish throughout the 2nd and early-3rd centuries, as evidenced from the archaeological findings at Mampsis, Oboda, Moa, Aila, Humayma, Khirbet edh-Dharih and Petra (cf. Chapter 3 above). In addition, preliminary excavation reports on the smaller-sized sites associated with the Nabataean trade network have revealed that many of them continued to be occupied throughout Antonine and Severan periods as well. Among those are Mesad En Hazeva (Cohen 1988, 1991, 1993a; Cohen & Israel 1996, 1996a), Horvat Hazaza (Erickson-Gini 2004: 72-74), Be'er Menuha (Cohen 1983a, 1984a), Ma'ale Mahmal (Cohen 1983d), Moa (Cohen 1981, 1982d), Horvat Qasra (Cohen 1982g), Mesad Neqarot (Cohen 1982, 1982a, 1982f), Sha'ar Ramon (Cohen 1982b-c, 1988a) and Mesad Grafon (Meshel & Tsafrir 1974: 41-44; Cohen 2000: 90).

Recent research on the aromatics containers, *i.e.* unguentaria, at Petra has shed a great deal of light on Nabataean trade during the Antonine period, and demonstrates their innovative approach when confronted with an economic crisis. As previous scholars have pointed out, Nabataean trade was indeed threatened by the shifting of shipping destinations to the Egyptian Red Sea coast and the utilisation of the Wadi Sirhan as a new trade route. Despite these factors, and contrary to those of the opinion that this doomed the traditional Nabataean system of roads and *caravanserais* to extinction, the Nabataeans took matters into their own hands. By changing from being simple middlemen in the aromatics trade, whose caravans made a once *per annum* journey, they decided to engage in year-round caravan traffic and began to produce their own unguents in Petra (Johnson 1987: 36-53), and the high demand for these products ensured the Nabataeans of economic prosperity throughout the Antonine period.

With the onset of an empire-wide economic crisis, however, the Nabataean trade networks did decline and eventually go out of use during the Severan era. This was due to the near cessation of long-distance trade in unguents and other luxury goods through the area. Petra, once the hub of this trade network, discontinued its production of perfumed oils and salves, as well as the containers that held them (Johnson 1987), and the city did decline in importance (Fiema 1991: 115). This had ramifications for all of the major settlements and *caravanserais* in the Negev, Wadi Arabah and southern Jordan, which were also abandoned at this time. However, it was not just Petra and the former Nabataean sites that suffered. Regional-level collapse of long-distance trade is attested at the Egyptian Red Sea ports, (Ward 2002; Sidebotham 1991: 34), the port of Aila, and the important trading station at Meda'in Salih, which was abandoned in the early-3rd century (Young 2001: 127). Furthermore, empire-wide decline in trade is attested to by the sharp drop-off in the number of Mediterranean shipwrecks after *ca.* AD 200 (Hopkins 1980: 105-106). Economic deterioration is also attested in the ceramic record as well. Eastern Sigillata A (ESA), the most important red-gloss tableware that was exported throughout the eastern Mediterranean, completely disappears from the archaeological record during the 3rd century (Lund 1995: 146), as do the more locally-produced Gaza wine jars (Majcherek 1995: Type 1) and the latest forms of Nabataean fine painted wares (Cohen 1977: 45-46). Taken together, both the economic collapse and

perhaps an as-of-yet-unrecorded plague resulted in the disintegration of the Nabataean trading networks sometime in the early to mid-3rd century AD.

6.6 Suggestions for Future Research

As we have seen, a clearer picture of the region during the Antonine and Severan periods is beginning to emerge. Despite this fact, we still do not have a great deal of archaeological evidence for the periods in question, as has been borne out by this study. To get a better grasp on the fate of Nabataean material culture during this era, clearly more excavation is needed at sites associated with their trading networks, especially at *caravanserais* such as Horvat Dafit. This will provide the much needed ceramic comparanda in order to further trace the development of the Nabataean ceramic tradition over time.

While most of the *caravanserais* in the Negev and western Wadi Arabah have been excavated, the majority of them remain unpublished, and extensive survey work in those regions has not produced any likely candidates suited for further archaeological fieldwork. On the eastern side of the Wadi Arabah, however, there are several sites that would make great case studies, and present an opportunity to further our knowledge of the region's socio-economic and material-cultural development and history. One such site is that of Rujm Taba, located 41.5 km north of Aqaba along the modern Dead Sea Highway, surveyed by the author during the summer of 2001 (Dolinka 2006; Dolinka *et al* 2002). The site consists of three components, one of which is a *caravanserai*. That it is Nabataean in origin is confirmed by the presence of well-dated NFW and NPFW. This building (Structure A001) bears striking similarities to Horvat Dafit is its size, shape and layout (**Fig. 6.3**). Although

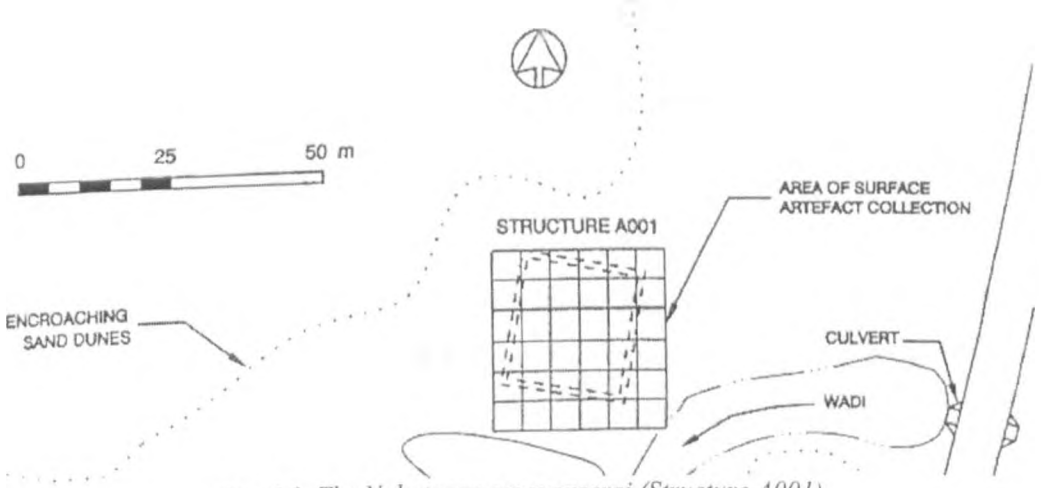

Fig. 6.3 The Nabataean caravanserai (Structure A001) at Rujm Taba (Dolinka 2006: 202).

not illustrated in the plans from this survey, Structure A001 appears to have a corner tower that is a mirror-image of that from Dafit. Taken together, all of this makes the building at Rujm Taba perfectly suited for excavation, and future fieldwork at the site could either fill in gaps in our knowledge about the region's history, or may even be able to provide new information as well.

6.7 The Importance of the Aqaba Ware from Horvat Dafit

Research on the Aqaba Ware from Horvat Dafit presented in Chapter 5 has brought to light three distinct trends. One of these is the continued production of vessel forms after the annexation; these include the CP1 and CP2 cooking pots, the Ailan casseroles, the B2 and B3 bowls, the F1 flasks, and the J2 and J3 jars. But what are the social and cultural implications of this continuity? First, it demonstrates that even after AD 106, Aila continued to be a major regional supplier of commonware pottery, as evidenced by the provisioning of *caravanserais* such as Horvat Dafit with cooking (CP1, CP2, Casseroles) and kitchen (B1 and B2) wares. Second, it shows that Aila remained an oasis in the midst of the desert that continued to be active in providing foodstuffs to its rural hinterland throughout the 2nd century. This is demonstrated by the presence at Horvat Dafit of the J2 and J3 jars and the F1 flasks, all of which were transport/storage containers for either food or beverages, things necessary to the survival and upkeep of those either staying at or visiting a *caravanserai*. Finally, the overall trend of continuity goes beyond Aila or Horvat Dafit, and was indicative of a post-annexation Nabataean society that continued to use the same language and personal names, religious systems and lifeways well into the 2nd century and beyond.

Another phenomenon brought to light by the study of the Aqaba Ware from Horvat Dafit, is the tendency for some vessel forms to become thicker and coarser over time after the annexation. On the surface, it would seem tempting to see this trend as something having to do with the new Roman presence. But given the fact that this thickening of vessels and coarser fabric is limited only to the Ailan casseroles and the CP2 cooking pots, this more likely reflects changes in cooking technology, raw materials used to make these vessels and/or consumer preference, rather than a decline in either the skill of the Ailan potters or their ceramic tradition. This is supported by the third trend: the introduction of new vessel forms distinct to

the Aqaba Ware ceramic tradition, which clearly demonstrates how vibrant the Ailan potters and their markets remained after AD 106.

Taken together, these three tends go beyond Aila and Horvat Dafit, and are representative of Nabataean society and economy as a whole after the annexation. It is clear from the examination of Nabataean sites with Roman-period strata presented in Chapter Three, combined with the material presented in this study, that contrary to the Bowersock/Millar/Sartre model, Roman Nabataea was a thriving region characterised by a booming economy based upon the previously-established trading network of roads and *caravanserais*, a land whose settlements experienced new construction and whose former capital of Petra rose in prominence and were given honorific epithets by no less than three Roman emperors, and an area whose pottery industries expanded an developed alongside the markets they served.

6.8 Concluding Remarks

This study has shed a great deal of light upon the material culture, socio-economic history and fate of the Nabataean kingdom after the Roman annexation. Before that time, the Nabataeans thrived as active participants in the lucrative aromatics trade that brought frankincense and myrrh from the south Arabian peninsula through their territories to the eastern Mediterranean littoral, whence these products were dispersed throughout the Graeco-Roman world. After the creation of the *provincia Arabia*, all of the major Nabataean settlements as well as their vast trading network, which consisted of a number of routes and *caravanserais*, continued to flourish throughout the Antonine and Severan periods. This continuity is not only demonstrated in the uninterrupted occupation of Nabataean sites during the 2nd and early to mid-3rd centuries, but also in the continuity of their material culture, and particularly their ceramic tradition, as evidenced by the Aqaba Ware from Horvat Dafit. The growing threat of Sassanid invasion, demonstrated in the archaeological record by the military re-organisation of sites in the *provincia Arabia* during the Severan era, combined with the decline and eventual collapse of international trade and possibly a plague which struck the region during the same period, rendered many of the former Nabataean sites abandoned.

The Nabataean/Roman site of Horvat Dafit is of importance because it was continuously occupied both pre- and post-annexation, the latter period for which we have very little published archaeological evidence or ancient literary sources. In

addition, the Aqaba Ware from Horvat Dafit is significant for three main reasons. Firstly, that assemblage exhibits a continuity of the Nabataean ceramic tradition in general, and specific vessel forms on the Aqaba Ware in particular. Secondly, it demonstrates the innovative nature of the Ailan potters, through the introduction of new vessel forms, in order to meet the needs of either new or previously existing markets. Finally, the corpus of Aqaba Ware from Horvat Dafit represents one of but a mere handful of sites with stratified pottery dating to the Antonine and Severan periods. The Aqaba Ware and all of the other ceramics from Horvat Dafit will be written up and published by the writer during the 2006-2007 academic year, as a Ernest S. Frerichs Fellow at the Albright Institute in Jerusalem, making available to those who study the archaeology of the region, and particularly its ceramics, a valuable tool for comparanda. Taken together, the Nabataean/Roman site of Horvat Dafit has provided valuable information about the fate of the Nabataeans and their material culture after the annexation.

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