The Nabataean Rural Economy in the Hinterland of Petra

***Andrew Smith*[1]**

Abstract

This paper examines the nature of the ancient economy in classical antiquity and Petra's unique place within it. It also explores the nature of Nabataean social organization and communal development in relation to the ancient economy.

Keywords: Nabataeans, Bir Madhkur, incense trade, sedentarization, tribalism, ancient economy.

Introduction

This paper focuses on the Nabataean rural economy in the hinterland of Petra. This is not a new topic, but it is a neglected one (for more recent studies of Petra's agricultural economy in the Nabataean and Early Roman periods, see Bouchaud, Jacquat, and Martinoli [2016]; Beckers, Schütta, Tsukamotob, and Frechen [2013]; Kouki [2013]; Ramsay and Smith [2013]; and Besançon [2010]). It is also a very specific one, in regional terms, because the focus is on one community, Petra, within the broader Nabataean realm. Even more specifically, the focus is on one sector of the hinterland of Petra—the area to the west of the city in the central Wadi Araba and centered around the remote site of Bir Madhkur (fig. 1). Evidence is presented here from the regional survey of the Bir Madhkur Project, with has a defined study area that extends ca. 20 km north from Bir Madhkur, just to the south of Wadi Fidan at Wadi Hamdan and Jebel el Malaqa (30°34'37.21"N / 35°28'24.41"E = 3385330.28 m N / 737201.93 m E), and ca. 20 km south to Wadi Huwwar (30°11'44.73"N / 35°14'45.76"E = 3342609.57 m N / 716226.92 m E), which is near Wadi Abu Barqa and the northern limit of the study area set by the Southeast Araba Archaeological Survey (Parker and Smith 2014). The western survey limit is defined by the modern Araba highway, although, when permitted, survey coverage extends farther westward. To the east, within the foothills of the esh-Shera range, survey coverage extends several kilometers, with limits generally set by the local topography.

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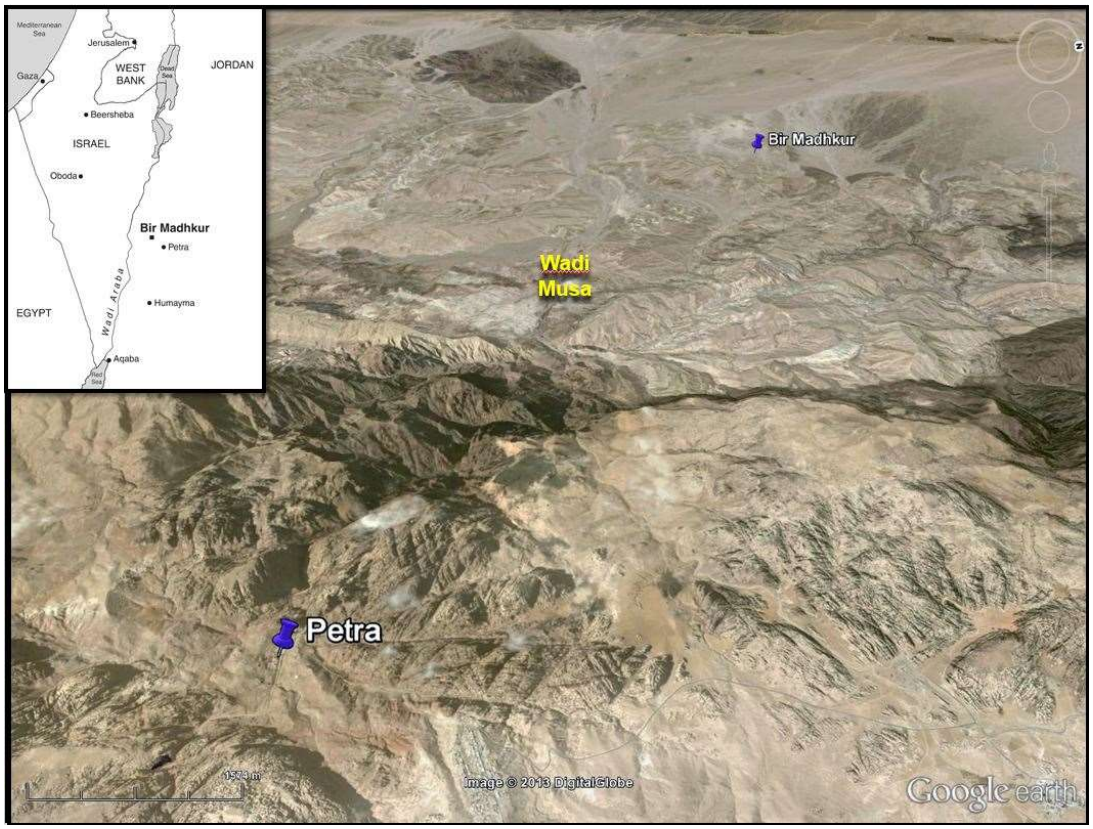


Figure. 1. Regional map showing study area in the region of Bir Madhkur in relation to Petra.

The Nature of the Ancient Economy

Having set the focus of this paper as well as the parameters of the study area concerned, I would like to explore two essential concepts before discussing them in the context of the Nabataean rural economy. One is the nature of the ancient economy itself, which is the subject of some debate. Several positions are now popular. These span from primitivism to modernism, and from substantivism to formalism—at issue is the assessment of how modern economic principles may or may not be seen in the ancient evidence, as well as the extent to which the ancient economy was embedded in society (i.e., what was the relationship between economic decision making and social values?). Basically, whether your views align with any one or a combination of these positions, what we are trying to get at is 1) how the ancient economy compares to our modern one, and 2) what is the position of the economy (ancient as well as modern) in relation to the broader society—this one is a bit murky because it gets into issues of social identity and the role the economy plays in shaping our personal and collectives selves (Saller 2005).

We could take lessons from the past, from Xenophon (*Oeconomicus*) and other Greeks, and recognize that the root of the economy is the *oikos* (or household); and that to be a good economist one must be a good manager of one's household, which means proper and efficient oversight of the production of stuff within the

oikos, the distribution of stuff within and outside of the *oikos*, and the consumption of stuff—ideally in moderation, because that would be the most economical (Pomeroy 1994). A regional economy, therefore, is the composite of all of this "economic" activity across a broad area, where various households have come together and there is more connectivity between them. Unfortunately, there is rarely discussion of the broader integration of rural and urban households to make a comprehensive regional economic history possible.

This basic, social element of the ancient economy, the *oikos*, underpins the influential work of Moses Finley (1999), who views the ancient economy as small in scale and primitive in nature, where social relations, as opposed to supply and demand, drove economic activity in the ancient world—the idea here is that economic decisions were driven more by a desire for status than profit (cf. Launaro 2016; Andreau 2002). So it would make little sense to discuss scales of production or the development of markets, much less the issue of state management of economic activity (cf. Finely 1965; Greene 2000). Finley also highlights that in our understanding of the ancient economy a key issue was the economic relationship between cities and their hinterlands. In his view, cities were centers of consumption primarily of agricultural goods produced in the countryside. Trade, according to Finley, was insignificant, local as well as long-distance.

There are problems with Finley's assessment, however. For example, he does not highlight sufficiently regional diversity and the uniqueness of individual cities. We all recognize that every ancient city occupied an ecological niche unique unto itself. Some were coastal, some arose in deserts, and each had a different resource base and demographic mix. Therefore, the social and economic relationships that developed in these cities varied from one to another, although social and economic differences may have been less pronounced among cities set within similar ecological settings. And while there were significant differences, there were also some aspects of social and economic uniformity. For example, everywhere we look the distinction between elites and non-elites existed, and the elites embraced cities as sacred places to demonstrate and promote their "power and prestige" to everyone in their community. To these elites, status mattered. And as their power grew, a growing class of poor massed into the cities. There was also a disturbing prejudice directed toward the rural poor by many of those dwelling in the cities, a prejudice that persists to this day. Therefore, what is apparent is that generalizations must be cautioned against if we are to advance our understanding of the ancient economy, and more case studies are warranted to flesh out the discrepancies and the regional differences.

The Nabataean city of Petra and its hinterland offer a unique perspective on the ancient economy because of several factors. The semi-arid climate and environment, for example, allowed for limited agricultural production in the territory of the city with the aid of irrigation. The Nabataeans also exploited regional resources such as bitumen, salt, and copper. But the economic basis that

fueled Nabataean prosperity was due only partially to the mining of these resources and to agriculture production. They prospered primarily from their control of the long-distance trade in exotic goods, particularly frankincense and myrrh, the revenues from which financed much of Petra's urban development (Smith 2017; Zayadine 2011). With this in mind, it is not difficult to imagine certain Nabataeans motivated by the hope for profits, and worried about the regulation of trade tariffs as they transported their merchandise from points of origin to final destinations, most importantly Gaza (fig. 2). And with this being the case, it does not mean that these economic considerations were not embedded in the various social networks that prevailed at the time.

Figure. 2. Satellite view showing the course of the Incense Route (image courtesy of Nasa).

Nabataean Identity and Community

This brings me to the second essential concept that I wanted to explore, which concerns the Nabataeans themselves. Who were they, really? This is not a difficult question but it is a complicated one. Perhaps it is best to consider Stabo's (*Geography* 16.4.26) assessment of the Nabataeans as a "sensible people," who were "so much inclined to acquire possessions that they publicly fined anyone who had diminished them and also placed honors on anyone who had increased them." There is a lot to unpack from this statement. Most often it appears in scholarship highlighting the tail end of a process of Nabataean sedentarization that took centuries to manifest itself (Wenning 2011). Certainly the role of agriculture in the Nabataean world appears prominent, as well as their reliance on camels. Strabo also reveals that economic activity among the Nabataeans was embedded in

their social relationships, so that value was more of a social than just an economic concept, and this seemed also to govern their attitudes and behaviors. Being honored by your community seems to have mattered a great deal to the Nabataeans.

Now the question is whether these attitudes and behaviors manifested themselves archaeologically. Answering this question is problematic because we are still trying to define who the Nabataeans actually were, although some aspects of "being" Nabataean are clear (e.g., Graf 2004). The first recognition is that Nabataean identity is (first and foremost) a political one defined by those individuals and groups who were subjects of the Nabataean king. This is how Greek and Roman sources refer to them; it is also how they refer in their inscriptions to their king. There are few instances in which individuals self-identify as Nabataeans, and these occur outside of the Nabataean kingdom. The second recognition is that we ascribe a Nabataean identity to the use of a particular script of Aramaic as well as to the use of a particular type of pottery (Schmid 2011; 1995). In this context, it is interesting that those instances in which individuals outside of Nabataea self-identify as Nabataeans, they do so in languages other than their own. The bilingual inscription from the island of Kos, which refers to Aretas, king of the Nabataeans, is a unique exception (Levi Della Vida 1939).

Within the Nabataean kingdom, recognition of being under the power of the king would have been sufficient to have acquired the label of being a Nabataean. But within that group identity, there were other groups for whom being labelled a Nabataean meant less than their membership in this or that family or tribal group (cf. Macdonald 1993). This was probably truer of semi-nomadic pastoralists in the countryside than those living in towns or cities. Nevertheless, within the Nabataean political realm, all of these sub-groups were linked to the same social network in that they were all subjects of the monarch. In other words, they were all Nabataeans.

The Rural Economy of Petra

This brings us back to the topic of this paper, which is the Nabataean rural economy in the hinterland of Petra. Now an important issue that I want to address here is the extent to which the cultural landscape preserves the social memory of the Nabataeans and their economic activities. By doing this, I hope to make some contribution to our understanding of the ancient economy, and perhaps raise further questions about what "being" a Nabataean actually meant. I hope also to examine their visibility across the landscape in rural contexts. Again, our focus will be towards the west, where the region has been surveyed most extensively, and emphasis will be on data from the Bir Madhkur Project.

Through excavation and intensive survey, the Bir Madhkur Project is examining broadly the role of Petra in the ancient economy from a rural, landscape perspective (Smith 2005a; 2007; 2010). In other words, we are trying to illuminate

the economic relationship between Petra and its hinterland from the vantage point of Bir Madhkur. Occupied between the Hellenistic and Early Islamic periods, Bir Madhkur is twelve kilometers northwest of Petra in the foothills of Wadi Araba, midway between the Gulf of Aqaba and the Dead Sea (fig. 1). Main features of the site visible today include a Roman fort, a bath complex and caravanserai, a civilian settlement west of the fort, cemeteries, and many other structures in outlying areas (fig. 3). Regional features include several road stations, farmhouses, agricultural fields (fig. 4), encampments, and many, many burials and stone cairns. These sites were all interconnected through varying networks of social, economic, and cultural exchanges, so they were integrated within the hinterland of Petra. In addition to local communication and exchange networks, the ancient Incense Road once passed through the region (Smith 2017; 2005b).

Within the general study area, our survey coverage so far extends a few kilometers north and south of Bir Madhkur, between Wadi Gunnay and Wadi Musa (fig. 1). By employing a strategy of intensive, pedestrian survey, we have recorded (so far) more than 1400 sites, the majority of which are small and unobtrusive, such as stone circles, stone rings, graves, and artifact scatters. We have also recorded larger sites, which include farmhouses, towers, and road stations. In addition, we have focused much attention on documenting the agricultural activity in the region as well as the various land-routes that criss-crossed the landscape. This focus on land-routes, in fact, is important since one of our goals is to establish networks of connectivity between the various sites documented in the region to one another and, ultimately, to Petra itself.

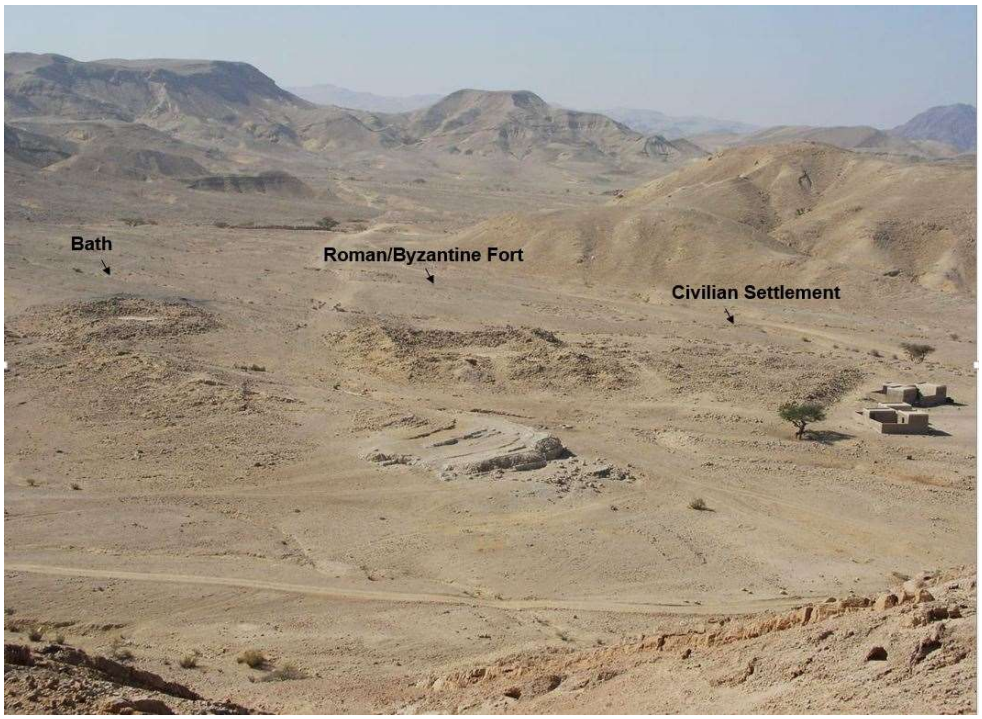


Figure. 3. Site of Bir Madhkur (photo by A. M. Smith II).

Figure. 4. Overview of agricultural field systems in Wadi Musa south of Bir Madhkur (photo by A. M. Smith II).

Our data acquisition methods began by mapping the discreet landforms that characterize the region, which include alluvial fans, hills, mountainous areas, wadis, and wadi terraces. We delineated these sub-divisions of the landscape with the aid of digitized topographic maps and satellite imagery at one-half meter resolution. Topography, therefore, influences the extent and intensity of our coverage.

When surveying, we are recording everything we encounter from all periods, but dating the sites is not always easy. As can be seen from fig. 5, we collected pottery at 640 sites (or 44 percent of the sites that we have recorded so far); we found lithics at fewer sites. More than half of our sites (or 52 percent) yielded no artifacts at all, and at 134 of those sites there was evidence of structures or wall foundations. That so many sites yielded no artifacts is not surprising, because many were small and unobtrusive, and most probably resulted from singular moments of human activity. Moreover, these sites were clearly indicative of a pastoral economy. The survey also recorded a series of field systems within Wadi Musa itself (fig. 4), in addition to what may be a Roman *mansio* near Umm Ratam. For those sites with pottery, figure 6 shows the range of periods recorded—note the prevalence of Nabataean and early Roman period sites.

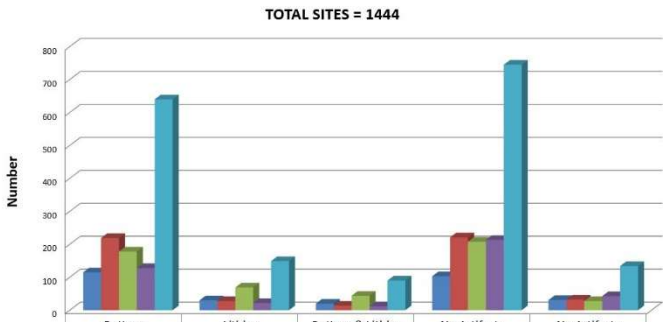
Because our focus is on the Nabataeans, figure 7 presents a satellite view of the surveyed area with sites plotted where we found Nabataean or Early Roman pottery. Again, there is a broad range of site types. As can be seen, the distribution is fairly widespread, and it is important to point out that between these sites are many other comparable ones where we found no pottery or other artifacts

whatsoever. We cannot presume that all of these sites date before the Roman annexation of Nabataea, but this is not a major issue because Nabataean settlement activity continued well beyond this landmark event. Of significance here is what these sites reveal about the broad range of regional economic activity that occupied the Nabataeans.

One of the most discussed issues in Nabataean history is that of their sedentarization, which literary sources confirm happened between the fourth and first centuries BC. This means that by the first century BC we should see a rise in the number of sites associated with agricultural activity and that many of these early sites would have been primitive in nature and (most likely) engaged in small-scale production, where evidence of a pastoral economy was still more prevalent. In our study area, many sites fit the criteria, but again, many yielded few or no datable artifacts. Where we do begin to find early pottery, which indicates access to a regional market, the sites are predominately pastoral in nature. Among sites that yielded early Roman or Nabataean pottery, there are many examples where we recorded stone enclosures, stone circles and rings, stone cairns, and rockshelters. At BMP Site 2012-227, for example, which consists of stone circles and a large enclosure, we collected exclusively Early Roman pottery (fig. 8), as well as at BMP Site 2011-201, a very large, partitioned enclosure on a terrace in Wadi Madsus (fig. 9). An advance in agricultural practices and a more sedentary lifestyle is evident at BMP Site 2012-283, where we found a complete grindstone fragment alongside remains of walls and stone circles (fig. 10). Contemporary with BMP Site 2012-283 is BMP Site 2012-226, where there is evidence of field walls for agricultural production and a threshing floor (fig. 11). BMP Site 2012-226 also consists of various enclosures, stone circles, cairns, and stone fences.

In addition to the agricultural and pastoral sites, there is also evidence that the Nabataeans were engaged in copper production. At Qasr et-Tayyiba, for example, we recorded a large mound of slag and ash. We also recorded a smeltery at the confluence of Wadi Umm Ratam and Wadi Salman, and two other smelting sites north of Wadi Musa. Interestingly, there is very little evidence to suggest that any of these sites continued their operations beyond the early Roman period.

The wide distribution of Nabataean or early Roman pottery is evidence of Nabataean inter-connectivity through trade, with regional transport being supplied primarily by donkeys or camels. Because of the extent of our coverage, it is clear that much of the evidence reflects local trade. In terms of long-distance trade, which we know was significant, several road stations supported it. One such station is Khirbet Sufaysif, which is south of Bir Madhkur and Wadi Musa. When we first encountered Khirbet Sufaysif, it had been extensively looted and there was ongoing destruction being caused by erosion (fig. 12). Therefore, we conducted a salvage excavation to recover stratified material, and the material culture found suggests that the station was founded in the first century BC or AD and remained in use into the early second century, until it was abandoned and later reoccupied in the fourth or fifth century.



	Pottery	Lithics	Pottery & Lithics	No Artifacts	No Artifacts (structures present)
2009	115	30	20	103	31
2011	219	28	14	221	32
2012	178	69	44	208	28
2013	128	22	12	213	43
TOTALS	640	149	90	745	134

Figure. 5. Chart showing number of sites where artifacts were collected.

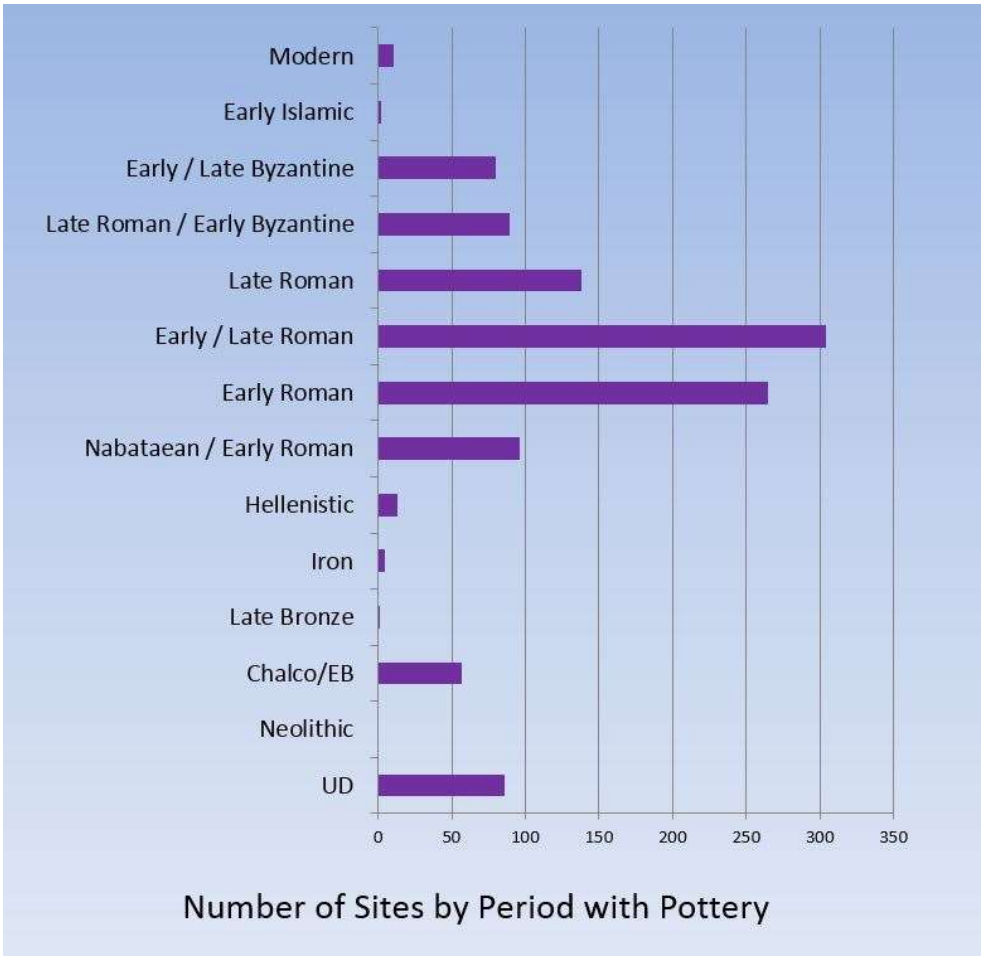


Figure. 6. Ceramic periods sites according to date.

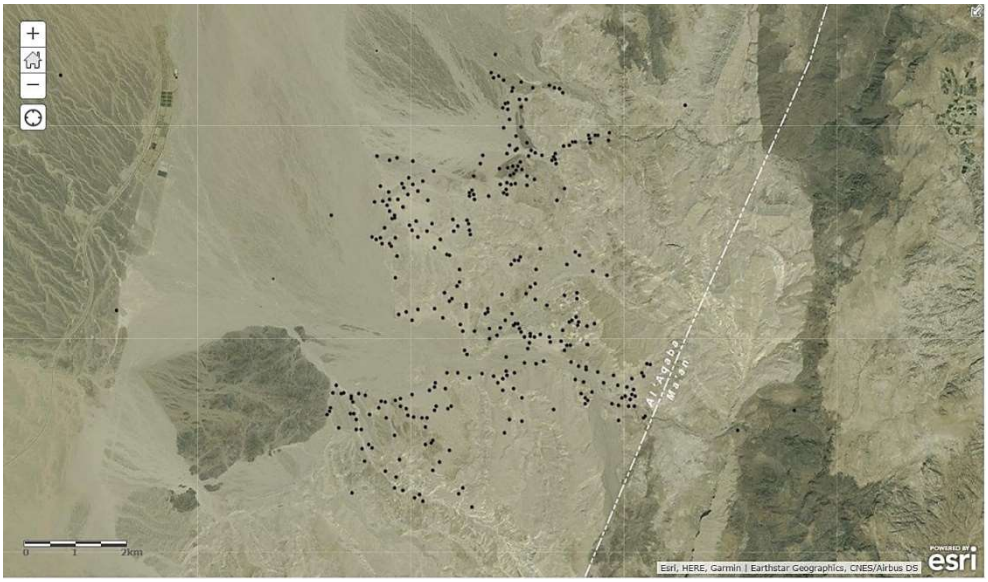


Figure. 7. Satellite view of sites plotted where only Nabataean or Early Roman pottery was collected.

Figure. 8. Large stone enclosure at BMP Site 2012-227 (photo by A. M. Smith II).

Figure. 9. Large enclosure on terrace in Wadi Madsus (photo by A. M. Smith II).

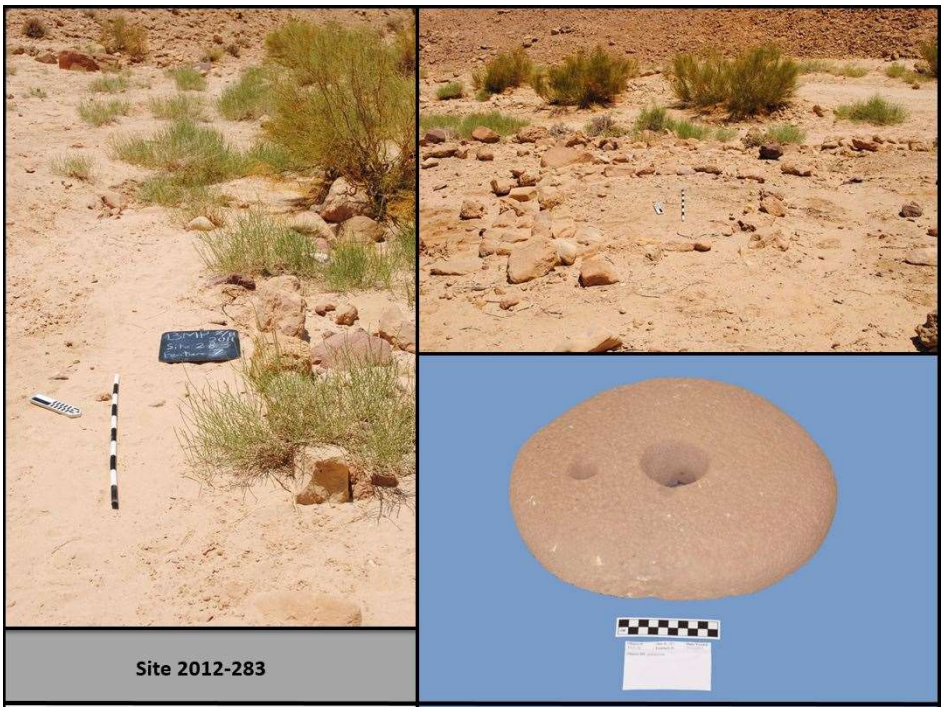


Figure. 10. Overview of BMP Site 2012-283 (photo by A. M. Smith II).

Figure. 11. Threshing floor at BMP Site 2012-226 (photo by A. M. Smith II).

Figure. 12. Overview of looting activity at Khirbet Sufaysif (photo by A. M. Smith II).

Figure. 13. Satellite view of sites plotted with Nab painted pottery.

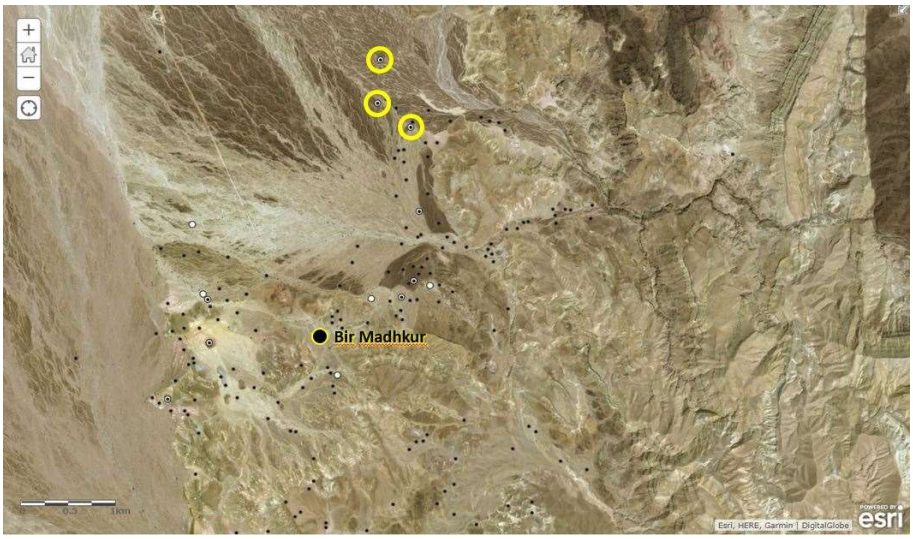


Figure. 14. Satellite view of showing three of the more remote sites where Nab painted pottery was collected.

Figure. 15. Overview of BMP Site 2011-216 (photo by A. M. Smith II).

Conclusion

Now having provided this overview of Nabataean economic activity in the hinterland of Petra, the issue of whether this activity was embedded in Nabataean social relationships remains. I would like to suggest that it was. For example, figure 7 presents a satellite view of Nabataean and early Roman sites, as mentioned. When the data is queried to isolate only those sites where we found painted Nabataean fine-ware pottery, the result is illuminating, and it is clear that much of this fragile material was found in or around the larger settlements or along trade routes (fig. 13). However, there are also instances where we collected painted Nabataean fine-ware at sites in more remote areas. For example, to the north of Bir Madhkur and along the south bank of Wadi Gunnay, three sites stand out (fig. 14). BMP Site 2011-256 is a small settlement with several features associated with it, the most significant of which is a large structure. BMP Site 2011-260 is a similar site nearby. It had eight features, which included small cairns, stone rings, and one larger, collapsed structure; and BMP Site 2011-216, a small agricultural settlement where we found three looted structures along with several other features such as stone cairns, random wall alignments, and check-dams (fig. 15). These are just a few examples of the more peripheral sites where we found painted Nabataean fine-ware. What does this mean? That is a question that I would like to open up for further discussion. The fact that such care was taken to transport this fragile material to areas so remote in the hinterland of Petra suggests that some social value may have been attached to its use. Certainly from a utilitarian perspective, it did not make much sense. In the tribal areas in the hinterland of Petra, was it a marker of status? Whatever it meant to the few "Nabataeans" transporting and probably making use of this pottery in remote areas of Wadi Araba, one thing seems certain: these individuals could boast of their connection to the larger cultural scene that helped to define what "being" Nabataean was. In short, these artifacts preserve a social memory of the Nabataeans and their economic activities in the hinterland of Petra.

Contributor

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الاقتصاد النبطيّ القديم في المناطق النائية من البترا

أندرو سميث

ملخص

تتناول هذه الدراسةُ طبيعةَ الاقتصاد القديم في الفترة الكلاسيكيّة ومكانة البترا الفريدة ضمنه، وتناقش طبيعة التنظيم الاجتماعيّ لدى الأنباط والتطوّر المشترك وعلاقته بالاقتصاد القديم.

الكلمات الدالة: الأنباط، بير مذكور، تجارة البخور، الاستقرار، القبليّة، الاقتصاد القديم.

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