Urban systems in the Roman Near East: historical and functional dimensions of urbanism in Roman Syria, Mesopotamia, Palestine and Arabia

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Chapter 2 Settlements in the Southern Levant

2.1 Introduction

It is well known that in the Levant, urbanism was not a phenomenon introduced by the Romans, but goes back as far as the Neolithic PPN era, even if not of the same order of magnitude as that seen in Egypt and Mesopotamia. Places such as Jericho, Gaza and Damascus boast a settlement history spanning several millennia. Even so, for the southern Levant as well as the north, by the Roman period the majority of Bronze and Iron Age urban centres had lost their importance, with places like Gezer, Lachish and Shiloh all but deserted, while a new urban system had been introduced, to a large degree initiated in the Hellenistic period.[390] Still, in the south, significantly more Roman cities were found on the sites of cities predating the Hellenistic period, even if not continuously inhabited. Consider for example places with great antiquity like Jerusalem, Gaza, Damascus and Pella in the Decapolis.[391] Bostra appears to have been a MBII fortified settlement, and there are indications that the tell at Suweida had been fortified in the Bronze or Iron Age.[392] Clearly new foundations in the Hellenistic and Roman periods could often be found at older sites, with Scythopolis at the site of Beth She'an, Neapolis close to Shechem, and the garrison of Legio VI Ferrata near the ruins of Megiddo.[393] At the onset of Roman expansion in the Near East, the settlements of the Levant looked very different from the Egyptian, Babylonian and Assyrian times, but their legacy certainly lived on in the urban system of the southern Levant.

As the previous chapter did for the northern Levantine provinces, this chapter will describe the main characteristics of the urban system of the southern Roman Levant. As such, an overview will be presented of the location of its cities and settlements performing urban roles within the context of local geographic features. Secondly, the physical aspects of the cities in this region will be discussed, specifically focusing on settlement size and public buildings, in order to further evaluate this in the following chapter.

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[390] Yosef Garfinkel et al., 'The Canaanite and Judean Cities of Lachish, Israel: Preliminary Report of the Fourth Expedition, 2013–2017', *American Journal of Archaeology* 125, no. 3 (July 2021): 419–59, https://doi.org/10.3764/aja.125.3.0419; Grainger, *The Cities of Seleukid Syria*, 7–30.
[391] Will, 'Damas Antique', 3.
[392] Maurice Sartre, *Bostra. Des Origines à l'Islam.* (Paris: Librairie orientaliste Paul Geuthner, 1985), 44–50; Dentzer et al., 'Formation et développement des villes en Syrie du Sud de l'époque hellénistique à l'époque byzantine : les exemples de Bosra, Suweida, Shahba'.
[393] Yoram Tsafrir and Gideon Foerster, 'Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries', *Dumbarton Oaks Papers* 51 (1 January 1997): 88, https://doi.org/10.2307/1291763; Yotam Tepper, 'The Roman Legionary Camp at Legio, Israel: Results of an Archaeological Survey and Observations on the Roman Military Presence at the Site', in *The Late Roman Army in the Near East from Diocletian to the Arab Conquest*, ed. Ariel Lewin et al., vol. 1717, BAR International Series (Oxford: Archaeopress, 2007), 57.

From an organisational point of view, from the annexation of the Nabatean kingdom by Rome in 106 C.E., the southern Levant was divided into two provinces, the Provinciae Arabia and Judea, the latter known as Syria Palaestina after the Bar Kokhba revolt. Their borders, as far as known, were subject to change throughout the Roman period, with at least the northern Arabian frontier, which at first ran just north of Adraha, shifting further north under the Severi to include the region up to Shaqqa at first, and in the third century beyond the north end of the Trachonitis.[394] In this chapter, however, the region will be discussed in three parts: the Hauran and its direct surroundings, covering most of the north of the Provincia Arabia, but also including the Decapolitan cities of Scythopolis and Pella, which administratively fell under the province of Syria Palaestina; the southern part of the Arabian province including the settlements in the Negev; and the Judean province. This allows for a better understanding of the historical and environmental context of the cities, beyond Roman administrative decisions.

[394] Steven Menno Moors, 'De Decapolis: steden en dorpen in de Romeinse provincies Syria en Arabia' (Ph.D., 's-Gravenhage, Leiden University, 1992).

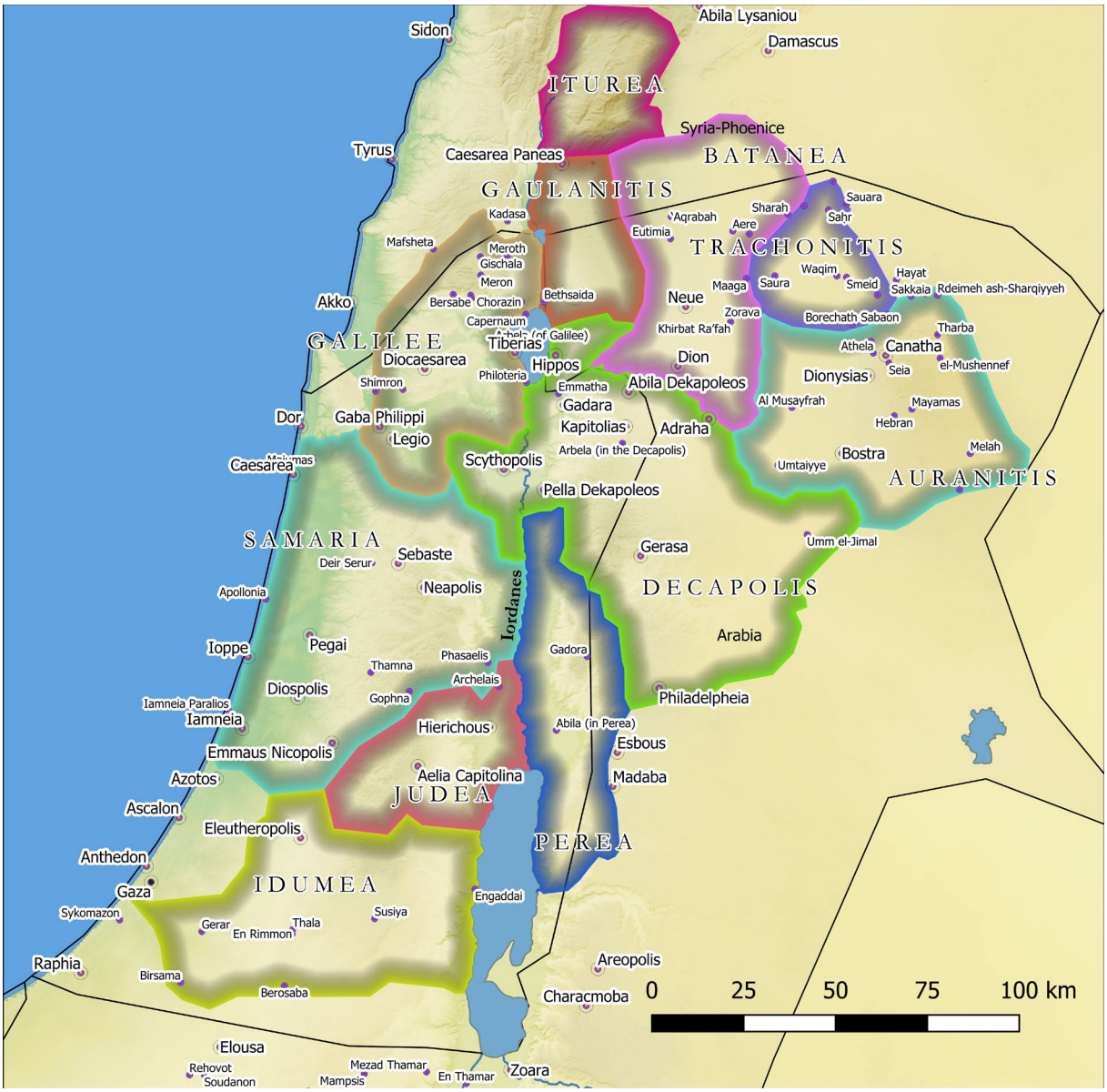

Figure 21 Typical representation of the regions in Syria Palaestina and northern Arabia

2.2 Syria Palaestina

2.2.1 Geography and regional organisation

Climatically, the region of Syria Palaestina offers great variation. Rainfall is generally sufficient for dry farming purposes, with a Mediterranean climate from the central mountain range to the west, with the highest rainfall in Galilee in the north declining southwards to the Negev desert, where, as the name already implies, there is a steep drop in precipitation. East of the central mountain range, in the Jordan Valley, rainfall is still abundant in the north around Scythopolis, but rapidly declines to levels below the minimum required for dry farming when reaching the shores of the Dead Sea. Nonetheless, the valley still receives enough freshwater for agricultural purposes from the river, springs and downflow from the mountains during the wet season, when making use of catchment and irrigation techniques.

Contemporary geographers and writers, including Ptolemy, Pliny and Josephus, generally described the region encompassed by the province of Syria Palaestina from north to south with the names Galilee, Samaria, Judaea and Idumaea, using the name Peraea for the area across the Jordan and the Dead Sea, south of Pella. The borders between Galilee, Samaria and Judaea are not particularly clear. Galilee consists of the Western Galilee, part of the coastal plain, and Upper and Lower Galilee (part of the central highland region). Mostly between 500 and 700 m altitude, it has high annual rainfall and is considered very fertile. Samaria is made up of the Samarian hills to the south of Galilee. Judaea consists of the following highland region to the south up to and including Mount Hebron, but for some authors also includes the Judean desert east from the mountains to the Dead Sea, the Shephelah or Judean foothills and the coastal plain to the west.

The Hasmoneans and Herodians organized their lands as a series of toparchies, the basic administrative unit below that of tetrarchy or ethnarchy, which essentially were the various Herodian kingdoms (for instance, Archelaus was ethnarch of Judea, while Philip ruled a tetrarchy in the north, and Herod Antipas was tetrarch over Galilee and Perea). As Jones writes, this form of organisation was inherited from the Ptolemies, and had, after a century of Ptolemaic rule, been taken over by the Seleucids and the Hasmoneans.[395] Contrary to both the preferred Roman and Seleucid mode of organisation based on city territories, in the Hasmonean and Herodian system the regional capitals, perhaps better described as administrative centres, were not necessarily urban. It seems likely that the level of autonomy of a toparchy from the central government will have been more limited than that of a city.[396] Some administrative centres of

[395] Jones, *The Cities of the Eastern Roman Provinces*, 274.
[396] See in comparison for Egypt also L. de Ligt, 'The Urban System of Roman Egypt in the Early Third Century AD: An Economic-Geographical Approach to City-Size Distribution in a Roman Province' 47 (2017): 260–61, where toparchies also existed as tax-related territorial units, for which some central

toparchies were explicitly promoted to urban status, such as Lydda, Emmaus and Iamnia (although Josephus' description of the latter, as Benjamin Isaac suggests, may indicate that it was organised as a city ruling over its own territory already). Places like En Gedi and Jericho remained small settlements throughout the period, as did the toparchy centres in Perea. By all appearances, the Romans had in many instances taken over the existing system, turning toparchy centres at least nominally into cities, while in others they merged the old toparchies into other city territories; for instance, the toparchy of Tarichea seems to have become part of the territories of Tiberias and Diocaesarea.[397]

While in earlier times Jerusalem had been the capital of the region, the Roman governor generally resided in Caesarea Maritima. However, unlike Bostra, the capital of the Provincia Arabia, Caesarea was not the centre of military control. Instead, the legionary headquarters of the Legio X Fretensis were located at Aelia Capitolina (Jerusalem) since the revolts, and Legio VI Ferrata was stationed at Legio. Note how the name of Legio survived into the present in the name of the Palestinian village of Lajjun. A similar occurrence we find in Jordan, where a settlement on the site of a Late Roman legionary fortress is also still known as El-Lejjun.

Haensch speculates that the choice for Caesarea as a capital might have been based primarily on ease of communication through its harbour. After 135 the newly founded Aelia Capitolina on the ruins of Jerusalem might have made a reasonable alternative, but Caesarea may not just have been maintained because of its accessibility, but perhaps also as a reward for its loyalty to Rome during the revolts.[398] There is no clear evidence whether the governor held assizes outside of Caesarea. It appears from Josephus that before the revolt the governor did visit Jerusalem for Pesach, but it's not stated that he also presided over lawsuits. On the other hand, there is ample evidence of people travelling to or being brought to Caesarea in order to see the governor, both for legal as well as administrative business. The financial procurator appears to have been located in Caesarea as well.[399] There is thus no doubt that Caesarea was the political and

places also showed (limited) urban-like characteristics. But these were nonetheless secondary to higher order administrative units called nomes, with their own central places known as metropoleis.

[397] Uzi Leibner, *Settlement and History in Hellenistic, Roman, and Byzantine Galilee : An Archaeological Survey of the Eastern Galilee*, 1st ed. (Tübingen: Mohr Siebeck, 2009), 225; Benjamin Isaac, *The Near East under Roman Rule : Selected Papers*, Mnemosyne. Supplementum ; 177. 820947849 (Leiden: Brill, 1998)166; Jones, *The Cities of the Eastern Roman Provinces*, 275; But contra Martin Goodman and Oxford Centre for Postgraduate Hebrew Studies, *State and Society in Roman Galilee, A.D. 132-212* (Totowa, NJ: Rowman & Allanheld, 1983), 135.

[398] Haensch, *Capita provinciarum*, 232–34.

[399] Haensch, 227–29, 234–35, 238.

juridical centre of Roman Judea.

Figure 22 Syria Palaestina

2.2.2 Settlements and distribution

As discussed in the general introduction, cities and towns are here defined on the basis of juridical and administrative, functional and quantitative criteria. Essentially we ask whether a given place was officially called a city, looked like a city, functioned like a city and/or had enough

people living there to be considered a city. As stated, there is little explicit evidence for the juridical status of cities in the East. Identifying the official cities of Syria Palaestina therefore requires weighing up a number of potential indicators for urban status, such as the presence of urban officials, older privileges, coinage and settlement status in later periods. In the following section we will also look at the built environment. In the final section, in those regions where we are unable to identify cities per se, we also look at those settlements nonetheless performing central functions.

To begin with, there are those cities that were granted colonial status, the only clear official title used in an urban context in the Near East. In Syria Palaestina this gives us Caesarea Maritima, receiving its status under Vespasian, Aelia Capitolina, granted by Hadrian, and Sebaste, by Septimius Severus. Later in the third century Neapolis and possibly Gaza and Ashkelon would be added to this list.

New foundations are a clear indicator of urban status as well. Vespasian refounded Ioppe, as it had been destroyed (twice) by Roman troops, and in 71-2 C.E. founded Neapolis.[400] Apparently only under Severus was Eleutheropolis founded at Beth Govrin; it was granted the toparchies of En Gedi and Bethletepha as well as its own territory. Diospolis was founded at Lydda, and also gained the toparchy of Thamna.

A further indicator is the right to strike coins throughout the Principate. That gives the following cities: Ptolemais, Dora, Caesarea, Ashkelon, Gaza, Raphia, Gaba Philippi, Sepphoris/Diocaesarea, Sebaste, Tiberias and Neapolis. For some, coinage does not start until the end of the second century or under the Severans, such as Ioppe from Caracalla to Severus Alexander, Eleutheropolis and Diospolis from Septimius Severus and Anthedon under Severus Alexander. For Nicopolis and Antipatris coinage is only known from Elegabalus.[401]

Finally, the appearance of a city on the lists of bishoprics from later centuries usually indicates that they held city status. These confirm the places named above, and show that Apollonia, Iamnia, Ashdod Yam, and perhaps the port of Ascalon had also gained in importance by the 6th century, as did Helenopolis founded by Constantine and the city of Ono near Diospolis from the reign of Diocletian onwards.[402]

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[400] Jones, *The Cities of the Eastern Roman Provinces*, 275–78.
[401] Jones, 280–81, 462 note 72; Avner Ecker, 'The Coinage of Jaffa in the Roman Period', *Israel Numismatic Journal* 17 (2010): 151–76; 'RPC', VI 8980-8990, 8999-9006.
[402] Jones, *The Cities of the Eastern Roman Provinces*, 281–82; Yoram Tsafrir, *Tabula Imperii Romani : Iudaea-Palaestina : Eretz Israel in the Hellenistic, Roman and Byzantine Periods : Maps and Gazetteer* (Jerusalem: Israel Academy of Sciences and Humanities, 1994), 142.

Beyond these more straightforward cities, it becomes clear that urban status should rather be considered a spectrum. For instance, to what degree should a place like Ioppe be considered urban? It was a rather small settlement, with only late and limited issues of coins. But, as such, it should then be considered a self-governing settlement within the urban system of the time. Conversely, Magdala on the lake of Tiberias does not seem to have been recognised as a city only judging by the indicators above, but its archaeological record suggests it was at the very least as urban as Ioppe, even if it was a rather small settlement as well. [403] Again, we must consider it to have qualified as another central node within the regional urban system, perhaps only as a 'functional' town.

Within Palaestina, we have only two other settlements, Iamnia and Azotos, whose place on the urban spectrum remains somewhat unclear. That is, at least before they appeared in the bishops lists. Both Iamnia and Azotos had already received their freedom under Pompey and had been refounded by Gabinius, but it has been suggested that since then they lost their status of self-governing cities and became administrative centres of imperial estates. Nonetheless, Iamnia appears to have done well throughout, whatever its official status. Moshe Dothan shows that after the first revolt all that was left of Azotos was a small village. This remained so into the Byzantine era; in the words of Eusebius: "a minor townlet of a certain importance".[404] And the port of Azotos, independent of Azotos itself, which would become a city in the Byzantine period, does not seem to have had extensive Roman habitation.[405] There are no major cities from any other point of view, be it demographic or economic, that did not strike any coins (like Apamea in the north) or that show no other sign of having received urban status. Neapolis lost its city rights when it chose to side with Pescennius Niger against Septimius Severus, but that was a temporary situation, and it did not make the place any more a village than it did Antioch in similar circumstances.

Somewhat surprisingly, size estimates are available for all of the 25 cities in the region – including those settlements that only gained urban status later, but already performed a central role (see Table 3 below. In italics are those places treated later when discussing the Decapolis). However, for only ten do we have a reasonable idea of the public buildings that existed in the cities in the Roman period, and for five only a single or a few elements are known. In most cases,

[403] Stefano De Luca and Anna Lena, 'The Harbor of the City of Magdala/Taricheae on the Shores of the Sea of Galilee, from the Hellenistic to the Byzantine Times. New Discoveries and Preliminary Results', in *Häfen Und Hafenstädte Im Östlichen Mittelmeerraum von Der Antike Bis in Byzantinische Zeit: Neue Entdeckungen Und Aktuelle Forschungsansätze ; Istanbul, 30.05.-01.06.2011. 1 1*, ed. Sabine Ladstätter, Felix Pirson, and Thomas Schmidts, vol. 1, BYZAS 19 (İstanbul: Ege Yayınları, 2014), 113–64.
[404] Eus., *Onom.*, ed. Steven Notley and Zeev Safrai (Brill, 2005), 18,20:11,22.
[405] Ephraim Stern, Ayelet Lewinson-Gilboa, and Joseph Aviram, *The New Encyclopedia of Archaeological Excavations in the Holy Land* (Jerusalem: The Israel Exploration Society & Carta, The Israel Map and Publishing Company, 1993), 93–102; Jones, *The Cities of the Eastern Roman Provinces*, 259, 274.

this is due to continuous habitation on the same location. For example, Gaza is virtually unknown, except for literary references – mentioning for instance the destruction of its many temples – and the suggestion that city walls from later periods may have followed the layout of their Roman predecessors.[406] But, as is evident for instance from Damascus, such assumptions should be made with caution, because the later walls only appear to coincide with Roman remains at a few points.[407] Even for those cities showing more features, as shown in Table *4*, the state of knowledge is not necessarily very good. Here too, later occupation or land use can pose a major problem. For instance, Emmaus is covered by a highway and even Jerusalem is very poorly known for the Roman period, compared to its many other layers of occupation.

The cities of Roman Palestine appear somewhat evenly distributed, and with an average nearest neighbour distance of 11,5 km between cities, they were also rather close to each other. The longest distance between two neighbouring cities (disregarding other, closer neighbours in other directions) is only 58 kilometres, from Neapolis to either Aelia Capitolina or to Emmaus. A larger concentration of settlements lay around the lake of Galilee, with Tiberias enjoying urban status, and on the Decapolitan side of the lake, Hippos as well. Further south, Samaria and Neapolis lay relatively close to each other, but as indicated, more removed from the other cities around them. On the other hand, in Perea and in the Jordan Valley, in the former toparchies of Jericho, Amathus, Abila and Gadora, no cities came into existence.

[406] Jean-Baptiste Humbert and Yasser Mattar Abu Hassuneh, *Gaza méditerranéenne : histoire et archéologie en Palestine* (Paris: Errance, 2000).
[407] Saad and Benech, 'Nouvelles Données Sur Le Plan Antique de Damas', 6–8.

A claim to urban status did not necessarily make settlements particularly large. The governor's seat, Caesarea Maritima, appears to have grown beyond the 64 hectares of the Herodian walls, but at the end of the second century was, in all probability, still smaller than the 110 hectares of the Byzantine walls.[408] Inland, Neapolis, like Scythopolis in the Decapolis, seems to have been a more sizeable settlement.[409]

Table 3 City sizes Palaestina

	(ha)
Neapolis	100
Scythopolis	*80*
Abila Dekapoleos	*75*
Caesarea	65
Sebaste	64
Diospolis	60
Aelia Capitolina	60
Ascalon	54
Diocaesarea	50
Iamneia	50
Gaza	46
Emmaus Nicopolis	45
Tiberias	37
Eleutheropolis	30
Gadara	*30*
Legio	30
Anthedon	15
Gaba Philippi	14
Azotos	12
Raphia	12
Dor	11
Pella Dekapoleos	*10*
Pegai	10
Ioppe	9
Capitolias	*7*

The other, larger cities, measured between 40 and 65 hectares, not particularly large compared to other regions. More notable is that many cities were smaller than 20 hectares. Some, like Ioppe, Anthedon and Dor on the coast seem to have been considered important settlements, despite their diminutive size.[410] In fact, these data highlight the fact that besides Caesarea and Ascalon, most of the coastal towns in the area were small settlements. Gaza and possibly Iamnia were among the larger settlements, but lay somewhat inland, having dependent harbour settlements, as did the smaller town of Azotos, whose coastal settlement, Ashdod Yam, would outgrow it by the Byzantine period. On the other hand, the group of four larger cities from Aelia Capitolina to the coast (Aelia, Emmaus, Lydda and Iamnia) together made up a quarter of urban hectares in the whole region, discounting the Decapolitan cities. This much already makes clear that, while by location the cities were relatively well distributed, this was clearly not the case in terms of size.

2.2.3 Public buildings and urban profiles

Table *4* shows a selection of public buildings currently known and likely to have been present under the Severi in the cities of Syria Palaestina, both from textual and from archaeological sources. As in the north, most cities appear to have been adorned at least with a temple, theatre, baths and a colonnaded street, and obviously various forms of water infrastructure. However, as

[408] Joseph Patrich, *Studies in the Archaeology and History of Caesarea Maritima: Caput Judaeae, Metropolis Palaestinae*, Ancient Judaism and Early Christianity 77 (Leiden: Brill, 2011), 94.
[409] Yitzhak Magen, *הרומית בתקופה שכם :ניאפוליס פלאביה [Flavia Neapolis: Shechem in the Roman Period]*, Judea and Samaria Publications 5 (Jerusalem: ארכיאולוגיה מטה קצין, ושומרון ביהודה האזרחי המנהל, העתיקות רשות, 2005), 49.
[410] But note that this is quite comparable for instance to Northern Italy, where we find average city sizes below 20 hectares as well. Peter de Graaf, 'Roman Gentrification: From the Sixth Century BC to the Death of Trajan' (Ph.D., Leiden, Leiden University, 2022), 25–41, https://hdl.handle.net/1887/3483641.

has been mentioned before, most of the cities showing few buildings have only a very limited archaeological record, making a general analysis of the data harder. It is nonetheless possible to discuss the few better-known cities in some more detail.

Table 4 Buildings in Syria Palestina (excluding the Decapolis)

	Baths and Water provision	Commercial infrastructure	Elite buildings	Entertainment	Military	Sanctuary & Temple	Status buildings	*Grand Total*
Aelia Capitolina	2	4			1	3	2	*12*
Caesarea	1	3	2	3	1	1		*11*
Sebaste	1	4		2	1	2		*10*
Diocaesarea	4	3	1	1		1		*10*
Tiberias	3	2		3	1	1		*10*
Legio	2	3		2	1			*8*
Dor	2	3		1		1		*7*
Neapolis	1	1		2		1		*5*
Ascalon		3		1	1			*5*
Diospolis	1	3				1		*5*
Emmaus Nicopolis	4			1				*5*
Eleutheropolis	1			1				*2*
Gaza					1	1		*2*
Gaba Philippi	1							*1*
Pegai		1		0				*1*
Grand Total	**23**	**30**	**3**	**17**	**7**	**12**	**2**	***94***

The Roman city of Aelia Capitolina no longer enjoyed the grandeur that the city had known under the Hasmoneans and Herodians. Jerusalem was an old city, in, as Galor and Bloedhorn state, perhaps a surprising location for a city that often acted as the capital of Palestine. It lacked easy access through its hilly surroundings and the city was spread out over several hills between 660 and 770 meters in altitude. Furthermore, it had limited water sources, the Gihon spring being the only perennial spring.[411] While human presence goes back to the Chalcolithic, the first

[411] Katharina Galor and Hanswulf Bloedhorn, *The Archaeology of Jerusalem: From the Origins to the Ottomans* (New Haven: Yale University Press, 2013), 11–15.

traces of buildings date to the Early Bronze Age. Around 1850 B.C.E. it was first fortified with a wall surrounding an area of around 4 hectares in size, and around that time also first appeared in written sources.[412] During the Iron Age, the city greatly expanded, with the construction of the First Temple and expanded fortifications. Although these Early Iron Age constructions – including the Temple – have not been traced, later 8th- to early 7th-century fortifications have been uncovered.[413] After the Babylonian destruction of the city in 586 B.C.E., it was reduced to its Early Iron Age size, but the Temple was rebuilt at the end of the sixth century.

After the plundering of Jerusalem by Antiochus IV and his actions resulting in the Maccabean Revolt, the city started to flourish as the capital of the expanding Hasmonean state, with extended walls, a palace, aqueducts and Jason's gymnasium. Herod's monumentalisation of the city went even further. Besides reconstructing the Hasmonean fortress, renaming it Antonia in honour of Mark Antony, he built another palace, colonnaded streets, a theatre and a circus, but most importantly, he completely reconstructed the Temple and expanded the enclosure on

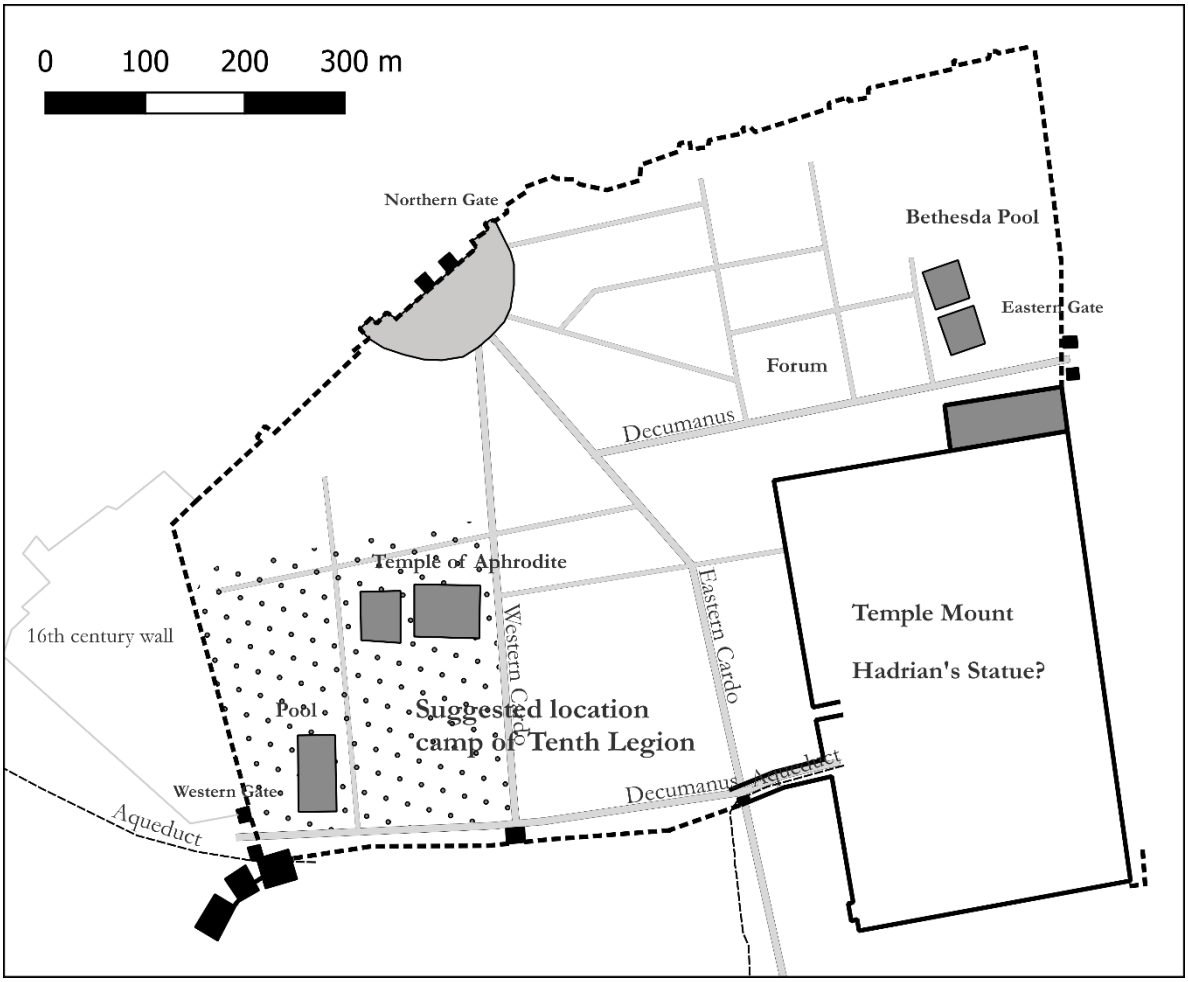

Figure 23 Proposed location of the walls of Aelia Capitolina (after Bar 1998, fig. 1)

412 Galor and Bloedhorn, 18–21.
413 Galor and Bloedhorn, 28–38.

Temple Mount. It is thought that just before the revolt the city covered between 156 and 180 hectares.[414]

Large parts of Jerusalem were ruined in the First Revolt, and the city was reconstructed by Hadrian. While archaeological remains of the previous periods are limited, for the Roman city they are very poor indeed. A triple-arched gateway and an oval plaza, from which the two main streets began, are known, and also the colonnaded streets, another triumphal arch, and aqueducts. Other buildings are only known from literary sources, such as temples for Jupiter and Aphrodite, a forum and a covered market. The very late *Chronicon Paschale* suggests the existence of a theatre, baths and perhaps a nymphaeum (described as a τετράνυμφον).[415] The exact location of the camp of the tenth legion has not been pinpointed either, and various suggestions have been made. It appears that only a part of the legion was actually stationed inside the city, with a larger part on the outskirts, at Givat Ram and Ramat Rachel.[416] The city was only fortified at the end of the third century, presumably when the legion was transferred south to Aila on the gulf of Aqaba, and the second- and third-century city will in any case have been smaller than the 74 hectares encompassed by the city walls currently visible, which may have been more or less the size of the city in the Late Roman period. Doron Bar's suggestion – of which he himself admits is as speculative as any other – puts the size of the later third-century walled area to just under 50 hectares. Of this, 12 hectares were taken up by the Temple Mount precinct, which, apart from the imperial statues, remained abandoned and in ruins, and was only used as a source for building material. It is also unclear whether the temple of Jupiter was built on the location of the Second Temple.[417] As stated above, the city proper remained unwalled until the later third century. Bar's interpretation (Figure 23) however places the legionary base around the Towers Pool and the Temple of Aphrodite. A recent publication by Shlomit Weksler-Bdolah (Figure 24), reflects a more commonly held view that the camp should be sought on the southwestern hill, roughly adding 20 to 25 hectares to Bar's estimate.[418] With that interpretation, the city would consist of just under 40 hectares of unwalled civilian settlement,

[414] Galor and Bloedhorn, 15–17, 63–112; Peter Richardson, *City and Sanctuary: Religion and Architecture in the Roman Near East* (London: SCM Press, 2002), 158–59, 180–82.
[415] Richardson, *City and Sanctuary*; Galor and Bloedhorn, *The Archaeology of Jerusalem*, 113–26; Hannah M. Cotton et al., *Corpus Inscriptionum Judaeae/Palaestinae : A Multi-Lingual Corpus of the Inscriptions from Alexander to Muhammad*, vol. 1 (Berlin: de Gruyter, 2010), 20–22; *Chron. Paschale*, ed. L. Dindorf, Corpus Scriptorum Historiae Byzantinae 11–12 (Bonn, 1832), 1,474.
[416] Galor and Bloedhorn, *The Archaeology of Jerusalem*, 115–16.
[417] Cotton et al., *Corpus Inscriptionum Judaeae/Palaestinae*, 1:19; Doran Bar, 'Aelia Capitolina and the Location of the Camp of the Tenth Legion', *Palestine Exploration Quarterly* 130, no. 1 (1 January 1998): 8–19, https://doi.org/10.1179/peq.1998.130.1.8.
[418] Shlomit Weksler-Bdolah, 'A Plan "Aelia Capitolina" in the 4th c. A.D', in *Roman Jerusalem*, 2017; Shlomit Weksler-Bdolah, 'Aelia Capitolina: The Roman Colony and Its Periphery', accessed 22 July 2020, https://www.academia.edu/41689405/Aelia_Capitolina_The_Roman_Colony_and_Its_Periphery; Shlomit Weksler-Bdolah, *Aelia Capitolina* (Brill, 2019), https://doi.org/10.1163/9789004417076_004.

20 to 25 hectares for the military base and 12 hectares for the ruins of the Temple Mount. We may conclude that the city of Aelia Capitolina was a rather modest city, both in comparison with its former self, and compared to contemporary cities in the Roman East.

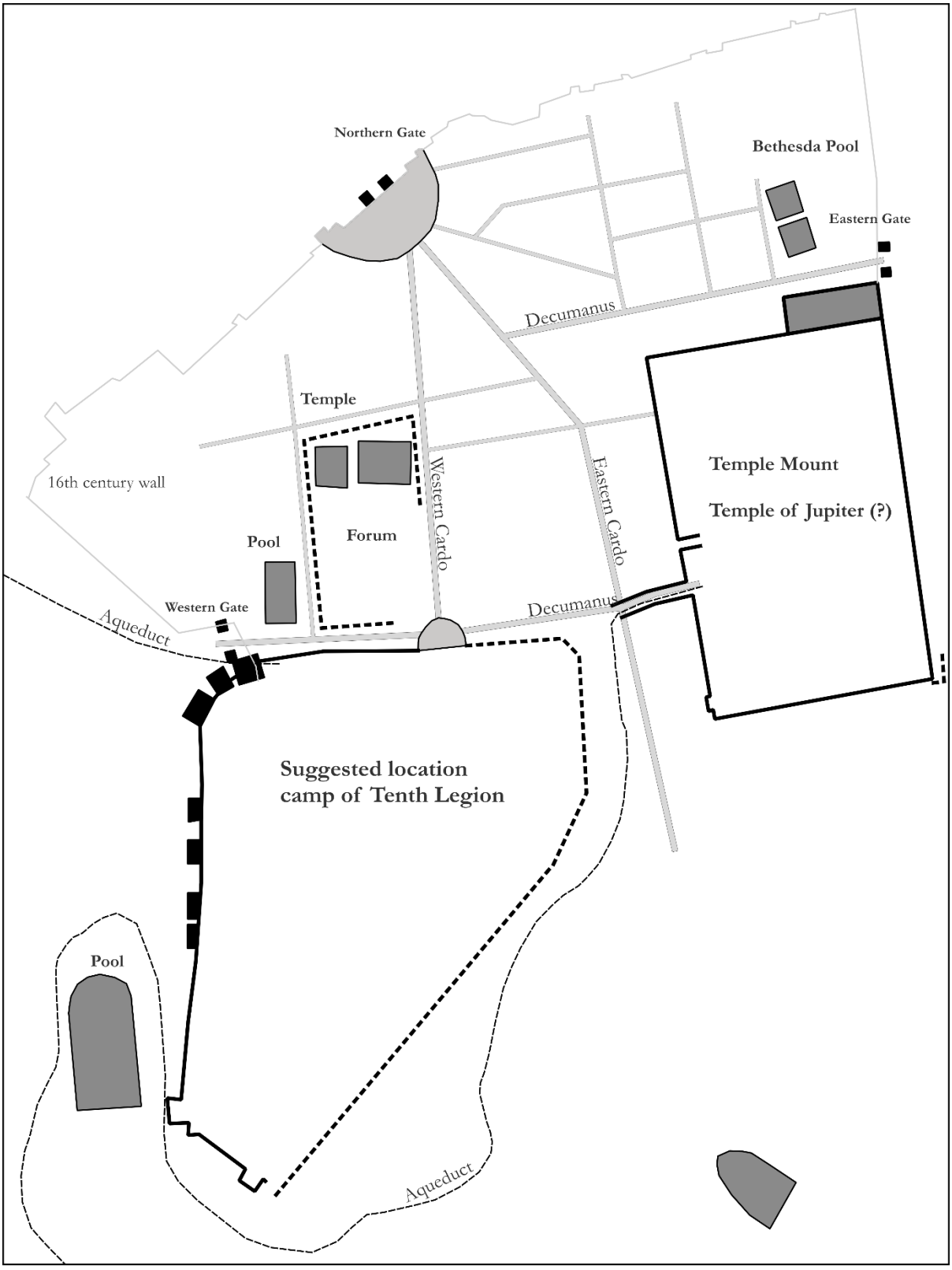

Figure 24 Alternative proposal for the walls and location of the camp (after Weksler-Bdolah 2019, fig. 24)

During the Roman period, no other city in the region would come close to match Jerusalem in size before it was destroyed in the Revolt. The new capital of Caesarea Maritima, receiving all the benefits of imperial attention, with the added boons of ease of access and a well-built harbour – while the southern Levantine coast mostly lacks good natural harbours – still was no equal to Jerusalem. Even so, Herod greatly invested in his new port city, as can be seen in Table *4*. Several of the buildings described by Josephus have been attested archaeologically, such as the first hippodrome and the praetorium built by Herod, which remained in use into the Byzantine era. Similarly, later imperial investment is evident, with the hippodrome built under Hadrian a good example. Interestingly, a colonnaded street has not yet been traced .[419] Furthermore, Caesarea was one of the few cities that seems to have had an amphitheatre, although its identification is not certain.[420] The only other places in Syria Palaestina that had one were Eleutheropolis, Nicopolis – where it may have been built later in the third century – and Neapolis, where certainly only in the second half of the third century was the hippodrome converted into an amphitheatre.[421] Legio may also have had one, even though the identification is somewhat uncertain.[422] At least from a Roman urbanistic point of view, Caesarea likely offered most amenities one would expect in a provincial capital.

Another good example of a new foundation is Tiberias, founded by Herod Antipas, a son of Herod. Josephus indicates in his histories that the city was populated (by force) with people from the surrounding area.[423] The subsequent presence of coinage, a council and an agoranomos fit well with the institutional view on urbanity.[424] At the same time, from the onset the city was laid out in a grid-like plan, with a theatre and a monumental gate. This town, which would remain a flourishing city throughout the Roman period, was created to match contemporary expectations of a city in its physical and institutional aspects.

At Legio, close to ancient Megiddo, only recently were the military headquarters of the Legio VI Ferrata mapped with geophysics, and these are currently being excavated. Evidence for the civilian settlement is however still limited, and mostly relies on observations made at the beginning of the twentieth century by Schumacher, who described buildings such as the remains of colonnaded streets and a theatre or amphitheatre.[425] It appears that, unlike for instance

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[419] Patrich, *Studies in the Archaeology and History of Caesarea Maritima*, 10–11, 42-44. 68-70, 91.
[420] Supposedly built by Herod the Great. See Zeev Weiss, 'Theatres, Hippodromes, Amphitheatres, and Performances', in *The Oxford Handbook of Jewish Daily Life in Roman Palestine*, ed. Catherine Hezser (Oxford University Press, 2010), 0, https://doi.org/10.1093/oxfordhb/9780199216437.013.0034.
[421] Magen, *ניאפוליס פלאביה*, 179–210.
[422] Yotam Tepper, 'Megiddo, Survey', Hadashot Arkheologiyot – Excavations and Surveys in Israel. Volume 125, 28 November 2013, http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=5390&mag_id=120.
[423] Jos., *Ant.*, XVIII.ii.3.
[424] Jos., XVIII.vi.2; Jos., *Bell. Jud.*, II.ix.1; Jones, *The Cities of the Eastern Roman Provinces*, 277.
[425] Gottlieb- Schumacher, *Tell el-Mutesellim : Bericht über die 1903 bis 1905 ... vom Deutschen Verein zur Erforschung Palästinas veranstalteten Ausgrabungen* (Leipzig: Rudolf Haupt, 1908).

Zeugma and Bostra, the legionary camp was not attached to an already existing city. This town is the only example of this phenomenon in the East before the third century. A Jewish village, Kefar 'Othnai, rendered as Caparcotani in Roman sources, was located nearby, and before the end of the third century a settlement had come into existence which received urban status in 305 C.E. under the name of Maximianopolis.[426]

Some general trends can be discerned in the monumental profiles of the cities of Syria Palaestina. As is clear, many places owed at least some of their monumental architecture to Herod. While especially Jerusalem, Caesarea and Samaria seem to have benefited from construction work, theatres are attributed to his reign in Jericho, Masada and Herodium, and baths, a palace and colonnades in Ascalon.[427] Outside of his domains, he appears to have sponsored works in Antioch, Damascus, Acco and Sidon.[428] As stated, his grand fortresses were destroyed during the revolts. His successors were responsible for at least some of the constructions at Tiberias (at least the walls and the theatre) and in what would become part of the Decapolis, in Caesarea Philippi (Paneas).

Zeev Weiss has recently argued that the design of Herod's buildings suggest that he intended these to be fit for multiple purposes. The race tracks at Samaria, Caesarea and Jericho fell somewhere between a Roman circus and a Classical stadium in size, and were wide enough for chariot races. Furthermore, those at Samaria and Jericho were surrounded with colonnades, reminiscent of a palaestra, while the stadium in Jericho also incorporated a theatre.[429]

The theatre built by Herod in Jerusalem is said to have been built of wood, contrary to those in other cities. It has been argued that when describing the theatre of Caesarea, Josephus emphasised that it was made of stone, as a contrast to that of Jerusalem. However, Weiss has argued that Josephus described it as having been cut out of the rock, not built up out of stone, and that it was mainly building techniques he was speaking of, rather than suggesting that the material was noteworthy. Also, the description by Josephus that the ornaments removed from the theatre of Jerusalem revealed the wood underneath, may indicate that these were wooden trophies covered with war spoils, rather than statues standing on the wooden floor of a (wooden) theatre. Archaeologically, a theatre dated to the Roman period has not yet been found

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[426] Yotam Tepper, 'Lajjun-Legio in Israel: Results of a Survey in and around the Military Camp Area', in *Limes XVIII: Proceedings of the XVIIIth International Congress of Roman Frontier Studies, Held in Amman, Jordan*, vol. 1, BAR International Series 1084 (Oxford: Archaeopress, 2002), 231–32.
[427] Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 105.
[428] David M Jacobson, Nikos Kokkinos, and Joseph Patrich, eds., 'Herodian Entertainment Structures', in *Herod and Augustus Papers Presented at the IJS Conference, 21st-23rd June 2005* (Leiden; Boston: Brill, 2009), 181, http://dx.doi.org/10.1163/ej.9789004165465.i-418.
[429] Zeev Weiss, 'Buildings for Mass Entertainment: Tradition and Innovation in Herodian Construction', *Near Eastern Archaeology* 77, no. 2 (1 June 2014): 102–5, https://doi.org/10.5615/neareastarch.77.2.0098.

in Aelia Capitolina. Considering the presence of spectacle buildings in other cities it is nonetheless to be expected that there was one, even though the earliest source dates to the seventh century.[430]

Disregarding those buildings only broadly dated, a (re-)construction phase attributed to Hadrian can be seen in Aelia Capitolina, Caesarea, Tiberias, Gaza, and possibly Neapolis . Similarly, Septimius Severus' influence can be seen in Sebaste, Ascalon and possibly Emmaus (but as said, the amphitheatre of Emmaus may have been built later in the third century).

Concerning defences, only five of the settlements were fortified by the end of the second century. Of these, the walls of Gaza are only referred to in connection with the siege of Alexander, and appear in Late Antiquity on the Madaba map. The walls of Ascalon were the same earthen ramparts that had been built in the Middle Bronze Age, and while they were refortified late in the Hellenistic period, there is no indication whether they were in any useable state for defensive purposes before a restoration during the later third or fourth century.[431] As such, only the cities of Caesarea, Tiberias and Diocaesarea were clearly walled. The number of fortified towns increased in the following centuries, as is clear from the number of walled places shown on the Madaba map, where even Archelais, still a village in the second century, is shown as fortified. Aelia Capitolina had a garrison, but the city was not walled again until later in the third century.[432]

Cities with a regular street grid appear far less in this region than in the north. Interestingly, at Dor, it appears that an orthogonal grid was present from the Persian period (ca. 6th century B.C.E.) and continued in use throughout the Hellenistic period, but was no longer adhered to by early Roman times, as the Roman baths built in this period, and the second- or third-century theatre did not follow it. In this area, city layout appears to have been dictated far more by the shape of the terrain. Besides Magdala and Tiberias, only Herod's monumentalised cities of Caesarea and Sebaste had a clear orthogonal street grid.

2.2.4 Non-urban central places

As distances between the cities were not very large, with an average distance of 11,5 km to their nearest neighbour, as well as evenly distributed, there are relatively few areas in the region that

[430] Weiss, 100–102; Frank Sear, *Roman Theatres: An Architectural Study* (Oxford etc: Oxford University Press, 2006), 304; *Chron. Paschale*, 1,474.
[431] Lawrence E. Stager, John David Schloen, and Daniel M. Master, *Final Reports of the Leon Levy Expedition to Ashkelon. Ashkelon 1: Introduction and Overview (1985-2006)* (Winona Lake, Ind: Eisenbrauns, 2008), 215–16; B.Z. Kedar and W. G. Mook, 'Radiocarbon Dating of Mortar from the City-Wall of Ascalon', *Israel Exploration Journal* 28, no. 3 (1 January 1978): 175.
[432] Galor and Bloedhorn, *The Archaeology of Jerusalem*, 115.

lay outside optimal market distances. The largest areas not within the walking distance of major cities lie in Samaria, at a distance between 15 and 30 km around Sebaste and Neapolis. This includes, to the south, the regions around former toparchy capitals Thamna and Gophna, to the west part of the Sharon plain around Netanya, and north of Sebaste and Neapolis the region around Jenin, to the east the Jordan Valley and, beyond it, Perea. Furthermore, the region south of Jerusalem, around Hebron, also lies outside of urban coverage, as well as northern Galilee and the southern Golan.

In the Jordan Valley and Perea, it seems reasonable to assume that the villages which carried the name of the older toparchies retained their central function, such as Abila, Gadara, Amathous and Jericho. About Gadora (modern al-Salt – not the well-known Gadara near modern Jerash), little is known apart from a military inscription and a milestone, and Ptolemy considered it part of the Decapolis, rather than of the Perea.[433] North of Jericho in the Jordan Valley, either Archelais or Phasaelis (or both) were likely of some significance, with Archelais visible on the Madaba map as a walled town, and Phasaelis suggested by Mowry to have been an extensive settlement.[434] The same goes for Thamna and Gophna, thus closing the largest gap in the centre of the region. On the north side of the lake of Galilee, Bethsaida, renamed Julias by Philip the Tetrarch, may have acted as the centre for the region, which also remained a *klima* into the Byzantine period.[435]

Not every toparchy capital remained in existence into the Roman period. For instance, Narbata, 15 km northwest of Sebaste, was besieged and destroyed by Cestius Gallus in 66 C.E., as its siege camp and defensive walls mark the last period of habitation.[436] Instead, about 9 km north of Narbata, halfway towards Legio, Umm Rihan is described in the Samaria surveys as one of the larger villages in the region, at 3 to 4 hectares, with about a 100 courtyard houses, shops and a bath, and in the surrounding countryside around a hundred field towers, although these, whatever their function, may have gone out of use before the end of the second century.[437]

In the mountainous area east of the Dead Sea, Machaerus had a central, if rather inaccessible location, but was thoroughly destroyed after the First Jewish-Roman War. Similarly, the ceramics from the small port village and bath complex at Callirhoe suggest a habitation gap

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[433] Margaret O'Hea, 'Note on a Roman Milestone from Gadora (al-Salt) in the Jordan Valley', *Levant* 34, no. 1 (1 January 2002): 235–38, https://doi.org/10.1179/lev.2002.34.1.235; Ptol., *Geog.*, ed. Karl Müller (Paris: Alfredo Firmin Didot, 1883), 5.15.22.
[434] Lucetta Mowry, 'Settlements in the Jericho Valley during the Roman Period (63 B.C. - A.D. 134)', *The Biblical Archaeologist* 15, no. 2 (1 May 1952): 26–42, https://doi.org/10.2307/3209110.
[435] Rami Arav and Richard A. Freund, *Bethsaida : A City by the North Shore of the Sea of Galilee*, vol. 1 (Kirksville, Miss: Thomas Jefferson UP, 1995).
[436] Tsafrir, *TIR Iudaea*, 193; Adam Zertal, *The Manasseh Hill Country Survey. Vol. 1: The Shechem Syncline.*, Culture and History of the Ancient Near East ; Vol. 21.1. 183455843 (Leiden etc: Brill, 2004).
[437] Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 1314–15.

between the end of the first century and the Byzantine period, even though it is mentioned by Ptolemy.[438]

In the northern Galilee, Be'er Sheva or Bersabe, not to be confused with Be'er Sheva in Idumea, is noted by Josephus as the border between northern and southern Galilee, and one of the sites he fortified in defence against the Romans. It seems to have been one of the larger villages in the region. Even so, as Uzi Leibner showed, the village appears to have been declining in the second century and to have been abandoned by the second half of the third century. In its stead, nearby Kefar Ḥananya, more accessible and closer to the road towards Akko, became the larger village.[439] Further north, Kadasa (on Tel Qedesh), Meroth, Meron and Mafsheta could have been the most important villages. For Kadasa (or Kedesh, Cydasa) it is clear from Josephus that the village had become part of the territory of Tyre, showing the extent of that city's territory, at least in the first century. It seems to have been a large village, with two temples and several mausolea dating from the second to late third century.[440]

Southern Judea, also known as the Daroma, had become part of the territory of Eleutheropolis. As it nonetheless lay over 25 kilometres from Eleutheropolis, several settlements appear as viable candidates to have acted as central places for the area, such as Hebron, Caphar Baricha, Beth Zur and, at the edge of the 250mm isohiyet, perhaps Chermela, which in the late empire received a military garrison.[441] The former toparchy capital of Adora, like Marisa near Eleutheropolis, appears to have been destroyed.[442] It appears that Ziph was the toparchy centre of the area south of Hebron, at least between the Jewish Wars.[443]

Only the gap of settlements in the Sharon plain is currently hard to fill . Information in the TIR Iudaea is sparse, as for most of the coastal plain, and the area is covered by four maps in the Archaeological Survey of Israel that have not yet been published. In this region, the road station and village of Bethther on the Antipatris-Caesarea road known from the Antonine Itineraries and the Bordeaux Pilgrim, the nearby village of Theraspis, or the village of Natania on the coastal

[438] Yvonne Gerber, 'Review', *Bulletin of the American Schools of Oriental Research*, no. 312 (1 November 1998): 86–89, https://doi.org/10.2307/1357679; Christa Clamer, *Fouilles archéologiques de ʿAïn ez-Zâra/Callirrhoé, villégiature hérodienne*, Bibliothèque archéologique et historique ; t. 147. 852438184 (Beyrouth: Institut Français d'Archéologie du Proche-Orient, 1997).
[439] Leibner, *Settlement and History in Hellenistic, Roman, and Byzantine Galilee*, 122–28.
[440] Roi Sabar, 'Josephus' "Cydasa of the Tyrians" (Tel Qedesh) in Eastern Upper Galilee', *Journal of Roman Archaeology* 31 (ed 2018): 387–405, https://doi.org/10.1017/S1047759418001393.
[441] Tsafrir, *TIR Iudaea*, 103.
[442] Jones, *The Cities of the Eastern Roman Provinces*, 274.
[443] Jodi Magness, *The Archaeology of the Early Islamic Settlement in Palestine* (Eisenbrauns, 2003), 94, note 7; Jones, *The Cities of the Eastern Roman Provinces*, 261.

road may have been villages with a central function.[444] Similarly, on the north end of the plain, an imperial estate may have existed, centred around Bir el ʿAbd.[445]

That is not to say that important smaller settlements were only located outside city market radii, given for instance Arbela and Caphernaum in the Kinerret region, Nazareth close to Diocaesarea and Beth She'arim, within 15 km of Gaba, Legio and Diocaesarea. This last town is of additional interest, as at least during the third century it served as a burial location for Jews from many places throughout the Diaspora, not just from the region.[446] Other examples are Gazara in the territory of Emmaus and the port settlements belonging to Gaza, Azotos and Iamnia.

While focussing on cities and larger settlements, it should be kept in mind that many parts of the region saw a densely occupied rural landscape. For instance, even in the aforementioned 'gaps' in urban coverage, a dense rural settlement pattern emerges from the Samaria surveys of the late 1970s and 1980s, with several hundred Roman period sites identified. As indicated for southern Samaria, most sites are very small, with only 45 out of 215 indicated as 'large', meaning over 1 hectare in size.[447]

Similarly, there is no doubt that the Galilee was densely settled during the later empire, even judging only from the number of rural synagogues found in the region. Lapin argued, following Bar, that the population reached its peak during this period, while Uzi Leibner considers the second and third centuries to have been the most prosperous period in the region, while from the fourth century, despite the increased building activity in the region, there was in fact a population decline.[448] Jodie Magness has pointed out that the decline suggested by Leibner in the fifth century may be misleading, as it appears that the fifth century saw a lot of reuse of earlier coinage. Either way, the second and third century demographic rise of 10 to 15% in comparison to the first century in the Eastern Galilee suggested by Leibner does not seem unrealistic, although the margins given are rather wide.[449] Even so, at this optimum, the two largest settlements in the region, Arbel and Magdala, at just 2 km apart, still fall in the category of only 6

[444] Tsafrir, *TIR Iudaea*, 87, 193, 249.
[445] Note that the Ḥorvat Migdal mentioned by Applebaum lay about 2 to 3 km to the northeast of Bir el ʿAbd, and is definitely not the Ḥorvat Migdal mentioned in the TIR at 16 km to the south. Shimon Applebaum, 'Royal and Imperial Estates in the Sharon and Samaria', in *Judaea in Hellenistic and Roman Times : Historical and Archeological Essays*, ed. Shimon Applebaum, Studies in Judaism in Late Antiquity 40, 1989, 99; Tsafrir, *TIR Iudaea*, 186.
[446] Benjamin Mazar et al., *Beth She'arim* (Jerusalem: Massada Press, 1973).
[447] Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 1313.
[448] Leibner, *Settlement and History in Hellenistic, Roman, and Byzantine Galilee*, 362, note 54; Uzi Leibner, 'Settlement Patterns in the Eastern Galilee: Implications Regarding the Transformation of Rabbinic Culture in Late Antiquity', *In Jewish Identites in Antiquity: Studies in Memory of Menahem Stern, Edited by Lee Levine and Daniel Schwartz*, 2009, 272–73.
[449] Jodi Magness, 'Did Galilee Experience a Settlement Crisis in the Mid-Fourth Century?', *In Jewish Identites in Antiquity: Studies in Memory of Menahem Stern, Edited by Lee Levine and Daniel Schwartz*, 2009, 296–313; Leibner, *Settlement and History in Hellenistic, Roman, and Byzantine Galilee*, 347.

to 9 hectares; the six settlements in the next highest category he surveyed measured between only 4 and 6 hectares.

The lack of cities in some areas may also be explained by the presence of Roman imperial estates. Some former Hasmonean and Herodian crown lands had upon annexation or through inheritance become Imperial property. This is the case for Gerara, south of Gaza, which is still described as an estate (saltus Gerariticus) in the sixth century, and possibly for the former kingdom of Chalcis.[450] Between Caesarea and Sebaste, in the Sharon plain, Shimon Applebaum argued for imperial estates centered around Bir el 'Abd (close to current HaMa'apil), possibly an estate belonging to Herod Antipas, in the southwestern part of the toparchy of Narbatta. Sartre is somewhat sceptical, but does not explain why.[451] There are indications for imperial property at Jericho, Archelais and En Gedi, with plantations for palms and balsam possibly going back to the Persian period.[452] In Peraea Herodian crown land is suggested as well, as a royal palace had existed either at Amathous or Betharampta, later known as Livias and then Iulias.[453] On the coast, Jamnia and Azotos were in fact bequeathed to her personally around 10 C.E., and Jamnia seems to have remained royal property at least until the death of Herod Agrippa I.[454] Even so, while it is possible that large regions were estates in their entirety, like the Lebanese forest in the north, without clear evidence it is impossible to prove more than that estates existed in the Jordan Valley and in Perea, rather than that the Jordan Valley and Perea as a whole were Imperial estates.

What emerges from this is that in most areas of Roman Palestine, there were actually not that many central places that lacked urban status. Most settlements performing urban-like functions, in many cases former toparchy capitals, were sooner or later recognized as cities, resulting in a rather dense network of small cities. Some of the exceptions would be larger villages performing a secondary role within the territory of a self-governing city, such as the above-mentioned Kadasa, Arbela en Caphernaum, or for instance the ports of Gaza, Azotos and Iamnia. Others could be the centres of an imperial estate. As far as evidence permits any suggestion - admittedly the evidence is slim - such non-urban central places were almost all very small, up to 10 hectares at most.

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[450] Jones, *The Cities of the Eastern Roman Provinces*, 282.
[451] Applebaum, 'Royal and Imperial Estates in the Sharon and Samaria', 99,104; Sartre, *The Middle East under Rome*, 107, 208–9.
[452] Martin Hengel, *Judaism and Hellenism: Studies in Their Encounter in Palestine during the Early Hellenistic Period* (Wipf and Stock Publishers, 2003), 44–46.
[453] Jos., *Ant.*, XVII 277; Jos., *Bell. Jud.*, II 59.
[454] Sartre, *The Middle East under Rome*, 207–11; Samuel Rocca, *Herod's Judaea: A Mediterranean State in the Classic World* (Wipf and Stock Publishers, 2015), 213–16; Moshe Fischer and Tamar Taxel, 'Ancient Yavneh Its History and Archaeology', *Tel Aviv: Journal of the Institute of Archaeology of Tel Aviv University* 2007, no. 2 (1 September 2007): 221–24.

2.2.5 Conclusion

The cities of Syria Palaestina were mostly smaller than those found in the north. This can be explained by different choices in regional and political organisation going back to the Hellenistic period, resulting in fewer cities with large territories. Even so, there were several significant urban centres, such as Caesarea Maritima, Neapolis and Tiberias. As in Syria, the urban centres of Syria Palaestina were not limited to the coast, with Neapolis and Aelia Capitolina being obvious examples.

The impact of the Jewish Wars is widely evident among the cities of Syria Palaestina. Several places that played a central role in the organisation of the Jewish kingdom, both settlements like Narbatta as well as fortresses like Herodion, Masada and Machaerus, were besieged, destroyed and abandoned. Jerusalem, once the grandest city of the southern Levant, mostly lay in ruins.

Nonetheless, a markedly local character can still be ascribed to the cities of the region, with only a limited diffusion of the Roman ideal-type city. Both smaller cities like Dora and Antipatris, as well as larger ones like Gaza remained tell-based settlements. The urban layout of all cities was heavily influenced by the terrain, leaving little room for uniform street grids. And while theatres, like elsewhere, appear to have been widespread, other entertainment buildings appear to have been limited to the largest cities, with the few amphitheatres mostly limited to the Severans or later. For cities considered to have been (Roman-)Hellenistic, the lack of attested gymnasia is similarly interesting, and although Herod's 'multipurpose' buildings may have performed a function for athletic games, it remains remarkable that no gymnasia were built after the revolts. But especially notable, compared to the rest of the Roman Near East, is the lack of fortifications in the region. While it is possible to ascribe this to an attempt to avoid another uprising by keeping the cities weak, it is noteworthy that one of the places that did retain its fortifications became the new centre of Jewish leadership: Tiberias, paradoxically one of the more 'Hellenistic' cities of the region.

Maintaining local forms of control, some areas do not seem to have been governed from a city, but have been administered from non-urban centres, essentially using the same toparchy-structure that had been present in the region since the Ptolemies, and would remain so throughout the Roman period. Some toparchies, such as Thamna and Gophna, were eventually merged into the territories of cities, while in others the toparchy capitals were eventually promoted to urban status, like Nicopolis and Eleutheropolis. As such, it took over two centuries of Roman control before a city-based organisation was adopted in the greater part of the province.

2.3 Northern Arabia or the Hauran, including the Decapolis, Batanea, Auranitis and Trachonitis

2.3.1 Regional definition and known settlements

The northern part of the Provincia Arabia covered a large part of the Hauran, especially after the shift of the provincial border towards the north under the Severans. The Hauran is a volcanic plateau which, due to the fertile soils in its plains and valleys, combined with an above average rainfall, was an important grain-growing region (Figure 25).[455] The regional subdivisions of the northern Provincia Arabia are not entirely clear. The Hauran is generally split up between the Golan, the Hauran plain (also known as the Nuqrah and Jedur plains in the south and north respectively), the lava fields of the Leja or Trachonitis, and the Hauran Heights (Jebel al-ʿArab or Jebel al-Druze), identified as the Auranitis. The Gaulanitis clearly equates with the Golan, and the Leja is easily identified as Trachonitis, described by Strabo as hilly with many caves, which before his time were full of brigands.[456] Additionally, when Strabo talks about the Trachones in plural, he probably included the Aṣ-Ṣafā lava field as well. Things become somewhat more complicated when considering that the Golan and parts of the plains lay outside the Arabian province, even after the Severan changes to the provincial borders. There are some complications defining the extent of Batanea, which is usually described as the region between Damascus, the Trachonitis and Gaulanitis, but depending on the source can be understood to cover some of the neighbouring other regions as well. [457]

The Decapolis is interesting, on the one hand because it consisted of cities spread over three provinces: mostly in the north of Arabia and Palaestina, and for a small part in Syria Phoenice. On the other hand, it was also a relatively recent creation, established by Pompey in 63 B.C.E. through the grant of independence to a group of cities both in and around the Hauran.[458]

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[455] Ball, *Rome in the East*, 239; Shimon Dar, 'The Nabateans in the Hauran', in *The Nabateans in the Negev*, ed. Renate Rosenthal-Heginbottom ([Israel]: Reuben and Edith Hecht Museum, 2003), 45*; Shimon Dar, 'הנבטים בחורן [The Nabateans in the Hauran]', in *The Nabateans in the Negev*, ed. Renate Rosenthal-Heginbottom ([Israel]: Reuben and Edith Hecht Museum, 2003), 67, 68 figures 103 and 104; See now also for an excellent overview: Jérôme Rohmer, *Hauran VI: d'Aram à Rome : la Syrie du Sud de l'âge du fer à l'annexion romaine (XIIe siècle av. J.-C. - Ier siècle apr. J.-C.)*, Bibliothèque archéologique et historique 217 (Beyrouth: Institut Français d'Archéologie du Proche-Orient, 2020).

[456] Strab., 16.2.16, 21.

[457] Thibaud Fournet and Thomas Weber, 'Adraha (Deraa) romaine et byzantine : développement urbain et monuments', in *Hauran V : la Syrie du sud du néolitique à l'antiquité tardive : recherches récentes : actes du colloque de Damas 2007. Vol. I.*, by Michel al-Maqdissi et al., Bibliothèque archéologique et historique ; t. 191. 852438184 (Beyrouth: Institut Français d'Archéologie du Proche-Orient, 2010), 171.

[458] Moors, 'De Decapolis', 1–3.

With the creation of the Decapolis, Pompey did not so much create a single political unit, but rather a group of cities independent from the rulers of the region, just as he reinforced local government among the coastal cities. This situation of independence lasted only for a relatively short period, considering that Augustus granted the cities to Herod. It actually became an administrative unit under Roman control from Herod's death to the formation of the Provincia Arabia, as a subdivision

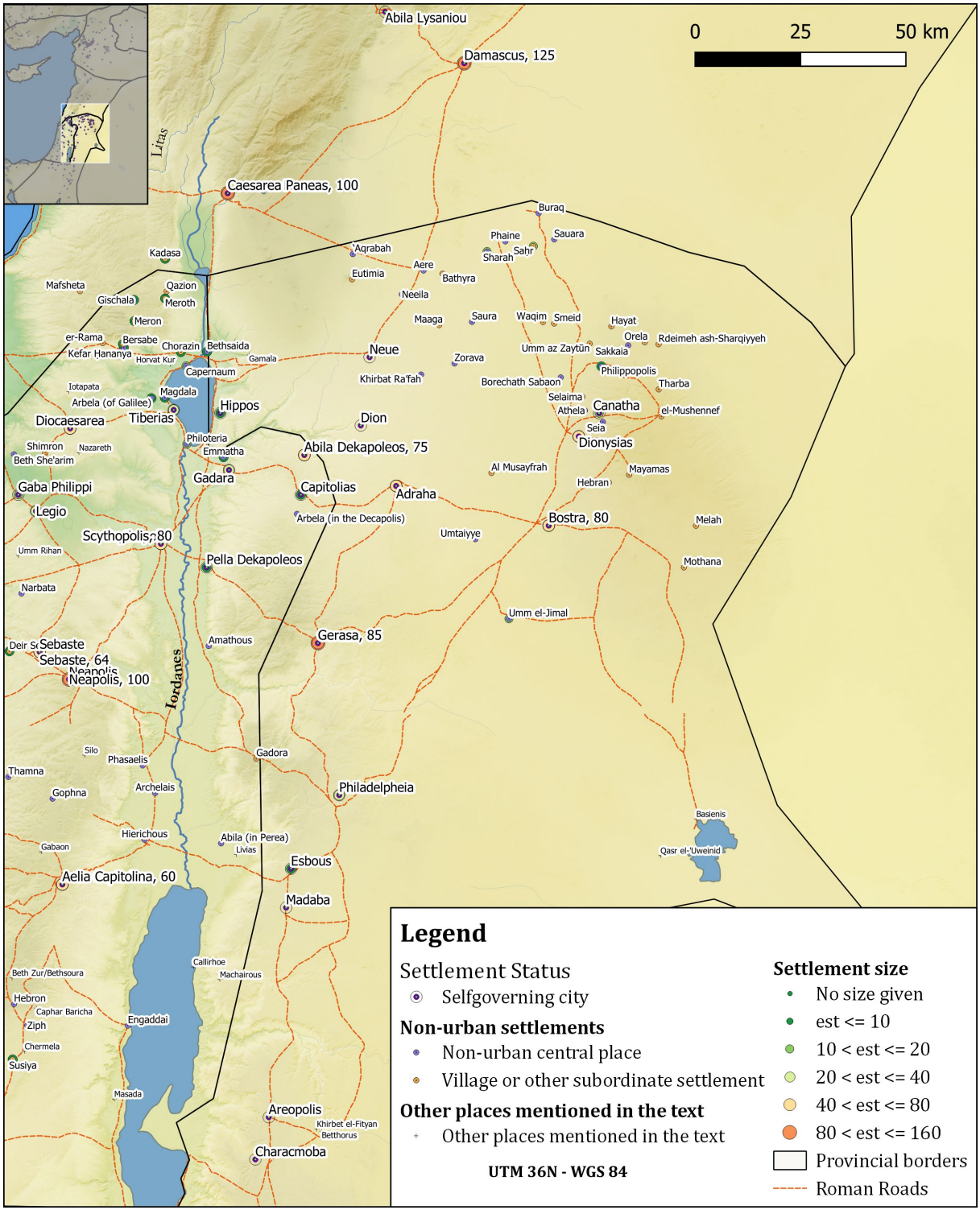

Figure 25 Northern Arabia

of the Provincia Syria, but after 106 C.E. the cities were distributed over three different provinces, with the larger part in Arabia. Ptolemy's continued use of the term in his geography, written several decades later, suggests that the term still held meaning at that time.[459] It is of course possible that the sources he used dated to before 106 C.E., but as a second-century inscription from Abila and the use of the term by fourth-century Christian writers indicate, there is no reason to doubt the continued use of the name Decapolis, if only as a geographical term.[460]

The extent of the region can be roughly defined by the cities that were considered to be part of it, which means it included territory from Philadelphia (Amman) to Damascus. Therefore it includes all of the above-mentioned regions as well, and is in that sense not limited to the area marked as Decapolis in Figure 21. There is some discussion as to whether Damascus itself should be included in the Decapolis. In this thesis, Damascus will explicitly not be considered part of the region. Jones, however, follows Pliny and Ptolemy, who both list Damascus among the Decapolitan cities, indeed with a hint from Pliny that most but not all writers before him include the city.[461] Kropp lends more weight to Josephus calling Scythopolis the largest city of the Decapolis, and the use of a non-Pompeian era by Damascus is significant, whereas the other cities start their calendars from Pompey.[462] Ball mentions in passing that Damascus was only part of the Decapolis briefly during the first century.[463]

Despite lacking any continued political meaning, the continued use of the Decapolis as a regional term suggests the existence of a perceived regional coherence. The expanded road network, with for instance a new road leading from Bostra to Damascus through the heart of the unhospitable Trachonitis rather than around it, makes it easier to consider the wider region as a whole, rather than a series of smaller sub-regions.[464] If anything, the presence of *bouleutai* of Bostra living in villages within the territories of Decapolitan cities would indicate as much.[465]

The state of knowledge on the settlements of the Hauran and the Decapolis is reasonable. While some places found in ancient texts have not been located, such as the towns in Batanea mentioned by Ptolemy, most of the major places known from written sources have been identified. The notable exceptions are Dium or Διον, for which the identification with Tell al-Ash'arī is the most likely option, and Raphana, possibly located at er-Rāfeh, close to Shēkh Miskīn. Others suggest it should be equated with Capitolias, in which case er-Rāfeh would have to be equated with the

[459] Ptol., *Geog.*, 5.15.22.
[460] Moors, 'De Decapolis', 3–4.
[461] Plin., *HN*, 5.16; Jones, *The Cities of the Eastern Roman Provinces*, 455 note 5.
[462] Andreas Kropp and Qasim Mohammad, 'Dion of the Decapolis. Tell al-Ash'arī in Southern Syria in the Light of Ancient Documents and Recent Discoveries', *Levant* 38, no. 1 (1 June 2006): 127, https://doi.org/10.1179/lev.2006.38.1.125.
[463] Ball, *Rome in the East*, 181–82.
[464] Moors, 'De Decapolis', 62–63, 76ff, 590, map 2.
[465] Moors, map XX.

Neapolis mentioned in late antique bishopric lists.[466] The place called Aenos on the Tabula Peutingeriana, on the road from Bostra to Damascus, tends to be identified with either the village of Buraq, late antique Constantia, or with Phaine (El Mismiyeh); the former option is more generally accepted.[467] This means that, of the towns mentioned by Ptolemy in the Decapolis and Coele Syria, only Ἴνα (possibly Aenos?), Σαμουλίς (suggested to be Simlin) and Σάανα (for which no identification is present yet) are as yet not identified.[468] In the Trachonitis and the area around Sakkaia there is no secure location for Γέῤῥα, Ἐλέρη, Νέλαξα and Ἄδραμα.

Ptolemy mentions Adra in the Decapolis, but also two localities named Adra and Adrou in Arabia. The latter would then be Udruh near Petra, and one of the first two the Adra at Der'a. Considering the different coordinates given for the two places, Ptolemy did mean two different places, but it is hard to determine whether he considered the Adra or Adraha at Der'a to be part of Arabia or the Decapolis.[469] Four other places are mentioned by Ptolemy in Arabia, which should lie northeast of Esbous and Madaba: Ἄνιθα, Σουράτθα, Μέσαδα, and Κοράκη. Of these, only Ἄνιθα, known as Thantia on the Peutinger Table, has been identified, at modern al Tuğra. None of the others are identifiable.[470]

2.3.2 Settlement size and distribution

The cities of the Hauran were clearly not distributed evenly across the landscape. With a mean nearest neighbour distance of 15,5 km they do lie quite close together. Especially when this is put against the mean nearest neighbour distance for all Roman Levantine cities together, which lies at 33.1 km. The cities can be placed in two major groups. The first is that from Hippos to Adraha, with Scythopolis and Pella lying slightly further away at 25 km from the cluster. The second is that from Bostra to Canatha, with the later additions of Philippopolis and Maximianopolis. Gerasa, Gadora and Philadelphia lie further away and further apart, at 30 to 35 km from their neighbours.

[466] Moors, 15 note 1, 187 3; Kropp and Mohammad, 'Dion of the Decapolis. Tell al-Ash'arī in Southern Syria in the Light of Ancient Documents and Recent Discoveries', 125–26; Jones, *The Cities of the Eastern Roman Provinces*, 259; Maurice Sartre, 'Les Metrokomiai de Syrie Du Sud', *Syria* 76, no. 1 (1999): 216, https://doi.org/10.3406/syria.1999.7611.
[467] Moors, 'De Decapolis', 72–76.
[468] Talbert, *Barrington Atlas of the Greek and Roman World. Map-by-Map Directory*, 1070.
[469] Ptol., *Geog.*, 5.15.23; 5.17.5, 7.
[470] MacAdam actually states that only four out of 28 places in Arabia Petraea remain unidentified, Maguza, Surattha, Mesada and Adra, confirming that those around Bostra are unlocatable. He apparently does know the location of Κοράκη, but fails to mention where that might be. See Henry Innes MacAdam, 'Strabo, Pliny the Elder and Ptolemy of Alexandria: Three Views of Ancient Arabia and Its Peoples', in *L'Arabie Préislamique et Son Environnement Historique et Culturel, Travaux Du Centre de Recherche Sur Le Proche-Orient et La Grèce Antiques*, vol. 10, 1989, 308–10.

Table 5 City sizes Decapolis

Name	Area
Caesarea Paneas	100
Gerasa	85
Scythopolis	80
Bostra	80
Abila Dekapoleos	75
Dionysias	42
Adraha	41
Gadara	30
Philadelpheia	28
Canatha	16
Pella Dekapoleos	10
Hippos	9
Kapitolias	7

The size range of the Decapolitan cities is rather wide, and while none are as large as some of the cities in northern Syria, the five larger ones, between 75 and 100 ha, sit firmly within the upper range of cities of the Near East. In the third century Philippopolis would join the largest cities of the region at almost 100 hectares, although this may not have been sustainable in the long run. As such, the region had a rather high concentration of large urban sites, making the local distribution rather top-heavy. Geographically, four of the five smallest cities lie within the western group, all within 10 to 20 km distance from the large cities of Abila (and Scythopolis in the case of Pella). Only Canatha lies in the east, close to Dionysias, at about 7 km distance. The largest settlements are further away from each other, with especially Gerasa and Caesarea Philippi more remote from the other cities.

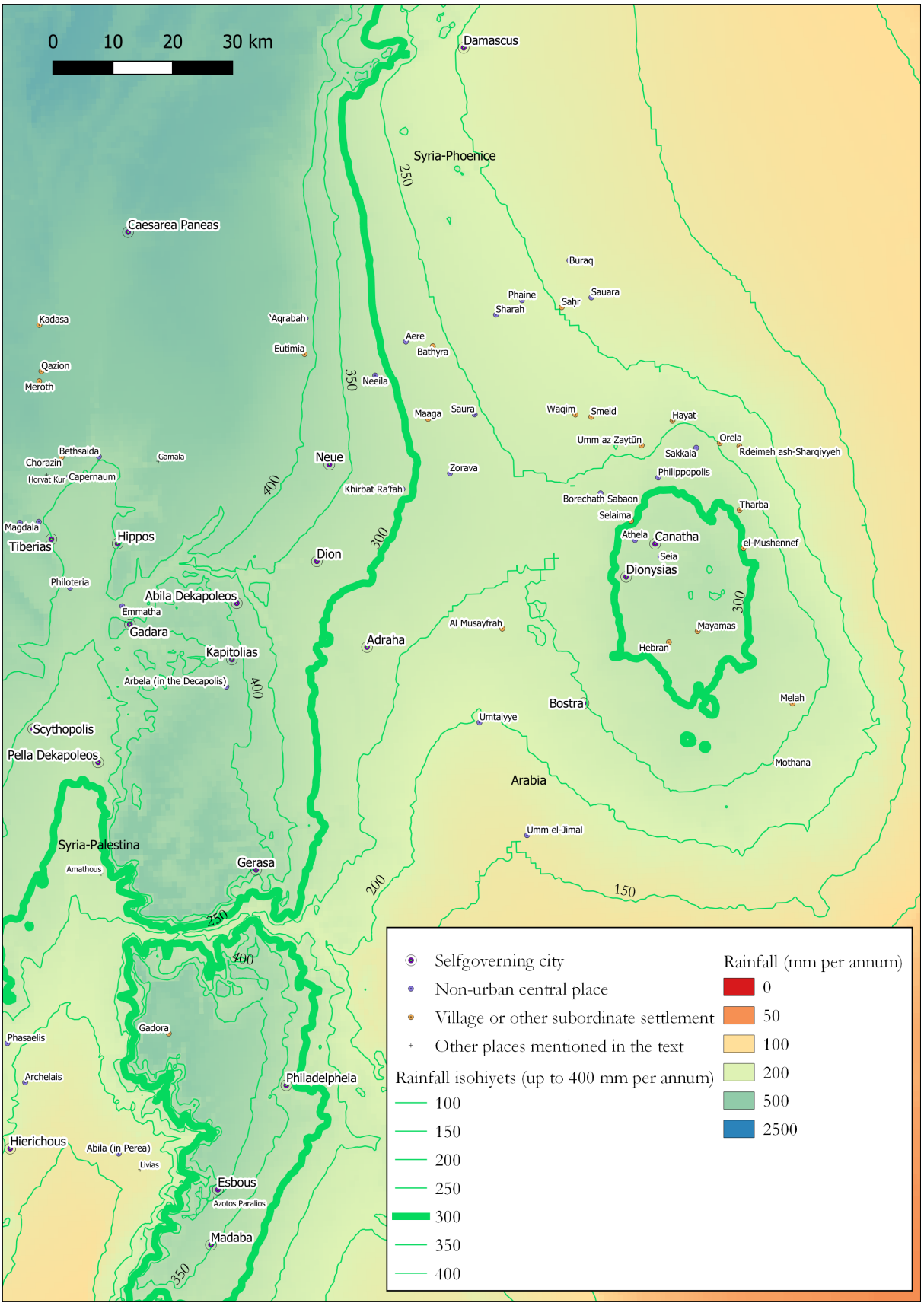

Figure 26 Rainfall in the Decapolis

It should be noted that in this region a 20 km distance can make the difference between enough

rainfall to sustain agriculture and land that is too dry, allowing nomadic pastoralism at best. It appears that the cities in this region were clustered in the areas receiving the most rainfall. As Figure 26 shows, all cities in the region are located in higher rainfall zones, while only some of the larger secondary settlements, Umm el-Jimal in the south and several villages at the north-western edge of the Leja, lie beyond it. It appears that settlement locations here were dictated to a very large degree by natural limitations.

As Braemer et al. describe: "the Jebel al-Arab acts both as a water tower, with generous flows on its often forested western flank, and as a more abrupt climatic frontier on its eastern side." The rains fall mostly in early autumn and late winter, while meltwater from the snows on the Jebel al-Arab provides water for a longer period. [471]

The main resources of the Hauran were, and are, animal husbandry and farming. While water catchment techniques were applied within the Hauran, this was mostly to store and provide drinking water for people and livestock, while managed irrigation was only applied in gardens in villages and around towns. Hydraulic installations aimed at irrigation, milling practices (in this region only from the 7th century onwards) and the like were relatively marginal.[472] Settlement location was dependent on water availability and catchment techniques, with settlements located either where water was available or where water could be brought by means of canals.[473] This could be done by capturing seasonally available waters, such as flash floods of wadis during the rainy periods, by wells accessing underground river water or natural clefts accessing sub-basaltic aquifers. A large number of villages were located at less than a kilometre from temporary water sources, especially along the three larger wadis, while 70 sites from multiple periods in the Nuqra plain and Sakkaia were supplied through canals. Sites dependent on catchment systems for spring water were to be found on the Jebel al-Arab and along the northern and western edges of the Leja. In the case of Bostra, Adraha, Dionysias and Philippopolis, water was brought from permanent springs on the Jebel al-Arab by means of covered aqueducts, and by shallow channels to villages around the Jebel.[474]

These water catchment techniques appear to have been applied in the region already from the Middle Bronze Age. The Roman period saw a great expansion of canal networks throughout the Nuqra, the construction of aqueducts towards the towns of Adraha, Dionysias and Bostra, and the construction of several new large-capacity cisterns. However, as can be seen at Bostra, under

[471] F. Braemer et al., 'Long-Term Management of Water in the Central Levant: The Hawran Case (Syria)', *World Archaeology* 41, no. 1 (1 March 2009): 36–37, https://doi.org/10.1080/00438240802666424.
[472] Braemer et al., 36–40.
[473] David Kennedy, 'Water Supply and Use in the Southern Hauran, Jordan', *Journal of Field Archaeology* 22, no. 3 (1995): 275–90.
[474] Braemer et al., 'Long-Term Management of Water in the Central Levant', 40–42, 45–46.

the Nabateans such cisterns were constructed as well. It is quite conceivable that access to a perennial water supply from the Jebel Al-Arab was what allowed Adraha and Dionysias expand to their Roman size. So, even if at some locations a mixed practice of irrigation and dry farming was practiced, the primacy of dry farming makes the 250mm annual rainfall border even more relevant, as it appears that water was not diverted into more arid zones for farming activities.[475]

While throughout the Hauran traces of Middle Bronze to Iron Age habitation has been attested at various sites, a habitation gap from the later Iron Age up to the late Hellenistic period seems to be attested at most sites. At the beginning of the second century B.C.E. new habitation begins at various tell sites, among them several of the places that would become cities of the Decapolis. Sites in the plains going back to this time were Bostra, Dion, Dionysias and perhaps Canatha, but the evidence for the latter is based on uncertain typology of buildings, and still only dated to the late-first century B.C.E..[476] To the west, the tell at Scythopolis was occupied in the Hellenistic period, and was granted urban status under the Seleucids, and Pella appears to have been inhabited as well.[477] Hippos, on the coast of the lake of Galilee, seems to date to the second century. In the south, Philadelphia was one of the older Hellenistic foundations, dating to the early third century B.C.E.. For Gerasa there is evidence for occupation in the later Hellenistic period.[478]

In the wider Roman Near East, new foundations were relatively rare. It is noteworthy that three are found in the Decapolis region, although strictly speaking only one took place in the studied period, the foundation of Capitolias at the end of the first century. But while it did strike its own coinage and appears to have had a theatre, it remained exceptionally small, and the history of its promotion to urban status is unknown. As Lenzen has described it, it was hardly any more urban than the nearby village of Arbela (modern Irbid), although at that point he was not yet aware of the theatre of Capitolias, giving it a slightly more urban appeal.[479] Far larger were the later foundations of Philippopolis at the village of Shahba and Maximianopolis at Sakkaia (Shaqqa). It seems clear, however, that the elevation by Emperor Philip I of his place of birth from a large village to a city, overshadowing most others around it, was only successful to a limited degree. As Darrous and Rohmer indicate, it appears that large parts of the expanded city remained

[475] Sartre, *The Middle East under Rome*, 218–19.
[476] Rohmer, 'Late Hellenistic Settlements in Hawrân'; Rohmer, *Hauran VI*, 473–536.
[477] Tsafrir and Foerster, 'Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries', 86; Robert Houston Smith and John Lawrence Angel, *Pella of the Decapolis. Vol. 1: The 1967 Season of the College of Wooster Expedition to Pella* (Wooster, Ohio: College of Wooster, 1973).
[478] Arthur Segal and Michael Eisenberg, 'Sussita-Hippos of the Decapolis: Town Planning and Architecture of a Roman Byzantine City', *Near Eastern Archaeology* 70, no. 2 (2007): 86.
[479] E. a Knauf and C. j Lenzen, 'Beit Ras/Capitolias. A Preliminary Evaluation of the Archaeological and Textual Evidence', *Syria* 64, no. 1 (1987): 21–46, https://doi.org/10.3406/syria.1987.7002; C Lenzen, 'Kapitolias—Die Vergessene Stadt Im Norden', in *Gadara - Gerasa Und Die Dekapolis*, ed. Adolf Hoffmann and Susanne Kerner (Mainz am Rhein, 2002), 36–45; Wajeeh Karasneh, 'New Discovery in Jordan at Beit-Ras Region (Ancient Capitolias)', *OCCIDENT & ORIENT*, 2002, 10.

uninhabited, and some of the monumental constructions were never quite finished. Furthermore, its hinterland was severely restricted by the two cities already existing to the south, and the foundation of Maximianopolis 7 km to the north.[480]

In the Roman period Bostra was undoubtedly the political centre of the region, with the presence of the headquarters of the Legio III Cyrenaica and the seat of the governor, who resided there perhaps from the creation of the province, but certainly from Hadrian onwards.[481] It was, however, not the only large city of the Hauran and the Decapolis. Haensch suggests several other cities functioned as assize centres, of which Gerasa was most likely also the seat of the financial procurator. In the south he suggests Petra, which may have been the meeting place of the koinon,[482] and Rabbath Moab, both of which will be treated below in the section on south Arabia. In the north, Philadelphia may have been a fifth assize centre.[483]

2.3.3 Public buildings

In Table 6 below, an overview is given of the building types known to have been present in cities of the Decapolis. Military include city walls and military garrisons, the latter only present in Bostra. Commercial infrastructure includes bridges, public squares and colonnaded streets, which were present in nearly all cases where a commercial building is indicated, colonnades limited to a single building, basilicas, *macella*, and shops. Only in the cases of Capitolias and Abila, no colonnaded street has been found; instead the former had a market, while the latter had two basilicas. Shops were usually present in colonnaded streets, but have only been entered where this was explicitly stated in research. Public squares include any type of forum, agora or plaza, such as the oval plazas in Bostra and Gerasa. While some researchers are strict in whether they define an open space as a forum or agora based on the presence of specific public buildings and the presumed function of that space, many are far more liberal in assigning the label forum or agora, rendering the terms used in the literature virtually meaningless, and thus retaining any such distinction here useless as well.[484] Baths and water provision includes baths, aqueducts and cisterns. Nymphaea are mentioned separately, as will be explained below. Status buildings consist of decorative and triumphal arches, as well as tetrapylai and tetrakioniai. Elite buildings include the royal palace in Caesarea Paneas, which was converted in the second or third century to a

[480] Nouha Darrous and Jérôme Rohmer, 'Chahba-Philippopolis (Hauran) : Essai de Synthèse Archéologique et Historique', *Syria* 81 (2004): 21, 27, 30.
[481] Haensch, *Capita provinciarum*, 238–42.
[482] Haensch, 242, also note 60.
[483] Haensch, 243.
[484] See for instance the discussion in Ball, *Rome in the East*, 296–98.

bathhouse, and a possible Nabatean palace in Bostra, that may have been overbuilt by the 6th-century 'Trajan's palace'.[485]

Table 6 Known structures Decapolis up to the Severi

	Baths and Water provision	Commercial infrastructure	Elite buildings	Entertainment	Military	Sanctuary & Temple	Nymphaeum	Grand Total
Bostra	4	7	1	2	3	2	1	**20**
Scythopolis	3	7		3	0	3	1	**17**
Gerasa	3	4		4	1	3	1	**16**
Gadara	2	3		3	1	2	2	**13**
Dionysias	4	3		2	1	2	1	**13**
Abila Dekapoleos	3	3		1	1	1		**9**
Hippos	2	3		2	1	1		**9**
Canatha	2	1		1	0	3	1	**8**
Caesarea Paneas	2	2	1	1		1		**7**
Philadelpheia	1	3		2	0		1	**7**
Adraha	2	2		1	0	1		**6**
Pella Dekapoleos	1			1		1	1	**4**
Capitolias		2		1	1			**4**
Grand Total	**29**	**40**	**2**	**24**	**9**	**20**	**9**	**133**

When studying the distribution of known buildings in the Decapolis, it is striking how much is known about the cities of this region, especially in comparison with the northern Syrian cities, but also compared to the Levant in general. The fourteen towns shown in Table 6 encompass a third

[485] Vassilios Tzaferis, 'Caesarea Philippi (Paneas) in the Roman and Byzantine Periods', *The Archaeology of Difference: Gender, Ethnicity, Class and the 'Other' in Antiquity: Studies in Honor of Eric M. Meyers*, 2007, 338; Sartre, *Bostra. Des Origines à l'Islam.*, 96.

of the structures known within the cities of the Levant studied here. An overview such as this of course reflects the state of research rather than the actual level of construction in the period of study, but it still allows for some insights.

Several places are not present in the table. Dion is missing, as its location is only tentative, as well as Raphana (which may be identified with Capitolias). Earlier studies of the proposed location of Dion suggest the presence of at least a small theatre and water conduits, and a nearby bridge over the Wādi al-Ehrēr.[486] Philippopolis is not present, as all public buildings date to later in the third century. It was still a large village in the period up to the Severi.[487] The same goes for Maximianopolis, founded several decades later at Sakkaia. Umm el-Jimal was also a village, although at this point construction could already have started on the defensive walls of the later town.[488]

Of those places which had fewer known buildings, in some cases this is due to limited knowledge. Philadelphia, Capitolias and Adraha were all to a large degree overbuilt by later construction. Hippos, Canatha and Pella are, however, well studied, and the more limited number of buildings may reflect the small size of the cities in comparison to the other Decapolitan cities.[489] On the other hand, Gadara, which measured only a quarter of the size of the larger cities, still had as wide a variety of buildings as its larger siblings.

One very interesting trend is that many of the cities contain a nymphaeum. While such forms of water display are known throughout the rest of the Levant, it is highly remarkable that of the 18 nymphaea currently known in this study for this period, nine are located in the Decapolis – one more if including the later one of Philippopolis as well.

This connects to the existence of a type of temple specific for the region, the *kalybe* temple, whose design bears a strong resemblance to nymphaea, but most notably is lacking any form of water

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[486] Zeev Weiss, 'Buildings for Mass Entertainment in the Cities of the Decapolis', *ARAM Periodical* 23 (2011): 369; Kropp and Mohammad, 'Dion of the Decapolis. Tell al-Ash'arī in Southern Syria in the Light of Ancient Documents and Recent Discoveries', 133–34; G. Sehumacher, 'Unsere Arbeiten Im Ostjordanlande', *Zeitschrift Des Deutschen Palästina-Vereins (1878-1945)* 37, no. 2 (1 January 1914): 125 for the theatre.

[487] Darrous and Rohmer, 'Chahba-Philippopolis (Hauran)'; Hassan Hatoum, 'L'antique Chahba-Philippopolis', *Bulletin d'études Orientales* 52 (2000): 135–42.

[488] Bert de Vries and John Wilson Betlyon, *Umm El-Jimal : A Frontier Town and Its Landscape in Northern Jordan. Vol. 1: Fieldwork 1972-1981*, Journal of Roman Archaeology. Supplementary Series, No. 26 (Portsmouth, RI: Journal of Roman Archaeology, 1998).

[489] Robert Houston Smith, Leslie Preston Day, and Frank L. Koucky, *Pella of the Decapolis. Vol. 2. Final Report on the College of Wooster Excavations in Area IX, the Civic Complex, 1979-1985* (Wooster, Ohio: College of Wooster, 1989); Klaus Stefan Freyberger, 'The Roman Kanatha: Results of the Campaigns in 1997/1998', *Bulletin d'études Orientales* 52 (2000): 143–56; Klaus Stefan Freyberger, 'The Polis of Kanatha: Hellenisation and Romanisation in Late First Century BC.', *The Institute 2002/2003: Some Remarks on the Current Situation in the Middle East*, 2003, 4; Segal and Eisenberg, 'Sussita-Hippos of the Decapolis'.

display. Their name comes from an inscription at the temple in the village of Umm az-Zeitūn, but has not been attested elsewhere.[490] Some have stated that two buildings identified as nymphaea, at Hippos and Philadelphia, may in fact have also been *kalybe* temples.[491] For Hippos, excavators have confirmed this, but in the case of Philadelphia, Ball's statement that the building lacked any water infrastructure appears to be incorrect.[492] On the other hand, the *kalybe* of Bostra is now considered to be a nymphaeum.[493]

Kalybe temples have often been linked to the imperial cult, but this identification has been called into question, except perhaps in the case of Philippopolis.[494] Whether a *kalybe* or a nymphaeum, the structure at Philadelphia has been linked to the imperial cult.[495] Ideas about the construction date of *kalybe* temples have also differed significantly. Where Segal considers these to be 3rd-century C.E. structures (which at least in the case of Umm az-Zeitūn and Philippopolis seems reasonable), Ball strongly suggests that the dating of these buildings was based exactly on their "superficial resemblance to a type of monument (a nymphaeum) from which they so demonstrably differ", and that a Nabatean identification would make more sense; in his eyes, they have more in common with the rock façades of Petra, with the building functioning essentially as a backdrop for rituals performed in front of them.[496]

Whether the temples in the cities had any relation to imperial cult, whether they should be dated to the third century or before, and whether they should even be called *kalybe* temples, at the very least it can be said that their shared architectural form was a typical feature for the cities, and some villages, of the Decapolis region.

In other respects, the Decapolitan cities are more similar to the other cities of the southern Levant. For most, the main commercial location appears to be one or several colonnaded streets, besides, and in some cases instead of, public squares. Theatres are present in nearly all cities, and in the smaller cities at least a small theatre or odeion is to be found. As Zeev Weiss states in his overview of entertainment structures in the Decapolis, the earliest of these were built in Scythopolis and Gadara in the first half of the first century C.E., and they continued to be built throughout the second century into Severan times. The hippodromes were built in the second century;

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[490] Arthur Segal, 'The Kalybe Structures: Temples of the Imperial Cult in Hauran and Trachon: An Historical-Architectural Analysis', *Assaph - Studies in Art History* 6 (2001): 91–118.
[491] Ball, *Rome in the East*, 292–94.
[492] Segal and Eisenberg, 'Sussita-Hippos of the Decapolis', 106; Mohammad El-Khalili, 'Restoration Interventions at the Roman Nymphaeum in Amman: Identification and Evaluation', *Conservation and Management of Archaeological Sites* 16, no. 4 (2014): 341–58.
[493] Jacqueline Dentzer-Feydy and Michèle Vallerin, *Bosra aux portes de l'Arabie* (Beyrouth etc: Institut français du Proche-Orient, 2007), 230–34.
[494] Segal, 'The Kalybe Structures'; Ball, *Rome in the East*, 292–94; Butcher, *Roman Syria and the Near East*, 360–61.
[495] Sartre, *The Middle East under Rome*, 399–400.
[496] Segal, 'The Kalybe Structures', 106; Ball, *Rome in the East*, 292.

interestingly, those at Scythopolis and Gerasa were converted into amphitheatres in the fourth century.[497] This also highlights the general absence of amphitheatres before this time, as was the case in almost the entire Near East.

A large proportion of the Decapolis cities was fortified, and to a higher degree than cities were on an overall basis in the Near East. Of the dated walls still standing in the period under study, those of Hippos date back to the second half of the second or early first century B.C.E.. That is not to say there were no earlier walls, as at the location of various cities fortified settlements are known to go back far longer, as attested by for instance the Bronze Age ramparts at Bostra and Tell al-Ash'arī, or Iron Age II at Suweida and Amman, sometimes with Hellenistic fortifications following the course of the older ones.[498] But only in the case of Hippos are there clear indications that earlier - in this case late Hellenistic - walls were still in use throughout the Roman period.[499]

The walls of Gerasa and Gadara are dated to the first century C.E., as well as the walls of Sharah, the only secondary settlement in the region known to be fortified. The walls of Bostra are dated to the second century, but may possibly have replaced earlier Nabatean walls. Not present in the table above are the fortifications built in later periods: the walls of Adraha seem to date to the second half of the third to the early fourth century (earlier walls are not attested), as did those of Canatha, Scythopolis, and Philadelphia. At the same time, reconstruction or expansion also occurred in Gerasa, Bostra, and Gadara.[500] Only Pella and Caesarea Philippi were never fortified, although for the latter Tzaferis assumes that a wall was there, but simply has not been found yet.[501]

Apart from these later fortifications, it is hard to pinpoint region-wide construction phases such as those recognizable in several cities of northern Syria after the second-century earthquakes. Not only are most structures dated rather broadly, to a specific century at best, but many are not dated at all or only described as 'Roman', while the sample of cities in the region is too small to reliably describe trends. With some reserve it can be stated that, where this is discernible, construction of buildings that were still in use in the Roman period followed the same pattern as that described for theatres, as mostly starting in the first century B.C.E. in four cities, barring some possibly earlier temples. In the first century the number of new constructions triples, with building now taking place in nine cities, to continue at a slightly lower rate in the second century, in seven cities (and mostly focussed in Bostra and Gerasa).

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[497] Weiss, 'Buildings for Mass Entertainment in the Cities of the Decapolis', 371–73.
[498] Rohmer, 'Late Hellenistic Settlements in Hawrân'; Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 1247.
[499] Segal and Eisenberg, 'Sussita-Hippos of the Decapolis', 95.
[500] Fournet and Weber, 'Adraha (Deraa) romaine et byzantine : développement urbain et monuments', 189; Adolf Hoffmann and Susanne Kerner, 'Topographie und Stadtgeschichte von Gadara/Umm Qais', in *Gadara - Gerasa und die Dekapolis* (Mainz am Rhein: Philipp von Zabern, 2002), 98–124; Freyberger, 'The Roman Kanatha: Results of the Campaigns in 1997/1998', 150–51.
[501] Tzaferis, 'Caesarea Philippi (Paneas) in the Roman and Byzantine Periods', 340.

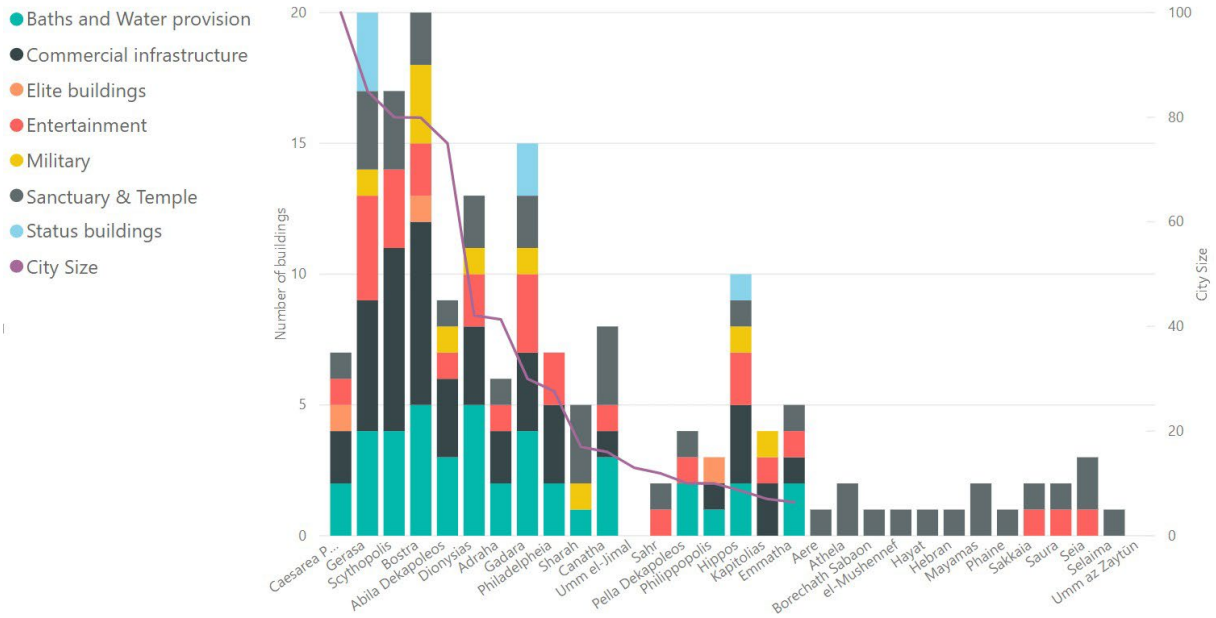

Figure 27 Number of buildings against settlement size in the Decapolis

In Figure 27 we can see some correspondence between settlement size and the total number of known buildings for the Decapolis. Additionally, the larger cities tend to have a more diverse set of public buildings. Hippos clearly breaks the trend in both respects, as a very small city with a very rich and diverse portfolio of public buildings. On the whole however it is clear that the largest cities stood out in more respects than settlement size alone.

2.3.4 Non-urban centres: μητροκωμίαι and village rule

Jones described the cities of the Decapolis as little more than larger villages, with village communities the defining element of especially the northern Decapolis. In his opinion "the villages were not, as in Egypt, and apparently in the Jewish kingdom, mere cogs in the administrative machine."[502] According to him, the cities of the region must have been especially small because of the short distances at which boundary stones lay between some cities and neighbouring villages, which he therefore considered to be independent. And inscriptions in many of the villages throughout the Hauran show a variety of and evolution in village magistrates, suggesting a high level of autonomy. With urban territories barely larger than those of villages, cities were 'merely glorified villages'. Combined with the presence of independent villages, this added up, in his perspective, to a region where villages were the normal social and administrative structure.[503]

Moors showed, however, that it is far more plausible that most of these villages were part of a city's territory, and that in these cases a differentiation should be made between the territory of

[502] Jones, *The Cities of the Eastern Roman Provinces*, 286.
[503] Jones, 284–88.

a city in the narrow sense, i.e. the area directly surrounding the city, and in a broad sense, including the dependent villages and their territories. Border stones like these would rather indicate the border between the city's territory in the narrow sense and that of a dependent village.[504]

Looking at the village magistrates, Grainger found no indications of any functions reflecting administrative roles, contrary to Moors, who interprets various titles along these lines.[505] Instead, Grainger argues that these were more likely temporary executive offices related to public works in the village. Considering the militarized character of the region from the third century onwards, these could from time to time be military commanders as well.[506] Grainger therefore concludes, arguing vehemently against the idea of independent villages, that: "the theory that villages in the Roman East had an elaborate system of self-government cannot be sustained on the evidence of these inscriptions. It should be discarded."[507]

Concerning the size of the cities, as mentioned above, the major cities of the region, Bostra, Gerasa, Abila, Caesarea Paneas and Scythopolis, were significant cities, between 75 and 100 hectares, as was Philippopolis later in the century. Nor were Adraha and Dionysias particularly small, measuring around 40 hectares each. And while the durability of the basalt building materials and limited later habitation resulted in the survival of significant archaeological remains of villages and small settlements, comparable to the Dead Cities in Syria, it would appear that a densely occupied city hinterland was common around other Levantine cities as well. So, while the landscape was indeed filled with villages, it still fitted within the framework of an urban system.

Nonetheless, Jones is right that north of the Hippos-Dionysias line, east of the Golan and Mount Hermon, no cities are found up to Damascus. And while a lack of urbanism makes sense on the basaltic lava fields of the Trachonitis, it makes less sense on the Jedur plains, thus leaving about 2.500 km^2 of arable land up to Damascus' western Ghouta without cities. In addition, hardly any remains of smaller settlements have been recovered either, compared to the Leja and the hills of the Jebel Hauran. It must be pointed out that at no point within this area the closest city was further away than 45 km, and it is in these furthest locations, on the edge of the Trachonitis, that the larger villages such as Aere, Phaena and Aenos are located, which later appeared in the bishop lists. In several of these villages surrounding the Trachonitis, inscriptions from the late second (Phaina) to the early fourth centuries (Saura) have been found, identifying them as

[504] Moors, 'De Decapolis', 264–69.
[505] Moors, 501–4.
[506] John D. Grainger, '"Village Government" in Roman Syria and Arabia', *Levant* 27, no. 1 (1 January 1995): 187–94.
[507] Grainger, 192–93.

μητροκωμίαι.[508] There has been significant debate about the meaning of the term and the status of these villages. Where κώμη means village, μητροκωμία, or 'mother-village' appears to be somewhat analogous to metropolis - as mentioned before, not an unproblematic term by itself - but at the very least suggesting some form of elevated status. For Jones, it appears to mean little more than important village, but this interpretation reflects his theory of a village landscape. Moors discusses whether the title is merely honorary, or if it more closely follows McAdams' view that μητροκωμίαι were an intermediary stage of settlement between village and city. With no indications in nearby villages concerning a dependent or independent status, Moors leaves this question open, but clearly favours an interpretation of μητροκωμίαι as centres of rural districts.[509] Grainger is more hesitant about assigning a function to these places, and, like Moors, emphasizes that none of the μητροκωμίαι were ever elevated to any kind of official urban status. For him, they appear to be a Roman solution for failing to urbanise the region, serving an unknown (but likely tax- or security-related) administrative purpose that would otherwise have been performed by cities.[510]

Sartre offers an elegant solution for both the lack of cities in Batanea and the function of the μητροκωμίαι. An inscription found in 1997 in Aere (as-Sanamēn) mentions an imperial domain in Batanea. Sartre therefore suggests that like in some other regions formerly under Hasmonean control, these villages were the administrative centres of imperial estates.[511] Moors, writing several years before this inscription was found, rightly states that other examples of estates or domains are very limited, but the inscription from Aere is explicit enough to counter the idea that there hardly were any estates in the region.[512] It is, however, dated to the fourth century, and the μητροκωμία inscriptions also date mostly from the third century onwards, suggesting that the domains date to a later period than studied here. Sartre argues that it is likely that at in the case of Aere there already was a domain in the third century, as it appears that an imperial procurator was already present.[513] The existence of an estate is attested in the bishops lists as well, mentioned by Georgius.[514] If this area had been imperial property, it could explain why no cities developed within the region.

[508] Sartre, 'Les Metrokomiai de Syrie Du Sud', 216.
[509] Moors, 'De Decapolis', 20–27.
[510] Grainger, '"Village Government" in Roman Syria and Arabia', 182.
[511] Sartre, 'Les Metrokomiai de Syrie Du Sud'.
[512] Moors, 'De Decapolis', 27–28.
[513] Sartre, 'Les Metrokomiai de Syrie Du Sud', 220.
[514] Jones, *The Cities of the Eastern Roman Provinces*, 290–91.

Within the Hauran, over three hundred rural settlements have been recorded, and as El-Khouri indicates, at least that many around the four Decapolitan cities in northwest Jordan.[515] So far, much still relies on the extensive regional campaigns by H.C. Butler at the beginning of the twentieth century and Nelson Glueck in the 1930s and 40s, who recorded much that has since been lost.[516] Our knowledge has, however, been significantly improved upon by the French Ifpo mission in southern Syria from the 1970s to 2011. Despite the high quality of the French publications, their overview of settlements in the Hauran is somewhat imperfect, both in current as well as earlier volumes. It is not entirely clear whether the places shown on their maps are modern or ancient settlements or a combination thereof, as only modern toponyms are given, also for currently uninhabited sites like Saḥr. Only about 80 places are shown, falling far short of the 300 settlements mentioned by Villeneuve. That can be explained, as Villeneuve writes, by the fact that only settlements that were at least small villages are shown on the maps; however, without a clear specification of what kind of settlement or archaeological site qualifies as 'a small village'.[517] This could mean that around 200 of the 'settlements' should be classified as hamlets and single farms, but this is obviously only speculation. While large villages are mentioned as an example in the text, only a few are mentioned by name, together with the μητροκομιαι as a further unspecified group of large villages, without some indication of their relative importance on the maps. Sartre's discussion of the settlements on the basis of inscriptions is somewhat enlightening, and helps to confirm the existence of a Roman settlement at the majority of the sites indicated on the main maps, but he also indicates that many settlements produced no epigraphic evidence at all.[518]

For the majority of these sites, it can be stated at best that they were very small, ranging from field huts and single farms to small villages. If any standing remains are present, these are mostly limited to cisterns, presses and tombs, with few residential remains still present.[519] For twenty-four villages in the Hauran we have some indications that they had a more central function, or were of a relatively large size. In at least five cases there is a relatively clear indication of their size (Sharah 17 ha, Emmatha 6.4 ha, Saḥr 11,9 ha, Umm el-Jimal 13 ha and

[515] Jean-Marie Dentzer, *Hauran I : Recherches archéologiques sur la Syrie du Sud à l'époque hellénistique et romaine*, Bibliothèque archéologique et historique 124 (Paris: Institut Français d'Archéologie du Proche Orient, 1985); Ball, *Rome in the East*, 238; Lamia el-Khouri, 'The Roman Countryside in North-West Jordan (63 BC–AD 324)', *Levant* 40, no. 1 (1 April 2008): 71–87, https://doi.org/10.1179/175638008x284189.
[516] Howard Crosby Butler, *Southern Syria*, Syria : Publications of the Princeton University Archaeological Expeditions to Syria in 1904-1905. Division II, Ancient Architecture in Syria ; Section A (Leyden: Brill, 1907).
[517] François Villeneuve, 'L'économie rurale et la vie de campagne dans le Hauran antique (I siècle avant J.-C. - VI siècle après J.-C.)', in *Hauran I : recherches archéologiques sur la Syrie du Sud à l'époque hellénistique et romaine*, ed. Jean-Marie Dentzer, Bibliothèque archéologique et historique 124 (Paris: Institut Français d'Archéologie du Proche Orient, 1985), 76.
[518] Dentzer, *Hauran I*, 191.
[519] el-Khouri, 'The Roman Countryside in North-West Jordan (63 BC–AD 324)', 80, 84.

Philippopolis 10 ha).[520] Both the largest of these, Sharah, and the smallest, Emmatha, come close to be characterised as urban in more than one respect: besides surpassing the smallest cities proper of the Decapolis in size, Sharah also had city walls from the first century onwards, baths, and two temples and possibly a Mithraeum.[521] Also, as in neighbouring Phaine, a military presence is attested at Sharah from the second century. On the other hand, Emmatha, known for its baths that existed from at least the third century onwards and were apparently frequented by Talmudic sages from Tiberias, clearly fell within the territory of Gadara and was usually referred to as the Baths of Gadara. It also seems to have been described as a place where many came to trade from the second century onwards.[522] While only about 6.4 ha in size, it was still not that much smaller than nearby Hippos, Capitolias and Pella (at 10, 20 and 25 km distance). Furthermore, its baths, colonnaded street and small theatre or odeion gave it rather city-like features.

Table 7 Secondary settlements

	Baths and Water provision	Commercial infrastructure	Elite buildings	Entertainment	Military	Sanctuary & Temple	Status buildings	*Grand Total*
Sharah	1				1	3		*5*
Emmatha	2	1		1		1		*5*
Philippopolis	1	1	1					*3*
Seia				1		2		*3*
Saura				1		1		*2*
Sakkaia				1		1		*2*
Athela						2		*2*
Phaine						1		*1*
Aere						1		*1*
Borechath Sabaon						1		*1*
Grand Total	**4**	**2**	**1**	**4**	**1**	**13**	**0**	***25***

[520] Mikaël Kalos, 'Un sanctuaire de Mithra inédit en Syrie du sud', *Topoi* 11, no. 1 (2001): 230, https://doi.org/10.3406/topoi.2001.1935; Vries and Betlyon, *Umm El-Jimal*, [map]; Mikaël Kalos, 'Le site de Saḥr (Syrie du Sud)', *Topoi* 7, no. 2 (1997): 186 figure 3, https://doi.org/10.3406/topoi.1997.1757; Yizhar Hirschfeld, 'The History and Town-Plan of Ancient Ḥammat Gādēr', *Zeitschrift Des Deutschen Palästina-Vereins (1953-)* 103 (1 January 1987): 108; Darrous and Rohmer, 'Chahba-Philippopolis (Hauran)', 10.
[521] Kalos, 'Un sanctuaire de Mithra inédit en Syrie du sud'.
[522] Hirschfeld, 'The History and Town-Plan of Ancient Ḥammat Gādēr', 103–4.

Of the other villages, at least 13 more have monumental remains, as indicated in Table 7. Most of these were temples, including the *kalybe* temples in Hayat, Umm az Zaytūn and Sakkaia.[523] In the cases of Saḥr, Seia, Saura and Sakkaia, small theatres were present as well. Considering their small sizes and connection to temples, these are generally identified as cult theatres.[524]

Seia and Saḥr are thought to have been sanctuaries rather than proper settlements, but we cannot rule out the possibility that these also functioned as market centres. In the case of Seia, a small agricultural settlement may have existed. However, in the case of Saḥr, Mikaël Kalos has argued that, given the lack of cultivable land, few traces of animal husbandry, no necropoleis, a difficult to access, isolated location and none of the buildings looking remotely like the houses typical for the region, this was most likely not a place of permanent residence. Even so, with its large cisterns, sizeable buildings and large open spaces that may have been used for tents, this could very well have functioned as a regional cult site.[525] It is also possible that villages with temples were wealthier, but not necessarily more central or larger than any of the other places attested in the region.

Like the cities of the Decapolis, the towns of this region were not evenly distributed, but appear clustered in two groups on the edges of the Jebel Hauran and the Leja respectively, with Emmatha, Umm el-Jimal and Arbela as outliers. It is impossible to say to what degree this reflects the reality of the Roman settlement pattern. For instance, the region between Philadelphia and Arbela, about 30 kilometres apart, was clearly not devoid of rural settlements, despite increased differences in elevation.[526] This would clearly still fit in an ideal landscape with market centres at no point more than 3 hours' walking distance, but in comparison, on an overall level the secondary settlements have a mean distance to the nearest neighbour of 12 km, and looking specifically at the two clusters, a mean distance of 6 km for the eastern cluster, and 9.2 km for the western one. If also taking Dionysias and Canatha into account, this mean distance was even lower in the case of the eastern cluster. At least from that perspective, some intermediate settlements seem likely in the south-western part of the region. When considering that Emmatha was only 3 km away from Gadara, and Arbela only 4 km from Capitolias, we can expect even denser distributions in some cases.[527]

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[523] Segal, 'The Kalybe Structures'; Pascale Clauss-Balty, 'La kalybé de Hayat (Syrie du Sud)', *Syria*, 2008, 249–92.
[524] Arthur fl 1978 Segal, *Temples and Sanctuaries in the Roman East : Religious Architecture in Syria, Iudaea/Palaestina and Provincia Arabia* (Oxford: Oxbow Books, 2013).
[525] Kalos, 'Le site de Saḥr (Syrie du Sud)', 972.
[526] Nelson Glueck, *Explorations in Eastern Palestine. [Vol.] 4.*, The Annual of the American Schools of Oriental Research ; Vol. 25-28 832452858 (New Haven: American Schools of Oriental Research, 1951); el-Khouri, 'The Roman Countryside in North-West Jordan (63 BC–AD 324)'.
[527] See in comparison Bintliff, 'Going to Market in Antiquity', 245–46 for a typical 2-3 km distance between villages.

While we also lack indications for larger settlements between Bostra and Adraha, it is already clear on the basis of epigraphic evidence alone, that the Nuqra was certainly not devoid of settlements, with at least around twenty sites with inscriptions.[528] It is impossible to determine which, if any, of these sites were large or had a more central role. One such place might be Jizeh, from whose vicinity several canals ran towards other villages and was one of the places showing evidence of irrigation[529], or at-Tayyibe, where a bridge may have been located on the route from Bostra to Adraha.

Perhaps the larger villages should be seen in a form of competition with the cities of the Decapolis, rather than complementary to them. In the cases of the larger cities of Bostra, Gerasa and Abila, fewer to no large villages crowd their surroundings, while smaller Canatha and Dionysias lie in the middle of the dense eastern cluster. But, as discussed above in the distribution of cities, and as visible in Figure 26, the best explanation for the clusters of larger villages is based on the accessibility of water to support larger communities, and the level of rainfall for farming activities. Thus the villages close to the Jebel al Arab had the benefit of its perennial springs and meltwater, while the twenty or so new Roman villages in the Nuqra plains between Bostra and Adraha seem to have been dependent on wadi floodwater diversion through canals up to twenty kilometres away, when not lying directly along the wadis themselves.[530] This also offers additional insight into the centrality of some places, with a village like 'Aqrabah playing a central role in the distribution of water, while several sites at 3 to 7 km away were dependent on its water storage.[531] In other words, in this region we find that access to water played a far stronger role in settlement location than factors such as market function.

2.3.5 Conclusion

The cities of the Decapolis stand out in comparison to those of Palaestina, and not just in their use of basalt for construction. In the first place, their building profile is better known for the Roman period, both in larger and smaller cities. A regional preference for water display buildings is apparent, while the shape of nymphaea was mirrored in other architecture as well. Furthermore,

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[528] Dentzer, *Hauran I*, 191.

[529] Frank Braemer, 'Prospections Archéologiques Dans Le Hawran. [II. Les Réseaux de l'eau]', *Syria* 65, no. 1 (1988): 108, https://doi.org/10.3406/syria.1988.7101; Frank Braemer, Gourguen Davtian, and Pascale Clauss-Balty, 'L'habitat Rural En Syrie Du Sud: Quels Contextes Territoriaux?', in *Hauran III : Habitat Dans Les Campagnes de La Syrie Du Sud Aux Époques Classique et Médiévale*, ed. Pascale Clauss-Balty and Jean-Marie Dentzer, Bibliothèque Archéologique et Historique 181 (Institut Français du Proche Orient, 2008), 10, https://halshs.archives-ouvertes.fr/halshs-00268968.

[530] Frank Braemer et al., 'Conquest of New Lands and Water Systems in the Western Fertile Crescent (Central and Southern Syria)', *Water History* 2, no. 2 (1 October 2010): 107, https://doi.org/10.1007/s12685-010-0029-9.

[531] Braemer, Davtian, and Clauss-Balty, 'L'habitat Rural En Syrie Du Sud'.

the majority of the Decapolitan cities was fortified, and by the beginning of the fourth century nearly all of them were walled.

Some characteristics were shared with other cities of the Roman Near East. Temples, baths, colonnaded streets and theatres were omnipresent, and larger cities had a hippodrome as well. In a few cities, the presence of a tetrapylon and tetrakionion gave them a distinctly eastern character. Public squares were less common than among cities in the Western Empire, and examples like the oval plaza in Gerasa are quite different from the fora and agorai common elsewhere.

Most notable for the region, however, is the way in which the distribution of cities and villages was strictly determined by the available water resources, with the population clustered where agricultural land and drinking water were available. It is all the more surprising to see that this resulted in a number of relatively large cities and wealthy villages. However, that the area northwest of the Trachonitis was governed from villages rather than cities, may have been caused by the presence of imperial estates in that region, rather than a lack of water resources.

The historical and political development of the region also differs from what we see in Palaestina and in the northern Syrian provinces. Most settlements are relatively young, Late Hellenistic foundations. There is no organisation in toparchies as seen in Syria Palaestina to explain the small settlements and territories. Rather, it is the initial clustering of the cities that precludes the development of large urban territories as seen in the north.

2.4 Southern Arabia

2.4.1 Introduction

In 106 C.E. the Roman Empire annexed the kingdom of the Nabataeans (Figure 28). Shortly after, the Via Nova Traiana was constructed, starting in Bostra, and continuing south past Philadelphia over the plateaux of the Jordanian highlands, to finally run past Petra to the port of Aila, on the coast of the Red Sea. The road, following the older Nabataean highway (which itself shows an Iron Age II predecessor),[532] cut through a diverse landscape, including the dark volcanic environs of the Hauran, via the Mediterranean plateaux of Moab and the dry and inhospitable deserts of the Ḥismā and ʿAraba around Aila.[533]

This highway only crossed a limited part of the Arabian province. It is quite likely that the new province encompassed the entirety of the old Nabataean kingdom. West of the capital of Petra, this covered the deserts of the Negev and the Sinai, while to the south the lands of the Nabataeans stretched far into the Ḥismā at least as far as Hegra. In fact, using Nabataean pottery found further into the south of the Arabian Peninsula, on the island of Farasan – which also shows inscriptions indicating the construction of a Roman base – and on the Arabian coast opposing it, Speidel has argued that Nabataean influence stretched this far along the Red Sea coast.[534] Nonetheless, by their very nature desert borders are unclear, and even with a Roman presence that far south, the level of Nabataean influence in the Arabian Peninsula can be questioned. Furthermore, the focus of this thesis lies with the cities of the east. With Hegra as the final city under Roman control, the wider region of the Arabian Peninsula will not be treated here.

The following section will describe the regional organisation and cities of the southern parts of the Arabian province. As becomes quickly evident from Figure 28, compared to the Decapolis in the north of the province, the number of places that in the Severan era certainly were considered cities, following Jones' classification (coinage, official status, urban institutions, and presence in Pliny or the earliest lists of bishoprics), are limited to a handful, mostly along the Via Nova Traiana. The likely candidates Elusa and Hegra lie in the Ḥijāz and Negev respectively, and the potential cities of Rhinocolura, Ostrakine, Kasion and Gerra lie in the northern Sinai along the coastal road from Raphia in Judea to Pelusium in Egypt. As such, the description of the region

[532] Fawzi Abudanah et al., 'The Legend of the "King's Highway": The Archaeological Evidence', *Zeitschrift Für Orient-Archäologie* 8 (2015): 183–84.
[533] Glen Warren Bowersock, *Roman Arabia* (Harvard University Press, 1994), 83.
[534] Speidel, 'Ausserhalb des Reiches? Zu neuen lateinischen Inschriften aus Saudi-Arabien und zur Ausdehnung der römischen Herrschaft am Roten Meer', 647–49.

here will at first follow the Via Nova Traiana southwards to Petra, and then describe the settlements in the Negev and Sinai to the west and in the deserts south of Petra.

2.4.2 The lands of Moab: The Madaba plain (Northern Moab) and Kerak plateau (Central and Southern Moab)

South of Gerasa and Philadelphia, the limestone plateaux of the Jordanian highlands continue along the eastern side of the Dead Sea, cut through by wadis emptying into the Rift Valley. Climatically similar to the area around Philadelphia, they are somewhat drier but still among the best-watered lands beyond the Jordan. Springs are mostly limited to the wadi valleys. The red and yellow Mediterranean soils of the plateaux lack the fertility of the volcanic soils of the Hauran and are relatively shallow, but still allow for a reasonable agricultural yield.[535] The region, also known as Moab in ancient sources, has a long history, and its settlements are mentioned in Egyptian sources and the Bible.[536]

In the Madaba plain, between Wadi Hesban and Wadi Mujib, the main settlements throughout the Roman period were Madaba and Esbus. Madaba so far shows a history of urbanism going back over 5000 years on its 16-hectare tell. Nowadays it is especially known for the Byzantine mosaics excavated in the basilica of St. George, which show a map of the major settlements in the region. Despite the literary references to the city, and it having its own coinage, the Roman city itself is not especially well known. There are inscriptions showing the presence of the Legio III Cyrenaica, a possible Roman temple, and remains of the colonnaded main street.[537] Esbus seems to have been a rather small place, on a tell of about 6 hectares, and Mitchel describes it as a small to medium village of maybe only 2 hectares at the beginning of the second century (stratum 13).[538] By the end of the second century (stratum 12) it grew beyond the size of the tell, with probes indicating some activity at 80 m and 300 m to the southeast and southwest.[539] In this

[535] J. Maxwell Miller and Jack M. Pinkerton, *Archaeological Survey of the Kerak Plateau*, Archaeological Reports / American Schools of Oriental Research ; No. 1 (Atlanta, Ga: Scholars Press, 1991), 3.
[536] 2 Kings 3; Gen. 19:30-38; Udo Worschech, 'Egypt and Moab', *The Biblical Archaeologist* 60, no. 4 (1997): 229–36, https://doi.org/10.2307/3210625.
[537] Timothy P Harrison, Debra Foran, and Andrew Graham, 'Investigating 5,000 Years of Urban History: The Tall Madaba Archaeological Project', in *Crossing Jordan: North American Contributions to the Archaeology of Jordan*, 2007, 143; Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 992–1001.
[538] Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 626; Larry A. Mitchel, *Hellenistic and Roman Strata : A Study of the Stratigraphy of Tell Hesban from the 2nd Century B.C. to the 4th Century A.D*, Hesban ; 7 063164825 (Berrien Springs, Mich: Andrews University Press/Institute of Archaeology, 1992), 145.
[539] Larry A. Mitchel, 'The Hellenistic and Roman Periods at Tell Hesban, Jordan' (1980), 155–56, http://digitalcommons.andrews.edu/dissertations/96.

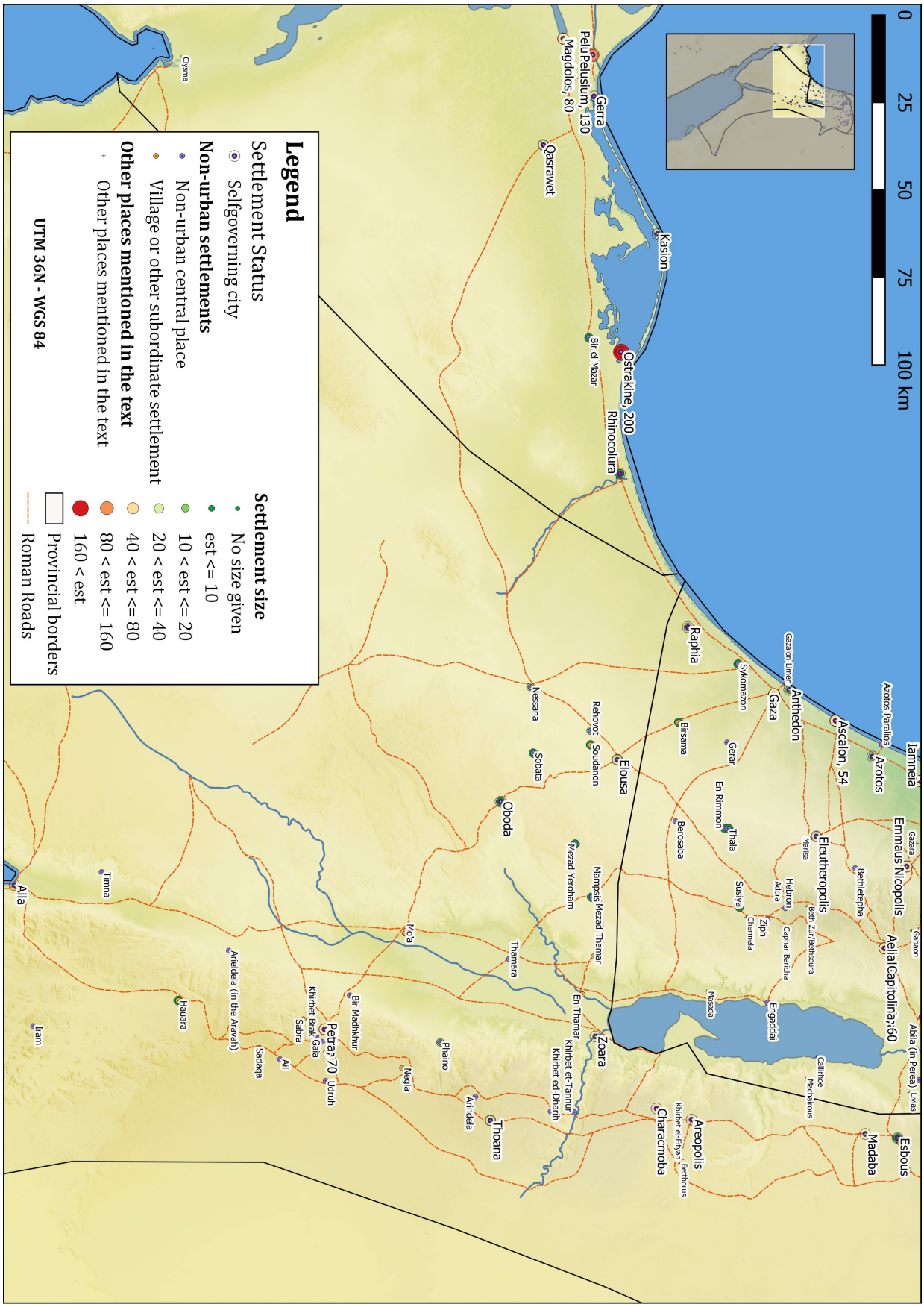

Figure 28 Settlements in southern Arabia

period it seems that a temple and an inn were built in the settlement, and that a fort was

constructed.[540]

The Kerak plateau is the next large plateau towards the south, between the Wadi Mujib and the Wadi el-Ḥasa, and climatically similar. Sources for the cities of Rabbathmoba (er-Rabbah), also known as Areopolis in the second century, and Charachmoba (Kerak) on the Kerak Plateau are limited. Seal impressions from the reign of Hadrian belonging to these cities, which were found at Mampsis in the Negev, suggest these were places of significance.[541] Areopolis also appears as a *caput viae* on the Via Nova Traiana.[542] Similarly, in the same period the city of Rabbathmoba was mentioned in the Babatha archive, stating that Babatha had to declare her property to a Roman commander based there. The archives of this woman, from a family that had migrated from En Gedi to Maoza, contain information on her family, property and correspondence with various authorities. Given that the final documents date to 132 C.E. and they were found in a cave in the Judean desert, it is likely she fled to Judea at the onset of the Bar Kokhba revolt.[543] An extract from the council meetings of Petra in the archive interestingly reveals that, although the village of Maoza was closer to Rabbathmoba, it was the boule of Petra who had jurisdiction in the case of the inheritance of Babatha's late husband's goods, and that it appointed two guardians for her son.[544] Secondly, Isaac notes that the town of Zoara, lying closer to Maoza, apparently did not have any Roman officials. Furthermore, from a number of summons and counter-summons it appears that Rabbathmoba and Petra served as *conventus* centres, with Rabbathmoba normally serving as the normal assize centre for matters relating to the village, but with the governor more commonly present in Petra.[545] Coinage in both cities started rather late, under Septimius and Elegabalus.[546]

While the remains of Roman Charachmoba are practically unknown, for Rabbathmoba (Areopolis) the situation is somewhat better.[547] A temple or public building from the time of Diocletian remains, parts of a colonnaded street and three large reservoirs, a building inscription dedicated to Lucius Verus, and a later Byzantine building, probably a church.[548] The material of

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[540] Mitchel, 145–50.
[541] Miller and Pinkerton, *Archaeological Survey of the Kerak Plateau*, 12–13.
[542] Jacqueline Calzini Gysens, 'Interim Report on the Rabbathmoab and Qaṣr Rabbah Project', *East and West* 58, no. 1/4 (2008): 60.
[543] Youval Rotman, 'Babatha', in *The Encyclopedia of Ancient History* (John Wiley & Sons, Inc., 2013); Miller and Pinkerton, *Archaeological Survey of the Kerak Plateau*, 12; Glen Warren Bowersock, *Studies on the Eastern Roman Empire: Social, Economic and Administrative History, Religion, Historiography*, Bibliotheca Eruditorum 9 (Goldbach: Keip, 1994), 87–89.
[544] Benjamin Isaac, 'The Babatha Archive: A Review Article', ed. N. Lewis, Y. Yadin, and J.C. Greenfield, *Israel Exploration Journal* 42, no. 1/2 (1992): 63–64; *P. Yadin 1 12*, n.d.
[545] Haensch, *Capita provinciarum*, 243; Hannah Cotton and Werner Eck, 'Roman Officials in Judaea and Arabia and Civil Jurisdiction', in *Law in the Documents of the Judaean Desert*, ed. Ranon Katzoff and David Schaps (Leiden: Brill, 2005), 37–41.
[546] Jones, 'The Cities of the Roman Empire', 294; Kennedy, *The Roman Army in Jordan*, 153.
[547] Miller and Pinkerton, *Archaeological Survey of the Kerak Plateau*, 89.
[548] Miller and Pinkerton, 66; Gysens, 'Interim Report on the Rabbathmoab and Qaṣr Rabbah Project', 64.

the city walls, which were still standing at the beginning of the twentieth century and drawn on Alois Musil's sketch of the city, appear to have been reused completely in the modern town. No indication is given as to their possible age, and they could date to a later period. One additional feature of the town, based on aerial photography, is the suggestion of a Roman or Byzantine military encampment southeast of the city.[549]

The town of Zoara lay to the southwest of the plateau, at the end of the Wadi el-Ḥasa and near the coast of the Dead Sea, essentially the northern end of the Wadi ʿAraba. Despite lack of rain and relative salinity of the soil, the water from the Wadi el-Ḥasa nonetheless allowed the area to be a productive agricultural region, and the Babatha archives attest to date palm production. While the area was surveyed by MacDonald in the Southern Ghor Survey, Zoara itself has not been well studied. Even its exact location is unclear, with one of the potential sites to be identified with the city (Khirbet Sheikh ʿIsa) having been bulldozed.[550]

South of the Kerak plateau, across the Wadi el-Ḥasa, the terrain becomes somewhat less hospitable, with more pronounced mountainous features. The area is described by Kennedy as the highlands of Ma'an or Al-Jibal, but falls within the modern Tafilah governorate, and the mountains continue south as the Jabal ash-Sharāh. The region is known in the Old Testament as Edom, with Bozrah as its capital. In the Roman period Thoana (Thornia on the Peutinger Table, modern At-Tuwana) was a sizeable settlement in this area, measuring up to 36 hectares, along the Via Nova Traiana. A structure with an almost 1.5 ha enclosure is suggested to have functioned as an inn.[551] Ariendela (at Gharandal), just under 8 km to the southwest along the older King's Highway, may have had a similar inn, but as a settlement only seems to have grown in the Late Roman or Byzantine period.[552] Interestingly, the fact that Ariendela is present on the bishoprics lists suggest that it had superseded Thoana in importance by that time.[553]

On the north side of Al-Jibal, closer to the Wadi el-Ḥasa, the area also hosts two other places of interest, the remote Nabataean sanctuaries of Khirbet edh-Dharih and Khirbet et-Tannur, the

[549] Gysens, 'Interim Report on the Rabbathmoab and Qaṣr Rabbah Project', 64, 70, 71.
[550] Burton Macdonald, Geoffrey A. Clark, and Michael Neeley, 'Southern Ghors and Northeast ʿAraba Archaeological Survey 1985 and 1986, Jordan: A Preliminary Report', *Bulletin of the American Schools of Oriental Research*, no. 272 (1988): 39–40, https://doi.org/10.2307/1356784.
[551] Kennedy, *The Roman Army in Jordan*, 168; Zbigniew T. Fiema, 'At-Tuwana: The Development and Decline of a Classical Town in Southern Jordan (with a Note on the Site Preservation)', in *Landscape Resources and Human Occupation in Jordan throughout the Ages*, Studies in the History and Archaeology of Jordan 6, 1997, 313–16.
[552] Alan G. Walmsley and Anthony D. Grey, 'An Interim Report on the Pottery from Gharandal (Arindela), Jordan', *Levant* 33, no. 1 (1 January 2001): 139–64, https://doi.org/10.1179/lev.2001.33.1.139.
[553] A. H. M. Jones, *The Later Roman Empire, 284-602: A Social Economic and Administrative Survey* (Oxford: Blackwell, 1964), 547.

latter at the location of a former Iron Age settlement.[554] While neither appear to have become major foci of settlement (with only a small village growing around Khirbet edh-Dharih, at the beginning of the second century), they are likely to have been important points in the religious landscape.[555]

To the southwest of this plateau, on the edge of the Wadi ʿAraba, lay the well-known copper and lead mining district in the Wadi Faynan, where mining can be traced back to the Early Bronze Age. This was a major mining area in the Roman period as well. The main settlement, Khirbet Faynan, Phaino in antiquity, was occupied from around 300 B.C.E. to 650 C.E..To its west, across the wadi bed, lay a large field system extending over 5 km, that has been interpreted as the agricultural estate of the workers and garrison living in Phaino. While under the Nabataeans a large number of separate farmsteads lay along the wadi bed using simple runoff techniques and short channels to water the lands, under imperial control the entire wadi floor was covered by a single estate. Floodwaters were distributed between fields by means of well-built channels with sluices and slipways controlling flow. Barker notes that Roman mining activity coincided with considerable increased pollution as well, and that Roman activity may have been a major cause in the desertification of the area.[556] Timna, another mining site, located to the southwest of the Wadi ʿAraba, was used well into the Iron Age and reused in Islamic times. But while Roman mines were dug, the near absence of slag from that period suggests that mining attempts were unsuccessful at this time.[557] The proximity of the Faynan mining estate may have influenced the prosperity of the nearby settlements on the plateau, and perhaps was related to the success of closer Ariendela over that of Thoana.

2.4.2.1 Hinterland and regional patterns

In the Madaba plain, besides the two main places treated above, some additional information on the smaller settlements in the surrounding countryside is available from the regional survey of the Andrews University Hesban Expedition, now continued as a part of the Madaba Plains

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[554] François Villeneuve, 'Citadins, villageois, nomades : le cas de la Provincia Arabia (IIe-IVe s. ap. J.C.)', *Dialogues d'histoire ancienne* 15, no. 1 (1989): 119–40, https://doi.org/10.3406/dha.1989.1832.
[555] Megan A. Perry, Drew Coleman, and Nathalie Delhopital, 'Mobility and Exile at 2nd Century A.D. Khirbet Edh-Dharih: Strontium Isotope Analysis of Human Migration in Western Jordan', *Geoarchaeology* 23, no. 4 (1 July 2008): 528–49, https://doi.org/10.1002/gea.20230.
[556] G. W. Barker et al., 'Archaeology and Desertification in the Wadi Faynan: The Fourth (1999) Season of the Wadi Faynan Landscape Survey', *Levant* 32, no. 1 (1 January 2000): 28, https://doi.org/10.1179/lev.2000.32.1.27; G. Barker, 'The Desert and the Sown: Nomad–Farmer Interactions in the Wadi Faynan, Southern Jordan', *Journal of Arid Environments*, Ancient Agriculture in the Middle East, 86 (November 2012): 91–93, https://doi.org/10.1016/j.jaridenv.2011.11.023.
[557] Gerd Weisgerber, 'The Mineral Wealth of Ancient Arabia and Its Use I: Copper Mining and Smelting at Feinan and Timna – Comparison and Evaluation of Techniques, Production, and Strategies', *Arabian Archaeology and Epigraphy* 17, no. 1 (1 May 2006): 22, 24, https://doi.org/10.1111/j.1600-0471.2006.00253.x; Hagit Nol, 'The Fertile Desert: Agriculture and Copper Industry in Early Islamic Arava (Arabah)', *Palestine Exploration Quarterly* 147, no. 1 (1 March 2015): 53, https://doi.org/10.1179/1743130114Y.0000000012.

Project. The survey gives an initial overview of the settlements in the surroundings of Esbus and Madaba, in a radius of 10 km from Tell Hesban. As Israel Finkelstein's rather critical review already indicated in 1992, the report from 1987 has several shortcomings, hampering the possibility to reliably recreate the settlement system.[558] Even so, while Finkelstein is right that their size indications are only very general ('very small' to 'major'), the authors do state for the large sites that these fall between 10 to 20 acres (4 to 8 hectares), the largest of which is Tell Jalul (at 7 ha, abandoned by the Roman period).[559] The major sites are essentially Madaba and Esbus.[560] More problematic is that no indication is given as to sherd numbers, nor the number of diagnostic sherds from a specific period, although it was indicated when only a 'few' or 'a single' diagnostic sherd was found at the site. In total, a steep increase from 21 Hellenistic to 57 Early Roman sites can be seen, declining to 45 sites in the Late Roman period (meaning from 130 C.E. to 365 C.E. in Ibach and Labianca), to increase again to 126 in the Byzantine period (here meaning 365 C.E. to 661 C.E.).[561] Discarding the 'few sherds' or 'single sherd' sites reduces the early Roman period to 44 sites, and the later Roman period to 41.[562] Besides Esbus and Madaba, of these five were large or major sites in the Hellenistic period, increasing to eight in the early Roman period, and to nine in the Late Roman and Byzantine periods. While a larger concentration of sites was found in the northwest, the larger sites appear to have been located to the east of Esbus. New surveys from the later 1990s based on random plots suggest that the settlement density probably was highest in the plains towards the southwest – contrary to the original findings – but that due to the nature of the terrain more surface remains survived in the north-western section, as this area was less suitable for agriculture.[563]

On the Kerak plateau the main survey is that by Miller and Pinkerton between 1978 and 1982. While informative, it only gives a limited insight into the smaller settlements on the plateau, as only in some cases site are sizes given, and besides the two main sites, the relative importance of the others throughout time is not highlighted. At the very least the presence of Tharias and Aia on the Madaba map, suggested to be Tarʿīn (site 292) and ʿAi (site 262), may mean that these

[558] Robert D. Ibach and Øystein Sakala LaBianca, *Archaeological Survey of the Hesban Region: Catalogue of Sites and Characterization of Periods*, Hesban 5 (Berrien Springs Michigan: Andrews University Press, 1987); Øystein Sakala LaBianca, *Sedentarization and Nomadization: Food System Cycles at Hesban and Vicinity in Transjordan*, Hesban ; 1 063164825 (Berrien Springs MI: Andrews University Press, 1990); Israel Finkelstein, 'From Sherds to History: Review Article', *Israel Exploration Journal* 48, no. 1/2 (1998): 122–23.
[559] Constance E Gane et al., 'Madaba Plains Project: Tall Jalul 2009', *Andrews University Seminary Studies* 84, no. 2 (2010): 165.
[560] Ibach and LaBianca, *Archaeological Survey of the Hesban Region*, 170, 181.
[561] Note that the figures represented in the review by Finkelstein do not seem to correspond very well to that in the publications he reviews: Finkelstein, 'From Sherds to History', 124.
[562] Ibach and LaBianca, *Archaeological Survey of the Hesban Region*, 170–81.
[563] Gary L Christopherson, 'A Regional Approach to Archaeology on the Madaba Plains: Random Survey and Settlement Patterns', in *Web-Published Conference Paper, Annual Meetings of the American Schools of Oriental Research*, 1997.

places were of some significance. The overall trends are clear, however: there is a sharp increase in settlement throughout the Nabataean period, with 290 sites (170 if only counting those with five or more sherds for that period), declining to 143 early Roman (39 with 5+ sherds), down to 115 (or 30 with 5+ sherds) Late Roman sites, increasing again in the Byzantine period.[564]

The Dana Archaeological Survey studied the area from the southern Tafila almost down to Udruh, including parts of the Wadi ʿAraba in the west. Contrary to the surveys to the north, one main conclusion was that of a very strong continuity in settlement in the region. As Findlater indicates in his discussion of the project, most older surveys failed to account for the longer use of classic Nabataean forms of pottery up to as far as the 5th century C.E. This could mean that the high number of Nabataean sites in the other surveys was exaggerated while understating the Roman period, suggesting that continuity may have been far higher between the periods there as well.[565] As elsewhere, Findlater emphasizes that the Late Roman establishment of military forts along the desert route followed existing Nabataean patterns, and more importantly, that their location was dictated by the presence of imperial estates and the proximity of mineral resources in the Wadi ʿAraba. He postulates that part of the plains south of the Jibal formed such an estate.[566] With this, he goes against the general ideas held about the nature of the military presence in Jordan, either a more traditional idea of defence against invasion (nomadic or otherwise), or internal policing and securing long-distance trade routes.[567] While his ideas certainly merit further investigation, the initial expansion of the military presence in Arabia during up to and including the Severans does seem to match better with Fiema's idea of enhancing the security or taxation of trade routes, with troops stationed at Hegra covering the Ḥijāz route, and with the Severan fortresses at the Azraq oasis covering the route from Bostra through the Wadi Sirhan.[568]

2.4.3 Petra

Petra was the political and religious heart of the Nabataean kingdom. It was situated in a basin surrounded by sandstone mountains, along the bed of the Wadi Musa, which flows down from the east out of the Jabal ash-Sharāh. Well provided with water and well-protected, it also lay at a natural location to turn west towards the Mediterranean across the mountains and the Wadi ʿAraba.

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564 Miller and Pinkerton, *Archaeological Survey of the Kerak Plateau*, 13.
565 George MacRae Findlater, 'Imperial Control in Roman and Byzantine Arabia : A Landscape Interpretation of Archaeological Evidence in Southern Jordan', 9 July 2004, 232, https://www.era.lib.ed.ac.uk/handle/1842/9789.
566 Findlater, 269.
567 Findlater, 270–79.
568 Zbigniew T. Fiema, 'Roman Petra (AD 106–363): A Neglected Subject', *Zeitschrift Des Deutschen Palästina-Vereins* 119, no. 1 (2003): 38–58.

While many of the famous rock-cut façades of Petra date to the first centuries B.C.E. and C.E., there is evidence for Nabataean occupation in the 4th century B.C.E., both along the bed of the Wadi Musa as well as closer to Umm al-Biyara.[569] Like most settlement locations in Arabia it had been inhabited before, but there appears to be a gap in habitation of at least a century between the preceding Iron Age settlement on the heights of Umm al-Biyara and the early Hellenistic settlement.[570] As Piotr Bienkowski highlights, however, there is an interesting element of continuity, since it appears that the older settlement in Busayra in the north may still have existed by the late third century B.C.E., making it contemporary to the early Nabataean habitation at Petra.[571]

Urbanisation of Petra took a rapid leap forward in the first century B.C.E., with the contemporary settlement of numerous sites throughout the southern Levant. Other than the monumental graves, this period also saw the building of the Great Temple, which may well have been a palace, and an elaborate system of water provision.

	Baths and Water provision	Commercial infrastructure	Elite buildings	Entertainment	Military	Sanctuary & Temple	Status buildings	Grand Total
Petra	**5**	**2**	**3**	**2**	**1**	**2**	**1**	16
Hegra	**2**	**1**			**1**	**1**	**1**	6
Madaba	**2**	**1**			**1**	**1**		5
Elousa	**1**	**2**		**1**		**1**		5
Areopolis	**1**	**1**				**1**		3
Oboda						**2**		2
Aila		**2**						2
Esbous						**1**		1
Grand Total	11	9	3	3	3	9	2	40

[569] David F. Graf, 'Petra and the Nabataeans in the Early Hellenistic Period: The Literary and Archaeological Evidence', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 43–46.
[570] Piotr Bienkowski, 'The Iron Age in Petra and the Issue of Continuity with Nabataean Occupation', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 31.
[571] Bienkowski, 32.

Besides water from the spring of ʿAyn Musa, water from numerous other sources was diverted to the city. A large garden and pool complex show that it was used for a conspicuous display of power as well.[572]

As elsewhere, the impact of the Roman annexation is unclear. The city walls date to the period around the annexation, and may suggest that violence was anticipated. In any case they give a reasonable indication of the size of the settlement, enclosing around 70 hectares.[573] There are some signs throughout the city that may suggest some violence did take place, e.g. at the Obodas chapel, but on the whole, it seems that the city was not severely affected by the change of rule. Schmid suggests that the apparent lack of new rock-cut façades after the annexation, the going out of use of various *triclinia*, and the addition of the bouleuterion to the 'Great Temple' around the time of the annexation, are signs of Roman intervention. In his view the Roman government tried to limit Nabataean practices of feasting, as such associative structures were frowned upon in the empire.[574] This idea depends, however, on the somewhat tentative identification of the Great Temple as a palatial building, and specifically the area of the small theatre as that of a royal banqueting hall.

What is clear is that even though Bostra became the main seat for the governor, the city of Petra was granted the status of metropolis shortly after the annexation, continued minting its own coins, and acquired colonial status under Elegabalus. The older idea of supposed urban decline in the first century, as a result of shifting trade patterns, can no longer be maintained. For how long prosperity continued after Roman annexation is unclear. Especially for the third century literary sources are lacking.[575] Archaeologically, there are some signs of problems, such as the pool complex apparently having been abandoned and filled up by the late second or early third century.[576] It seems that the city suffered a significant blow in the fourth century, connected with the earthquake in 363 C.E.: as a Syriac letter attributed to Cyril, the bishop of Jerusalem, indicates, half the city lay in ruins.[577] Nonetheless, the later Byzantine churches and the Petra

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[572] Leigh-Ann Bedal, *The Petra Pool-Complex: A Hellenistic Paradeisos in the Nabataean Capital : (Results from the Petra 'Lower Market' Survey and Excavation, 1998)* (Gorgias Press LLC, 2004).
[573] Maria Giulia Amadasi Guzzo and Eugenia Equini Schneider, *Petra.* (Chicago, Ill.; London: University of Chicago Press, 2002), 108; Sebastian Hoffmann, 'Indications for "Early Petra" Based on Pottery Finds in the City Centre: El-Habis as a Case Study', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 93–106.
[574] Schmid, 'Petra and the Nabataeans in the Early Hellenistic Period'.
[575] Millar, 'The Roman Coloniae of the Near East: A Study of Cultural Relations', 39; Haensch, *Capita provinciarum*, 238–54; Fiema, 'Roman Petra (AD 106–363): A Neglected Subject', 39–43.
[576] Bedal, *The Petra Pool-Complex*.
[577] Russell, 'The Earthquake Chronology of Palestine and Northwest Arabia from the 2nd Through the Mid-8th Century A. D.'; Philip C. Hammond, 'New Evidence for the 4th-Century A. D. Destruction of Petra', *Bulletin of the American Schools of Oriental Research*, no. 238 (1980): 65–67, https://doi.org/10.2307/1356516.

Papyri clearly show that the city had not lost all its vitality and remained inhabited into the early Islamic period.[578]

The agricultural hinterland of Petra was relatively beneficial for agriculture, considering the limited amount of rainfall. Between the sandstone formations around Petra and the slopes of the Sharāh a number of springs and runoff from the high mountainsides created possibilities for cultivating the area. At higher altitudes on the Jabal ash-Sharāh itself, vulnerability to erosion and limited soils were offset by increased rainfall.[579] Intricate systems which collected rainwater from hillsides and wadi flows and diverted it onto fields are found throughout the greater Petra area, starting from the second to first centuries B.C.E., with more advanced forms of terracing of the hillsides beginning in the first century C.E..[580]

The settlements in the hinterland were studied in detail by Paula Kouki in 2012, bringing together data from the Wadi Musa Water Supply and Wastewater Project, the Bir Madhkur Project, the Finnish Jabal Harun Project, and the survey of the surroundings of Udruh by Fawzi Abudanah.[581] The surveys cover a limited part of the surroundings of Petra. While more projects have been undertaken in the region, some were not useable for Kouki's purposes because they lacked detail, or were not published at all, although the results from the landscape surveys undertaken by Brown University north of Petra have since then been published.[582] The general picture that emerges shows a significant expansion between 100 B.C.E. and 100 C.E., matching the growth of the city itself during that period. Initially the area only had a few settlements, mostly in the Jabal ash-Sharāh close to Petra, because it offers above average conditions in the region for agriculture. Most of the subsequent expansion of settlement took place east of Petra, towards Udruh and Sadaqa, and consisted mostly of small sites, with several larger villages. To

[578] Alex Knodell et al., 'The Brown University Petra Archaeological Project: Landscape Archaeology in the Northern Hinterland of Petra, Jordan', *American Journal of Archaeology* 121 (1 October 2017): 621, https://doi.org/10.3764/aja.121.4.0621.
[579] Laurent Tholbecq, 'The Hinterland of Petra (Jordan) and the Jabal Shara during the Nabataean, Roman and Byzantine Periods', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 295–96.
[580] Paula Kouki, 'The Intensification of Nabataean Agriculture in the Petra Region', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 324–26.
[581] Paula Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period' (Ph.D., University of Helsinki, 2012); Kouki, 'The Chronology of Ancient Agricultural Terraces', 323.
[582] Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period', 28; Knodell et al., 'The Brown University Petra Archaeological Project'.

the west, in the Wadi ʻAraba, only very small settlements or single farmsteads came into existence, directly along wadis for water catchment.[583]

By the third century, however, only a third of the 74 small settlement sites remained, but most of the village-sized sites remained intact (14 out of 16 earlier sites). In the direct vicinity of Petra, in the western Jabal ash-Sharāh, settlement remains more stable, but even there the decline is visible. In fact, Tholbecq mentions for the Jabal ash-Sharāh that the difference may be more pronounced, as pottery from the transition of the late first and early second centuries was dated to the 2nd through 4th century in general.[584] By the fourth century, many of the eastern settlements were reoccupied, increasingly so in the vicinity of Udruh, and there was some recovery in the western Jabal ash-Sharāh, but the settlement pattern west of Petra continued to decline. This included the larger settlements, with no evidence of habitation in for instance Sabra after the fourth century, nor at Abu Khushayba.[585] On the other hand, it has been attested that around the fort at Bir Madhkur agriculture was practiced (again) from the third century, including the cultivation of cereals.[586] The results from the surveys north of Petra more or less correspond to what happens in the eastern hinterland. These also suggest that the last century of Nabatean rule saw great intensification of settlement and land use. But this clearly continued up to the mid third century C.E., also with further construction and maintenance of agricultural terraces.[587]

As stated, of the larger settlements in the area, little is known archaeologically from the period under study. For Ayl and Sadaqa little information is available, other than the potential identification of a rectangular structure at Sadaqa as a Late Roman fort; Abundanh estimates the site size at 250 by 150 meters.[588] Gaia, probably the most important site in the region after Petra, is somewhat better known, with several excavated luxurious residences and at least one known

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583 Kouki, 'The Chronology of Ancient Agricultural Terraces', 323–25, 329–30; Laurent Tholbecq, 'The Hinterland of Petra (Jordan) and the Jabal Shara during the Nabataean, Roman and Byzantine Periods', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 296–97.
584 Tholbecq, 'The Hinterland of Petra (Jordan) and the Jabal Shara', 104–5; Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period', 84–90.
585 Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period', 84–90.
586 Jennifer Ramsay and Andrew M. Smith II, 'Desert Agriculture at Bir Madhkur: The First Archaeobotanical Evidence to Support the Timing and Scale of Agriculture during the Late Roman/Byzantine Period in the Hinterland of Petra', *Journal of Arid Environments* 99 (December 2013): 51–63, https://doi.org/10.1016/j.jaridenv.2013.09.005.
587 Knodell et al., 'The Brown University Petra Archaeological Project', 669.
588 Zeyad Al-Salameen, Saad Twaissi, and Fawzi Abudanah, 'Preliminary Report on the Archaeological Investigations of As-Sadaqa, Southern Jordan, 2007', *Annual of the Department of Antiquities of Jordan* 52 (2009): 397–416; Fawzi Abudanah, 'Settlement Patterns and Military Organisation in the Region of Udhruh (Southern Jordan) in the Roman and Byzantine Periods' (Ph.D., Newcastle, Newcastle University, 2006), 545, site 282, http://hdl.handle.net/10443/232.

temple, which was bulldozed in 1978.[589] For Udruh the later periods are somewhat better known, but the occupation throughout the Nabataean early Roman periods remains unclear.[590] At Sabra a small theatre and a temple from the early first century C.E. are known, as well as a bridge over the Wadi Sabra. Furthermore, there are some indications of copper mining and processing. Current investigations have also uncovered a bath and an inn. Sabra appears to have been a sizeable settlement, but no further estimate has been given as to its surface area.[591]

Kouki's interpretation is that this is not so much an overall demographic decline as a concentration into nucleated settlements. Inspired by Alcock's model for landownership and land-use in Greece, she suggests that this reflects a shift towards more concentrated ownership of land, beginning at the end of the second century at the latest. Secondly, a reorientation of the local economy towards agriculture rather than products for longer distance trade further stimulated this concentration, which is also reflected in the decline in production of unguents in the region in the third century.[592] At the same time, she also proposes a shift in the third century to a more mixed form of agriculture and pastoralism. This is an interesting idea, but as she indicates herself as well, evidence for this last point is scarce. Furthermore, she shows that a climate-based explanation for a shift to pastoralism is untenable, as the second and early third centuries rather shows a return to earlier humid conditions after a decline around 100 C.E. She does not, however, offer an alternative reason.[593]

2.4.4 The Negev and the Sinai

To the west of the Jordanian Highlands and the Petra region lie the dry regions of the Wadi ʿAraba, and beyond it the Negev. Even in the seemingly inhospitable environment of the Negev, human settlement goes back to the Early Neolithic. In the harsh surroundings of the southern Negev, where precipitation drops below 50 mm per year, and evaporation rates rise to over 4000 mm, there are sites with continuous activity from such early times (although of course, the

[589] Khairieh ʿAmr, 'Wadi Musa in der Antike', in *Petra* (Basel: Verlag Schwabe, 2012), 142–46; Z. Al-Salameen and H. Falahat, 'Two New Nabataean Inscriptions from Wadi Musa, with Discussion of Gaia and the Marzeah', *Journal of Semitic Studies* 57, no. 1 (1 April 2012): 38, https://doi.org/10.1093/jss/fgr032.
[590] Mark Driessen and Fawzi Abudanah, 'The Udhruh Region: A Green Desert in the Hinterland of Ancient Petra', in *Water Societies and Technologies from the Past and Present*, ed. Yijie Zhuang and Mark Altaweel (UCL Press, 2018), 129, https://doi.org/10.2307/j.ctv550c6p.13; Abudanah, 'Settlement Patterns and Military Organisation in the Region of Udhruh'.
[591] Manfred Lindner, John P Zeitler, and I Künne, 'Sabra: Entdeckung, Erforschung Und Siedlungsgeschichte Einer Antiken Oasenstadt Bei Petra (Jordanien)', *Archiv Für Orientforschung*, no. 44–45 (1997): 542–45, 558; Laurent Tholbecq et al., 'Le site nabatéo-romain du Wādī Sabrā : état des lieux, relevé et hypothèses de travail', in *De Pétra à Wadi Ramm : le sud jordanien nabatéen et arabe*, ed. Laurent Tholbecq (Brussels: Presses Universitaires de Bruxelles, 2015), 63–100.
[592] Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period', 40, 130–32; Susan E. Alcock, *Graecia Capta: The Landscapes of Roman Greece* (Cambridge [etc.]: Cambridge University Press, 1993).
[593] Kouki, 'The Hinterland of a City: Rural Settlement and Land Use in the Petra Region from the Nabataean-Roman to the Early Islamic Period', 98–99, 121.

climate was much more hospitable in the Neolithic). In comparison, the northern Negev Highlands show a little more varied vegetation on slopes and in wadi beds.[594]

Closer to the Roman period, Nabataean activity in the region goes back to the third century B.C.E., with the development of the trade routes towards Gaza and the Sinai continuing from Petra, the destination of the existing Nabataean incense routes through the Arabian Peninsula as known from literary sources.[595] At the very least it is evident from the Zenon Papyri that Gaza played a role in the spice trade in the third century B.C.E.. There is a presence of early Nabataean (third century B.C.E.) camps at Oboda, Elusa and Nessana, forts or stations in the ʿAraba at Moʾa and ʿEn Rahel, and in the Negev at ʿEn Ziq and Qasr Ruheibeh. That most of these appear to have been the locations of earlier Iron Age forts confirms, besides Nabataean use, also the longevity of the route.[596] But while this trade was already active, it must be said that Rosen argues convincingly that in the Negev evidence for Nabataean pastoralism, the other aspect considered a typical part of the Nabataean lifestyle, belongs to a later period. Almost all of the material culture found at nomadic sites seems to have derived from sedentary centres, and dates back to the first century B.C.E. at the earliest.[597]

The establishment of permanent non-military Nabataean settlements in the Negev only seems to date to the first century B.C.E., around the same time that a new road was established through the Makhtesh Ramon, rather than the older route around it. The first of these places appear to have been Oboda and Elusa, growing out of the earlier camps. At the same time, road stations seem to have been built, some of which, like Rehovot-in-the-Negev and Sudanon, grew into settlements.[598] A second wave of settlements, along a new route further north, included Mampsis and ʿEn Hazeva (a site with earlier habitation going back to the 10th century B.C.E., probably to be identified with to Thamara), and road stations at Horvat Hazaza and Mezad Yeroham,

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[594] Uzi Avner, 'Studies in the Material and Spiritual Culture of the Negev and Sinai Populations, During the 6th-3rd Millennia BC' (Jerusalem, Hebrew University, 2002), 4.
[595] C Durand, 'The Nabataeans and Oriental Trade: Roads and Commodities (Fourth Century Bc to First Century Ad)', *Studies in the History and Archaeology of Jordan* 10 (2009): 405–11; Robert Wenning, 'Towards "Early Petra": An Overview of the Early History of the N Abataeans in Its Context', in *Men on the Rocks: The Formation of Nabataean Petra*, ed. Michel Mouton and Stephan SG Schmid, Supplement to the Bulletin of Nabataean Studies 1 (Berlin: Logos Verlag, 2013), 18; Tali Erickson-Gini and Yigal Israel, 'Recent Advances in the Research of the Nabatean and Roman Negev', in *The Nabateans in the Negev*, ed. Renate Rosenthal-Heginbottom ([Israel]: Reuben and Edith Hecht Museum, 2003), 9*-14*.
[596] See for a discussion also Israel Shatzman, *The Armies of the Hasmonaeans and Herod: From Hellenistic to Roman Frameworks* (Mohr Siebeck, 1991), 100-102 including notes 8 to 12; Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 1119–33; Erickson-Gini and Israel, 'Recent Advances in the Research of the Nabatean and Roman Negev', 9*.
[597] Steven A. Rosen, 'The Nabateans as Pastoral Nomads. An Archaeological Perspective', in *The World of the Nabateans*, ed. Konstantinos D. Politis (Stuttgart, 2007), 347, 367–69.
[598] Tali Erickson-Gini, 'The Nabataeaan-Roman Negev in the Third Century CE', in *The Late Roman Army in the Near East from Diocletian to the Arab Conquest*, ed. Ariel Lewin et al., BAR International Series 1717 (Oxford: Archaeopress, 2007), 91–94.

between Oboda and Mampsis. In the second century luxurious residences were built in Mampsis, which remained in use well into the Byzantine period.[599]

Far less studied, further west a large number of settlements from the same period lay along the coastal and inland routes towards Pelusium and Magdolos, on the eastern end of the Nile Delta. The best overview for this is Herbert Verreth's excellent online publication which expands on his original PhD thesis.[600] Of the settlements in the Sinai on the inland route from Nessana, Qasr Ghet and Bir el-Mazar certainly appear to have been Nabataean. Out of sixteen sites that were potentially used in the Roman or Byzantine periods.[601] Qasr Ghet (or Qasrawet), only some 30 kilometres from Pelusium, seems to have been a large commercial and religious centre, also located on an alternative route passing the oasis further south along Bir el-Maghara.[602] Some of the settlements on the coastal road seem to go back to the pre-Nabataean period, while others such as Ostrakine were rather young settlements, coming into existence in the first century B.C.E..[603] As for Nabataean influence on the coastal route from Gaza to Pelusium, two inns were located during the Israeli northern Sinai surveys, one at el-Kharruba and one at Sadot, the latter measuring over 8000 m^2.[604] Beyond Raphia, the main settlements to the west seem to have been Bitylion, Kasion, Rhinocolura, Ostrakine and Gerra.[605]

As Tali Erickson-Gini points out, the second century saw increased building activity in the region, such as the theatre at Elusa.[606] However, Erickson-Gini has argued that various sites in the Negev were in decline at the beginning of the third century. Some of these, like Thamara, were abandoned entirely.[607] Based on the sudden abandonment of a fully stocked pantry in that period, without any signs of destruction, and the contemporary abandonment of an inn at Sha'ar Ramon and the fort at Moyat ʿAwad, it has been suggested that an epidemic took place around this time.[608] Similar signs of abandonment at Petra at the 'Painters Workshop' and the 'Marble Workshop', with comparable ceramic assemblages, although originally dated to a different period, should according to Erickson-Gini also be considered signs of the same epidemic. Taken

[599] Erickson-Gini, 95, 97.
[600] Herbert Verreth, 'The Northern Sinai from the 7th Century BC till the 7th Century AD. A Guide to the Sources' (Leuven, 2006), https://lirias.kuleuven.be/bitstream/123456789/163486/2/sinai_1.pdf.
[601] Verreth, 590.
[602] Verreth, 662–73.
[603] Verreth, 350–54.
[604] Verreth, 216, 251.
[605] Stern, Lewinson-Gilboa, and Aviram, *NEAEHL*, 1171–73, 1384–1403; See also Zeev Meshel, 'Was There a "Via Maris"?', *Israel Exploration Journal* 23, no. 3 (1973): 162–66; Zeev Meshel, *Sinai : Excavations and Studies*, BAR International Series (Oxford: Archaeopress, 2000).
[606] Tali Erickson-Gini, *Nabataean Settlement and Self-Organized Economy in the Central Negev : Crisis and Renewal*, BAR International Series 2054 (Oxford: Archaeopress, 2010), 50.
[607] Erickson-Gini, 'The Nabataeaan-Roman Negev in the Third Century CE', 97.
[608] Tali Erickson-Gini, 'Oboda and the Nabateans', *STRATA: Bulletin of the Anglo-Israel Archaeological Society* 32 (January 2014): 95–96.

together with the fact that at this time the coinage of Petra also ceased, she makes an interesting case.[609]

In a number of survey maps of the Negev published by the Archaeological Survey of Israel, the general trends sketched above seem to be corroborated. After the annexation there was continuation of habitation in both the largest settlements as well as small sites. But while these remained in use well to the end of the second century, decline had set in during the third.[610] Where Nabataean sites were limited or ephemeral to begin with, the period after annexation does not seem to have produced much evidence either (although a Byzantine floruit is visible).[611] However, the third-century decline is certainly not seen everywhere, in some cases possibly because the periodisation has not been made clear.[612] As Steve Rosen indicates for maps 201 and 204 in the central Negev, the assemblages from the sites there showed little diversity from the Roman to the Byzantine and even Early Islamic periods, making it hard to create a clear chronology.[613]

In the late third and early fourth centuries, a large number of Roman forts was built along the routes, often at older Nabataean sites, including abandoned locations such as Thamara and Sobata. This is especially evident along the stretches between Moyat Awad and Oboda on the southern route and between ‘En Hazeva and Mampsis in the north.[614] After this period the six main settlements in the region (Mampsis, Oboda, Nessana, Sobata, Soudanon and Elousa) become larger, and at the same time an intensification of agriculture in the surroundings is visible. An increased focus on local production for export to Gaza, especially of wine, becomes visible from the fourth century onwards, while the link with Petra declines. Interestingly, the

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609 Erickson-Gini, 94–95.
610 Mordechai Haiman, *Map of Har Ḥamran Southeast (199) = Mappat Har Ḥamran Dĕrōm-Mizrath (199)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 1993); Yesha‘yahu Lender, *Map of Har Nafḥa (196) 12-01*, Archaeological Survey of Israel (Jerusalem, 1990).
611 Gideon Avni, *Map of Har Saggi Northeast (225) = Mappat Har Śagī Ẕĕfōn-Mizraḥ (225)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 1992); Steven A. Rosen, *Map of Makhtesh Ramon (204) = Mappat Maḵteš Ramon (204)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 1994).
612 Ya’akov Baumgarten, *Map of Nahal Secher (131)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 2012); Ya’akov Baumgarten, *Map of Nahal Nahal Bekaa (132)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 2014), https://www.antiquities.org.il/survey/new/default_en.aspx?surveynum=50.
613 Steven A. Rosen, *Map of Mitzpe Ramon (201)*, Archaeological Survey of Israel (Jerusalem: Israel Antiquities Authority, 2016), https://www.antiquities.org.il/survey/new/default_en.aspx?surveynum=2151; Rosen, *Map of Makhtesh Ramon (204) = Mappat Maḵteš Ramon (204)*.
614 Erickson-Gini, ‘The Nabataeaan-Roman Negev in the Third Century CE’, 98; Erickson-Gini and Israel, ‘Recent Advances in the Research of the Nabatean and Roman Negev’.

intensive use of terracing and water agricultural water management in the region, often attributed to the Nabataeans, appears to date entirely to this Late Roman settlement phase.[615]

2.4.5 The ʿAraba, Ḥismā and the Red Sea ports (Figure 29)

Several routes ran from Petra towards the south. As already described, these trade routes into Arabia Felix appear to have been the original source of Nabataean wealth. For the Wadi ʿAraba, west of Petra, Bowersock states that due to the hot and arid conditions the potential routes were not used. However, it appears that routes from Bir Madhkur, near Petra, to the port of Aila in the south, and to Zoara at the Dead Sea in the north, were certainly in use. With the transfer of Legio X Fretensis to Aila in the Diocletianic period, forts were built at those places that had perennial water sources or where groundwater could be accessed through wells, such as at Yotvata and Gharandal, and milestones were set up along the route. Earlier finds at these locations, and a Nabataean inn from the first century at Horvat Dafit attest to earlier use of the route.[616] Numerous other pathways and camel tracks through and across the Wadi ʿAraba in the surroundings of Bir Madhkur were studied by Andrew M. Smith, and show that the region was certainly not devoid of traffic.[617] Added to that, the potential for agriculture indicates that the valley was not entirely uninhabitable either, but even so Roman presence seems to be limited to inns and the later forts.[618] At Timna, as already discussed, Roman mining seems to have been without success. Even so, it appears that there was a Roman presence. Findlater suggests Timna as an alternative for Ad Dianam, present on the Tabula Peutingeriana, instead of Yotvata.[619]

[615] But continues well through the subsequent Islamic centuries. Steven A. Rosen, 'The Decline of Desert Agriculture: A View from the Classical Period Negev', in *The Archaeology of Drylands : Living at the Margin*, ed. Graeme Barker and David Gilbertson, One World Archaeology (London: Routledge, 2000), 44–61, https://login.ezproxy.leidenuniv.nl:2443/login?URL=https://search.ebscohost.com/login.aspx?direct=true&db=e000xww&AN=93414&site=ehost-live; Tali Erickson-Gini, 'Nabataean Agriculture: Myth and Reality', *Journal of Arid Environments*, Ancient Agriculture in the Middle East, 86 (November 2012): 50–54, https://doi.org/10.1016/j.jaridenv.2012.02.018.
[616] Erickson-Gini, 'The Nabataeaan-Roman Negev in the Third Century CE', 97; Andrew M. Smith, 'Pathways, Roadways, and Highways: Networks of Communication and Exchange in Wadi Araba', *Near Eastern Archaeology* 68, no. 4 (2005): 184–85.
[617] Smith, 'Pathways, Roadways, and Highways', 185.
[618] Ramsay and Smith II, 'Desert Agriculture at Bir Madhkur'.
[619] Findlater, 'Imperial Control in Roman and Byzantine Arabia', 75–77.

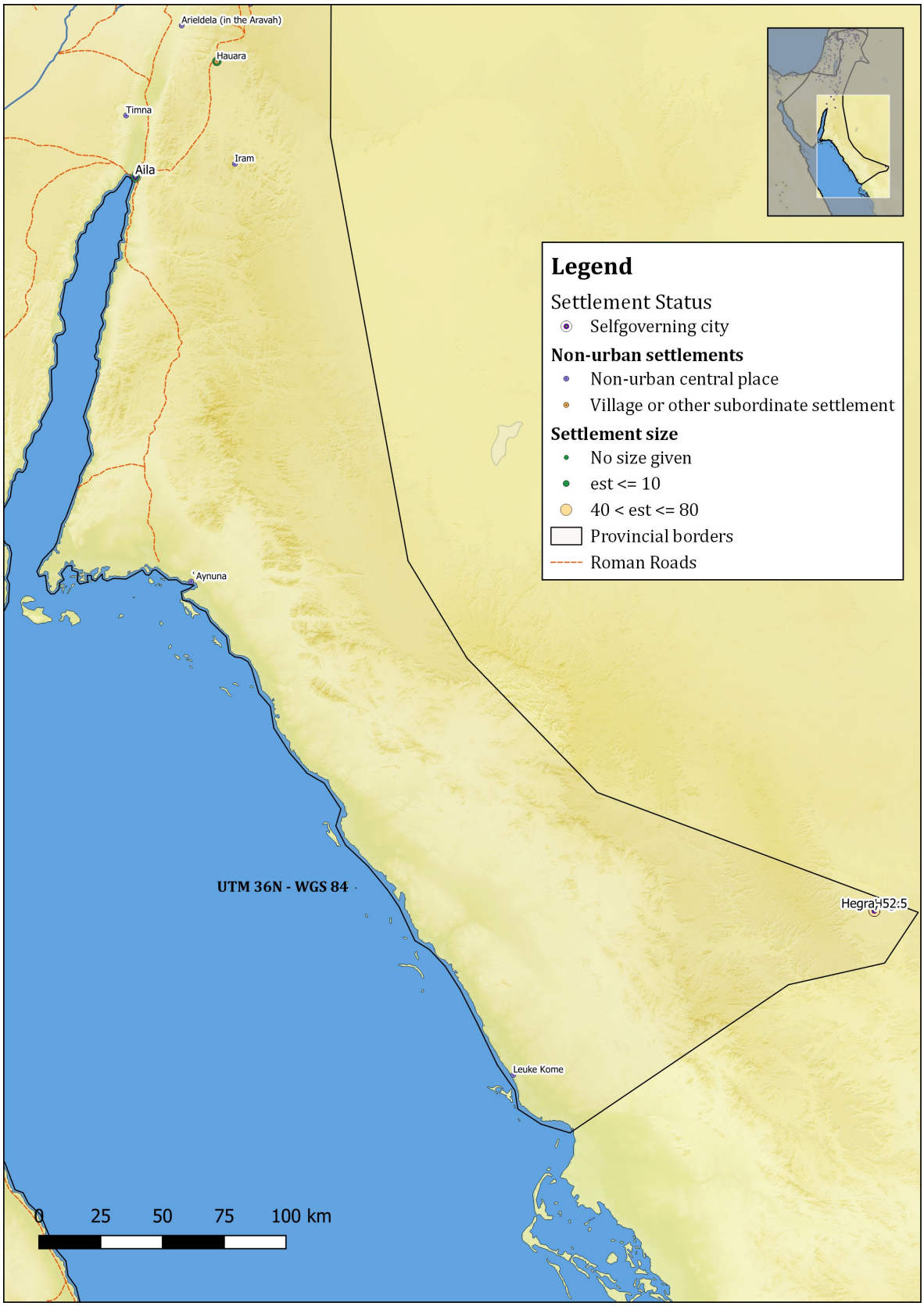

Figure 29 Hegra and the Red Sea

To the east, on the southernmost plateau of the Sharāh, there are more indications of settlement in the Roman period, along the last stretch of the Via Nova Traiana from Petra to Aila. Originally

surveyed in 1984 by Hart, the area around modern Ras en-Naqb shows a significant number of settlements from antiquity. Receiving around 150 mm of rainfall per year, and with a number of perennial springs, the region is at least somewhat suitable for permanent settlement, compared to the ʿAraba in the west and the Ḥismā desert around it. In Hart's findings, however, these settlements were mostly occupied throughout the Iron Age and later by the Nabataeans, with south of Sadaqa almost no Roman habitation.[620] A more recent survey, the Ayl to Ras an-Naqab archaeological survey (ARNAS), mentions five Roman villages south of Ayl and Sadaqa, out of a high number of 179 sites with Roman pottery.[621] The only larger settlement in the Roman period, however, appears to have been Humayma, ancient Hauara, situated in the Ḥismā desert beyond the scope of their survey. Showing signs of habitation from the first century B.C.E., after the annexation it became the site of one of the only known Roman forts of the second century in Arabia. The settlement around it grew to about 10 hectares at its height.[622] Nabataean stations at Quweira and Khirbet el Khalde were also replaced by Roman forts, but these seem to be Diocletianic.[623]

That brings us to Aila, at modern Aqaba. As the closest point to Petra with access to the Red Sea, it has always been an important port city, despite its climatically unfavourable location in the Wadi ʿAraba. In fact, it appears that its direct hinterland did not show any evidence of agricultural production at all.[624] Like many places, the area shows a settlement history going back far earlier than the Roman period, in this case to the mid-fourth millennium B.C.E., although the earliest habitation was at a tell four km north of the current coastline. After a Persian and Iron Age II settlement at Tell el-Kheleifeh, it seems there was an occupation gap, until in the first century B.C.E. a substantial Nabataean settlement was founded. This settlement remained occupied until the fourth century C.E. By then, a new, walled settlement had been erected 500 meters further south.[625] It was likely a very small settlement, as it measured under three hectares in the Early Islamic period. If Parker's 1997 map gives a good estimation of the Roman-period size, the Roman town was even smaller.[626]

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[620] Stephen Hart, 'Some Preliminary Thoughts on Settlement in Southern Edom', *Levant* 18, no. 1 (1 January 1986): 54, https://doi.org/10.1179/lev.1986.18.1.51.
[621] Burton MacDonald and American Schools of Oriental Research, *The Ayl to Ras An-Naqab Archaeological Survey, Southern Jordan (2005-2007)*, Archaeological Reports ; 16 235202347 (Boston, Mass: American Schools of Oriental Research, 2012), 467–78.
[622] Kennedy, *The Roman Army in Jordan*, 193–94.
[623] Kennedy, 198–204.
[624] Kennedy, 209.
[625] S. Thomas Parker, 'Preliminary Report on the 1994 Season of the Roman Aqaba Project', *Bulletin of the American Schools of Oriental Research*, no. 305 (1997): 41, https://doi.org/10.2307/1357744.
[626] Parker, 27.

Along the eastern coast of the Red Sea, it is evident from Ptolemy that a number of other ports than Aila existed.[627] But compared to for instance Berenike and Myos Hormos on the western coast, these are hardly known. For the port of Leuke Kome, both ʿAynuna and al-Wajh have been suggested as possible locations. Dario Nappo recently argued for the latter, and with some submerged remains of a mole and apparent ancient buildings it makes for a possible contender, but the northern port at ʿAynuna may have been used as well. Besides, he suggests that the digging of the canal to Clysma caused the northern ports to function as the more important intermediary harbours, sending Leuke Kome and Berenike into decline.[628]

Inland, evidence for the Ḥijāz is rather limited. While Nabatean inscriptions and graffiti show evidence of human activity, currently no fixed settlement has been identified. Close to Aila, the sanctuary of Allat at Wadi Ramm will have functioned as a stop along the route south.[629] To the south, only the outpost of Hegra, at Madā'in Ṣāliḥ, is well known. It is currently being excavated by a joint Saudi-French team. Like Petra, Hegra appears to have been inhabited continuously from as early as the fourth century B.C.E..[630] As mentioned in the introduction, Roman military activity in Hegra is well known from inscriptions, and increased with the new excavations. New inscriptions show the presence of officers of the Legio III Cyrenaica.[631] The Nabataean city was walled in the first century C.E., before Roman annexation, and encompassed 52.5 hectares. But the mostly mudbrick rampart rather resembles Middle Eastern ramparts from earlier millennia than anything Hellenistic or Roman.[632] With at least ten meters between the residential area and the wall, it seems that at no point after the building of the wall did the population grow enough to fill the area entirely.[633]

[627] Ptol., *Geog.*, 5.17.1.
[628] Dario Nappo, 'On the Location of Leuke Kome', *Journal of Roman Archaeology* 23 (January 2010): 338, 341, 344, https://doi.org/10.1017/S1047759400002439; Michael Decker, 'Settlement and Trade in the Red Sea in Late Antiquity', *Ancient West & East* 9 (2010): 204.
[629] Sartre, *The Middle East under Rome*, 237–38.
[630] Graf, 'Petra and the Nabataeans in the Early Hellenistic Period', 46.
[631] Laila Nehmé et al., 'Report on the Fifth Season (2014) of the Madâ'in Sâlih Archaeological Project', 3 March 2015, 37–39, https://halshs.archives-ouvertes.fr/halshs-01122002/document.
[632] Nehmé et al., 19.
[633] Nehmé et al., 21.

2.4.6 Public buildings

Looking at public buildings for the small number of cities of the southern part of the province of Arabia, much of the same can be seen as in the other regions. As Figure 30 and Figure 31 show, the link between settlement size and number of public buildings is quite clear in this region, albeit with the usual caveats that this is a very small set of settlements, and new archaeological finds at one or two sites could completely upend this apparent correlation. What perhaps sets the region apart most, is the comparative lack of entertainment structures. But with settlement sizes mostly comparable to the lower tiers of the other regions, it is not surprising to see that the monumental profiles are also similar to those settlements. In other words, mostly consisting of religious buildings and perhaps a structure of one or two other categories.

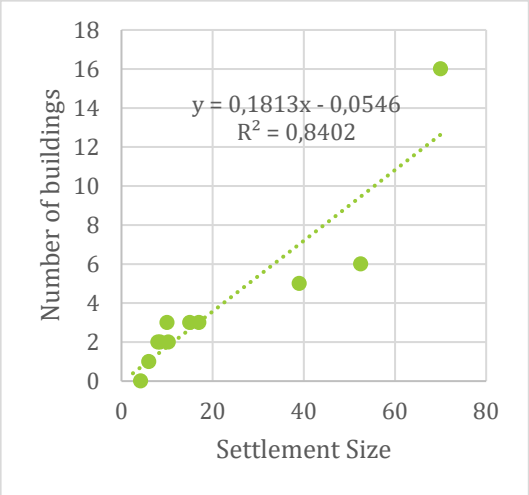

Figure 30 Correlation buildings and city size (Arabia, south)

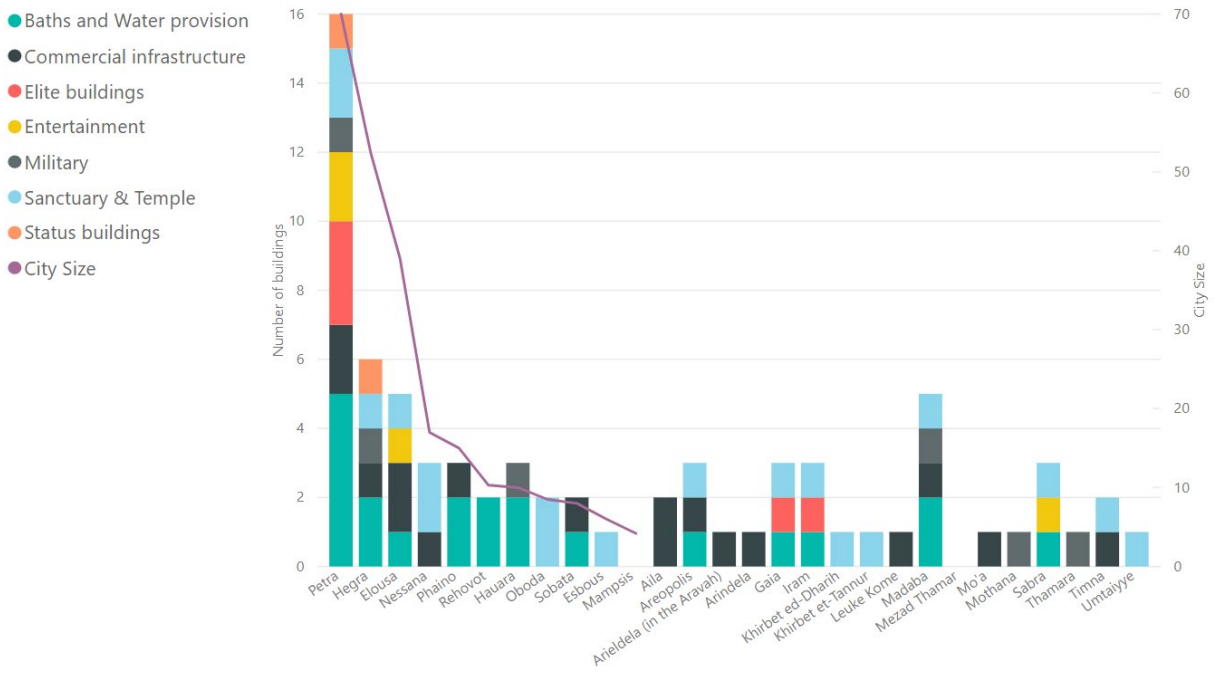

Figure 31 Number of buildings against city size (Arabia, south)

Table 8 Building types in Arabian cities

	Baths and Water provision	Commercial infrastructure	Elite buildings	Entertainment	Military	Sanctuary & Temple	Status buildings	Grand Total
Petra	**5**	**2**	**3**	**2**	**1**	**2**	**1**	16
Hegra	**2**	**1**			**1**	**1**	**1**	6
Madaba	**2**	**1**			**1**	**1**		5
Elousa	**1**	**2**		**1**		**1**		5
Areopolis	**1**	**1**				**1**		3
Oboda						**2**		2
Aila		**2**						2
Esbous						**1**		1
Grand Total	11	9	3	3	3	9	2	40

2.4.7 Conclusion

The evidence relating to the cities, towns and villages of the Roman province of Arabia suggest various settlement processes taking place. In the south, both in the Negev as well as around Petra, the number of settlements seems to have contracted, with especially the smallest settlements disappearing. However, the periods of decline seems to differ somewhat between regions, with contraction around Petra setting in during the later second century, and in the Negev in the early third century. If Kouki and Erickson-Gini are correct in their assessments, in Petra this initially reflects a consolidation of property and the growth of a landowning elite, while in the beginning of the third century the outward focus of Petra declines, impacting especially those settlements in the Negev dependent on Petra's trade routes towards the west. Furthermore, while around Petra it seems that mostly smaller settlements were abandoned, in the Negev it appears that almost all settlements disappeared, except a few of the largest settlements, until the Late Roman revival of the Negev region.

To the north, the settlements of the Jordanian Plateau may have undergone an earlier decrease in the second century, although as stated this may in part be due to a misinterpretation of ceramic evidence in older surveys, with Nabatean forms remaining in use for a longer time. If the findings are closer to those of the Dana Archaeological Survey, the overall picture would be one of higher continuity throughout the Classical period.[634]

Throughout the province, settlement appears bound to the possibility of exploiting water sources. As such, a very high level of continuity in settlement locations is visible, with people throughout all periods gathering around the same sources and wadis. The more limited the resources, the more vulnerable the region appears to be to shocks, as is shown by the apparent difference between the stronger continuity in the north and near total collapse in the Negev. Similarly, the drier regions also benefited the most when water resources were harnessed effectively, as shown by the intensification of settlement under the Nabataeans. A more influential change, however, seems to come after the period under study, caused by the increased number of military locations in the later third and early fourth centuries. With population focussing around military sites, sometimes locations of existing settlements changed, such as Umm el-Jimāl in the Decapolis, and abandoned settlements in the Negev were again inhabited. There we also see the intensification of settlement and agriculture in a region that had remained mostly devoid of cultivation up to that point.

[634] Findlater, 'Imperial Control in Roman and Byzantine Arabia', 233–34.

2.5 Overall conclusions for the southern Levant

2.5.1 Geographical factors

As has already become evident when discussing the northern provinces, natural geography plays a large role in the preferential location of settlements. The regions discussed in this chapter roughly correspond to the various ecological zones found in the southern provinces, each with their own corresponding settlement patterns. In Syria Palaestina we find the most fertile areas of the region in the coastal plains. These are considerably wider than the narrow coastal plains of the northern Syrian provinces, and have a combination of good soils, accessible terrain, a number of perennial streams and decent rainfall. It is no surprise to find both new and old major cities like Caesarea and Acco thriving here - just as there had been powerful polities centred around coastal cities before that, at for instance Ascalon and Gaza, the latter remaining a major city in the Roman period.

At the same time, the central hills or highlands catch most rainfall, especially in the Galilee. Suitability for settlement here is, however, somewhat offset by the more mountainous terrain. Nonetheless, fertile valleys allow for cities such as Sebaste. And, as will be further discussed below, before its destruction, Jerusalem had been the major city of the region despite being situated in the highlands.

The Jordan Rift Valley has an altogether different climate. In the north abundant rainfall still creates optimal pockets for cities like Caesarea Paneas and Scythopolis to thrive, and around the lake of Galilee a wide variety of settlements can be found, from small villages to a city like Tiberias. However, especially south of Scythopolis, the elevation difference with the central highlands becomes more pronounced, and hence the rain shadow effect makes this a particularly dry region. From here down to the Aravah, no major city is found within the valley. Despite that, a number of settlements still existed, such as the port town of Aila. Through natural springs and irrigation, this area was in fact known for its very lucrative date palm plantations, especially around Jericho and En Gedi.

Beyond the Rift Valley, we still find sufficiently high rainfall levels in parts of the Jordanian highland plateaux, again declining towards the east and south. As already indicated in the introduction, specific local conditions (i.e. highly fertile volcanic soils) in the Hauran somewhat made up for lower rainfall levels in that region, but it is clear that access to water sources is crucial for the feasibility of settlement in this area. Similarly, cities remained smaller and fewer than west of the Rift Valley.

As in the Hauran, at the southern end of the Jordanian plateaux we enter what was described in the introduction as a zone of less reliable rainfall. Agriculture is possible, but may suffer greatly

in drier years if no precautions are taken. As such, in the region around Petra we find the application of various techniques to improve agricultural conditions. Besides Petra, however, this region did not support any other major urban settlement. And, being flanked on the west by the ʿAraba (and the Negev west of that), and to the east by the steppes and deserts of the Badia, the city had little competition in its surroundings. As noted, however, the desert regions still show a number of small settlements and stations, including a military outpost at the Azraq oasis and a few small ports on the Red Sea. And, at a good distance to the southeast, was located the desert city of Hegra. But certainly, no cities of the order of magnitude as in neighbouring northern Sinai and Egypt were possible here.

2.5.2 Historical trajectories

As was the case for the north, the preceding periods left a clear, but varied mark on the settlement patterns of the south. Where for the Seleucids the Syrian Levant became a core zone of their declining empire, for the Ptolemies the Levant cannot have been anything but a peripheral frontier zone, mainly good for the extraction of resources. And in a sense, except for several centuries following the Bronze Age collapse, it was a peripheral and/or frontier zone from the Egyptian New Kingdom onwards, during the Assyrian, Neo-Babylonian, Achaemenid, Ptolemaic, and briefly, Seleucid period. Interestingly, a number of settlement patterns can be traced back to the small polities that grew up in that interim between Egyptian and Assyrian rule. Damascus grew to prominence as an Aramaean capital, while a number of coastal cities retained semi-independent roles into the Persian era. And of course, there were the kingdoms of Israel and Judah.

As in the north, urban centres do not seem to have been much stimulated in the Persian period, although again, this was not exactly a land devoid of cities at the onset of the Hellenistic period. To name but one example, Gaza was one of the cities that Alexander had to besiege, and whose population he sold into slavery.[635] One notable difference specifically found in Syria Palaestina, however, that persisted from Ptolemaic rule into the following periods into Roman annexation, was the organisation of the region into administrative units called toparchies. Unlike territories assigned to self-governing cities, these toparchies could have a non-urban centre – some of which grew into cities over time, while others did not. Clearly, however, in the south there was also a good number of Hellenistic foundations. Furthermore, it remains an open question whether the reference to "the Antiochenes in Jerusalem" in 2 Macc. 4.9 means that the city had been refounded with that name, and whether it was a garrison or veteran settlement that was

[635] Cohen, *The Hellenistic Settlements in Syria, the Red Sea Basin, and North Africa*, 286.

installed into Jerusalem upon its conquest by the Seleucids in 168/7 B.C.E.[636] Either way, it is another good indication that such colonies were not necessarily foundations *ex nihilo*.

As in the north, with the Seleucid conquest and subsequent disintegration of the empire, a number of kingdoms and city states came into existence or gained independence, some tracing back their legacy to pre-Hellenistic or earlier states; the rapidly expanding Hasmonean kingdom of Judea is a case in point. In the subsequent power vacuum urbanism started to accelerate, for instance in Phoenician and Nabatean territory.

As everywhere, the numerous conflicts that affected this region could alter the fortunes of a city, no matter how long its history. A good example is Kedesh in upper Galilee, where habitation can be traced back to a major settlement in the Early Bronze Age; it was a regionally prominent centre from the Late Bronze Age onwards and probably served as a form of estate centre under the Ptolemies. However, it lost its claim to centrality after the Maccabean Revolt in 143 B.C.E., judging from the abandonment of a large administrative building in the settlement.[637] When it resurfaces in written sources two centuries later, it is as a large village in the territory of Tyre.[638]

Similarly, a considerable number of settlements sacked by Alexander Jannaeus never recovered; for instance, the above-mentioned Marisa was left entirely abandoned. And as in the north, siding with the right contender during the Roman civil wars meant maintaining relative independence for another century or so – which probably contributed significantly to the continued flourishing of the Nabatean kingdom and its capital at Petra. Conversely, resisting Roman hegemony on multiple occasions eventually left Jerusalem a shadow of its former self.

In another sense, however, the settlement patterns in the south appear far more dynamic than in the north. Just as some old cities fell into oblivion, cities that were recently founded or refounded in the Herodian period, like Tiberias and the two Caesareas Maritima and Philippi, grew into some of the core cities of Syria Palaestina. Even younger cities emerging in the Roman period eventually eclipsed some of the older cities around them by the Late Roman period, like Azotos Paralius (Ashdod Yam) and Legio. East of the Rift Valley, where most of the Decapolis sites had shown signs of urbanism in the Bronze Age, the majority had long since declined. Only by the late Hellenistic period did most of these cities start to show signs of habitation again, but they did not grow into cities. And just the same, towards the south, Petra's evolution from a cult

[636] Cohen, 231, 255–66.
[637] Peter James Stone, '"Provincial" Perspectives: The Persian, Ptolemaic, and Seleucid Administrative Center at Tel Kedesh, Israel, in a Regional Context' (Ph.D., United States -- Ohio, University of Cincinnati, 2012), http://search.proquest.com/docview/1101004887/abstract/EA82346BC8664D29PQ/1.
[638] Sabar, 'Josephus' "Cydasa of the Tyrians" (Tel Qedesh) in Eastern Upper Galilee'; Stone, '"Provincial" Perspectives', 26; Jos., *Bell. Jud.*, 2.459.

site to the capital city of the Nabatean kingdom seems to have taken flight only in the first century B.C.E.

2.5.3 The urban system

In his *Economy of Roman Palestine*, Ze'ev Safrai proposes a model for the development of the settlement system of the region. And while his conclusions may be somewhat on the rough side, there is elegance in the simplicity of his model. Some of his statements are perhaps too general: "The Greeks established colonies along the coast from Achzib in the north to Raphia in the south. However, the ancients did not really know which were the appropriate spots in which to set up a port or harbour city. They also did not always know where such cities were unnecessary. As a result of this ignorance, many cities were founded in the Hellenistic period, but only few of these cities survived beyond that time."[639] These observations touch on a number of critical factors in the development of a settlement system: people may settle wherever they can. But it is a combination of geographic, historical and economic factors that influence a settlement's survivability, and potentially its development into a larger city. Perhaps Safrai's ideas are a bit dubious on what, from a Hellenistic ruler's or general's perspective, determined the 'necessity' of founding a city, or by what agency or process the 'necessity' of a city would be determined in the long run. They do however raise the question which factors determined the extent to which a new foundation or elevation could impact, or be impacted by, existing structures. This determines the difference, perhaps, between 'successful' Caesarea Maritima and unsuccessful Philippopolis.

As Safrai points out: "Dor and Apolonia decline on account of the success and growth of nearby Caesarea. The same is true regarding the decline of Sebastea and the growth of Neapolis, only nine kilometers away."[640] It is debatable whether Dor and Apolonia actually declined, as they were never very large settlements to begin with – unless one counts the very instant 'decline' when Apollonia was sacked by Jannaeus.[641] But these settlements were certainly eclipsed. In that sense, the refoundation of Straton's Tower as Caesarea by Herod, and the continued use and investment into the city under Rome rule, coupled with its value as a port, allowed it to become a demographic pole of attraction, whereas the two neighbouring ports developed in a different way.

Essentially, Safrai considers there to be three main processes in urbanisation: new foundation, growth of existing cities, and selection. The latter he describes as "a necessary weeding-out

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[639] Zeev Safrai, *The Economy of Roman Palestine* (Routledge (London and New York), 1994), 9–25.
[640] Safrai, 12.
[641] Katharina Galor et al., 'Apollonia-Arsuf between Past and Future', *Near Eastern Archaeology* 72, no. 1 (1 March 2009): 4–27.

process."[642] Stronger cities thrive, weaker cities disappear. Using this approach, he gives a simple set of stages for the urbanisation process of Palestine, with initial foundations along the coast, followed by selection along the coast and foundations inland, followed by selection inland. Finally, there is filling in of intermediate areas with new foundations, further development, etc.[643]

The problem, of course, is that the described urbanisation of the region did not start with the creation of Hellenistic colonies, and not just on the coast. There were a number of cities already dotting the various regions of the south by the start of Alexander's conquests. For instance, Dor and Ioppe and their lands in the plain of Sharon were granted by the Achaemenids to the king of Sidon at the end of the sixth century B.C.E., while Ascalon was a major port and according to Pseudo-Scylax, the seat of a governor.[644] We already mentioned Gaza, Jerusalem and the cleruchy at Rabbat Amman (Philadelphia).[645] From a Hasmonean perspective, however, we observe a process which Zangenberg describes as "urbanisation through conquest."[646] Where initially the only urban agglomeration within Hasmonean lands was Jerusalem, with the conquest of the lands around it, the Hasmoneans incorporated cities into their realm. And with that, they also adopted the idea of a city as a *polis*, which would blossom under the Herodians into the *polis*-blueprint used in the foundation of, for instance, Tiberias by Herod Antipas.

The Ptolemaic and Seleucid foundations, Pompey's foundations, Herodian foundations; each were installed with specific agendas, such as regional control, curtailing Hasmonean influence, currying favour with the empire, etc. But grants of territories and legal or tax privileges could give a settlement a competitive edge over towns that did not receive these.

Alongside new urban foundations and incorporation of existing cities, we observe the continued use of the regional division into toparchies within former Hasmonean and Herodian territory. With Ptolemaic bureaucracy going down to village level, one sees a number of larger villages fulfilling the roles of administrative centres for the surrounding areas. In the Roman period the old Ptolemaic organisation was gradually replaced. Some toparchy centres were simply destroyed, like the fortress of Masada. Many of these centres became subordinate secondary settlements in the territory of other cities, while others became cities themselves. For example, En Gedi and Baitoletepha (or Bethletepha) were incorporated into the territory of Eleutheropolis as it was granted city status, the former toparchy centre Beth Govrin. That by

[642] Safrai, *The Economy of Roman Palestine*, 14.
[643] Safrai, 14–15.
[644] Carayon, 'Les Ports Phéniciens et Puniques. Géomorphologie et Infrastructures', 85.
[645] Cohen, *The Hellenistic Settlements in Syria, the Red Sea Basin, and North Africa*, 268.
[646] Jürgen K. Zangenberg and Dianne Van de Zande, 'Urbanization', in *The Oxford Handbook of Jewish Daily Life in Roman Palestine*, ed. Catherine Hezser (Oxford: Oxford University Press, 2010), 165–88.

itself shows that up to that point, these areas did indeed have a non-urban centre. Note by the way the interesting recent publication of a seal that shows that Roman period Baitoletepha had a *boule*, despite clearly not being a city.[647] Similarly, Lod and Emmaus were raised to urban status, becoming Diospolis and Nicopolis. Thus, the beginning of the third century saw the end of the toparchy system in Judea.

So, in the century between the destruction of Jerusalem and the end of the Severan dynasty, we see all three processes described by Safrai: selection, new foundations and growth. Selection, with settlements declining and consolidating in the Negev, new foundations and elevations in Syria Palaestina and the Hauran, and indeed, further growth and development of existing cities throughout the entire region.

Looking at the overall rank-size graph for the south (Figure 32), we see a highly concave distribution, capping off at around 100 hectares, but with a clear heavy bulge around the 35-to-50-hectare zone. Perhaps surprisingly, it is not the places generally considered the main political centres for the region (Caesarea Maritima, Petra and Bostra) that top this chart. Instead, the upper tail is headed by the cities of Neapolis, Gerasa and Scythopolis. Including the sizes of neighbouring Akko, Caesarea Paneas, Damascus and Tyre would further consolidate this pattern, with Damascus taking the lead at 125 hectares, followed by Akko and Paneas. On the lower end of the bulge we find desert cities like Oboda, Mampsis and Aila, as well as non-urban central places like toparchy centres making up the lower tail. The artificial step around 10 hectares is due to estimation effects.

The largest cities in the region existed in similar environments. Places like Scythopolis and Gerasa have relatively large areas of agricultural land available to them without direct competition from other cities. Neapolis has Sebaste directly to its west, but in all other directions there is quite some space available. Caesarea Maritima was smaller than might have been expected from its situation: it was not just a successful port city combined with a central political role, it also had access to a fertile coastal plain with little competition – comparatively speaking of course, its southern neighbouring cities lay at 51 km (Ioppe), 44 km (Pegai) and 38 km (Sebaste). With average nearest neighbour distances at 11.5 km and 15.5 km for Palestininian and Decapolitan cities respectively, this is quite some space.

Interestingly, Petra and Bostra are quite large cities as well by regional standards, in a place where, just looking at rainfall figures, we would not expect to find large centres. However, as we

[647] Avner Ecker and Boaz Zissu, 'The Boule of Baitolethepha (Beit-Nattif): Evidence for Village and Toparchy Administration in Judea', *Journal for the Study of Judaism* 1, no. aop (19 March 2020): 1–12, https://doi.org/10.1163/15700631-12511287. There are examples elsewhere in the Roman Empire (eg Gallia), where secondary towns could have officials and councils as well.

have seen, locally adapted agricultural practices may very well have added to levels of food production. This will be discussed in more detail in the next chapter.

There are no cities here to match those of the Tetrapolis of the north, or the Egyptian cities to the west. In a sense, in the densely urbanised region of the Southern Levant, there is even less of a 'hierarchy' discernible here than in the north. Or, perhaps more accurately, this is quite similar to the distribution for the north except for the absence of the northern upper tail: all that lacks from this distribution is a similar upper echelon of cities above 100 hectares.

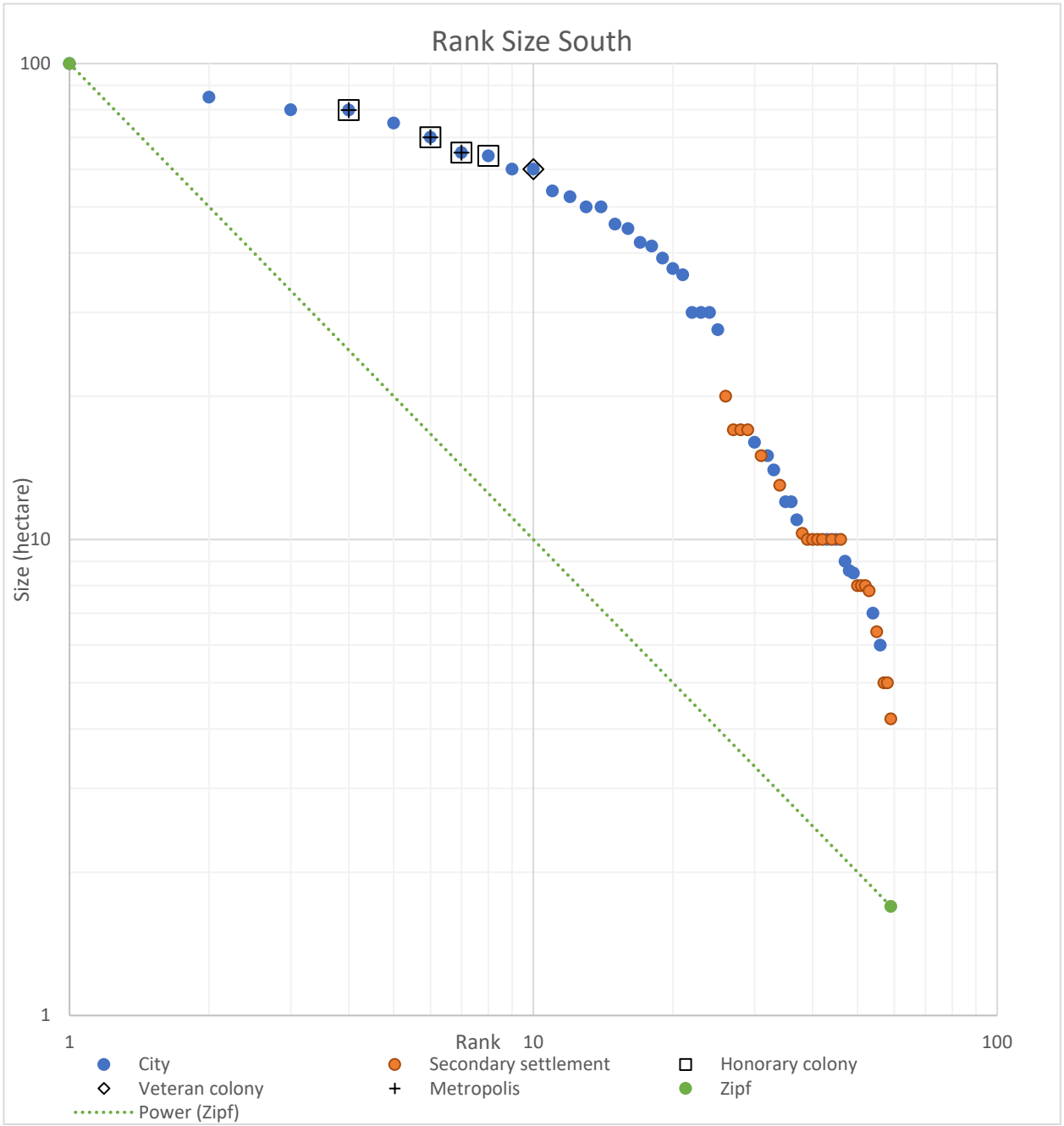
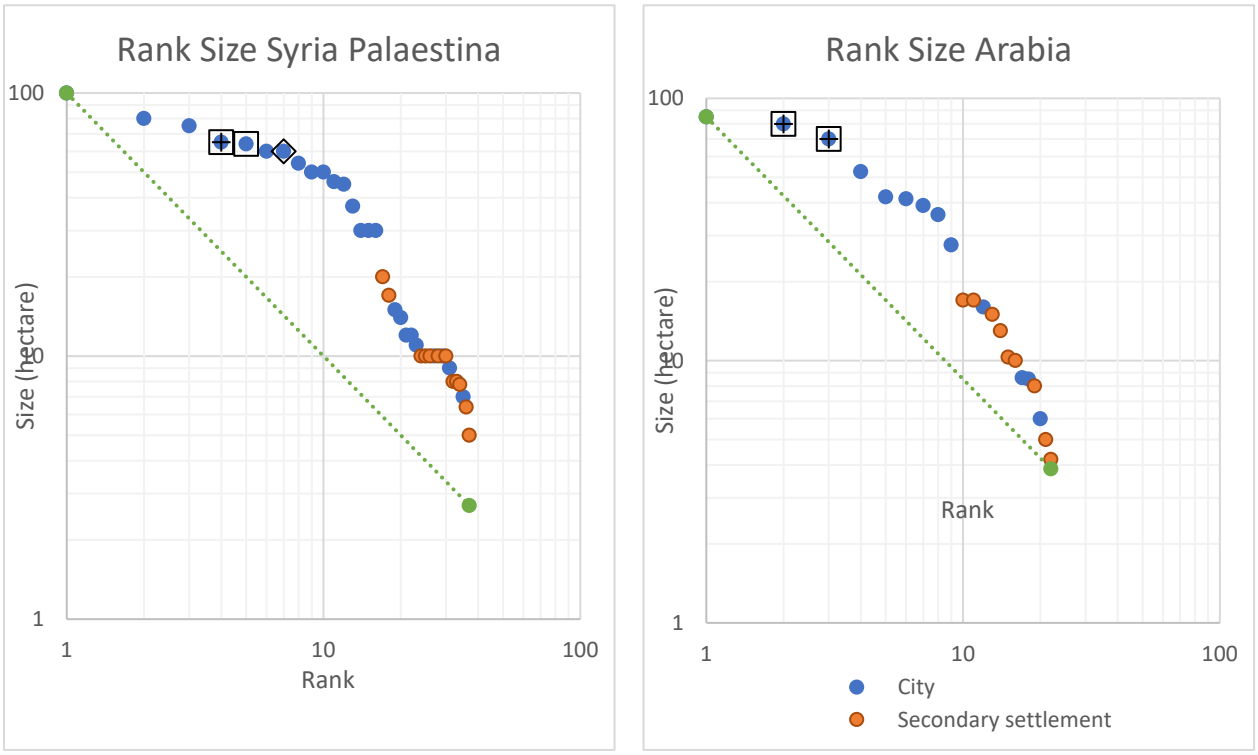


Figure 32 Rank size distribution of the southern provinces

The high concavity of this system might indicate we are looking at the pooling of multiple settlement systems. However, simply breaking this down into the two constituent provinces still generates two similarly concave systems.



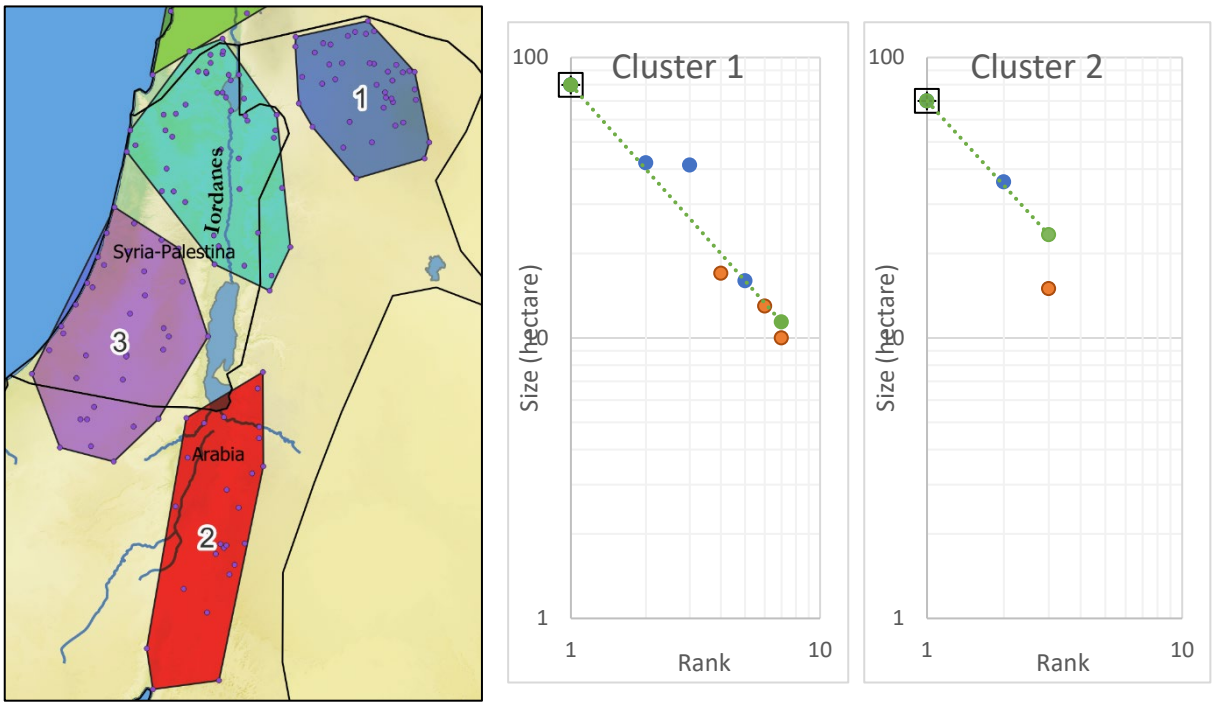


Figure 33 K-means clustering [4]

The region could of course be split up further. Following Palmisano, grouping the settlements using K-means clustering allows to make subdivisions based on proximity. Within this region, over 4 clusters the groupings become meaningless. A grouping in 4 gives the result shown in Figure 33. The resultant rank size plots show that cluster 1, roughly corresponding to northern Arabia around Bostra, does roughly approach a Zipf-distribution. The south is left with too few settlements (only three) to state anything meaningful.

Palestine, split up in clusters 3 and 4, interestingly still generates two concave distributions. If anything, this means that this is not so much the result of pooling, but rather suggests that for Palestine a concave distribution is a reflection of "population dispersion throughout a given area in sites that are of similar size and thus more competition and less integration between communities."[648] In other words, lots of small cities with small territories competing for space.

On the whole, the larger cities of the south share similar profiles to the main urban centres of the north, with a diverse portfolio of urban roles. Obviously, as stated, there are the political centres of Caesarea Maritima, Bostra and Petra. Most of the sites have access to a regular-sized hinterland; and at least Caesarea Paneas, Scythopolis and Gerasa potentially had a larger territory than some of their urban peers. Although quite unique in many respects, Petra can be compared to other capitals of former client kingdoms. Caesarea Maritima could benefit from its economic role as a port city.

[648] Palmisano, 'Confronting Scales of Settlement Hierarchy in State-Level Societies', 225.

The role of the military in cities was clearly present as well, with urban bases in Bostra and Jerusalem for the III Cyrenaica and X Fretensis. The VI Ferrata had an independent base at Kefar 'Othnai, which due to the presence of the base that came to be known as Legio and over time al-Lajjun. Legio is one of the few actual examples in the Levant of a civilian settlement evolving from *canabae* into a proper city of its own, but its formal recognition only took place at the beginning of the fourth century, when it was renamed Maximianopolis. By then, the city ranked among the largest of the region.[649]

[649] Broshi, 'The Population of Western Palestine in the Roman-Byzantine Period'.