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Correspondence

j.kleb@qanat-fraun.de

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Raphana of the Decapolis and its successor Arpha - The search for an eminent Greco-Roman City

Jens Kleb ¹

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Abstract

This research paper presents a detailed analysis of ancient literature and archaeological and geographical research until the present day for an important ancient location in the southern part of Syria. This one had different names during the time: Raepta, Raphana of the Decapolis, and later Arpha or Arefa. Moreover, the paper offers a more plausible location where Raphana, a Decapolis city named by Pliny the Elder, can be located. Ar-Rafi'ah, located in modern-day Syria, lies at an important geostrategic position close to a strong well, which is known today as Bir Qassab. It is highly plausible that this is where the ancient city mentioned above was situated. It can be shown within the literature analysis and maps that, due to completely different interpretations and in spite of missing archaeological evidence, many hypothetical locations were included in previous scientific literature. However, none of them fulfilled the requirements for the places described in the ancient literature. As a result, current well-researched literature provides the ancient Name of Raphana with question marks or even completely omits the name from listings or maps. Therefore, the last chapter focuses on the aforementioned unexplored and largely completely unknown location of Ar-Rafi'ah. In addition to a large main fortress and numerous probable civilian structures, an unusual accumulation of 11 new discovered auxiliary forts or "Stratopedon" can be proven in the presumed urban area. Remains of a Qanat and channel system clearly connected with this location can be detected over a length of more than 10km. Lastly, the shape of an extensive ruin inside the fortress city walls indicates a potential theatre or Odeon. Based on the geographical names that are still common today in the direct vicinity of localities, plains and way connections, the allocation becomes more and more plausible.

¹Artefacts.info, Erfurt, Germany

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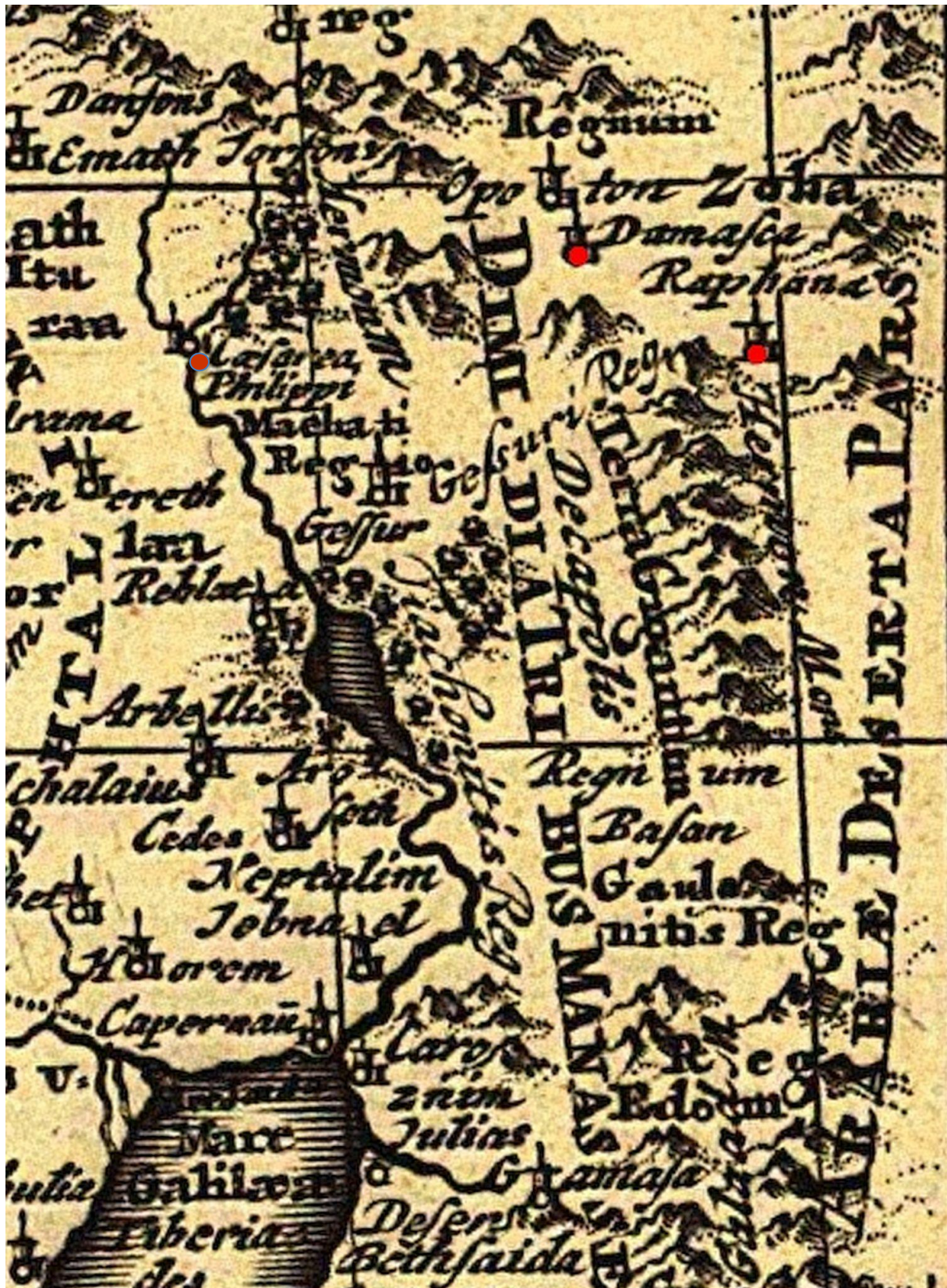


Figure 1: Detail of a map drawn by Ph. Cluever 1580-1622, "Terrae Sanctae," with Damascus and Raphana to the southeast (red dots), which are positioned at nearly the same latitude as the ancient Roman city of Caesarea Philippi (Courtesy of the Library of Congress)

1 Introduction

In the course of my research, which I have been conducting since 2003 in southern Syria and northern Jordan, I repeatedly encountered discrepancies between geographical research data and descriptions of ancient locations and theological-archaeological interpretations that were later made in the scientific literature. This research explores some locations in this region and their plausible geographic positions.

The focus of my research has been on the cities of the Decapolis region, in particular, those in the southern Syrian area. Research data has been obtained using digital elevation models and satellite images that compare and georeference old maps and through evaluating numerous travel and research reports.

When it comes to questioning the plausibility of a location, the Decapolis city of Raphana is a textbook example, since there are neither plausible explanations nor archaeological evidence for the city's location, which is generally referred to in theological and archaeological literature.

By following the oldest descriptions of the location and comparing them with the findings of the first explorers of the 18th and 19th centuries, one comes to the conclusion that the search for the city was carried out in a completely different area.

This study aims to shift the focus to a new location with a significantly more plausible location and the evidence of large remains from the roman-byzantine era. The research results presented here for the first time also show that this location must have been of great military importance. This coincides with the descriptions of the ancient authors.

Numerous auxiliary forts in the immediate vicinity of the location could be documented for the first time, thanks to new freely available high-resolution satellite imagery. In addition a Qanat system could be localized by using them. Not all of the available satellite images can be useful for such tasks. Therefore, it is important to categorize them short, or it should be explained which were used for this, within the following paragraph.

During various other archaeological projects over the last 20 years, I have been able to prove the existence of important objects and roads/aqueducts that can no longer be found with the help of old aerial and satellite photographs. However, these sources have their limitations. The satellite images captured and used between the 1960s and late 1990s have a maximum resolution of approximately 2 m per pixel. These were not able to provide the level of detailed information that is needed for the research presented here. Due to the fact that especially the auxiliary fortifications could, to some extent, only be recognized from shadow casts and partly remaining walls, this type of analysis and the associated discovery of ancient structures have only been possible since 2005 with the use of high-resolution satellite images. These images are able to show details in a dimension ranging from 82 to 31 cm per pixel. Some images can even provide a pixel resolution of 15 cm.

The well-known Australian aerial archaeologist Professor D. Kennedy wrote an essay in 2011 (during a time when the images were on the lower end of today's quality and resolution) on such resources and their importance for archaeological research.

Therein, he stated,

*"...thanks to Google Earth satellite imagery, a number of high-resolution "windows" have been opened onto the landscape. ... Through this "window" we set out a proposed methodology for future work and where it may lead."*¹

For further details on satellite imagery and their resolution, please refer to Chapter 5 (5.1).

1.1 Explanations for the preparation and analysis of the data

Location names are written in italics, and the positions of these locations can be found in Supplements A and B of this paper. The approximate geographical areas of the illustrations contained at this paper and Supplement C, were also marked in the map of Supplement B.

¹ Kennedy-Bishop 2011, Abstract.

The multiple spellings of the location names in this paper are not accidental. Rather, the names were transcribed as they appear in the discussed original literature.

Coordinates on the analyzed literature were sometimes given in PG, as is usual for archaeological work. The Palestine Belt Grid (PG) normally has six digits in full meter; however, some authors refer to locations by a shortened PG version. For instance, using only the first four digits denotes an accuracy of 100m, while using three digits denotes a one-kilometer accuracy. Some positions are also simply given according to longitude/latitude.

1.2 Location names and previous localization attempts

From the "Naturalis Historia" of Pliny the Elder,² we learn that the Decapolis was a union of cities with a Greek tradition. Nearly all of these cities have now been unambiguously localized by archaeological research. However, this is not the case with the city of *Raphana*, which is mentioned only by Pliny. The consensus in scientific research is that *Raphana* must have been located in the area of today's southern Syria. The similarly named but completely different city of *Raphanaea*, known from episcopal traditions and the Peutinger map and located northwest of *Emesa* (modern-day *Homs*), lies far too far north and is clearly ruled out³. However, the geographical position and temporal context of the ancient literature descriptions establish a connection between three named locations: the *Raphana of the Decapolis*, the easternmost border point of the kingdom of Agrippa II, *Arpha* (as *Raphanas* successor) and their predecessor, the Nabatean fortress of *Raepta*. All three must have been located on the eastern border of the regional empires and southeast of Damascus at this time, according to the ancient literature (for further reference, see Chapter 2).

In addition, an important common ground must be mentioned between the first three cities of the Decapolis, as noted by Pliny the Elder, namely *Damascus*, *Philadelphia* and *Raphana*. According to his description, the three cities all border Arabia. During the time period discussed in this study, these urban areas were all involved in power struggles between the Nabataean Empire and Rome or its client states. All three cities changed their affiliations and seem to have been under the control of Rome or Herod. Pliny's description, which can be temporally located in the time of King Agrippa II and after the year 60 AD, also gives us an indirect hint in the search for *Raphana*. All of the cities named by Pliny, as well as the toparchies lying between and around them, lie in Agrippa's sphere of influence, with the exception of Damascus, which is presumably administered purely by the Romans.

Neither *Raphana* nor *Arpha/Arefa* were mentioned again after the 5th Century. An old map from the late 16th century (Fig. 1) shows *Raphana*, situated slightly southeast of Damascus, as the easternmost city before the Arabian desert. *Caesarea Phillipi* is located on this map at almost the same latitude as *Raphana*, which, as we will see in the following work, is almost correct. After the late 19th century, no further information could be found about our sought settlement or the cities of *Raepta*, *Raphana*, or *Arpha* on topographical maps.

A small hill ruin called *Er-Râfe*, first mentioned and recorded on a map 160 years ago at a location west of *Ezra* in Syria, has since been equated in subsequent literature with the biblical *Raphon*. For the first time, presumably in the year 1875, the Decapolis city *Raphana* was linked with *Raphon* and the location *Er-Râfe* due to the similarity in names.

However, it has long been critically noted that there must also be strong, longstanding archaeological evidence in order to link these two locations. Such alleged evidence (a partly recovered inscription) found its way into the scientific literature in 1897 but has since been rejected by numerous renowned scientists and questioned as to its content.

Due to the lack of archaeological evidence of an abandoned Greco-Roman city or, at minimum, an important military post at this location, the identification of *Raepta*, *Raphana* and *Arpha* has been increasingly marked with question marks or omitted entirely in the scientific literature within the last 30 years.

² Plin. Nat.5, 16.

³ Schürer 1886, Vol.2, p128.

However, there are significant indications that the real fortress and city of *Raphana* were situated in a completely different ancient location on the eastern edge of the former *Decapolis*.

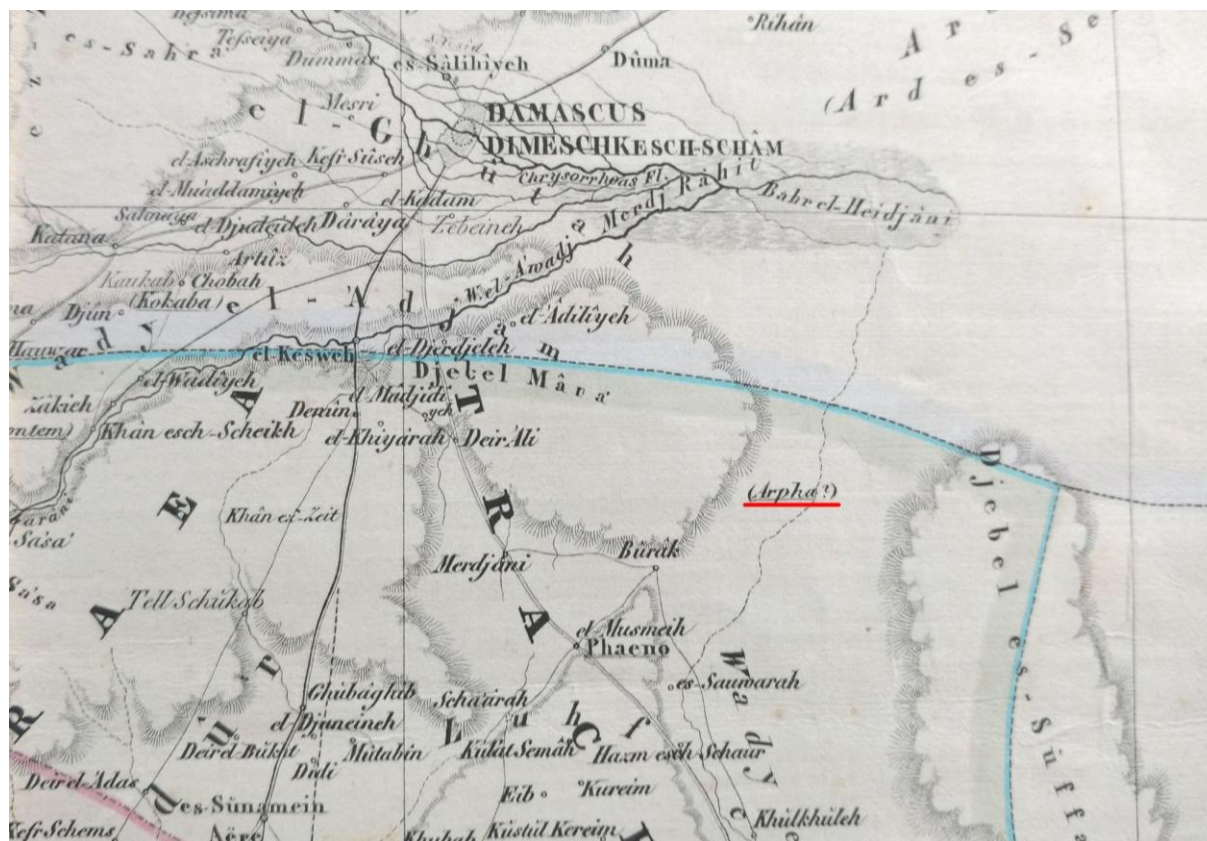


Figure 2: Map detail from H. Kiepert's map after Robinson's journey, 1842 (Arpha) - in detail: lower right image section

In addition, this locality can already be conclusively proven archaeologically as an extended "Roman-aged" ruin in several maps and studies⁴. The evidence presented for this confirms not only the ancient geography but also provides plausible answers to questions that have been asked for a long time.

Of special interest is that *Raphana's* succeeding military fortification, *Arpha*⁵, was already suspected to exist in the geographical vicinity of this extended ruin by some early explorers of the 19th century. This can be clearly seen, despite the distortions and inaccuracies on the early maps. Therefore, there must have been a lived or handed-down tradition in this locality. In addition to H. Kiepert in 1842, Carl Radefeld 1849 also lists *Arpha* as being northeast of Buraq⁶ (See Fig.1). Importantly, he records this without a question mark. This previous knowledge and the name *Arpha* are completely absent from later maps. The following work shows that the ruins at the Roman well, now called *Bir Qesab*, are very likely *Arpha* and its previous settlements.

⁴ Bir Qassab: Poidebard 1934; General Staff USSR 1980-87; Talbert 2000; Harvard Univ. DARMC ; STOA, Pleiades.

⁵ Kiepert 1842, 33°20"N-34°15"E. Map from H. Kiepert and Berghaus constructed by Descriptions of Robinson and Smith, dates from 1842.

⁶ Radefeld 1849, 33°20"N, 54°17"E (old Azores (French) Longitude).

2 Historical and geographical analysis of ancient literature on *Raepta*, *Raphana*, *Arpha* (*Arefa*) and *Raphon*

Because of his descriptions and characterizations of ancient literature, we must separate *Raepta*, *Arpha* and *Raphana* from the *Raphon* of Maccabees' books. The border of each of the first three locations is described as being situated far in the East and/or towards Arabia. Connecting *Raepta* with the *Trachonitis* attacks on the *Damascene* and Herodian region further points to such a northeastern position within the empire of Herod around 9 BC. However, these characteristics do not apply to *Raphon* or the aforementioned locations in the conquest campaign of Maccabaeus, which can be localized at least roughly in the region east and southeast of the *Sea of Galilee*. It is clearly shown that the border description given by Josephus, dated to the time of Agrippa II, with *Arpha* as the easternmost point and the location of the "Maccabean" *Raphon* (in the middle or to the west of the empire), was not compatible with each other.

The same applies to the equation of *Raepta* with *Raphon* since *Raphon's* approximate position would have clearly fallen within the Herodian Empire; therefore, it could not have been a stronghold at the border against robbers from the East.

It seems that the equation of *Raphana* with *Raphon* is based solely on the similarity of their names. Even if the same enumeration order, between Pliny the Elder (for the Decapolis towns) and Josephus (describing Agrippa's kingdom)⁷ is maybe only coincidental, it is otherwise clear that both ancient writers, have described a territory, the maximum extent and plausibly starting from the North to South, East to West. A city in the middle of the empires, would not have been mentioned for the maximum extension, or at the beginning of such a description.

Therefore, if *Raphana* was at the same location as *Raphon*, this enumeration order would make no sense because *Kanatha*, a city lying further east and towards Arabia, would have also been described therein. In addition, the city of *Scythopolis* (modern-day *Bet-She'an*) would be completely misplaced in the cardinal direction assignment by Pliny the Elder. Since *Scythopolis* is mentioned by Pliny as the most important city and, at the same time, as the only city lying west of the *Jordan*, it should be entitled to either the first or, in case of doubt, the last place in the enumeration. Therefore, the eastern border point of the Decapolis can thus be plausibly connected with *Raphana* and the already-mentioned locations of *Raepta* and *Arpha*.

As the above analysis shows, *Raphon* is not connected with *Raepta*, *Arpha* or *Raphana*. As such, *Raphon's* possible location is not discussed further in this chapter.

Prior to 12BC

At this point, it will be useful to present a brief outline of the temporal and geographical connections in the region. This approach is simplified and certainly not all-encompassing, but concentrates on the decisive regional border relations between the settlements and the military actions that have taken place.

The earliest account of the region is found in Jewish priest and scholar Flavius Josephus' first book on prehistory. According to Josephus, Uz, a descendant of Noah, founded the regions of Damascus and *Trachonitis*, which lie between *Coelesyria* and *Palestine*⁸. This highly prosaic formulation is, as it turns out, very precise and perhaps also explains why exactly this region of today's southern Syria formed a sphere of power for a long time. In order to determine the locations of *Raepta*, *Arpha* and *Raphana*, the period will be narrowed down between 30 BC and 70 AD for the analysis.

The territory of the 1st Century BC ruler Zenodorus, the son of Lysanias, held a special status. After Lysanias' death, Mark Antony mandated the territory to the Egyptian administration. Zenodorus was instated by Cleopatra VII; this was later confirmed by Emperor Augustus around 31 BC. This territory included the areas of *Paneas*, *Ulatha*, the area between *Galilee* and *Trachonitis*, *Trachonitis*⁹ itself and the

⁷ Jos. Bell. Iud., 3,3,5; Plin. Nat., 5,16 (both beginning in the North, then South, East, and West).

⁸ Jos. Ant. Iud.1,6,4.

⁹ The *Trachonitis* is to be seen on the one hand as a landscape concept of two separate plateaus of rough volcanic eruptions with lava streams, similar to Strabo's description, and on the other hand as administrative units, whereby the eastern trachon (Es Szafa) belonged to the Roman provincial structure only after the defeat of the Nabataean empire in 106 AD. Regarding the two trachons, see also further literature: Wetzstein 1860;

adjacent *Batanaea* and *Auranitis*. At the same time, as a vassal king, Herod had to subordinate himself to the governors of *Rome* in the province of *Syria*¹⁰. In exchange, he received help as soon as his empire or integrity was disrupted by external influences. Around 31 BC, after the defeat at *Kanatha*, Herod conquered the far south-lying *Philadelphia*, which was previously Nabatean-dominated, in order to make peace with the Nabataean Empire. During this time, the Nabateans established or extended *Bostra*, which functioned as their northern capital. Numerous inscriptions and locations along this border, from *Dmer /Ad Dumayr* in the north, and over the mountainous area of the *Auranitis (Sia)* to *Salkhad* and *Bosra* in the arid south, proved that these power relations only changed in 106 AD. It can therefore be concluded that the aforementioned battle at *Kanatha* took place at the northeastern border of the Herodian Empire (the east side of the *Nukra*). The *Ledja* in the western *Trachon* was still under the influence of Zenodorus at that time. Subsequently, Zenodorus enlisted the poor population of *Trachonitis* to carry out raids in which they plundered the territories of the *Damascene* and neighboring regions within Herod's sphere of influence in the *Decapolis* region.

The victims of the raids turned to the Roman governor Marcus Terentius Varro, who ordered the destruction of the robber nests, leading to a temporary period of peace. The region of *Trachonitis*, the adjacent *Batanaea* and the *Auranitis* were handed to Herodes around 23 BC¹¹. Reporting more generally, Greek historian Strabo also named the predatory raids under the leadership of Zenodorus and the subsequent gradual securing of the territory by Roman soldiers¹² up until Herod's death in around 4 BC. He also explicitly adds that there were *two Trachons*, both hilly regions with large caves that were difficult to pass¹³.

Returning to 23 BC, the following can be stated. A portion of Zenodorus' territories apparently remained after the transfer of some parts of his territory to Herodes, since Zenodorus sold *Auranitis* to the Nabataeans¹⁴ around that time. The land of the Gadarenes still bordered the northern *Gaulanitis* (modern-day *Golan Heights, north of the Sea of Galilee*), which was governed by Zenodorus at this time. Zenodorus tried to further incite others to rebel against their rulers. After this vain effort and the possibly connected sudden death of Zenodorus, all remaining regions fell under the ownership of Herod.

In his second work on the Jewish War, Josephus describes the territory of Herod in even greater detail. Therein, he explicitly names the area between *Galilee* and the *Trachonitis* (the Northern *Gaulanitis*) as belonging to Herod's empire only from this time on¹⁵. However, the *eastern Trachon* and most of the *Auranitis* were not part of Herod's sphere of influence at that time. Over the following decade, nothing more is recorded about the region.

From 12 BC onward

Around 12 BC, the *Raepta* fortress on Herod's border (or directly behind it) was handed to the rebels and the people of the *Trachonitis* by Syllaeus, the co-regent of the Nabataean king Obodas III and a powerful military commander. These rebellious residents resumed robbing in the realms of Herod and the Damascus region¹⁶. Despite the resistance of Herod's army, these robbery raids continued and even intensified, presumably until the year 9 BC.

The area of *Raepta* was under the protection of Syllaeus, and at this time, must have clearly been in the Nabataean sphere of influence at its western border. The area was captured and destroyed by Herod around 9 BC with the permission of Roman Governor "Gaius Sentius Saturninus". Historians Josephus and Strabo mention the protective measures of the region and those of the *Trachonitis* by the settlement of a military colony of 3,000 soldiers. Syllaeus' subsequent complaints about this in Rome were unsuccessful¹⁷.

Stübel 1889; Burton - Drake 1872a.

¹⁰ see also: Vitale 2013; Lindner 1970; Lichtenberger 1999.

¹¹ *Ios. Ant. Iud.*, 15,10,1.

¹² *Strab.*, 16,2,16-20.

¹³ The eastern *Trachon*, the *Tulul es Szafa* with the cave *Umm Niran*.

¹⁴ *Ios. Ant. Iud.*, 15,10,2.

¹⁵ *Ios. Bell. Iud.*, 1,20,4.

¹⁶ *Ios. Ant. Iud.*, 16,9,1.

¹⁷ *Ios. Ant. Iud.*, 16,9,2;16,9,3.

Whether Herod erected a fortified city according to the Greek model of Herodeion, Machaeros, Gaba, Esbon, and Masada or a fortified city according to the Roman model cannot be inferred from the literature and, therefore, must be reserved for future field research. A resemblance to the Nabataean city fortress *Avdat* and its separate military camp, however, makes further use and extension of the fortress of *Raepta* by Herodes conceivable¹⁸.

In the following years, Herod called Zamaris, a Jew from Babylon, together with 500 archers, into his kingdom to strengthen the borders and, in return, gave Zamaris the area of *Bathyra* in the *Batanaea*. They then settled in this area to protect and cultivate the land (tax-free) and to build more fortresses¹⁹. Later, Jakim (Jacimus), the son of Zamaris and the Babylonian equestrians, who were famous for their bravery and horsemanship, were called upon to be bodyguards for the Herodian family²⁰. Herod decreed the division of his kingdom in his testament before his death in 4 BC. The *Trachonitis*, *Gaulanitis* and *Paneas* were to be passed to his son Philippus²¹, along with the eastern border areas of the *Batanaea*, parts of the *Auranitis plains*, the so-called *Nukra* and the *Hauran* lowlands, which belonged at this time to the empire of the *Trachonitis*.

4 BC until 66 AD (the time of Pliny's scriptures)

However, due to inheritance disputes, Herod's decree was changed by Emperor Augustus, and the Greek cities (*Gerasa*, *Gadara*, *Hippos*) that today form the northern *Ajlun* and the *Gaulan* up to *Ituraea*, were directly subordinated to the Roman province of Syria. It cannot be clearly demonstrated whether this separation between the heirs led to profound economic changes or whether it was only to serve the pacification of the clientele kingdoms that were already under Roman control²². During his regency, Phillipus expanded *Paneas* as his seat of power and founded *Julias* on the site of *Bethsaida*.

During the three years after Phillipus' death in *Julias* in 34 AD, the region was directly re-governed by the Romans, and the dividing strip of land became obsolete. In 37 AD, immediately after Emperor Tiberius' death, Josephus²³ mentions King Agrippa I, grandson of Herod and appointed by the new emperor Caligula, as successor to his Tetrarchy and the Tetrarchy of Lysanias. Later, through the Emperors Caligula and Claudius, Agrippa I also received the western portions of the territory as well as *Perea* (by Antipas and Archelaus) so that the area again included the land of his grandfather. The mountainous *Auranitis*, with its southern cities *Bosra* and *Salkhad*, does not appear within these descriptions and was still completely integrated into the Nabatean sphere of power.

After the death of Agrippa I around 44 AD, Roman procurators temporarily restored provincial rule. It was not until the year 48 AD that Agrippa II (Marcus Julius Agrippa) gradually regained power over the territories of his ancestors. Around 53 AD, Agrippa II received *Batanaea*, *Trachonitis* and *Gaulanitis*²⁴ from the governor of Rome, Marcus Antonius Felix, who also gave him the territory of *Lysanias* (*Paneas* and the *Abilene*) and that of Varus²⁵ (the *Damascene region*²⁶). In the year 54 AD, Agrippa II also received the northern part of *Perea*, which he maintained until his death in 98 AD.

Marcus Antonius Felix was the Roman governor for the remaining western part of *Judea* and the southern part of *Perea*. Porcius Festus replaced him in the year 60 AD. At this time, Agrippa II received the additional cities of *Tiberias* and *Tarichaea* in *Galilee*, as well as the lands of *Abila* and *Julias* in *Perea*²⁷.

Pliny the Elder precisely describes the kingdom of Agrippa II along with the landscape of the Decapolis at this time. It is unclear whether Pliny had detailed knowledge about the region through a military position in *Judea* and *Syria* before his governorship in *Gallia Narbonensis*, as Mommsen suggests in his interpretation

¹⁸ Rocca 2008, 155f.

¹⁹ Zedler u. a. 1749, Band 60, s.v. Zamaris.

²⁰ Jos. Ant. Iud., 17,2,1-3.

²¹ Jos. Ant. Iud., 17,8,1.

²² Jos. Bell. Iud., 2,6,3.

²³ Jos. Ant. Iud., 18,6,10.

²⁴ Note also Josephus enumeration made from east to west.

²⁵ Jos. Bell. Iud., 2,12,8; sowie Jos. Bell. Iud., 2,6,3.

²⁶ Seinecke 1884, 215.

²⁷ Jos. Vita, 11; sowie Jos. Bell. Iud., 2,13,2.

of the inscription from *Arados*²⁸, or if he gathered the information about the region through close contact with the imperial court. This cannot be conclusively ascertained based on contact with Agrippa II, who had lived in *Rome* for a long time.

Pliny the elder names cities in the region that appear to him most significant in the historical context, as well as cities within the surrounding empires or toparchies. The fact that not all of these locations were Greek foundations was not significant to him, and was not important for him, since all of these locations had subordinated themselves to the Greek culture through script, traditions and the eastern Greek Pantheon. For Pliny, all of the described cities belonged to the same sphere of power. As such, the geographical definition within his work required a conscious arrangement and selection of places to describe this area as precisely as possible. The entire Herodian dynasty felt attached to the traditions of the Greeks and subsequently cultivated these traditions. Even conquered settlements with Nabatean prehistory were no exception, as Nabataean King Aretas III was a Philhellene who brought the Greek traditions to the empire.

The same applied to the purpose-built military settlements inhabited by combat-strong soldiers of these empires and kingdoms. Although these settlements were multicultural, as were the troops who were later ordered to Jerusalem, they also cultivated the Greek tradition and lifestyle. Inscriptions from this time prove this. For example, fortress constructions were oriented to match Greek high fortresses, or a greek inscription devoted at *Sia* to Herod²⁹.

66 AD to 106 AD (from the books of Flavius Josephus)

Around 66 AD, Agrippa II tried to pacify the riots in Jerusalem and ordered 3,000 equestrians from *Trachonitis*, *Batanaea* and *Auranitis* to defend the Jews and the temple there. These troops, consisting of Syrians and Greeks, were subsequently defeated by the rebellious Jews and were also murdered in their own ranks by Agrippa's army³⁰. Their commander, Philipp, the grandson of the Jew Zamaris, who settled in the *Batanaea*, could only save himself in the *Gamala* fortress and was later awarded for his loyalty.

The fact that Josephus was well-versed in the area of *Trachonitis* and that he made contacts there is evident from his work, *Vita*³¹. He describes an encounter with two high-ranking officials from the *Trachonitis*, relaying that he had defended them from the Jews. He also describes a place called *Arpha*³². It is clear from his enumeration of its mixed population that this place should describe the easternmost border of the kingdom of Agrippa II.

From 106 AD on (mainly from the books of Flavius Josephus and the Notitia Dignitatum)

Around 106 AD, the Nabataean part of the *Auranitis* (eastern and southern Hauran, including the southern Nukra), including *Dera'a* (*Adraha*), *Bosra* and *Salkhad*, was conquered by Roman soldier Aulus Cornelius Palma Frontoianus and annexed to the province of Arabia. The clientele kingdoms disappeared due to the Parthian Wars, and the borders of the Roman provinces again shifted to the east.

The region of the former eminent eastern border City *Raphana/Arpha* is lastly mentioned in the *Notitia Dignitatum* with its remaining importance in the 3rd and 4th centuries. As a military station of *Alla Secunda Salutis* with the name *Arefa*³³, it was then subordinated to the *Dux Phoenice*.

This subordination is otherwise unsurprising since the location is nowadays still situated at the southeastern corner point of an administrative landscape allocation (*Rif-Damashk*)³⁴. For the analyzed centuries and their scriptures, the location of *Raphana/Arpha/Arefa* was, therefore, always positioned at the southeastern border of the province of *Syria Phoenice* towards *Arabia*.

²⁸ Mommsen 1884, for this also various pros & cons among other things in following Hermes books.

²⁹ Rocca 2008, 155f.

³⁰ *Ios. Bell. Iud.*, 2,17,4.

³¹ *Ios. Vita*, 23.

³² *Ios. Bell. Iud.*, 3,3,5.

³³ *Notitia dignitatum*, *Dux Phoenice*; Dodgeon – Lieu 1991, 290.

³⁴ For the meaning of the name of the unit see also: Lightfoot – Pitman 1823, 197 f. and the quasi equivalent assignment of Bir Kesâb to the "Defense de Damas" Poidebard 1934, p. LXIV.

Thirteen hundred years later, in the late 18th century, Calmet was the first modern researcher who suspected that Arefa/*Arpha* and *Raphana* might be one and the same due to their identically described (though not precisely identified) position in the kingdom^{35 36}.

Based on the above discussion, it can be deduced that there was only one location called Raeptha, Raphana (mentioned by Pliny), Arpha, or Arefa (mentioned by Josephus and Notitia dignitatum). It was most likely located at a northeastern border point of the Herodian Empire (later controlled by Philippus, Agrippa I and Agrippa II).

Therefore, it seems to be clear that, the Location of this Settlement /Fortress City can be verified and possible identified by its extensive military buildings, its distinctive and strategically important position at this region and in addition at the connection of old roads.

With over 30 years of professional surveying experience, I can personally state that, in addition to fords and bridges, water points and road connections have such a high degree of consistency, that they remain almost unchanged from ancient times until today.

Chapter 5 of this work can not only prove that such a location exists and also has the characteristics of the ancient descriptions but that, even after over 2,000 years, some locality names and path names have remained. These will fit in addition to some of the ancient descriptions.

3 Analysis of the literature regarding *er-Râfe* from the 19th Century until today

In order to examine possible existing archaeological evidence for *Raphon* and a connection with *Raphana*, it is indispensable to analyze the literature that led to the previous equation with its location in recent centuries.

This chapter analyses the literature relating to the exploration of the region, beginning with accounts of German explorer Ulrich Jasper Seetzen in 1805. Here, those sources and travelogues that led to the identification of *Raphon*, sometimes together with *Raphana*, and those linked to a place called *er-Râfe*, are examined. As proof of the connection between *Raphon* and *Raphana*, the most frequently cited source today is R. Dussaud (1927). His work is included here in chronological order so that his own sources (Dussard1927) can also be explained. In this way, it can be shown that, in some newer-dated literature, old statements are simply reused in spite of their aforementioned possible lack of accuracy.

This chapter is intended to help the reader recognize why mere assumptions are constantly reused in scientific literature without being adjusted based on new findings. This perhaps offers a chance to critically examine other questionable locations according to the current state of knowledge.

Pre-1860

Although E. Robinson and E. Smith meticulously recorded countless sites worth mentioning during their travels in 1838, whether lying in ruins or still inhabited, the aforementioned site (*er-Rafe*) is demonstrably not included in their work³⁷. The location appears as *er-Rafe*³⁸ for the first time on Kiepert's map³⁹ in 1860, according to the records of Wetzstein.

³⁵ Calmet u. a. 1812, see ARR.

³⁶ Further literature on the subject, among others: Wilker 2007; Vitale 2013; Rocca 2008; Schalit 1969.

³⁷ Robinson – Smith 1842, 903.

³⁸ This and all other place names in italics correspond to the spelling of the original text in the paragraph in question.

³⁹ Kiepert 1860.

1860

As mentioned several times in his book, Wetzstein⁴⁰ gained knowledge of the course of the *Kanatir Fir'on* aqueduct through his "repeated inquiries". Here, the name *Râfe* is mentioned for the first time. The clearly north-south course of the aqueduct line, starting between *Dilli* and *Terâja*, followed by *Guwême*, *Râfe*, *Dnebe* (*Dunaybah* near *Ezra*) and *Karfe* (*Qarfa* also *Karife*), served as a guiding line from north to south for their positioning. These Settlement-names were marked for the first time on the map of Kiepert⁴⁰ after the publication of Wetzstein's book. Neither Wetzstein nor later travelers were able to determine the exact position of *Râfe* within Kiepert's map, and there is no evidence that Wetzstein knew details of the location nor its topographical features. Likewise, he never made any connection between *Râfe*, *Raphon*, or the Decapolis City of *Raphana*.

1875

In 1875, Smith⁴¹ stated in his bible dictionary that the *Raphon* of the Maccabean conflict could have been identical with the *Raphana of the Decapolis* mentioned by Pliny due to the similarity of the name. He again uses Kiepert's map to locate these cities at *Er-Râfe*. However, importantly, he explicitly adds that, in this case, one should expect great ruins in that locality.

1890

In German literature, within ZDPV XIII, 1890, K. Furrer mentioned for the first time the identically named location *Râfe* also according to Kiepert's Map of 1860, and attributed it to the *Raphon* of the Maccabean fights. Only in the footnotes does he draw a possible parallel to the *Raphana* named by Pliny. He describes the location explicitly as east of *Wadi el Ehreir*⁴².

1897-1898

Fossey's 1897 publication requires a little more detail. In points 54 and 55 of his 1897 work, Fossey describes two inscriptions found at a place, *Raïfa*, which he located north of *Cheikh Miskin* without further explanation. Questions arise both from the context of the maps he used, from which he also took the spelling of the other location names, as well as from the translation. On his map, the description "north of *Cheikh Miskin*," as is shown⁴³ west of the road and east of *Wadi el Ehreir*, does not correspond with the position of today's *Khirbet Ra'fa*, which lies 1.2km east of the road on a flat western slope of *Wadi Ezra*.

Fundamental to the theories about *Raphon* and *Raphana*, which became independent from this point on, is the traditional inscription of a memorial stone described by Fossey. According to his own statement, no place of this name is known to him. A word he first mentioned at the end of the inscription transcribed as "ΡΟΓΑ" becomes a "ΡΟΠΑ." From this, he, in turn, constructs a reference to the name of the alleged location of *Raïfa*⁴⁴. This construction was doubted by Cagnat immediately afterward (1898) and later by Dussaud, who in turn identified "Bosana" or "Bosara" from the same inscription in 1927⁴⁵.

Questions concerning the original inscription and the location described by Fossey, are also posed by a description given again by Cagnat⁴⁶. Here, not only are parts of the inscription represented differently but Fossey's translation is occupied with question marks. It seems as if Cagnat also had the original copy of the inscription mentioned in 1898. It is to be assumed that, as other missing letters also prove, the inscription was already so weathered that several interpretations of the contents were possible.

While Dussaud filled in the missing parts before the last word with B and O, a much closer geographical location will be named by the author here, which would be more plausible based on the rarely awarded title of a *Metrokomia* and the approximate location of the inscription. In contrast to the other proposed

⁴⁰ Wetzstein 1860, 123f, see also the summary and the admonishing words in the quotation by E. Robinson and E. Smith, 30 years before Wetzstein's journey at the end of the next section.

⁴¹ Smith – Wright 1875, 779, s.v. Ra'phon.

⁴² Furrer 1890, 199.

⁴³ Fischer 1889; Conder – Kitchenner 1897-1925.

⁴⁴ Fossey 1897, s.v. 54.

⁴⁵ Dussaud 1927, 338f.

⁴⁶ Cagnat 1898, 1897 no.94.

solutions and according to a comparison of the two spellings by Fossey and Cagnat, as well as under retention of the following "O," a ZOPA / [ZO] POBA can be translated.

Years later, Dussaud changed the letter "O" into an "A" without further explanation and lists the spelling of "Bosana" or "Bosara," a much farther-located site, as already mentioned above.

Hence, for the word above it, in the second line of the inscription, also provided by R. Cagnat with question marks and extended to the word "protector," Πρωτ[εύων] (i.e., "local head") could alternatively be added, as the inscription above the portal of St. George's Basilica from today's *Ezra* (*Zora*, *Zorava*), shows⁴⁷. Lastly, and as a further fact, under "Alexander Severus," the location of Zorava, falling in close proximity, actually received the title of a Metrokomia⁴⁸.

Commemorators of the deceased similar named Severus (this could also be an indication for nearly the same lifetime) used a place just in the middle between his former home village, which was certainly correctly identified as *Kefr Zijan*/*Aziz*⁴⁹ in the west and the eastern Metrokomia and the later diocesan town of *Zorava* / *Zorowa* / *Zorabene*. For this, a small solitary "Tell," north of *Cheikh Miskin* and east of *Wadi el Ehreir*, situated with a fine view from its hill to both almost equally distant places, is a quite suitable choice. The location connected with the name *er-Ra'fe* (*Râfeh*) (map Levant, or see Fig.3), which lies at the foot of a river embankment in a valley, was thus certainly at most the eponym for another location but was very unlikely the corresponding place of memory and the real discovery of the inscription mentioned by Fossey. The second inscription, a short Christian-one found at the same unknown place, will not be dealt with in greater detail here.

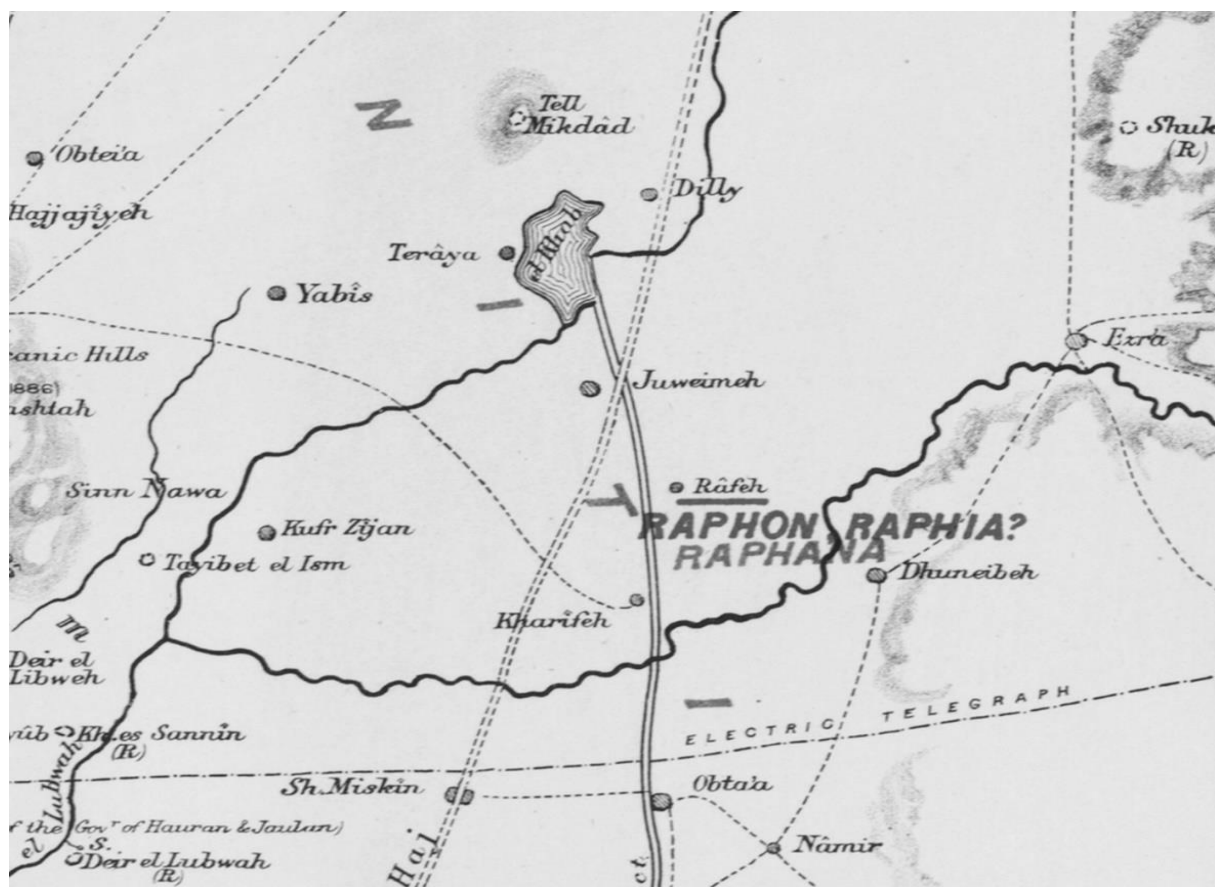


Figure 3: Map section of the PEF Map Sheet 7, M1: 168960 Edition 1910⁵⁰

⁴⁷ Trombley 1995, 363f No.1754.

⁴⁸ Kruse - Seetzen 1859, 56 with reference to p.85 of the original.

⁴⁹ This name is also documented in another inscription from Zorava: Trombley 1995, 364; Fossey 1897, 55.

⁵⁰ The map shown here is identical in content to the 1860 Kiepert map after Wetzstein's book from 1860.

It can be concluded from Fossey's work in 1897 that, irrespective of whether the location in the inscription was assigned the correct names or possibly misspelled by a slip of the pen, the solitary inscription, and its contents are not a sufficient evidence for a connection to *Raphana*. There are neither relevant archaeological remains of a city or any other highly significant location of the Decapolis at this location. In addition, the inscriptions were written in the 3rd or 4th century AD, according to their context and type, and thus cannot create any connection to the city or the important military settlement of *Raphana* mentioned at the time of Herod.

1907

Ten years after Fossey's study, in his 1907 "Nouveau Guide de Terre Sainte," Meistermann states that the locality of *d'er Râfeh* lies half a French league (approximately 2km or 1.2 miles) southeast of a place called *Djouimeh*⁵¹. However, this would only refer to the location of a small Fort at the Qanat Fir'aun Aqueduct and not to the current location of er-Râfe.

In his work, "Loca Sancta," also from 1907, Peter Thomsen duplicates Furrer's identification of *Raphana* in his 1890 proposal, albeit with question marks⁵². The reasons for this uncertainty emerge from the context. From the connection with the *Arfa* of Agrippa mentioned by Flavius Josephus, Thomsen suspects a location much further along the eastern border and not one in the center and at the western edge of the *Nukra*. Nevertheless, Dussaud will also later refer to Thomsen's work.

1918

In 1918, Guthe explained that *Raphana* was likely identical to *Raphon* and that there was a name resemblance to er-Râfe north of Schech Miskin. However, he mentions that the physical remains of a city were not found there⁵³. This basically repeats the content and statement of Smith in 1875, but now in the German language.

1927

Within this chronological classification, Dussaud's 1927 publication is of particular importance for this analysis. This is because of the work is the basis and main reference of almost all mentions of the connection between *Raphon*, *Raphana*, and *er-Ra'fe*. The relevant paragraphs and subsequent notes clearly show that Dussaud did not trust Fossey's translation from 1897 and therefore did not link the title of a *Metrokomia* to *er-Ra'fe*^{54 55}. Furthermore, he considers the evidence for the fortress of *Raïpta* (*Raëpta*) at this location as proven but sees a connection between the *Raphana* mentioned by Pliny with the *Raphon* mentioned in the Maccabees letters as less probable. Dussaud also mentions the geographical position of the suggested place as being near the *Wadi el Ehreir*. Against that, the *Wadi Ezra*, which is positioned directly at the currently mapped *Khirbet er Rafe*, is not mentioned.

The only archaeologically relevant evidence for the connection with the named place from Fossey's inscription is clearly rejected by Dussaud in his comments on this text. Unfortunately, the respective comments/notes on the text are included only in the rear-note section of Dussaud's work, so they seem to have been only partially noticed.

It must also be mentioned that, within the introduction of his chapter⁵⁶, Dussaud sharply rejects Buhl's, Schürer's, and Smith's assumptions about *Tell esh-Shihab* and *Capitolias* (as possible locations of *Raphana*) as "...hypotheses without serious basis...". Dussaud mentions Furrer's and Thomsen's suggestions adopted from each other (see 1907), with the remark, "propose aussi cette identification."

⁵¹ Meistermann 1907, 466.

⁵² Thomsen 1907, see mainly *Raphana*.

⁵³ Guthe 1918, 25 with note 17. 43.

⁵⁴ Dussaud 1927, 339f with notes.

⁵⁵ Note 115 to the text concerned: « FOSSEY, BCH, 1897, p. 54 y a relevé un texte grec mentionnant la komè Kaparaziza et une metrocomè Roga (?). Nous préférons corriger cette dernière en Bosana ou Bosara plutôt qu'en Ropa ».

⁵⁶ Dussaud 1927, 339f with notes.

Therefore, it should be noted that, in 1927, Dussaud acknowledged the already-mentioned similarity of names and their references but clearly rejected Fossey's attempted linkage from 1897.

1936

In 1936, Fernandez mentioned a geographical location situated 7km southeast of *Tell Miqdad*⁵⁷ that does not correspond with any previously known or assumed position. In fact, there is a small Roman fort at this position that is directly passed by the Qanat Fir'aun aqueduct. The ruins of this Quadriburgia-style building, located on a hilltop, measure 50 x 50 m and were recorded by the author between 2007 and 2009, seemingly for the first time. Further analysis proves that this small fort was assigned by Meistermann in 1907 for the first time and was associated with the name *Er-Râfe* in various literature.

This marks the beginning of a minimum two-pronged interpretation of the real location of *Er-Râfe* in the scientific literature, which has continued since then.

1938

The last sentence above, can be underlined by an other book two years later. In 1938, Abel⁵⁸ described an abandoned place named *d'er Râfé* that was 5km north of *Sheikh Miskin* or about 13 km east-north-east (this corresponds to ~67.5° towards north) of *Sheikh Saad*. The location is described as being situated on the left bank of the *Wadi*. This corresponds to Furrer's description "in the east of *Wadi el-Ehreir*."⁵⁹ This position is almost identical to that of the aforementioned small Roman fort and the position mentioned by Meistermann and Fernandez. However, it is incompatible with the Khirbet *er- Ra'fe* (Map Levant and modern). Based on the similarity of the names, Abel assigns Fossey's inscriptions to this abandoned place. However, he does not provide any proof of this. In the references citing E. Schürer (GDJV)⁶⁰ and others, like Dussaud, Abel rejects their suggestions for other positions of *Raphon*, *Raphana*, and *Arpha*, describing them as a little "strange."

1963

In 1963, Bietenhard⁶¹ referred almost word-for-word to Abel's description to *Raphana* (see 1938 above), including the sources given by him. However, an exact localization is not given.

Guthe's 1918 word is indeed also mentioned, but his question regarding the missing archaeological remains is disregarded. Moreover, without any further proof and against the given descriptions of the ancient literature, Bietenhard concludes, based exclusively on the location mentioned by Abel and its estimated position, that *Raphana* was located in the center of the Decapolis region and has probably used the Pompeian era. In addition, he states that, according to his estimated position of the city, it probably always belonged to the Decapolis. However, he has no further evidence for these assessments outside of that already mentioned above.

1986

In 1986, M.J. Fuller and N. Fuller attempted to find references to *Raphana* in *Er-Rafid*, west of *Nawa*⁶². Either the location of *er-Râfe* did not seem plausible to them, or they simply confused one location with the other. On page 24 of their work, a place named *er-Rafeh* is mentioned in an allocation list. In comparison to their research on *Abila*, the Fullers wanted to visit another Decapolis city lying in ruins. They also mistakenly listed Gottlieb Schumacher, a German archaeologist and surveyor, as a reference. However,

⁵⁷ Fernandez 1936, 103. Compared to today's interpretation, the Tell Miqdad is meant here. Against that, the presumed Maked, mentioned with the Maccabees, was positioned at *Tell Mutauoaq* (east of Jasim).

⁵⁸ Abel 1938, *Raphon*.

⁵⁹ From a geographical point of view, directions are always given in the direction of flow.

⁶⁰ Schürer 1886, 93, see *Raphana*.

⁶¹ Bietenhard 1963, 24–58.

⁶² Fuller 1987, 25. In this, it also becomes clear that even the excavation directors in *Abila* did not believe in a connection between *Raphana* and *Abila*, it is still mentioned in some internet sources even today.

demonstrably, Schumacher did not assign *Er-Rafid* to *Raphana*, even though he found some small ruins there⁶³.

1994

In 1994, Wenning, like other scientists, conflated the identification of *Raphana* with *Er-Râfe* by using question marks and referred to a wide variety of interpretations in his notes⁶⁴.

2006

In one of the most recent works on this thematic, in 2006, Junkkaala declared⁶⁵ that *Tell el-Ashari* was the biblical *Raphon*⁶⁶, according to an assumption made 80 years earlier by Albright. Here, he completely turns away from the location otherwise used in science and mistakenly assigns the name *er-Rafeh* to *Tell el-Ashari*, incorrectly listing the coordinates as PG⁶⁷ 258.255, which corresponds to an estimated location near *Juweimeh* already mentioned above. This position is more than 20km away from the real *Tell Ash'ari* and more than 5km north of *Sheikh Miskin*. This position only indirectly refers to the nearby location of the aforementioned small Roman fort at the *Qanat Fir'aun*. This rough position was also described by Meistermann in 1907 and, since then, has also been mentioned by Abel and Bietenhard. Although Junkkaala mentioned the PG coordinates two times, they do not coincide with *Tell Ash'ari* nor to *er-Rafeh* (Kh. *er-Rafe*).

Unfortunately, Junkkaala confuses various other facts to form a clearly erroneous statement. In addition, he also misinterprets Albright's 1925 work, which he uses as a source.

Albright only connected the physically existing *Tell el-Ashari* with the scriptural *Raphon* of the Maccabees (already discussed and excluded in 1927 by the sharp words of Dussard). Therefore, Albright did not connect it with the small Khirbet *er-Rafeh*, as in several other studies. As such, this aspect of his work seems to be an infelicitous false statement by Junkkaala.

2015 until today

The totality of the ambiguities concerning the geographical position of *Raepta*, *Raphana* and *Arpha* is evident even today. As Guthe already mentioned 100 years ago, the lack of archaeologically relevant structures leads to the fact that current and detailed literature on the subject of the *Decapolis* denotes the city of *Raphana* only with question marks. Some studies even entirely omit the location in their analyses (See also Tuebinger Atlas of the Near East (TAVO), GPIA-DAI, etc.)⁶⁸.

Intermediate result to this chapter 3

An analysis of the literature shows that the *Khirbet er Ra'fe* of the Levant map set and of the TAVO is not identical in coordinates with the other locations mentioned. For instance, with the small Roman fort at the *Qanat Fir'aun* several kilometers to the north-west of the first mentioned. However, this specific location is also clearly determined several times in the literature by Meistermann, Fernandez, Abel, Bietenhard, and Junkkaala via their given descriptions and coordinates.

It is most likely that the numerous inconsistencies of the given coordinates/positions can be attributed to the use of old, inaccurate maps. For a comparison of the different coordinates and locations, one may refer to the following chapter and Figure 4 below.

It is also not plausible or even conclusively detectable where the memorial stone described by Fossey was actually located. It is plausible that it was situated at another further location nearby. No subsequent

⁶³ Schumacher 1886, 148f (the source named by Fuller as 1888 is the English edition of the original German-language publication published in 1886).

⁶⁴ Wenning 1994.

⁶⁵ Junkkaala 2006, 145f.

⁶⁶ Albright 1925, 5–19.

⁶⁷ PG= Palestine Grid 1923. This coordinate system is in use for almost all archaeological projects in the Levant. See also subchapter 1.1.

⁶⁸ Weber – Fournet 2015.

researchers wanted to adopt or consider Fossey's inscriptional proof of the "constructed" location of *Raifa*, which Fossey conflated with *Raphana*.

However, it was nevertheless several times duplicated in the literature by multiple references and afterward by references to Dussaud.

According to all this analyzed literature and even 100 years after Hermann Guthe's admonishing words regarding the necessary archaeological proof, there were no real evidences to the ancient place of *Raepta*, *Raphana*, and *Arpha* at any of these suggested locations.



Figure 4: Overview of the different locations mentioned
(GoogleEarth / DigitalGlobe 2018)

Scale and Direction embedded

4 Analysis of old and new maps of the Golan, el-Ledja and the entire Hauran region

Since its first mention by Wetzstein in 1860, the location of *Râfe*, is demonstrably localized by the literature (see Chapter 3) in at least four or five geographical positions, together with their mostly inaccurate or false copied coordinates (See Fig. 4). The following chapter will draw further conclusions with the help of several maps.

The surveys, rough mentions, or exact measurements of the explorers were mostly included in parallel or in the immediate aftermath of the research in maps. This chapter will answer the question of whether such old maps are worthy of geographical or archaeological research even today. Particularly in the period between 1840 and 1940, the contents of maps were extensively specified and enriched. However, further analysis within this chapter occasionally reveals takeover errors on the maps. This can be seen, on the one hand, through a direct comparison to the literature discussed above and, on the other hand, by inaccuracies in the measurements taken at that time. These errors have inevitably led to distortions in the map creation. However, in general, the map series can be given a higher accuracy than the descriptions in the literature, especially in direct comparison with the surrounding places and paths taken. This is due to the necessary construction of a map. Here, each location can be drawn dependent on other locations, landmarks, or rivers. Compared to the purely verbal description within the literature, an inevitable control and a better

position in map contents is guaranteed by its directions and distances to rivers, roads and other Settlements.

The first maps by van de Velde, Berghaus, and Kiepert contain few details. However, for the first time, they show a real topographical image of the region beyond the Palestine- or-World representations interpreted from the Bible up until the 18th century.

The first map, which also contains the place *er-Râfe*, therefore also comes from H. Kiepert, who refers to the angle measurements, observations, and brief descriptions given by Wetzstein in 1858⁶⁹. However, the distortions and inaccuracies are so extreme that no exact coordinates can be derived from them. The closest place on this map to *er-Râfe* was a location to northwest of it called *Guwême*, which is identical to the *Djouimeh* mentioned by Meistermann in 1907. Moreover, according to this map, the *Qanat Fir'aun* Aqueduct runs west of *er-Râfe*⁷⁰, which is demonstrably mistaken due to the exact surveyed route of the aqueduct. The correct location is around 1.5 km to the east of the modern-day *Khirbet Ra'fa*.

The second edition of C.W.M. van de Velde⁷¹, produced five years after H. Kiepert's map, provides us with a map that is almost identical in content, while the first 1858 edition contains neither *Juweimeh*, *er-Râfeh*, nor *Karife* (from N. n. S.). In the following decades, up to 1925, *er-Râfe* mostly appeared together with *Juweimeh* and *Karife* at almost the same position east of the *Qanat Fir'aun* aqueduct and centrally located between *Dilli* and *Sheikh Miskin*⁷². In addition, the location is mostly registered west of the *Sheikh Miskin-Es Sanamein* road.

Only the French/British Levant mapset⁷³ shows a location for "*Khirbet Ra'fa*" in the editions made since 1926, which, according to the same coordinates, is also in the Tuebingen Atlas of the Near East (TAVO). In the reprints of this mapset, the contents are preserved until the 1950s. Despite higher accuracy and more detailed scales, and presumably due to the different positions previously given in the literature, no newly compiled topographic maps after 1943 show *er-Rafe*⁷⁴.

The acknowledged Barrington Atlas of Princeton University notates the location of *er-Râfe* under *Raphon* with question marks and cites Dussaud 1927 as a source⁷⁵. The atlas also links *Raphon* and *Raphana* with *Arpha* and *Rhaepta* but marks these last location names with question marks, as the original description of Fl. Josephus suggested a place lying further northeast. Although the information about the location is only given in map sectors, the position can be approximated as $E36^{\circ}12'07''$ $N32^{\circ}51'18''$, corresponding to 2629.2516 in Palestine Grid (PG). According to the map and coordinates, this point is located south of the *Wadi Ezra* and east of the demonstrable course of the *Qanat Fir'aun* aqueduct. However, there is, according to the literature, no *Tell* or *Khirbet*, or even a given name for this location, which is most likely just a newly calibrated location from older maps.

The "Calwer Bibel Atlas" by Zwickel⁷⁶ shows *Rafon* as *er-Râfe*, with a coordinate of PG 259.250 (a smaller hill at the northern border of *Sheikh Miskin*, directly east of the road) and supposes a relation to *Shech Miskin* PG 258.248, designated with question marks. The connection of the location with Tuthmoses' III List No.29 shall not be discussed in detail here⁷⁷. Although Zwickel also showed other Decapolis towns and their positions in his "Atlas," he does not include *Raphana* as an equation to *Raphon*, nor does he include them as separate naming. Moreover, he denoted *Raphon* with question marks on all maps hereafter (from p34ff).

The Tuebingen Atlas of the Near East (TAVO)⁷⁸ sets the position of *ar-Râfa* as PG 2601.2513⁷⁹ for *Raphon* and *Raphana*. In the maps, question marks are added to the name, as was already done in Zwickel. As

⁶⁹ Kiepert 1860.

⁷⁰ This speaks only for the position of the already mentioned small Roman fort and not for the Khirbet er Ra'fe of the Levant map set Levant and the Tuebingen Atlas des Vorderen Orients (TAVO).

⁷¹ van de Velde 1865.

⁷² Geographical Section General Staff 1907; Geographical Section General Staff 1918; Geographical Section General Staff 1915; Conder – Kitchener 1897-1925.

⁷³ France. Armée. Armée du Levant 1926-31 eng. Reprint 1952.

⁷⁴ General Staff USSR 1980-1987, 100-37-109; Army Map Service 1943, NI 37-I.

⁷⁵ Talbert 2000, Map 69, Sector D4.

⁷⁶ Zwickel 2000, Rafon.

⁷⁷ See various discussions about pro and contra: Abel 1938, 11 with note 2 ; or Noth 1940, 232.

⁷⁸ Mittmann 2001, see ar-Râfa.

⁷⁹ The four-digit coordinates given here represents with the last digit only a coordinate position in the

mentioned above, the position in the TAVO map corresponds to the Khirbet Ra'fa of the Map Set Levant from 1943.

The AIA⁸⁰-supported historical-geographical database Pleiades⁸¹ notes two positions for *Raphana* and the Maccabean *Raphon*.⁸² Within the DARMC Atlas of Harvard University⁸³ at E36°11'58"; N32°51'08" corresponding to PG of 2627.2513. These coordinates refer to an undeveloped field area southwest of Ezra in 1978. Today, the site is a military outpost of the Syrian army. This location corresponds to the given position of the Barrington Atlas but not to the *Khirbet Ra'fa* or *ar-Râfa* of the TAVO, which is located 2.6 km west thereof. In addition to *Raphon* and *Raphana*, the Pleiades database also includes *Arpha*⁸⁴ and *Rhaepta*⁸⁵ for the same location. Altogether, the Pleiades database has nearly the same data as the Barrington Atlas.

The Geonames database, which is recommended by both the German Archaeological Institute (DAI) and the Pleiades online database, lists a location nowadays known as *Kheurbet Ra'fa* or *Khirbat Ra'fah*⁸⁶ under the transformed PG coordinate 2596.2510. This location again corresponds to the French/British Levant mapset and the TAVO.

At the end of this enumeration, it should be noted that American-German archeologist Gottlieb Schumacher was one of the most exact and reliable describers. He did not mention or record a *Khirbet er-Râfe* in any of his books or on the maps he created, although he described this area exactly within his works⁸⁷.

In summary, it must be noted that over the 160 years since the first mention of these places, the location of *er-Râfe*, or what any researcher has identified with it, varies by up to 6 km. This map analysis shows, especially in its latter part, that modern coordinate systems and digital technology do not guarantee precision. If positions were simply measured from old literature sketches or from higher-scaled old maps. Further "new" positions of the same location arising in modern digital maps contradict each other. One example of this is the above-mentioned Pleiades database, as it concerns the location of *Raphon* (STOA Loc.678360).

These multiple contradictions, which are unusual in the archaeological and scientific-geographical world, confirm the lack of archaeologically relevant evidence and exact descriptions for this location. Nevertheless, such inconsistencies are also true for other similar locations, which were not conclusively located by archaeological remains.

In this respect, the admonishing words of 18th-century biblical scholars Edward Robinson and Eli Smith ring true. As early as 1838, these two researchers, who, along with other early travelers, are regarded as pioneers in the field, strongly warned of this special kind of self-made "confusion and deviation."

In terms of location descriptions in the various studies, their work states that:

"...a description..., which is of the kind that it is usually difficult and often impossible to distinguish what they have really visited and seen from what they have only heard or read of, or perhaps even presume to report."

Robinson and Smith further added:

"...that if a traveller at the present day is not able to find some of the places mentioned and described by earlier writers, the cause is often not in his own mishap, but the fact that those writers have described places which they never visited themselves and which in all likelihood were no longer present at their time."

For the above reasons, it is legitimate and necessary to question the real location of the places known as *Raepta*, *Raphana* *Arpha*, and *Arefa*.

aforementioned Palestine Grid (PG), which has been shortened to an accuracy of 100m.

⁸⁰ AIA = American Institute of Archaeology.

⁸¹ STOA - <https://pleiades.stoa.org/places/678360>.

⁸² 1 Macc. 10,83-84.

⁸³ Harvard Univ. <http://maps.cga.harvard.edu/darmc/> , DARMC Loc. 10218 and 10219.

⁸⁴ Ios. Bell. Iud., 3,3,5 see also Chapter 2 of this work.

⁸⁵ Ios. Ant. Iud., 16,9,1-3 see also Chapter 2 of this work.

⁸⁶ Geonames.org - <http://www.geonames.org/165604/khirbat-ra-fah.html>.

⁸⁷ Schumacher 1920.

5 Raeptha, Raphana and Arpha on the North-Eastern boundary of the Herodian empires

5.1 Overview

While previously assumed positions can now be plausibly excluded, a new exact delimitable area emerges for the location of *Raeptha*, *Raphana*, and *Arpha*.

Kiepert's 1842 map, is extremely precise for its time, showing that many handed-down traditions and old Arabic maps have been helpful in compiling such locations. In contrast to later maps, which are based on trips by European travelers, it is assumed that these maps were compiled with additional resources, as there is no literature that mentions *Arpha* during this period. Therefore, based on the ancient literature, local names, and old traditions (see Chapter 2), this map correctly concludes that *Arpha* is within the area that is known today as *Ar-Rafi'ah*.

Based on an extensive evaluation of satellite images by different sources and various literature searches, the following chapter explains where the sought-after location is most likely situated and what archaeologically relevant evidence can be proven even without the possibility of physical research or excavations at this time. Several sources of satellite images were checked; however, for a relatively small area like a city or settlement, only the highest resolution sources are helpful. The Sentinel satellites of the 1960s, the Corona satellites developed between 1960 and 1972, the Landsats of the 1970s and-1980s, Ikonos, and others, are only useful for locating streets, aqueduct lines, and so on because of their maximal resolution per pixel of 60cm⁸⁸.

In 2011, Kennedy, one of the world's leading aerial archaeologists, referred to the newly opening "windows" for scientific research through freely available Google Earth data⁸⁹. At that time, he was still referring to submeter resolution images; however, in recent years, the resolution of the images has improved significantly. This high level of quality and resolution can barely be increased even by buying expensive images (usually area packages per km²).

Current satellite images, provided for free by Google, Maxar, Bing, and others, and additionally connected with digital height data, offer a 16-times-higher resolution (15cm/pxl) and the very important possibility of 3D oblique views.

In addition, a direct comparison of the shadow cast and images over different seasons is a decisive advantage compared to other resources. As such, it is important that all mentions of "satellite images" within this chapter refer to the commercial but high-resolution satellite imagery of Maxar, Spot, and other images provided by Google/Alphabet Inc.

In today's Syrian district of South Ghouta, along the Limes (Roman border defense Line), which existed at that time towards Arabia, lies a former city area. A main fortress (165m x 165m) with a walled extension (N-S 530m x E-W 360m) and a total circumference of approximately 1.8km forms the main complex. In addition, further ruins, "extra muros," and eleven until-now undiscovered auxiliary forts were found in the immediate vicinity. The dimensions of these nearly square forts or temporary siege works are between 45m and 109m⁹⁰. The sum of the areas surrounded by ramparts or walls is 20 ha (~49 Acres) alone, not including the other settlement areas with ruins lying outside. After analyzing satellite images from different years, numerous wall structures immediately outside the perimeter walls of the main fortress of *Ar-Rafi'ah* can be identified as surface and vegetation features. These have no connection with current buildings, agricultural use, or current pathways and are, therefore, likely to be dated as older. This can also be verified by the fact that these structures are partially covered by modern ramparts or edgings. This total area, excluding the area of the well called *Bir Qassab*, covers approximately 42 hectares and is three times as large as the walled-in fortification/settlement area.

Including the forts and at least two permanently pouring springs, the area of the town/military station was almost 3 km² (300 ha). Lastly, possible remains of a presumably Nabataean fortress on a natural plateau can be demonstrated using high-resolution satellite imagery.

⁸⁸ USGS, according to the USGS, which provide several datasets, for instance the Corona satellites have a max. resolution/pixel between 40 and 6 feet (12m to ~1.80m) This is 144 times lower than the Google/Maxar images.

⁸⁹ Kennedy-Bishop 2011.

⁹⁰ Kleb 2021a.

A system of wells and a Qanat system (underground tunnels that transport water under the surface using gravity⁹¹) of several kilometers in length are also proven here for the first time, indicating that this site was an important location at the time. It was able to block and control the direct route between Arabia and the Mediterranean Sea due to its strategically optimal location. Moreover, it lies at the intersection of important regions and areas of local interest: northeast of the *Ledja/the Trachonitis* (the western Trachon), north of the Batanaea-plain with the Hauran-Mountains behind, and at the same time at the western edge of the second eastern Trachon with the Tulul es Szafa and large lava caves at the east and southeast⁹². For an overview, see Figure 5.

The unusual accumulation of auxiliary forts and the main fortress, which was comparable in size to the original legion fort in *Bosra*⁹³, defended the Damascene hinterland with its meadow lakes, known as the Fourth Paradise, against intruders who invaded along the route still called *Derb el Ghazawat*, translated as Road of Raids in the 19th century⁹⁴. Based on the border situation and the information about an original Nabataean fortress located there, we can estimate the locations of *Raepta* and *Arpha (Arefa)* based on the size of the garrison stationed there by Herodes. This can be estimated in light of the previously researched history of the already identified cities of this covenant and the given time span between the establishment of the military post with 3000 men around 9 BC and the omission of *Raphana* in the enumeration of Cl. Ptolemy around 150 AD.

From this, it is also possible to determine the expected size of the location in this period. For the time of Plinius's description, an area of 10-15 hectares can be estimated for the fortified Hellenistic city centers of *Gerasa*, *Gadara*, *Philadelphia*, and *Scythopolis*⁹⁵. The area of *Hippos* was clearly smaller due to its limited hilltop position⁹⁶. All the cities mentioned here developed from a hilltop or elevated fortress built in Hellenistic style on much older settlement sites. Only gradually did the locations grow outside of the original fortress walls or within extended city walls, as can be seen clearly in *Gadara*.

Scythopolis's central location seems to have been advantageous within the Roman-dominated clientele kingdoms. This location allowed it to grow earlier than other cities, around its protective and old settlement, *Tell Bet She'an*, to its environs. This also provided the initial spark for further development through the trade of products planted and manufactured near the settlement. It can therefore be assumed that the growth and possibly also the long-continued existence of a settlement depended directly on its general security situation in the immediate vicinity and its available resources.

A military fortress city located close to the border, such as in Pliny's description *Raphana*, which was also positioned in an arid region, certainly did not have the same development potential during these times as the other Decapolis settlements, even if they presented a similar account of inhabitants at one point.

Towards the south, wrapping around the lava field of *Ar-Rafi'ah*, several ruins of further forts at the eastern extent of the lava flow can be found. Old maps showing the landscape of *Hermije*, or the Plain of the farmers, and the *Plain of Batanaea* up to the foothills of the *Hauran* Mountains in this region. The course of the forts represents the logical continuation of Herods' security actions against the raids from the outside⁹⁷. Located in (Area of) *Batanaea*, an location called *Bathyra* was given to the Babylonian Jew Zamaris as a military post. Therefore, not only the *Dur Beni Israel* at the eastern edge of the *Ard el Batanaea* or also the *Tell Israel*, east of *Shabha*, at old maps refer additionally to this location. Inside the area southeast of *Sakkaea*, which is additional delimited by the above-mentioned places, is the 1470m high and striking *Tell Basir*, found directly north of *Turba* and south of *Tima*⁹⁸. Such landmarks have always formed

⁹¹ Middle East Institute - <https://www.mei.edu/publications/harvesting-water-and-harnessing-cooperation-qanat-systems-middle-east-and-asia>.

⁹² This is the second *Trachonitis* with caves, which was considered as a retreat after the raids and in which, according to Josephus, up to 4,000 robbers could hide from persecutors.

⁹³ Piraud-Fournet 2014, 351-376.

⁹⁴ Note the parallel to the predatory incursions into the kingdom of Herod and the Damascene area during the last decade.

⁹⁵ Compare to this paragraph: Hoffmann 2002.

⁹⁶ Schumacher 1886, 168f.

⁹⁷ At Strabon, as already mentioned in the first section, this measure is assigned to the Romans for simplicity's sake, which is also correct in terms of content due to the mandated clientele kingdoms.

⁹⁸ See also the same view on the position of *Bathyra* directly north of *Qanawat*: Schalit 1969, Map 3- Palestine

the basis of name assignments throughout the world. Furthermore, the southern and eastern border point to the Nabataean-dominated southern Hauran and the desert area of the *Tulul es Szafa* and *Harra* in the east and southeast were located here during the period of up to 106 AD.

At this time, the location at *Ar-Rafi'ah* must have played a geographically and strategically central role in this chain of Roman border fortifications from *Ad Dumayr* in the north to the heights of the northern *Hauran* Mountains near the landmark *Tell Bassir* and *Ed Diyateh*.

This justifies together with the real existing archaeological remains, the connection established here with the *Raphana of the Decapolis* and the later *Arpha/Arefa*.

5.2 Details of the Location

Thus, the question arises at this point of whether this place could have been a Decapolis city. The area, also known as *Ar-Rafi'ah* and *Ard al Fanah* plain¹⁰⁰, nowadays bears the modern names of *Bir Kasam*, *Bir Kesáb*, or *Bir Qassab*⁹⁹, named after a large water basin with a strong well, which has survived from Roman times.

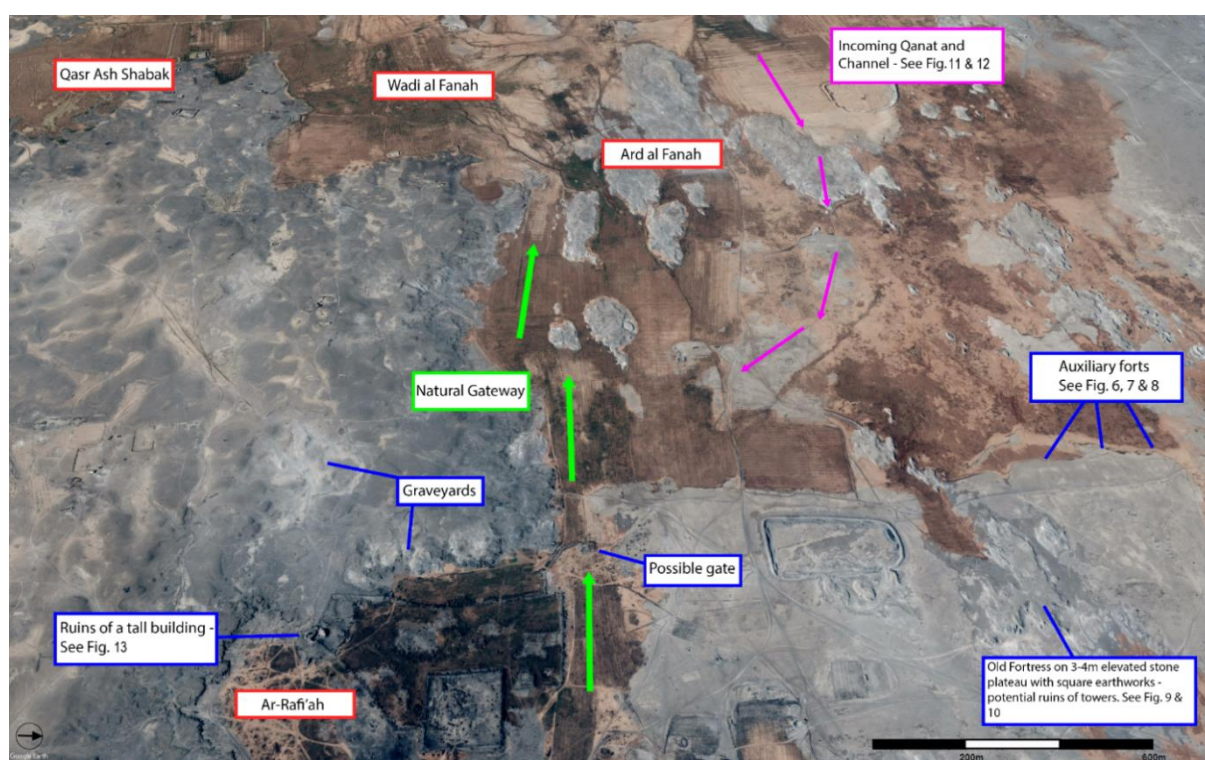


Figure 5: Overview Ar-Rafi'ah / Bir Qassab from East. (Google / Maxar Technologies 2021)

Due to a unique accumulation of misunderstandings of the explorers at that time, the aerial photograph taken by A. Poidebard in 1932 and published in 1934, except for the general description of the well in Wetzstein's note, is the only real information in modern times related to this location.

The confusing multiple name changes, the lack of detailed descriptions, the lack of size information and the lack of reference to dimensions on Poidebard's aerial image (see Fig. 15) lead to the likelihood that the area was forgotten and has probably not been archaeologically explored before.

In the Spring of 1858, Consul J. G. Wetzstein reported on the alleged location of *Bir Kasam*, which he only rode by at dusk. He characterized it as the only watering place at the busy "*Road of Raids*" on the border between the *Ledja*, the *Damascene meadow lakes (Ghouta)*, and the *2nd Trachon*, a large volcanic hill area (*Jebel es Szafa*)¹⁰⁰. However, the map created according to Wetzstein's records shows a position

at the time of Herod.

⁹⁹ Geonames.org - <http://www.geonames.org/170652/rif-dimashq.html>. and others.

¹⁰⁰ Wetzstein 1860, 3f.

Therefore, it can be concluded that Burton and Drake like Wetzstein before have never found the main fortress and have most probably visited a fort called *Kasr ash Shabak* near *Umm es Saad* to the southwest and later the other forts/Deirs north of *Bir Kasam*¹⁰³.

While these small forts, located 12, 15, and 19 km further north and called *Dijura*, or the three Monasteries, could be photographed by A. Poidebard, they are difficult to identify nowadays, as they have been almost completely destroyed¹⁰⁴.

Against that, the main fortress of *Bir Kesâb/Bir Qesab*¹⁰⁵ (*Ar-Rafi'ah*) shows hardly any visible changes since the aerial photograph of 1932 by Poidebard. Even the large-scale ground plans of the buildings inside the surrounding wall are still visible (as seen in a comparison between Figure 15a and Figure 15b). Only some old and also newer topographic maps refer to Roman ruins¹⁰⁶ at this Location although neither, the pioneer of aerial photography, Poidebard, nor Kennedy/Riley much later,¹⁰⁷ describe this location in detail or had visited it.

In addition to the main fortress with its 1800m long surrounding wall, there are, as already mentioned, at least 10 further auxiliary forts visibly lined up like a string¹⁰⁸ (See Fig. 7). An eleventh fort is positioned a short distance to the west on a road to Damascus. These sites were completely unknown before this current research. This unusual agglomeration underlines the importance of the location and also fits the descriptions in the ancient literature (see Chapter 2). Positioned between the northern and southern ranges of hills, these ten forts were very likely built in Roman construction style. They are equipped with still partly-recognizable "titulum" in front of the entrances (small sections of ditch and bank designed to halt assaults on the gateways of Roman camps)¹⁰⁹ (See Figs. 8 and 9).

Very similar forts are described by Kennedy at *Tell Abara/Jordan* and *Qasr El-Feifeh*¹⁰⁸, as well as by Glueck at *Wadi La'aban* and *Qasr Feifeh*. Glueck¹¹⁰ sees a presumably "Nabatean-Roman" dating for this construction, which Kennedy does not immediately accept without precise evidence. Nevertheless, he also clearly sees a military object and classifies *Qasr El-Feifeh* (East) in the "large forts without external towers" category.

However, *Ar-Rafi'ah* contains an agglomeration of 10 plus 1 of these forts in addition to the main fort. As far as the author is aware, such a massive concentration of forts is unique and will also not be reached by the siege ring around *Masada* or *Machaerus*, which has lasted for years. It should be noted, however, that these temporary Roman forts of the 1st century AD look very similar, although the entrances here were usually protected by a "clavicula" and not by a "titulum." However, both are protective devices, which were already described as suitable and tested by Hygin (Hyginus Gromaticus) in his manual from the 2nd century AD¹¹¹.

¹⁰³ Burton – Drake 1872, 244.

¹⁰⁴ Poidebard 1934.

¹⁰⁵ The notation according to A. Poidebard and Barrington Atlas: Talbert 2000, Map 69.

¹⁰⁶ Bir Qesab: Poidebard 1934; General Staff USSR Maps 1980-87; Talbert 2000; Harvard Univ. DARMC ; STOA, Pleiades.

¹⁰⁷ Kennedy – Riley 1990, 107, Fig. 55; 144-145, Fig. 88.

¹⁰⁸ Kleb 2021c.

¹⁰⁹ Keys To The Past see Titulum - <http://www.keystothepast.info/Glossary?AZ=T> .

¹¹⁰ Glueck 1970, 62f, Fig. 24-25.

¹¹¹ Hyginus Gromaticus, De munitionibus castrorum.



Figure 7: View with 10 of the 11 discovered auxiliary forts. View from the South.
(Google / Maxar Technol. 2020)*

* for further details, see Kleb 2021a.

The area of *Ar-Rafi'ah* formed the natural barrier of the route between the *eastern Trachon*, the *War es- Szafa*, or also known as *Diret et Tulul* on one hand and the Areas of *Damascus* and the *Trachonitis* within the former Decapolis on the other (western) side. Even in the 19th century, this route was still referred to, by the ancient name of "*Derb el Ghazawat or Road of Raids*." It seems to be very plausible that, this "*Derb*" was so-called, due to the permanent raids coming from the *Trachonitis* (the eastern one) towards the territory of Herod at this ancient border (see Chapter 2).

A barrier with a ditch or vallum¹¹², similar to a siege wall, can still be seen today from *Ar-Rafi'ah*, running several dozen kilometers towards the north up to *Dumayr* and, after that, towards *Qasr el Seyqa*¹¹³. D. Kennedy 1990 mentions a similar defensive wall at *Hatra (Al-Hadr)* in Iraq (shown in Kennedy Fig. 54)¹¹³.

Immediately northwest of the main fortress and within this artificial barrier is an area of about 30 x 30m and a polygonal area of about 90 x 90m, both of which can be seen on satellite images. This is also marked on the Russian general staff map as "*Rasb*," a ruin field.

The smaller rectangular area probably represented an outpost or a gate, which needed to be passed as a barrier along the natural passage from east to west¹¹⁴ (see Fig. 5 "*possible gate*"). Many other structures are still visible in the immediate vicinity of *Ar-Rafi'ah*, but they cannot be clearly attributed to Roman origin. Here, only archaeological surveys of the entire area would lead to clarification. Unfortunately, the entire district was not only fought over during Roman times but is today one of the fiercest battlegrounds of the Syrian Civil War.

The position is very strategic, as it is the logical dividing line between the western *Trachonitis* (el *Ledja*) and the *plain of Batanaea*, which lies immediately south of *Ar-Rafi'ah* and the desert. Here also begins the *eastern Trachon* or *Es Szafa*, which was initially administered by Arabic tribes and the Nabataean Kingdom (see Chapter 2). This location protects and controls the only waterhole in the region. As such, it corresponds very well to the known military rules of the Roman era^{115 116}.



Figure 8: Remains of five auxiliary forts near the main fortress from the East. These were partly equipped with clearly visible titulum barriers positioned before the entrances. Oblique view from the East.

(Google / Maxar Technologies 2021)

¹¹² Tac. hist., 2,19f ; 3,26,2.

¹¹³ Kennedy – Riley 1990, 40, Fig.9 and 106, Fig.54.; Geographical Section General Staff 1915; Conder – Kitchener 1897-1925.; Army Map Service 1941, <Digue Romaine> in Section 24E18N.

¹¹⁴ See: the course of the green arrow in Figure 4 at the overview of *Ar-Rafi'ah*.

¹¹⁵ A. Poidebard 1934, mentions *Bir Kesâb*, together with the "3 *Dijura*" to the north as the <Defense de Damask>.

¹¹⁶ Le Bohec 1993, 171f.

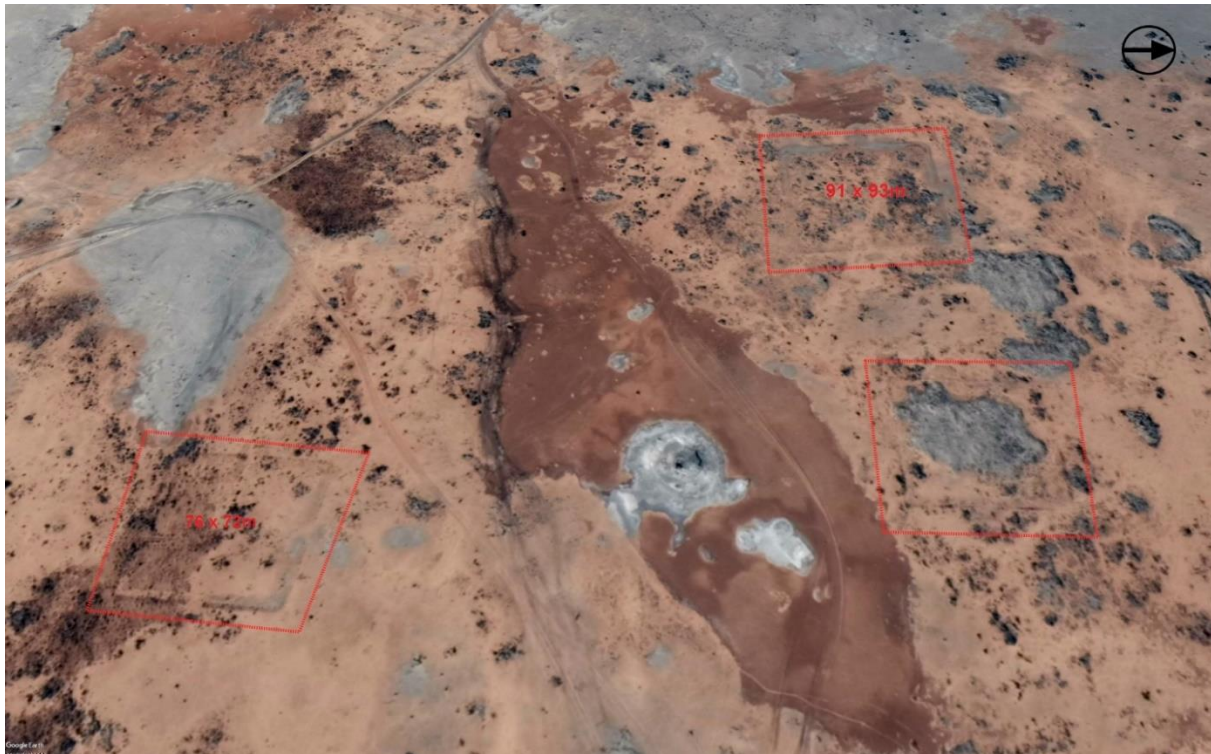


Figure 9: Three further auxiliary fort or stratopedon north of Ar-Rafi'ah in an oblique view from the East, also equipped with titulum. (Google / Maxar Technologies 2021)

Ar-Rafi'ah is also located at the eastern end of the *Ghouta* meadow lakes¹¹⁷. Due to its beauty, this region, which has always been connected to *Damascus*, was named one of the four paradises by 14th-century Kurdish historian, Abulfeda. The last offshoot of the *Nahr el Barada* river ends exactly near *Ar-Rafi'ah*. Due to its location, it was able to protect this particular area from eastern intruders.

On a natural plateau-like terrain one kilometer north of the main fortress and thus in the immediate vicinity of the other forts found, the remains of another possible fortification can be found on satellite images. On the plateau, which rises a few meters above the surrounding plain, was an outer wall approximately 550m in length, interrupted by numerous square towers (See Fig. 10 and 11).

The visible remains of the foundations of these towers have a base area of about 4x4 m and extend along the break-off edge of the plateau. This complex could plausibly be the remains of the *Raepta* fortress that was captured and destroyed under Herod. This indicates that at least one of the ruins mentioned could have been of Nabataean origin since a similar constellation can be proven for *Avdat/Oboda*¹¹⁸.

Whether the main fortress, connected with its extension wall and its almost square ground plan, was built later as a reduction fort or if it existed from the very beginning can only be clarified by field research.

However, it can be stated that this is a typically-sized "Quinary" or military "Alen" fort, as would also be assumed for Arefa of the Notia Dignitatum. The development of the site can also be compared with other sites. The archaeologically documented rise and fall of the Roman military camp and the town of *Rapidum* in *Sour Djouab* in today's Algeria exemplifies this¹¹⁹.

¹¹⁷ Seasonal only, these shallow lakes are located southeast and east of Damascus.

¹¹⁸ Lindner 1970, 167, Abb.6.

¹¹⁹ Le Bohec 1993, Anh. Abb.38.

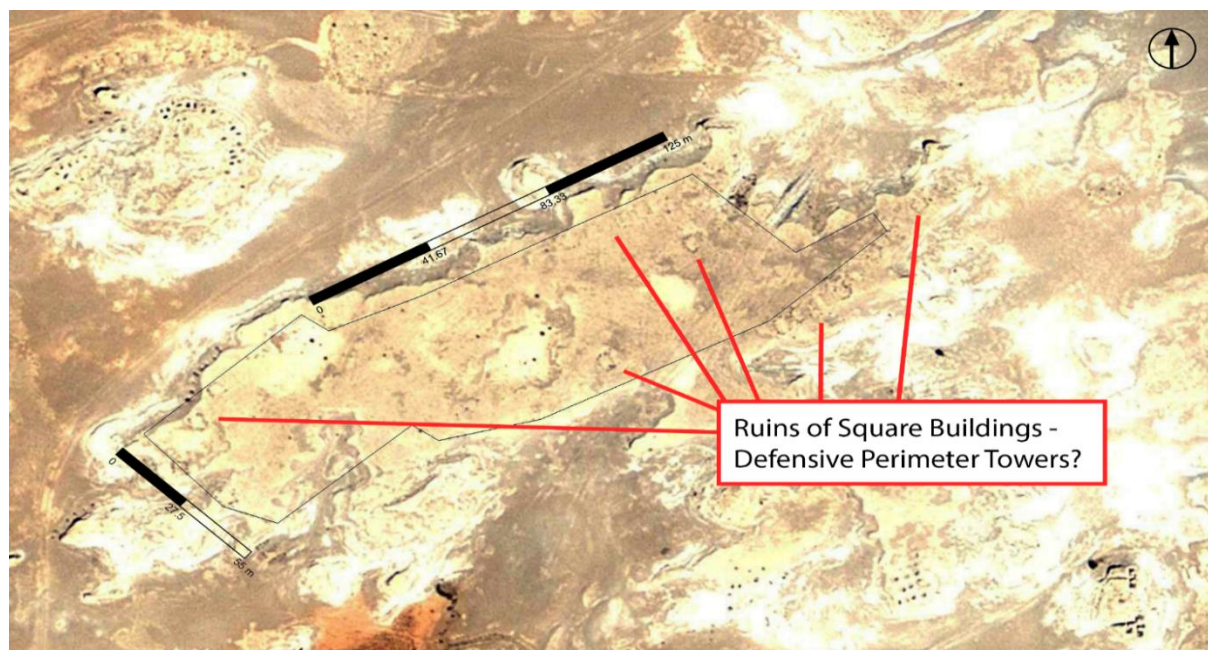


Figure 10: Remains on an approx. 3-4 m high plateau. Ruins of square towers on a detention wall. Looking from the South. (Google 2010)



Figure 11: Detail of Fig.10 on a 2016 Image, contrast edited. Looking from the South. (Google / Maxar Technologies 2016)

A water supply is essential for a military settlement or the development of a city area of this size. Here too can a parallel be shown with other important settlements within the Decapolis region. Originally dependent only on springs and surface reservoirs, the increased demand for water was covered by artificial water supplies that were built as the cities grew. In addition to the numerous examples of such water supply systems within the Decapolis, other water pipe systems built at the same time in more arid regions of the Levant that were also connected to settlements and Roman military stations can also be found.

The original construction of these Qanat systems is dated between the 1st and 4th centuries AD¹²⁰. Starting from the meadow lakes, running east to *Ar-Rafi'ah*, and verifiable up to about one kilometer before, various Qanat construction shafts and channels indispensable for a city foundation can be found.

The total length of the currently detectable Qanat sections, which supplied the city and forts, is more than 10km long (see Fig. 12). Based on the size of the excavated material amassed around the construction shafts, an approximate depth of 4-6m below the surface can be calculated based on the mean distances of the shafts from each other and with a usual cross-section of 0.6 x 1.2m (w x h).

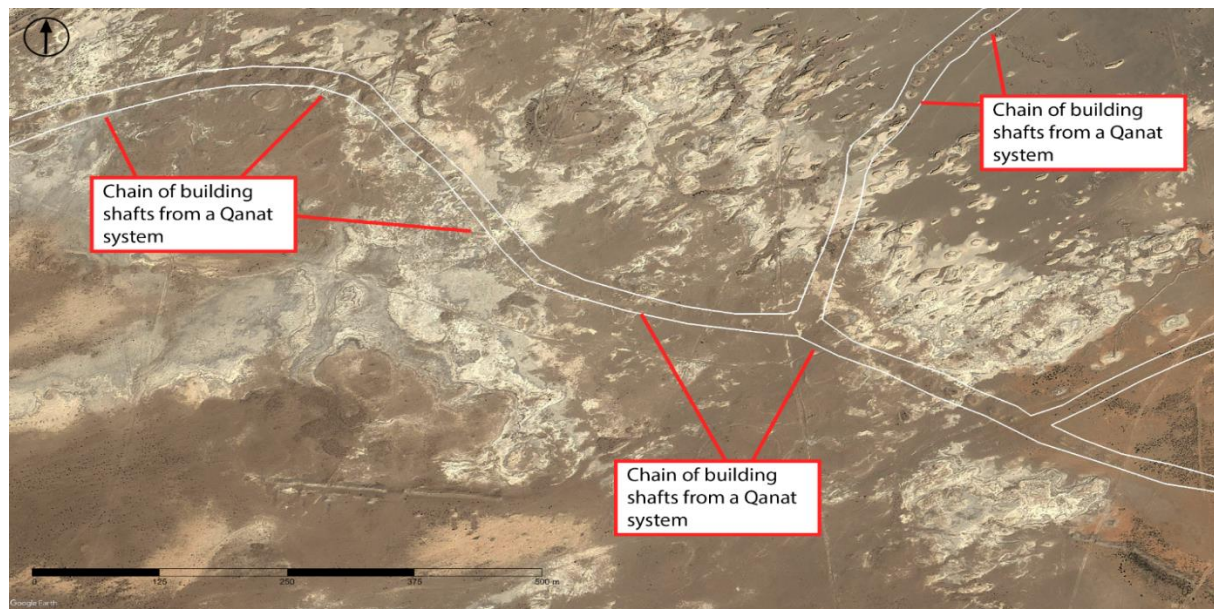


Figure 12: Arriving Qanat system west of Ar-Rafi'ah looking from the South. (Google / Maxar Technologies 2021)

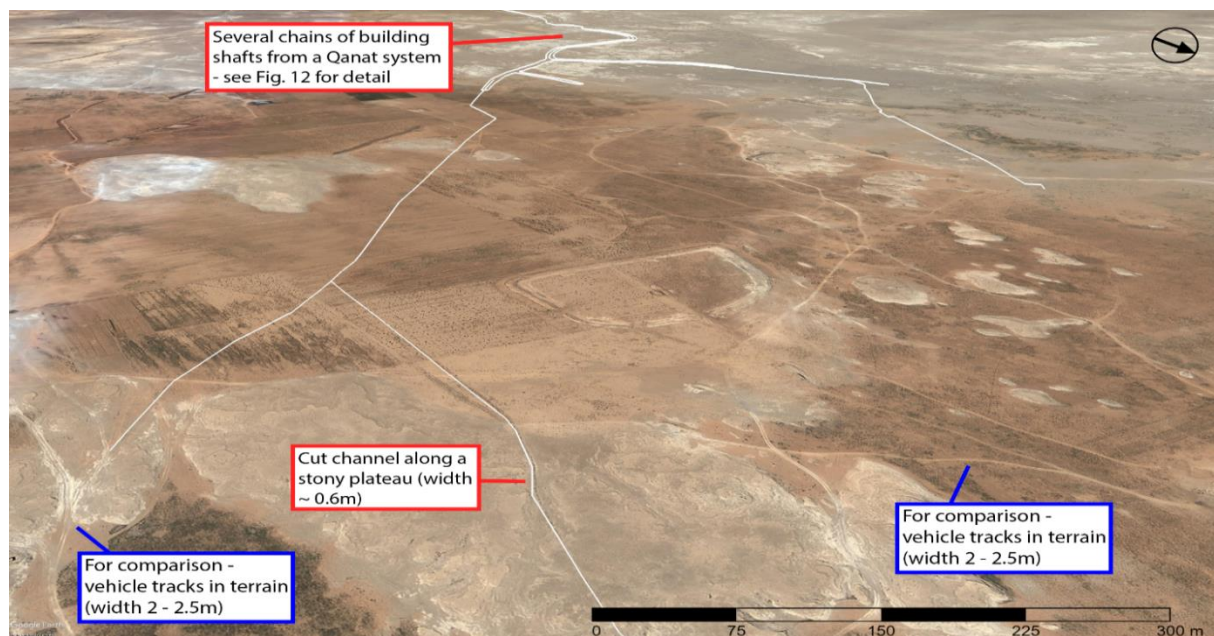


Figure 13: Stone plateau with cut-in channels west of Ar-Rafi'ah. Oblique view from the East. (Google / Maxar Technologies 2021)

¹²⁰ Lightfoot 1996, 321–336.

In one area, a channel half a kilometer long cut into the rock and running through a flat rock plateau could also be detected (See Fig. 13). The estimated width of the channel is about 0.6m. Abudanh and Twaissi¹²¹ showed that, in the Roman military camp of *Udruh* near *Maan*, Jordan, some similar-looking channels running on the surface were built, possibly in the same style, to reach and fill the final reservoirs or cisterns at the Qanat tunnels.

These parallels and similarities had to be conclusively proven for *Ar-Rafi'ah* as well due to further direct archaeological research.

The high resolution of the satellite images used in this study may show some indications for this but can also only show the most striking parts of the relevant building substance. One of these imposing features, which was analyzed during the current research, could very plausibly be interpreted as a Theatre or Odeon. This may feature a half-circled Cavea with a possible orchestra pit situated in the middle of it. In front of this complex, which is oriented to the east, is a possible Scaenae frons (elaborate theatre backdrop) that encloses the orchestra area to the east. This can be discerned according to the analyzed shadows and varying crop marks on different satellite images. For the best impression of these, see Figure 15 (a short distance to the left of the middle of the image).

In addition to smaller visible remains of buildings within the main fortress, there are seemingly solitary, self-contained walls of buildings up to 3500m² within the extended areas, which certainly bear a civil or urban character. Signs of recent looting or grave robbery can be seen by comparing satellite images in many areas of *Ar-Rafi'ah*. At the southern tip of the outer wall, there is a particularly remarkable ruined building visible on satellite images. Nothing can be confirmed in detail about its function and exact appearance, but the enormous effort that was put into the site during the Syrian Civil War (2011 - 2016) suggests a very promising source for looters. An analysis of the debris suggests that about 800-900 m³ of material was moved from an area of about 30 x 30 m and deposited at the site.

The remnants of a large tall building (potentially a bath or church) are confirmed by the remains of an exposed northwest and northeast wall with a free height of approximately 6-7m¹²².

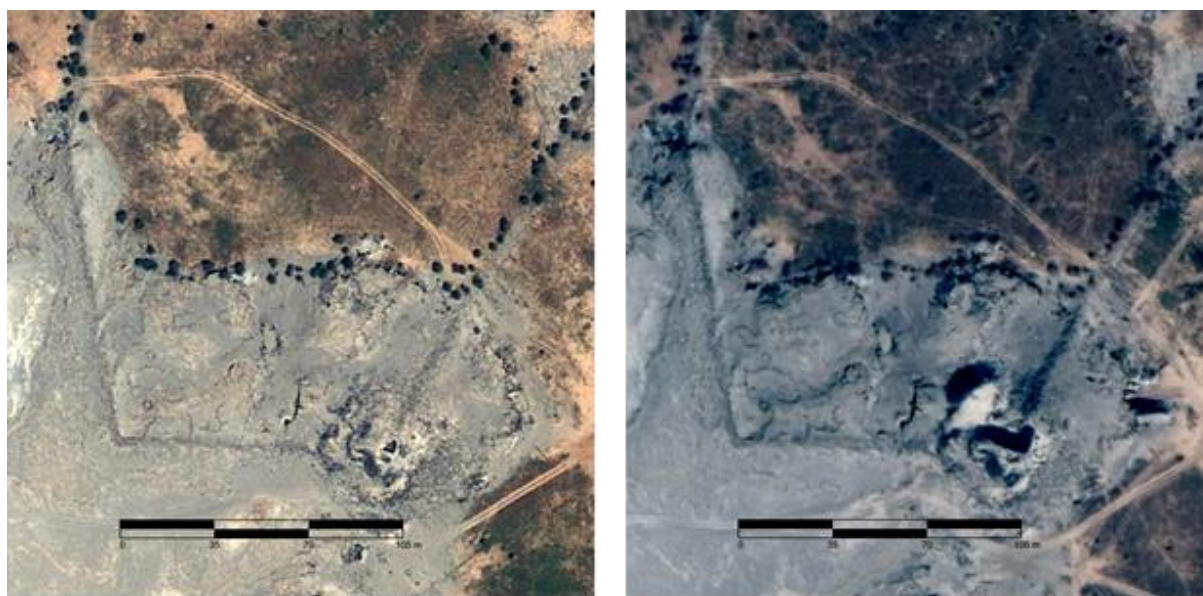


Figure 14: Comparison of satellite images of a possible bathhouse or church ruin between 2010 (L) and 2016 (R). The rearranged debris mound is clearly visible. View from South.

(Google / Maxar Technologies 2021)

¹²¹ Abudanh – Twaissi S. 2010, 67–87.

¹²² The size and volume were determined by comparing the satellite images provided via Google Earth, with dates between 23.07.2011 and 31.01.2016. The heights were determined according to the usual slope angle for loose material of approx. 1:1.5 and can also be higher in real terms.

The transformations within this area can be estimated by a comparison of different satellite images until 2016. Further suggestions on this structure cannot be made at this time, and continued looting will only further obfuscate the site (see Fig. 14).

In an area of at least 10 km² in the immediate surroundings of *Ar-Rafi'ah*, especially to the west and south, an unusual accumulation of graveyards and grave monuments are recorded in the very accurate Russian general staff maps. The larger graveyards, which can also be verified on the satellite images, have areas of 0.6 and 0.4 hectares and are visibly looted, even on these images¹²³.

5.3 Possible reasons for the decline of Raphana

The question remains, however, why *Raphana*, which at that time was certainly comparable with other cities of the kingdom and the *Decapolis* in terms of its population (military and civilian) and area, did not develop in the same way.

Emerging from urgent military needs and of particular importance for the security of the entire region, *Raphana* became famous, despite some of the harshest living conditions within the *Decapolis*. In addition, it can be assumed that the military under the Herodian dynasty consisted of sons of these cities, and thus their relationship with each other was further strengthened. In addition, even with complicated irrigation and cultivation methods, not all the necessary resources could be cultivated or made available by the settlements themselves. These resources had to be imported from afar and paid for at a correspondingly higher price. The necessary, permanent and yet limited availability of water set natural limits to the development of the population. Exactly these characteristics, which only apply to this particular region within the *Decapolis*, can plausibly explain the decline of an urban settlement. This also speaks for the localization of *Raphana* at *Ar-Rafi'ah*, as all other cities had grown naturally on their ancient settlements. While the rest of the region and the other *Decapolis* towns could develop due to the protection granted in the middle of the kingdoms, and almost all, without exception, later became episcopal sees, this was not the case for *Raphana* in its border position.

When the economic incentive for enduring hardships disappears, a population then migrates. The most plausible reason for the decline of the city of *Raphana* lies in the relocation of the former border to the east and the expansion of the Roman roads at the end of the 1st century, or, at the latest, after the end of the Parthian Wars around 162-166 AD. The aforementioned climatic circumstances, or a combination of the two, were other possible reasons for this.

For the inhabitants and the military, the settlement of *Phaena*, today's *Musmija*, located a little further to the west on the northern edge of the lava plateau, *Trachonitis* (also called *Ledja*¹²⁴), offered a successor settlement, which developed rapidly exactly at this time. Strategically elevated on the edge of this lava plateau and thus naturally protected, it was directly connected to *Damascus* and *Bosra* by the newly built Via Nova Trajana, and so took over the position of *Raphana*¹²⁵. Numerous building inscriptions document the presence of the Roman legions III Gall. and XVI F.F. at this place, which is generally also connected with *Raphana*^{126 127}.

Nearly all inscriptions at the Site of *Musmija* date back to the second half of the 2nd century and have testified to a long and settled presence of the mentioned Roman legions. The inscriptions *Phaena/Phaenos* also mention it as the main location (Metrokomia) of the *Trachonitis*¹²⁸. The Peutinger map lists this place as *Aenos*, between *Damascus* and *Canatha*, which corresponds to the ancient *Phaena/Phaenos* according to the given Roman miles.

¹²³ General Staff USSR 1980-1987, I-37-98.

¹²⁴ Here, only the western Trachon is meant.

¹²⁵ Together with the smaller settlement of Buraq to the east, the later Constantia in Arabia.

¹²⁶ DuBois 2015, 171.

¹²⁷ STOA - <https://pleiades.stoa.org/places/678360>.

¹²⁸ Burckhardt 1822, 203f.; Waddington 1870, 573, see in particular XIX; Stoll 2001, 72–74.



Figure 15: Ar-Rafi'ah / Bir Kesab Photo by A.Poidebard 1932 and a current satellite image in direct comparison. Note the possible theatre in the middle-left section of the Image. Oblique view/aerial view from the north-west. (Google; Digital Globe 2018)

6 Conclusion

The first description made by Pliny the Elder fits only to a location on the eastern border of the Decapolis. Fl. Josephus recounted the battle at the Nabatean-protected location of *Raepta* and the subsequent great military stronghold at this location during the time of Herod. Pliny the Elder called this Place *Raphana* together with all the other Decapolis cities. Thereafter, for the empire of Agrippa I and II, Fl. Josephus also revealed that *Arpha* was located at its eastern border. The suggestion that this was more than plausibly also identical with the place of *Arefa*, which was mentioned in the Notitia Dignitatum and in conclusion of all, was a not unusual prescription of *Raphana*, has also already been discussed in various earlier studies. In addition all these Locations were, according the literature, positioned on the easternmost border of the empires of the Herodian dynasty.

Therefore, the common link between the names of *Raepta*, *Raphana* and *Arpha/Arefa* is recognized as one location or city, in current literature as well as in the important Barrington Atlas (Princeton Uni.) and the DARMC Atlas (Harvard Uni.).

However, up until now, the physical and plausible location was missing, which, beyond an existing possible name similarity, also features characteristics of a military presence in the form of a verifiable large fortress (analogous to the classification from D. Kennedy as "fortress city"), or even those of a city area.

For this reason, a possible connection to *Raphon* of the Maccabees was used until today to locate *Raphana*.

In the course of this research paper, it could be shown in contrast that, there is no valid evidence for the location of *Raphana/Arpha /Arefa* or their predecessor *Raepta* much farther to the west and in the centre of the ancient empires. Moreover, it is only because of the similarity in names that a connection has been suggested between *Raphon* and *Raphana*. This connection without any archaeological proof, is no longer tenable. The conclusion is based on the shown extended literature analysis and the presented real archaeological remains at the historical right position, which were provided within this paper¹²⁹.

The location *Ar-Rafi'ah*, which is combined here with *Raepta*, *Arpha* and *Raphana* for the first time, completely fulfils all conditions of the ancient literature and the expected settlement features. The area (N-S 530m x E-W 360m), which can still be seen today, and which is enclosed by walls, already has the comparable area of the legionary fort of *Bostra/Bosra*, even without including the previously completely unknown eleven auxiliary forts and the partially visible ruins of "extra Muros". Inside the main fortress walls, remains of large building complexes are visible on the analyzed satellite images.

One of these could be very plausibly interpreted as a theatre or odeon, with a half circled cavea and a visible scena at its front. As has already been proven for most of the other Decapolis cities, there is an elaborate water supply system, coming from the protected western side to the city area. In addition, the accumulation of individual graves and entire graveyards point to the expected population number of a city during ancient times at the *Ar-Rafi'ah* area.

¹²⁹ There is also no further need to look for a renamed decapolis city because the cities of *Kapitolias*, today's *Bet Ras* or *Abila*, nowadays *Tell Abil* and *Umm el Amad* were already indirectly mentioned by Pliny the elder with his account of the Decapolis empire of Ampeloessa, "The Vine Kingdom".

See: <http://www.dekapolis-aquaedukt.de/en/home/die-dekapolis>.

This is also proven by the "noble *Abila Vиноferos*", located 12 miles east of *Gadara*, as mentioned by Eusebius and Hieronymus. See: Menochio - Tournemine 1758, 154, Abela.

Since N. Fuller, as excavation director at *Abila*, did not believe in an equality of *Abila* and *Raphana* either, she searched for it in *Er-Rafid* in the Golan west of *Nava* because she did not find the location of *Râfa*, or considered it as inadequate to *Raphana*. See on this: Fuller 1987, 25.

According to A. Poidebard's reconstruction of the Roman roads, at least five important road connections met at this strategically important place—more than in any other Decapolis city.

In summary, it is highly probable that the location of *Ar-Rafi'ah*, well-known today as *Bir Qassab* is the ancient site of *Raeptha /Raphana/ Arpha*. The same also applies to the military base of *Ala Secunda Salutis*, called *Arefa*, as mentioned in the *Notia Dignitatum*. Since all known parameters from ancient literature fit to *Ar-Rafi'ah*, positioned within the plain of *Ard el Fanah*, this equation, in contrast to all previous assignments in the literature, is highly plausible.

Phaena, as the main settlement of the region, succeeded *Ar-Rafi'ah* our *Raphana of the Decapolis*, possibly after the 1st century AD. It is highly plausible that, after the Parthian War, the *Limes arabicus* was shifted and the exposed Position of *Ar-rafi'ah / Raphana* as a military fortress city at the Desert border was not more necessary in its extended dimensions. *Phaena*, on the other hand, flourished in the 2nd and 3rd centuries AD, achieving the rank of a “Metrokomia.” During these centuries, this Metrokomia administered the entire area of the *Trachonitis*, which extended eastwards to *Ar-Rafi'ah* and the *Jebel es Szafa* and also westwards beyond *Aere (Es Sanamein)*.

Ar-Rafi'ah itself remains an important military station and was named as *Arefa* within the *Notitia Dig.* at the beginning of the 5th century.

Nevertheless, both locations could monitor and protect important trade routes from all directions and were, in addition, strategically well protected by their elevated position compared to the surrounding area. Hence, the Roman legions connected with *Raphana* can be proven to be connected with the region as a whole and with *Phaena/el Musmije* in the 2nd and 3rd century AD. This determination about the location of *Raphana* can now possibly also enable additional conclusions to be drawn about other current archaeological sites associated with the locations named in ancient literature.

7 References, Copyrights and Cited Works

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Data and supplementary information availability

Additional information's and details are provided in supplements A-C as part of this work. If required, further information on the region of the Levant examined here, can be found via the ORCID ID (<https://orcid.org/0000-0002-3304-2253>) of the author.

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