

**ROMAN MILITARY ARCHITECTURE IN ROMAN ARABIA:
A TRANSITION IN DEFENSIVE STRATEGY**

by

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A transition in defensive strategy

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ABSTRACT

Throughout the later Roman Principate and early Dominate a massive wave of fort construction swept the provinces of the Eastern Roman Empire, including locations in modern day Palestine, Syria and, more importantly for our purposes, Roman Arabia. Despite the diversity in construction and location of these forts, the precise motive for their construction in Roman Arabia is unknown. It is plausible that a variety of social, economic and military factors influenced the upsurge of construction here. The foundation of this construction, I believe, is clearly rooted in the military pressure felt, presumed or actual, in the East during the third, fourth and fifth centuries CE. This paper will explain how these fortresses exhibit shifts in regional strategy throughout the centuries. This study will examine several fortresses including el-Lejjun, Uduh, Qasr el-Azraq, Deir El-Kahf, and Qasr el-Hallabat, which will demonstrate the phases of a regional strategy in Roman Arabia.

This paper will demonstrate that the change in fort construction reflected changes in military strategy in the Roman East from roughly the time of the Severan Dynasty (193-235 CE) through the Heraclian Dynasty (610-711 CE). The period of the First Tetrarchy (293-305 CE) followed a time of crisis for the Roman Empire: politically, the third century saw the fall of the relatively stable Severan Dynasty, which had ruled, with a short interruption (the reign of Macrinus 217-18 CE), from 193-235 CE. There followed a half-century of civil wars and fragmentation of the empire (briefly) before the restoration of stability during the First Tetrarchy. As we examine the fortresses noted in this paper, we must focus on the function of individual

case studies of specific fortifications. These purposes are three-fold ascending in importance; first, the purpose for the construction of these forts and how any subsequent reconstructions may demonstrate a change in function. Second, how these forts interacted with others in the area, perhaps denoting a change in local tactics. Third and finally, how each fort was a piece of a larger puzzle that may exhibit Roman strategy throughout the entire region.

This thesis has four main sections. The first is background information, which will follow this introduction. The second consists of case studies of fortresses built along or near the *Strata Serviana*. The third deals with legionary fortresses built along the *Via Nova Traiana* (figure 1). The final section is an analysis of the function of these fortresses as a whole, which demonstrates how Roman strategy shifted in the East from the Severan Dynasty to the Heraclian Dynasty.

Many acclaimed scholars have studied the fortifications of the *limes Arabicus* ('*limes*' was Latin for 'frontier.' A *limes* was a zone on the frontier that included fortifications). However, for our purposes, those focusing in southern Roman Arabia are of greater importance. There is much debate among academics concerning the purpose of fortresses in Roman Arabia. Essentially, there are two distinctive schools of thought. The first concentrates on fortifications as a defense against external threats, both nomadic and sedentary. Historians like S.T. Parker identify with this position. The second focuses on the idea of fortifications as a means to quell internal dissent, which has support from historians such as D. Graf and B. Isaac. Both Graf and Isaac stress the lack of evidence concerning nomadic incursions and highlight literary evidence regarding internal dissonance. While both schools present strong arguments for their opinions, this paper suggests that neither school truly represents the purpose

of these fortifications over the *entirety* of the Roman occupation of Roman Arabia. At the start of the Roman occupation in Arabia (Post-106CE), certainly, these fortresses dealt mainly with the internal dissent that came with initial 'Romanization.' However, this changed with the rise of brigand groups in the third century and the growing Persian threat to the East. This argument will be expanded in the analysis section of Chapter 4.

Chapter 1

BACKGROUND

Roman interest in the East was essentially two-pronged. The first centered on the Roman desire for military control. During the first century BCE through the first century CE (and into the early second century), Romans adopted a practice of leaving client kings in power under Roman 'protection' - known as a 'protectorates' or 'client kingdoms.' This practice began with Pompey, who, during his march from Antioch in 63 CE killed many local tyrants, but allowed the most powerful to surrender and pay a ransom. Rulers such as Ptolemy of Chalcis suffered this fate and was forced to pay a thousand talents.¹ The client system was an invaluable fixture of Roman defense in the East during the late Republic and early Principate. Clients served several functions, first, as Edward Luttwak points out, they became a buffer between Rome and her enemies. Moreover, because they formed a defensive line of their own, they negated the need for continuous frontier defenses.² The client system, according to Luttwak, was the backbone of Roman grand strategy during the Julio-Claudian emperors. Certainly, it had its uses. Foremost, it eased the burden on the Roman

¹ Josephus, *Jewish Antiquities* 14.38-40.

² E. Luttwak, *The Grand Strategy of the Roman Empire from the First Century CE to the Third*, Baltimore: Johns Hopkins University Press, 1979. 19-28.

treasury by negating the requirement for frontier defenses. Furthermore, these client states added specialty troops as tribute, often in the form of cavalry and, in some cases, mounted archers, which supplemented the crack Roman infantry.³

The client system of the Julio-Claudians hinged on the might of the Roman infantry. The client system was contingent upon the fear that the Roman army induced. From there, it was a simple measure to garner loyalty. For example, King Herod of Judea, while in Augustus's good graces, received Ituraea in 24 BCE, which was taken from another client, Zenodorus, who had failed to suppress nomadic raids of his peoples.⁴ So, Roman security in the East under the Julio-Claudian system consisted of three factors: a chain of client states, which absorbed most of the burden of day-to-day security, the Armenian buffer, which protected against Persian invasion, and Roman forces in Syria.⁵

The client system began to change under Trajan (98-117 CE), with the death of the client ruler King ar-Rabil II (Rabbel II) of Nabatea, after which Trajan seized the opportunity and annexed the Nabatean Kingdom in 106 CE. The second prong of Roman interest was their thirst for wealth. The treasury of Rome had steadily diminished since the beginning of the Principate. The East was an extremely wealthy area and one, in the Roman view, ripe for the taking. The spice and incense trade routes through the East, including the spice route through Mesopotamia and the

³ Luttwak, *Grand Strategy*. 28.

⁴ Josephus, *The Jewish War* 1.20.4.

⁵ Luttwak, *Grand Strategy*. 118.

Incense Road, which ran from the Eastern Mediterranean to India and beyond, were alluring prospects for Romans to control. However, there is little doubt that the Romans understood the administrative struggles that accompanied their annexation of Nabatea. Chief among these was the size of the territory itself. The Nabatean Kingdom was simply too large to be incorporated into a pre-existing province and, therefore, the new province of Arabia had to be created. It is possible that the Roman annexation of Nabatea had nothing to do with the economic value of the area, although there certainly was an economic incentive. It is possible that it was simply the first move in Trajan's expansion plans. It was known that Trajan had imperialist thoughts concerning the East and it is plausible that he already envisioned acquiring Mesopotamia and beyond. If that were the case, the annexation of Nabatea rounded out his future territorial gains by taking control of the western edge of the Fertile Crescent and secured his right flank.⁶

Trajan was not alone in his annexations. His predecessors annexed clients before Trajan advanced into Nabatea. However, contrary to Trajan, none of his predecessors demonstrated obvious expansionist thoughts. Quite simply, these actions reflected the maneuvering that was needed to hold together the hegemonic empire and counter threats from Parthia.⁷ It was when the Romans began to seize more territory in the East that we see a growth in the number of Roman forts in the area. Some of these forts will be examined to demonstrate a shift in regional strategy.

⁶ S. T. Parker, *Romans and Saracens: A History of the Arabian Frontier*. Illinois: American School of Oriental Research, 1986. 124.

⁷ Luttwak, *Grand Strategy*. 40-42.

Trajan was an expansionistic opportunist to the core. In 101-102, CE he launched a campaign into Dacia. Within a few years, he was back to finish what he started and conquered Dacia in 105-106 CE. Less than a decade later Trajan seized the opportunity to attack Parthia. Under the peace treaty secured by Nero, which followed the war of 55 CE, an Arsacid ruler sat on the Armenian throne, but only by means of Roman investiture. In 114 CE, Persian King Osroes I (109-129 CE) placed his relative, Parthamasiris, on the Armenian throne without Roman blessing.⁸ Trajan seized this opportunity, despite the Armenian and Persian attempts to make peace. In 114 CE, he invaded Armenia, proceeded to capture Mesopotamia and came close to the Parthian capital of Ctesiphon.⁹ Under Trajan, the Roman Empire reached its peak territory; with this came the need for a different form of defense.

When Hadrian (r. 117-138) came to power after the death of his predecessor, he immediately abandoned many of Trajan's territorial gains, including Armenia, Assyria, and Mesopotamia.¹⁰ Hadrian was the first emperor to mark a tangible imperial border, which was necessary for his grand strategy. Hadrian's strategy, also called the "Antonine system (although Hadrian, Trajan, and Nerva were not Antonines)," by historians like Luttwak, was distinctly different from that of his predecessors. By the time of Hadrian's reign, almost all client states had been absorbed, with a few distinct exceptions. This meant that the defense of imperial territory had become solely a Roman labor. These factors both allowed and also forced

⁸ Cassius Dio, *Roman History* 68. 17.1-18.2.

⁹ *Ibid.*

¹⁰ Parker. *Romans and Saracens*. 123.

Hadrian to adopt a 'preclusive strategy,' which was one designed to confront enemies at the boundaries of imperial territory.¹¹ This reliance on perimeter defense was certainly expensive and taxing for the empire in comparison to the client system that it replaced. However, it came with advantages of its own. Chief among these was that the Antonine system encouraged civil control and security in frontier zones. The distribution of forces across the length of the frontier achieved this aim. Thus, Roman forces were distributed into many *castella* (Roman fortresses, often without towers) and watchtowers throughout the region. It was because of this subdivision that local security increased, for troops now had greater flexibility to deal with localized low-intensity threats, in comparison to a situation in which all forces were concentrated at one location. Furthermore, preclusive defense in the East was not dramatically expensive compared to other *limes* in the Empire. This was due to the lack of quality water sources in the area. Therefore, a point system to control water sources was essentially all that was needed to secure the region, thus negating the need for a plethora of fortresses.

In 224 CE, Artashir I created the Sassanian Empire following the collapse of the Parthian Empire, which occurred at the Battle of Hormozgan in 224 CE. During this battle, forces of Artashir I killed King Artabanus V.¹² Following the battle the rivals of Artabanus V fought to consolidate power in the north, leaving Artashir to seize complete control in the southern section of the old Parthian Empire. He was crowned King in the Sassanian capital of Ctesiphon and named his empire, not after

¹¹ Luttwak, *Grand Strategy*. 82.

¹² Herodian, 6.2.1-3.

Persian lineage, but instead named it for a mythical Iranian King named Sassan who, according to the *Kār-Nāmag ī Ardašīr ī Pābagān* (*Book of the Deeds of Ardashir, Son of Papak*), was also his grandfather.¹³ The two most formidable Sassanian rulers for our purposes were Shapur I and Shapur II. Shapur I, son of Ardashir, as mentioned previously, was a superb military commander and statesmen. He spent several years under his father's tutelage and this resulted in an eager and able ruler when he ascended to power.¹⁴

The Romans were constantly involved in wars and disputes in the East during the Severan Dynasty and after. For example, Septimius Severus invaded Parthia after the later invaded Mesopotamia in the late 190's CE. Severus handily defeated the Parthians and sacked their capital of Ctesiphon in 198 CE, thus reinstating Roman supremacy. The Parthian defeat of 198 CE marked a turning point of a weakened Parthian Empire that allowed Rome to breathe a sigh of relief until the rise of the Sassanian Empire nearly two decades later.¹⁵

Emperor Macrinus, who temporarily disrupted the Severan Dynasty, negotiated peace with the Parthians in 217 CE. This resulted in the redrawing of territorial boundaries and the payment of indemnities to the Parthian King Artabanus.¹⁶ In 231 CE, Severus Alexander, the final ruler of the Severan Dynasty, marched east to confront the Sassanian Persians. He launched a three-prong attack from Antioch that was a miserable failure, especially for his northern prong, which

¹³ *Kār-Nāmag ī Ardašīr ī Pābagān* 1.1-44.

¹⁴ Al-Tabari, *History*, 5.822-54.

¹⁵ Cassius Dio, *Roman History*, 75.3.3.

¹⁶ Cassius Dio, 79.26.2.

marched and retreated through hostile Armenia. His stalemate in the East and failure in Germany over the following years resulted in his murder, as well as that of his mother, in the Spring of 235 CE.¹⁷

After the Severan Dynasty's collapse, a period of extreme instability ensued known as the Crisis of the Third Century or the Imperial Crisis. Averil Cameron describes it as a time of utter volatility, frequent turnover of emperors, and warfare both on the edges of the empire within it.¹⁸ This period began with the assassination of Severus Alexander by his own troops. At least, twenty-six claimants sought power over the following fifty years, many of whom were prominent military figures. These twenty-six contenders are usually clustered into several 'dynasties.'

The first was the so-called 'Gordian dynasty.' It began in 238 CE with the joint rule of Gordian I and Gordian II against Maximinus Thrax. The Gordian dynasty ended with the death of their longest ruler Gordian III (238-244 CE). In April of 238 CE, the Senate confirmed the Gordians as rightful Emperors in Rome, while simultaneously denouncing Maximinus Thrax. After both Gordian I and Gordian II were killed in North Africa by the Numidian governor, Capellianus, the Senate sought another commander to oppose Maximinus Thrax. With no clear successor in place, the Senate quickly raised two men to the position of dual emperors: Emperor Pupienus and Emperor Balbinus. Shortly after, the public called for M. Gordianus, the nephew of Gordian II, to become emperor. He was granted the title 'Caesar' by the Senate in April 238 CE. In July 238 CE, the Praetorian Guard murdered Pupienus and Balbinus

¹⁷ Herodian, *History of the Empire from the Death of Marcus*, 6.8.3.

¹⁸ A. Cameron, *The Later Roman Empire: AD 284-430*. Cambridge: Harvard University Press, 1993. 3.

and Gordian III was declared sole Emperor.¹⁹ Gordian III, like his predecessors, clashed with the Sassanians. In 242 CE, he arrived in the East to respond to the attacks by Sassanian King Shapur I (215-272 CE), who overran Mesopotamia and threatened Syria in 239 CE.²⁰ Gordian III waged war against Shapur for nearly two years, including a victory at Resaena located in modern-day Turkey in 243 CE.²¹ Nevertheless, Gordian III was killed at Misiche in 244 CE, thus ending that dynasty.²²

Shapur I told a different rendition of the event. Shapur's version of the story stated that the Roman army advanced up the Euphrates after its defeat at Misiche and once the army was safely away, the troops killed Gordian III and appointed Phillip the Arab their leader.²³ Phillip ruled as emperor for roughly five years until Decius defeated him at Verona in 249 CE.²⁴ Decius was born in the Danube area like several other emperors after his reign. Before rising to emperor, Decius had been a renowned senator and consul in 232 CE. The rule of Decius witnessed the persecution of Christians and wars against the Goths; however, the next dynasty known as the Valerian Dynasty left a lasting impact in the East.

In 253 CE, the Sassanian King Shapur I turned his attention to Armenia. At roughly the same time, the Armenian King, Chosroes, was killed and his son and heir

¹⁹ Herodian, *History of the Roman Empire*, 8.8.8.

²⁰ Zonaras, *Extracts of History*, 12.18.

²¹ E. Kettenhofen, "The Persian Campaign of Gordian III and the Inscription of Shapur I at the Ka'By-Ye Zartost." *BAR International Series*, 156, (1983). 154.

²² *Ibid.*, 155.

²³ F. Millar, *The Roman Near East: 31 BC-AD 337*. Cambridge, Mass.: Harvard Univ. Press, 2001. 154.

²⁴ Zosimus, *New History*, 1.22-23.

Tiridates fled, which left Armenia a defenseless target.²⁵ In the same year, Rome reinstalled itself in the east when Emperor Valerian I (r.253-260) symbolically made Antioch his headquarters. However, the legacy of Valerian in the East was ignominious for Rome: in 260 CE Shapur captured him in battle. Therefore, it is fair to say that during the Crisis of the Third Century a new power arose in the East: the Sassanian Empire.

Shapur I was an accomplished military leader, for he not only sacked the near impenetrable city of Hatra in 241 CE, but also soundly defeated three Roman Emperors: Gordian III, Philip the Arab, and Valerian I. These numerous victories, however, overshadowed the diverse civilian works he undertook. During his reign, he authorized the construction of several architectural and engineering ventures, and the translation of Greek and Indian documents concerning science, agriculture, and philosophy.²⁶

Shapur II (309-379 CE), reclaimed many territories that had been lost in previous years and was well known for brutality in warfare. He reportedly filled wells of his enemies with sand and tied prisoners together through holes punctured in their shoulders. Nonetheless, he was instrumental in the destruction of the fragile peace between Rome and the Sassanians that had existed for several decades. Shapur II provoked Emperor Julian II “the Apostate” (r.361-363) into war over the disputed Kingdom of Armenia in which Julian perished resulting in the loss of large swaths of territory in central Syria.²⁷

²⁵ Zosimus, 1.27.

²⁶ *Ibid.*

²⁷ *Ibid.*, 50-67.

Beyond the innate leadership ability of the Sassanian Kings, the Sassanian Empire surpassed the Romans in other ways. In stark juxtaposition to the Roman fiscal issues preceding the Tetrarchy, the Sassanians recognized the importance of a strong economic policy. Sassanian rulers were proficient at collecting taxes, making projections concerning revenues and constructing budgets based on these variables.²⁸ The Romans, therefore, waged war not only against a remnant of the old Parthian Empire, but also against a sophisticated and vibrant new empire. As Romans fought Romans for a hold on power in the West, the Sassanian Empire solidified its foothold in the East, including along important trade routes to India.

During the First Tetrarchy (293-305 CE), the Sassanian Empire was already well founded and capable of competing with the Romans as we have previously seen. It was under the Tetrarchy that Rome won a major victory against the Sassanian Empire and recovered Armenia for the first time in fifty years. Furthermore, following this victory, with the treaty of 298/299 CE, the Roman Empire expanded to its greatest distance in the East since the time of Trajan: extending to the Tigris river.²⁹

Following this expansion, it is evident that Roman strategy in the East became increasingly defensive in nature. This can be seen by the construction of many desert fortresses, which are the focus of this paper. The Romans did not, however, build all of these fortresses. The Nabateans built forts such as Qasr el-Hallabat and Qasr el-Azraq came into Roman control after the Annexation of Nabatea in 106 CE. In truth, the building projects in the East in the Tetrarchic period were vast and included new

²⁸ *Ibid.*,

²⁹ Millar, *The Roman Near East*, 175.

roads and expansion of the preexisting system of fortifications in what is referred to today as the *limes Arabicus*.

Figures Chapter 1

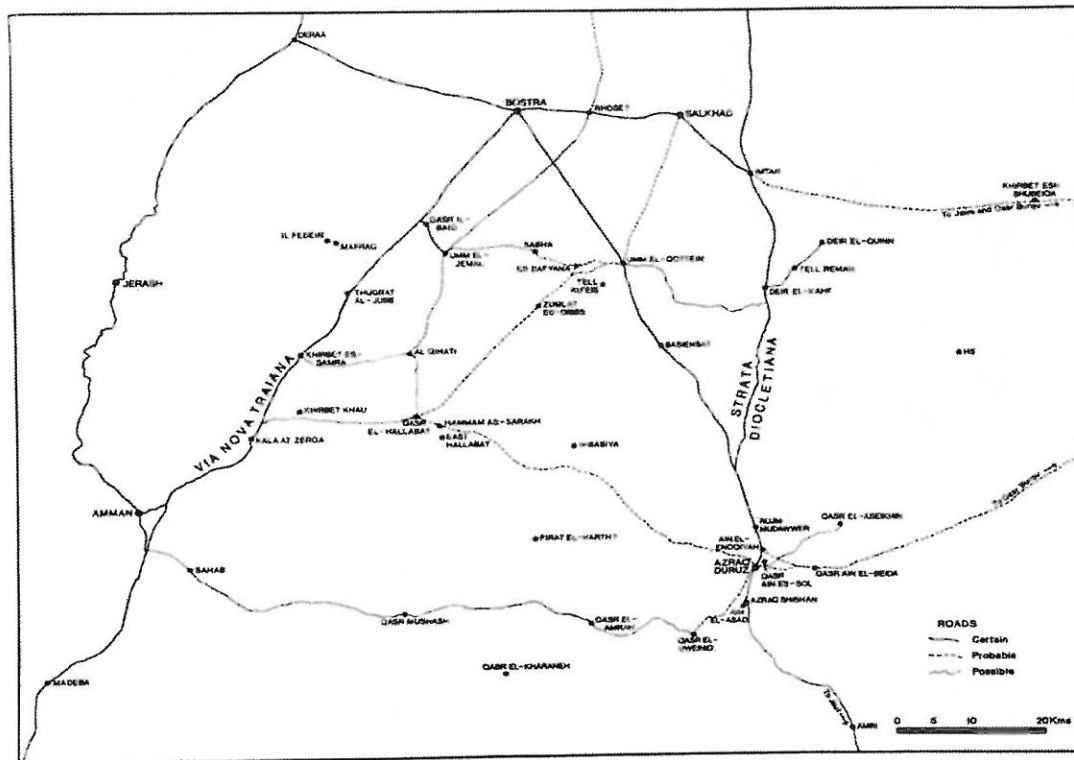


Figure 1 Map of Roads in Northern Roman Arabia - Parker, *Romans and Saracens*, 107.

Chapter 2

CASTELLA OF THE STRATA SERVIANA

The Strata Serviana was a road system in modern-day Jordan that linked the Strata Diocletiana and the Via Nova Traiana. The forts presented in this chapter, such as Qasr el-Hallabat and Qasr el-Azraq were incorporated either into this defensive roadwork or, in the case of Deir el-Kahf, supported it. The Strata Serviana was the first line of Roman defense in the region. It secured the Wadi Sirhan, which was the express highway throughout antiquity between the Arabian Peninsula and Roman controlled territories in the East. These fortresses were selected for several reasons. First, they were all *castella*, later converted to *quadriburgia*, or forts with four towers. Second, their location along or near the Strata Serviana makes them ideal choices for a discussion about regional strategy (see chapter 4). Finally, they are well documented compared to other fortresses found in this area, such as Deir el-Qinn. In addition, these fortresses are currently in better condition than others that are equally well known, such as Umm el-Jamal. These are two examples of prominent forts that are not featured in this paper, because of current condition or lack of available documentation.

Qasr el-Hallabat

The origins of Qasr el-Hallabat are ambiguous, like most *castella* built in what became Roman Arabia. Its location in southern Roman Arabia and its hilltop construction are evidence of its strategic importance. Qasr el-Hallabat came under Roman control sometime after the annexation of Nabatea in 106 CE. This fortress, while certainly smaller than some others discussed in this paper, notably el-Lejjun, is no less important.

Examination of the phases of construction of Qasr el-Hallabat reflects a shift in Roman strategy in the area. According to D.L. Kennedy, Nabateans built this fort to protect themselves from local tribes. Two points make up Kennedy's conjecture. First, during excavations, Kennedy noticed a rosette design, indicative of Nabatean decoration (although this should not be taken as an entirely reliable means of identification). Second, the initial fortlet was relatively small. With the initial construction comprising only the northwestern corner of what stands today, it was originally a very small fort. The area of this sector was less than 17.5 m.sq³⁰ with walls standing 4 meters tall and 1.10 meters in width.³¹ This area left little space for defenders and their necessary supplies, let alone for their families and valuables. However, judging by the rooms within the fortlet, it was likely that it could have accommodated a small standing fighting force. It is certainly true that the fortlet could

³⁰ Kennedy, D. L., D. N. Riley, and A. Stein. *Archaeological explorations on the Roman frontier in north-east Jordan: the Roman and Byzantine military installations and road network on the ground and from the air*. Series 134. Oxford: B.A.R., 1982. 26.

³¹ *Ibid*, 22.

have been a simple safeguard against nomadic tribes who possessed no siege technology. Kennedy states that in this initial phase there is little doubt that this was a fortified alcove to protect against raiders, rather than a stronghold to oppose an invading army. In support of Kennedy, Dr. Ignacio Arce argues that Qasr el-Hallabat was like many other forts in the area in several respects, including its positioning. According to Arce, the purpose of many of these Nabatean forts was to protect Hellenized peoples to the west, from raids of eastern pastoralists who were desperate either for water or more arable grazing land or both.³²

The function of Qasr el-Hallabat as a mechanism for protection against local raids certainly changed during the second phase of construction, the *castellum*, according to Kennedy.³³ The fort's dimensions expanded to roughly 39 m.sq³⁴ and the walls increased in width to 1.45 meters stepped into 1.26 meters in the northeast and 1.6 meters stepped into 1.36 meters in the southeast. Qasr el-Hallabat became a sizeable fortress, one capable of holding a larger force. This, however, is controversial as well. For, if it was true that the initial Nabatean fort existed only in the northwestern corner of the structure visible today, then there was very little additional room construction. Certainly, for an expansion that was nearly three times its previous size, the increase in the number of rooms was almost negligible. In truth, the courtyard fills nearly seventy-five percent of the structure. This raises one very important

³² I. Arce, "Severan Castra, Tetrarchic Quandriburgia, Justinian Coenobia, and Ghassanid Diyarat: Patterns of Transformation of the *Limes Arabicus* forts during Late Antiquity," in *Roman Military Architecture on the Frontiers: Armies and Their Architecture in Late Antiquity*. Oxford, England: Oxbow Books, 2015. 101.

³³ Kennedy, *et al.*, *Archaeological explorations*, 22.

³⁴ *Ibid.*, 26.

question: why leave such a massive courtyard? Kennedy's answer is a simple one - cavalry. He points to two supporting factors for this hypothesis. The first being the aforementioned lack in the numbers and sizes of rooms. This would clearly not be the case if there had been an increase in infantry units. The second was the construction of a large room, which he labels "room 19." Room 19 was certainly the largest of any in the structure and he proposes that this was used as a stable.³⁵ Room 19 was roughly 8 m. sq and was, therefore, almost half the size of the initial fortlet (see figure 2). The entrance of Room 19 may appear narrow, however, it had an entrance spanning 2.15 meters, which was almost double the width of a modern stable door (1.28 meters). Furthermore, if this fortress was originally created to deal with nomadic raiders, as Parker suggests, then housing cavalry here would be practical.

During this period there was a change in the construction of the fortress walls. Previously, they were made of rough-cut, large sized limestone masonry laid without mortar in which gaps were filled with smaller pieces of stone. However, it was in this second phase of construction that builders used better-shaped limestone blocks, once again laid without mortar, but without the need for chinking.³⁶ The utilization of more refined building materials suggests a more practiced construction over time. Certainly, the construction completed in this period was distinctly Roman. This can be seen very plainly in the layout of Qasr el-Hallabat itself and the change in construction throughout the East during this time.

³⁵ *Ibid.*, 31.

³⁶ *Ibid.*

Arce proposes that overall Roman fort construction in the East be divided into three general phases. The first was the original construction of the first military structures of the *limes Arabicus*. The second, which is of note here, was the “overhaul of the eastern *limes* and its defensive system during the Tetrarchic period.”³⁷ Arce states that the second phase included the construction of numerous *quadriburgia*, which were likely built quickly in an attempt to prepare against the rising Sassanian threat to the East.³⁸ This would explain the roughly cut limestone, which was atypical of the usual Roman construction of symmetrically cut blocks.

Arce concurs with Kennedy’s proposal that Qasr el-Hallabat may have been home to cavalry units: he argues that the hasty development of these *quadriburgia* reflected the need for cavalry units. Arce and Kennedy agree that this fortress, in particular, underwent several phases of reconstruction beginning with the original Nabatean fortification. According to Arce, the successor was likely rebuilt on top of the previous Nabatean structure during the Severan era.³⁹ A point that seems invalid when faced with the figures of Qasr el-Hallabat (figure 2 and 3), which show no prior structure. It seems likely that Kennedy’s conjecture is correct and the fortress was merely enlarged around the original fortlet. Next, Arce states that the fortress underwent a massive expansion to a *quadriburgia* in the Tetrarchic period, followed by its abandonment and partial destruction in an earthquake in 551 CE. Arce’s third phase was the reconstruction of the fort into a monastery and palace in the late sixth

³⁷ Arce, *Severan Castra*, 111.

³⁸ *Ibid.*

³⁹ I. Arce. "Qasr Hallabat, Qasr Bashir, and Deir El Kahf. Building techniques, architectural typology, and change of use of three Quadriburgia from the Limes Arabicus. Interpretation and significance." 465.

century, most likely by the Ghassanids. He then proposes that its last phase was Umayyad in origin. Arce believes, in the mid-seventh century CE, that the Umayyads captured the fortress and renovated it into a palace, which was destroyed and abandoned in the mid-eighth century CE. As evidence, he notes the creation of an extramural mosque. Furthermore, he states that renovations of this time are of "clear and distinctive character, different from the previous ones in materials, building techniques, and decorative features."⁴⁰

In contrast to Kennedy, Arce proposes that the 'castellum construction' phases described by Kennedy were actually incorporated in a larger scale phase of building throughout the entire province. Where Kennedy argues that Qasr el-Hallabat was alone in this change in construction, Arce argues that many forts in the area underwent configuration from their initial structure into *quadriburgia* as a shift in Roman strategy.⁴¹ Roman forts transitioning from *castella* to *quadriburgia* under the Tetrarchy occurs regionally; it possibly demonstrates a modulation to a more defense-in-depth strategy for the region. In Chapter 4 defense-in-depth is analyzed further. See Kennedy's and Arce's construction phases (figures 2 and 3 respectively).

This is not the only situation where the two scholars agree on one point only to disagree on another. For example, Arce and Kennedy both believe that the corner towers of the *quadriburgia* were built at least twice.

More importantly, for our purposes, are the details surrounding sentry walkways. Arce prefers the idea of a wooden sentry walk. He notes that there is a

⁴⁰ Arce, *Qasr Hallabat*, 469.

⁴¹ Arce, *Severan Castra*, 111.

continuous alcove of a few centimeters that runs two meters above floor level. He theorizes that this could have been a space for timber scaffolding that would have rested on the perimeter wall, creating a raised sentry walk.⁴² In opposition to this, Kennedy favors the original assessment of the Princeton Expedition. He believes that the narrow walls in 'Phase 3' would have been inadequate for a walkway. Therefore, a walkway must either have been on projecting slabs or, as the Princeton Expedition demonstrated in their reconstructions, on the roofs of internal rooms.⁴³ The possibility of a sentry walkway at Qasr el-Hallabat is extremely important when examining the shift in regional strategy. One prevailing factor of defense-in-depth is the ability for fortresses to be held and defended against invading foes until mobile aid can arrive. The lack of a sentry walk or parapet was not relevant in the decades before, because, as Procopius tells us, Saracens, were incapable of storming walls.⁴⁴ However, the Sassanians possessed siege machines and the wherewithal to use them. This is clear from the siege of Dura-Europos in 256 CE. According to Ammianus Marcellinus, during the siege, the Sassanians launched incendiary devices that could only be extinguished using dirt.⁴⁵ Without a walkway or parapet, defenders would only be able to launch counterattacks from the corner towers. With a parapet or sentry walk, defenders were capable of repelling scaling ladders and the like along the entire perimeter of the fortress.

⁴² *Ibid.*, 163.

⁴³ Kennedy, *Archaeological Explorations*, 29.

⁴⁴ Procopius, *Wars* 2.19.12.

⁴⁵ Ammianus Marcellinus, *Res Gestae* 23.4.14-15.

The layout of Qasr el-Hallabat mirrors the typical Roman square construction method and was not unlike other structures in the East, including nearby installations such as Deir el-Kahf.⁴⁶ In addition, it was similar to other forts throughout the Roman Empire in its departure from standard construction procedures. Throughout the first and second centuries, Roman forts were, often built square with several gates, ramparts supporting their walls, and towers built solidly into the curtain walls. We see in Kennedy's second phase only a single gate and the expansion of freestanding walls.⁴⁷ However, Qasr el-Hallabat was, indeed, part of a widespread change in forts, which includes more than just those that were Roman in nature. Arce argues that Qasr el-Hallabat was not alone in this change. For example, forts such as Deir el-Kahf and Qasr el-Ja'ij demonstrate similar changes. Both Deir el-Kahf and Qasr el-Ja'ij were enlarged in the Tetrarchic period to *quadriburgia*. This, according to Arce, represented an overarching regional strategy to secure the area from Sassanian attack.

Both Kennedy and Arce agree, in the end, that Qasr el-Hallabat became something other than a Roman fort. This corresponds to Arce's third phase, which included the period from the renovation of the defenses by Justinian I (r. 527-565) to the demise of the *limes* under Heraclius (r. 610-641 CE).⁴⁸ It was likely during this period that Qasr el-Hallabat became either a monastery or a Ghassanid palace. Certainly, during this period the Romans modified their strategy. To counter the mobile Arab tribal cavalry utilized by the Persians Romans discarded the Tetrarchic

⁴⁶ Arce, *Severan Castra*, 107.

⁴⁷ R. Collins, M. Symonds, and M. Weber. *Roman Military Architecture on the Frontiers: Armies and Their Architecture in Late Antiquity*. Oxford, England: Oxbow Books, 2015. 3.

⁴⁸ Arce, *Severan Castra*, 111.

strategy of defense-in-depth. At that time the Romans pulled back most troops from the *limes* forts and made a '*foedus*' (treaty) with Christian Arab tribes, firstly with the Tanakh, later the Salih, and finally with the Ghassanid/Jafnids to fight on their behalf.⁴⁹

It was only in the late eighth century, according to Kennedy, and the late seventh century, according to Arce, that Qasr el-Hallabat changed in function once again. It was abandoned sometime before the Persian Invasion of 614 CE and in following centuries, became an Umayyad palace or '*qasr*.' The simple monastery rooms of the previous reconstruction transformed into storage spaces, kitchens, and service areas. Furthermore, new mosaics depicted the defeat of Christian Arabs. An extramural mosque and a *hammam* (bathhouse) with gardens were also built in this phase.

With these factors in mind, we must begin our analysis of how Qasr el-Hallabat operated strategically throughout the Tetrarchic period. Certainly, in its initial phase, it was purely a defense against local raids. It was in the second phase that a larger strategy came into play. According to Arce, the Wadi Sirhan was a major thoroughfare in antiquity; access had to be strictly regulated. Evidence for this includes inscriptions by various peoples along the Wadi Sirhan.⁵⁰ The area was also a center of communications. Several key roads, including the Strata Diocletiana and Via Nova Traiana provided access to the North and to major cities including Palmyra and Bostra. Therefore, it was imperative that forts be built to block the mouth of the Wadi

⁴⁹ *Ibid.*, 103.

⁵⁰ *Ibid.*, 113.

Sirhan at its northern end. These included Qasr el-Hallabat and Qasr el-Azraq. If Qasr el-Hallabat accommodated cavalry units, then it was likely that the fortress acted not only as a deterrent for enemy forces approaching via the Wadi Sirhan, but also fulfilled its original purpose. That is to say, fast-moving cavalry units were likely to respond rapidly and protect their subjects from pastoral raids and the like.

Qasr el-Azraq

The Nabateans likely built the *castellum* known as Qasr el-Azraq in the mid-first century CE to control the strategically important surrounding area. The fortress was located in what is today northeastern Jordan, near other fortresses such as Qasr el-Hallabat (see figure 6). Like Qasr el-Hallabat, Qasr el-Azraq was created to control the Wadi Sirhan, which was a vital route both for trade and movement of any military forces in the area.⁵¹ In addition, towers and milestone markers lined a large caravan route along the Strata Diocletiana to Azraq oasis. Qasr el-Azraq's location was also strategic for its inhabitants - it was built on a basalt spur less than 100 meters from a small natural reservoir and in antiquity, numerous animal food sources roamed the area, such as antelope, gazelle, and oryx.⁵²

Qasr el-Azraq shares a similar form of diverse history with several other forts in the area, including Qasr el-Hallabat and Deir el-Kahf. Like other installations, at least three different groups occupied Qasr el-Azraq at different times (Nabatean, Roman, Umayyad). Although pottery evidence found at the site dates the *castellum* to the first century, the scale of the *castellum* construction was distinctly Roman in nature.⁵³ This suggests that a much smaller fortress existed during the Nabatean

⁵¹ Kennedy, D. L., *Settlement, and Soldiers in the Roman Near East*. Farnham: Ashgate Variorum, 2013. 425.

⁵² Kennedy, et al., *Archaeological explorations*, 69.

⁵³ *Ibid.*

occupation. According to Arce, the original Roman construction on the site was a *castellum* that looked much like a playing card with dimensions of 72 x 79 meters, which was indicative of a Principate era fortress (similar to those of Europe). It was only during the Tetrarchy that it was transformed into a *quadriburgia* with dimensions of 70 x 70 meters and outfitted with intermediate towers.⁵⁴ Evidence at the site suggests a remodeling of Qasr el-Azraq into a *quadriburgia* during the First Tetrarchy. The evidence includes pottery dating to the third century.⁵⁵ The Umayyads inhabited Qasr el-Azraq during the Rashidun Caliph's expansion of 632-661 CE. This is evident due to an Arabic inscription with Islamic content found inside the fortress, which dates to 634 CE.⁵⁶

Qasr el-Azraq's expansion into a *quadriburgia* during the first Tetrarchy was not unique and often seen in other forts such as Qasr el-Hallabat and Deir el-Kahf. The cause of this transition will be explained in full in chapter 4. However, Qasr el-Azraq's transition and expansion was rather dramatic and present some very interesting changes. Room 1 (see figure 4) was, likely, the main entrance of the fort. It was much larger than the entrance of Qasr el-Hallabat. Furthermore, it possessed a channel for firing projectiles at those below and four arrow slits.⁵⁷ Qasr el-Azraq, like Qasr el-Hallabat possibly contained stables. Qasr el-Azraq's room 23 was divided into several sections and was similar to Qasr el-Hallabat's room 19. However, room 23

⁵⁴ Collins, *et al.*, *Roman Military Architecture*, 103.

⁵⁵ Kennedy, *Archaeological explorations*, 75.

⁵⁶ *Ibid.*, 77.

⁵⁷ *Ibid.*

was 10 m.sq as opposed to the slightly similar room 19 of Qasr el-Hallabat, which was only 8 m.sq (see figure 4 for Qasr el-Azraq floor plan).⁵⁸ This, like Qasr el-Hallabat, may represent the transition to patrolling units, not unlike those used in Syria throughout the first and second centuries (a point that will be revisited in chapter 4).

In addition, the postern in room 10 and a cistern in room 27 demonstrate the significance of water in this desert environment and importance of the self-containment. It was imperative that the *quadriburgia* of the Tetrarchy be able to withstand sieges in order for defense-in-depth to succeed. According to Kennedy, the *quadriburgia* also possibly contained a tunnel beneath the eastern wall, which tapped into an extramural water source nearby.⁵⁹ This would certainly explain raised floors at the eastern wall because the ground would have been too saturated to provide proper foundations. It was also possible that the raised ground on the eastern wall was a remnant of past defenses. Often floors were raised to resist mining and floor level battering rams.⁶⁰ Kennedy also noted the location of a reservoir near the fortress, which was named 'Ain el-Asad ("Spring of the Lion"). The reservoir had a perimeter of more than 700 meters, surrounded by a small wall less than two meters high and with varying widths of 1-2 meters.⁶¹ In addition, another fort in the Azraq depression, Azraq Duruz, guarded a spring.⁶² Azraq Duruz and Qasr el-Azraq, therefore, reinforce

⁵⁸ *Ibid.*, 84.

⁵⁹ *Ibid.*, 88.

⁶⁰ Luttwak, *Grand Strategy*, 187.

⁶¹ Kennedy, *Archeological Explorations*, 99-100.

⁶² *Ibid.*, 90.

the idea that control of water in this arid environment was the key to regional supremacy.

The expansion of Qasr el-Azraq to a Tetrarchic *quadriburgia* was almost certainly in response to pressure from the East. For example, during the reign of Constantine I (306-337), Shapur II launched a punitive campaign into Arabia against local tribes. This move brought Shapur II perpendicular to the Roman flank and very near the southern entrance of the Wadi Sirhan.⁶³

Qasr el-Azraq was exceedingly important to the surrounding area. It was not only the largest fort in the immediate vicinity but also the southernmost fortress of the Strata Diocletiana.⁶⁴ The fortress was also part of a military road, which ran from Qasr el-Azraq to the Via Nova Traiana. Furthermore, due to its location, it is likely that Qasr el-Azraq was one of several fortresses, including Qasr el-Hallabat, which secured trade routes from Bostra toward the southeast and then to the east via the Wadi Sirhan.⁶⁵

⁶³ I. Sahid, *Byzantium and the Arabs in the Fourth Century*. Washington, DC: Dumbarton Oaks Research Library and Collection, 2008. 62.

⁶⁴ Collins, *et al.*, *Roman Military Architecture*, 100.

⁶⁵ *Ibid.*, 104.

Deir el-Kahf

The fortresses of Deir el-Kahf is not unlike other fortresses noted thus far. Like Qasr el-Hallabat and Qasr el-Azraq, it was a two-story structure later remodeled under the First Tetrarchy. However, Deir el-Kahf was likely of Severan origin and, perhaps, the most strategically positioned of the three forts discussed thus far. The fortress lay at the crossroads of the Strata Serviana and the *via militaris*, which originated near the Via Nova Traiana at Qasr el-Ba'ij. It served as one of the key structures in a system of roads that continued eastward toward Deir el-Qinn, which controlled access to the core of Provincia Arabia from the Wadi Sirhan.⁶⁶ Deir el-Kahf stood as an anchor on two major fronts, both as an endpoint for the *via militaris* and as a protective reinforcement for Qasr el-Azraq, which guarded the Wadi Sirhan.

Deir el-Kahf was similar to Qasr el-Hallabat in its methods of construction and expansion. Like Qasr el-Hallabat, Deir el-Kahf underwent several building phases, although, in this case, there were four major phases as opposed to three at Qasr el-Hallabat. The first phase consisted of the construction of a square fort covering 28 x 28 meters with no towers and finely built basalt walls. The walls were 0.9 meters thick and had thin, tight joints. It was, possibly, built in the Severan period in conjunction with the creation of a new road from Azraq to Imthan.⁶⁷ The second phase occurred

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*, 105.

during the Tetrarchic period. In a similar method to that at Qasr el-Hallabat, the fortress was enlarged, while incorporating the original structure into portions of the perimeter walls. In the case of Deir el-Kahf, the defenses expanded to the north and west to create a *quadriburgia* (see Figure 4). During this phase, the fortress increased to 60 x 60 meters and gained intermediate towers in addition to corner towers. The walls of the *quadriburgia* expanded to a thickness of 1.65 meters. The walls were constructed from roughly hewn blocks of basalt along with material from the previous structure. As at Qasr el-Hallabat, lime mortar held the walls together. The correlation between the roughly hewn basalt blocks with mortar, seen at both sites, once again suggests a rapid construction in response to looming threats from the East. The third phase, much like other fortresses around the Strata Serviana, was its abandonment and reoccupation by the Ghassanids in the sixth century. The Ghassanids repurposed Deir el-Kahf into a monastery, storage facility, and military headquarters.⁶⁸ The final phase was the Umayyad occupation of the abandoned monastic compound. It was likely used for religious, as well as agricultural and industrial purposes. Inside the mosque, which still stands in the center of the courtyard, were limekilns and basins.⁶⁹

The importance of water in this arid environment has already been discussed. In simple terms, controlling the water supply correlated to controlling the region. Deir el-Kahf is no exception to this rule. Water was often found in close proximity to these fortresses. At Qasr el-Hallabat, there were cisterns to store water, which were equally important in times of peace and war. At Qasr el-Azraq, there was circumstantial

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*, 106.

evidence of a pipe system beneath the eastern wall to supply water in the event of a siege. Deir el-Kahf, however, may have been built on top of a natural spring. The Princeton expedition and Sir Aurel Stein both described a small pool in the room jutting off the southwest corner. The room had downward steps, a lining at the bottom, and Greek inscriptions recorded in 1904 referring to a *lakkos* (pool or cistern) and *agogos* (aqueduct channel).⁷⁰ Additionally, Deir el-Kahf had a roofed cistern (many cisterns were roofed to prevent evaporation during the process of which remaining supplies also increased in salinity) in the courtyard, a small irregular reservoir guarded by a tower roughly 100 meters northeast of the fort, a further reservoir to the west and a quarry filled with water to the northwest.

Furthermore, like many other fortresses near the Strata Serviana, there was the possibility of cavalry troops. As seen in figure 5, Deir-el Kahf, had several long thin rooms along the south-western side. This section was subdivided into smaller rooms, which were roughly 10 x 2 meters.⁷¹ Like Qasr el-Hallabat, Deir el-Kahf likely hosted cavalry units designed to patrol the surrounding area, both for enemy forces and for protecting civilians against Bedouin raids.

⁷⁰ Kennedy, *Settlement and Soldiers*, 278.

⁷¹ Collins, *et al.*, *Roman Military Architecture*, 106.

Figures Chapter 2

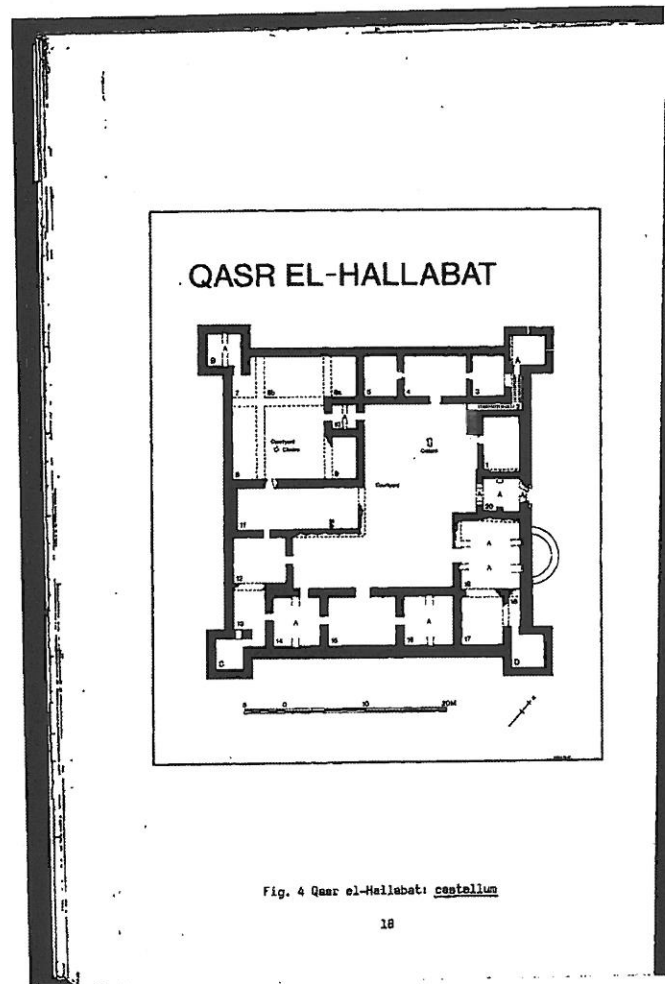


Figure 2 Kennedy's Plan of Qasr el-Hallabat. Kennedy, *Archeological Explorations*, 18.

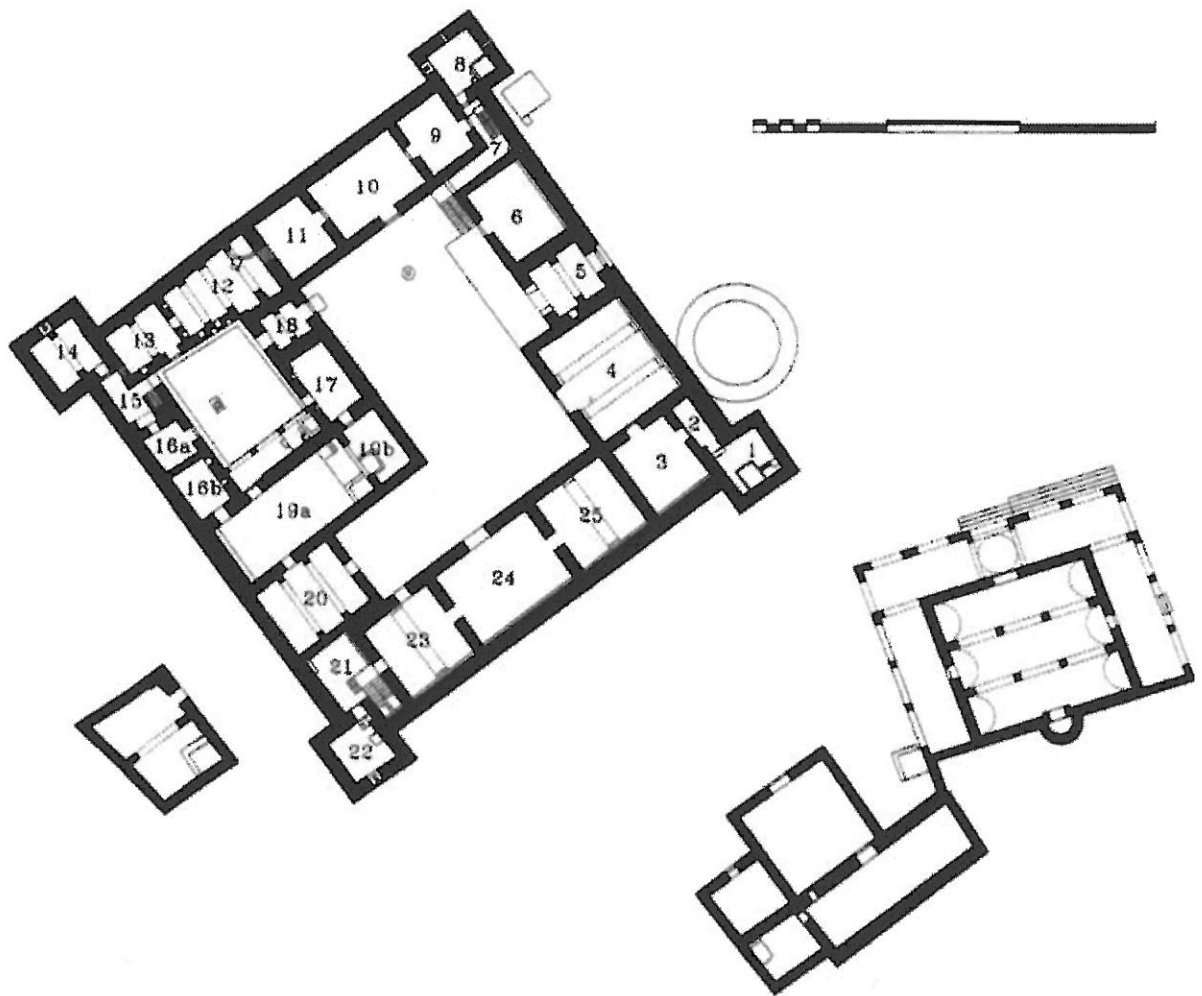


Figure 3 Arce's Plan of Qasr el-Hallabt. Collins, *et al.*, *Roman Military Architecture*, 104.

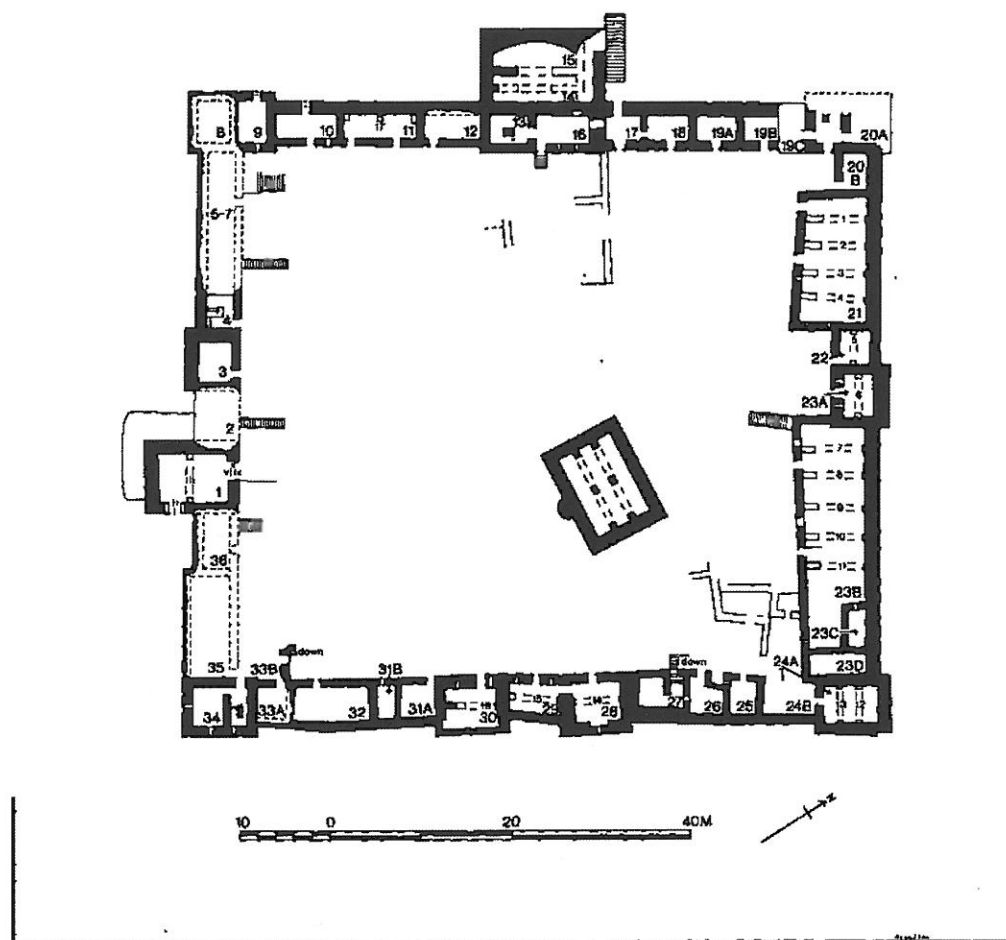


Figure 4 Qasr el-Azraq Plan. Kennedy *Archeological Explorations*, 74.

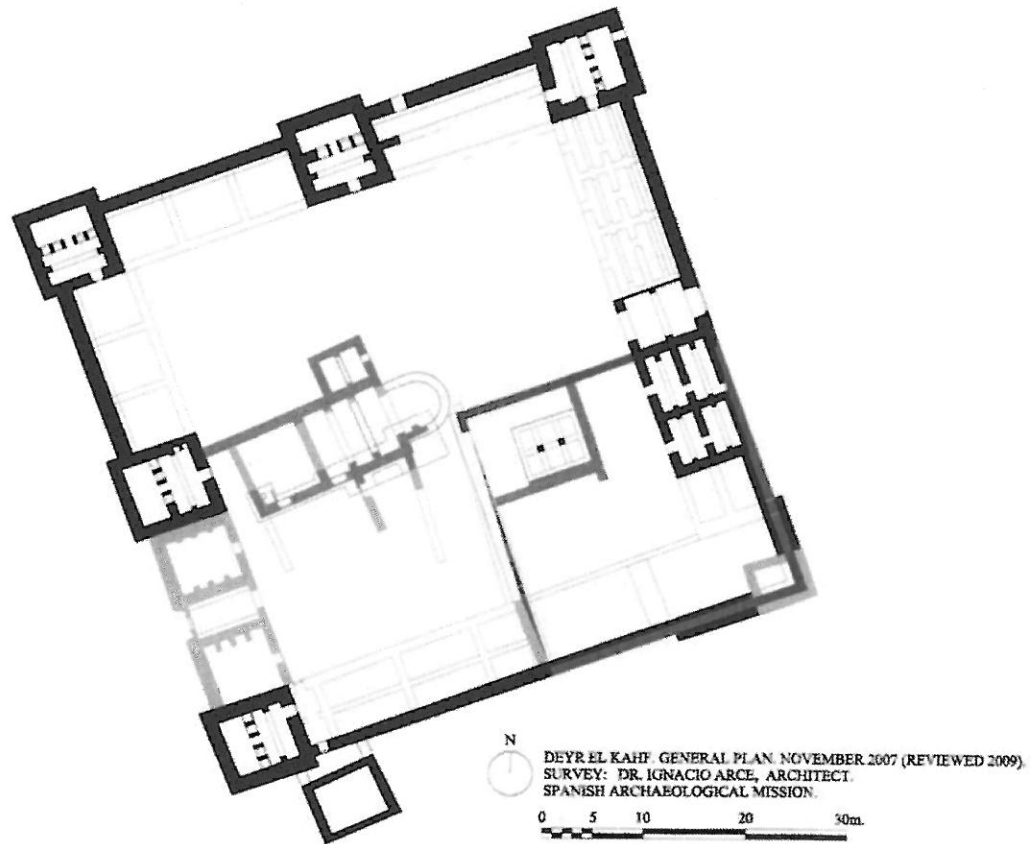


Figure 5 Deir el-Kahf Plan. Collins, *et al.*, *Roman Military Architecture*, 106.

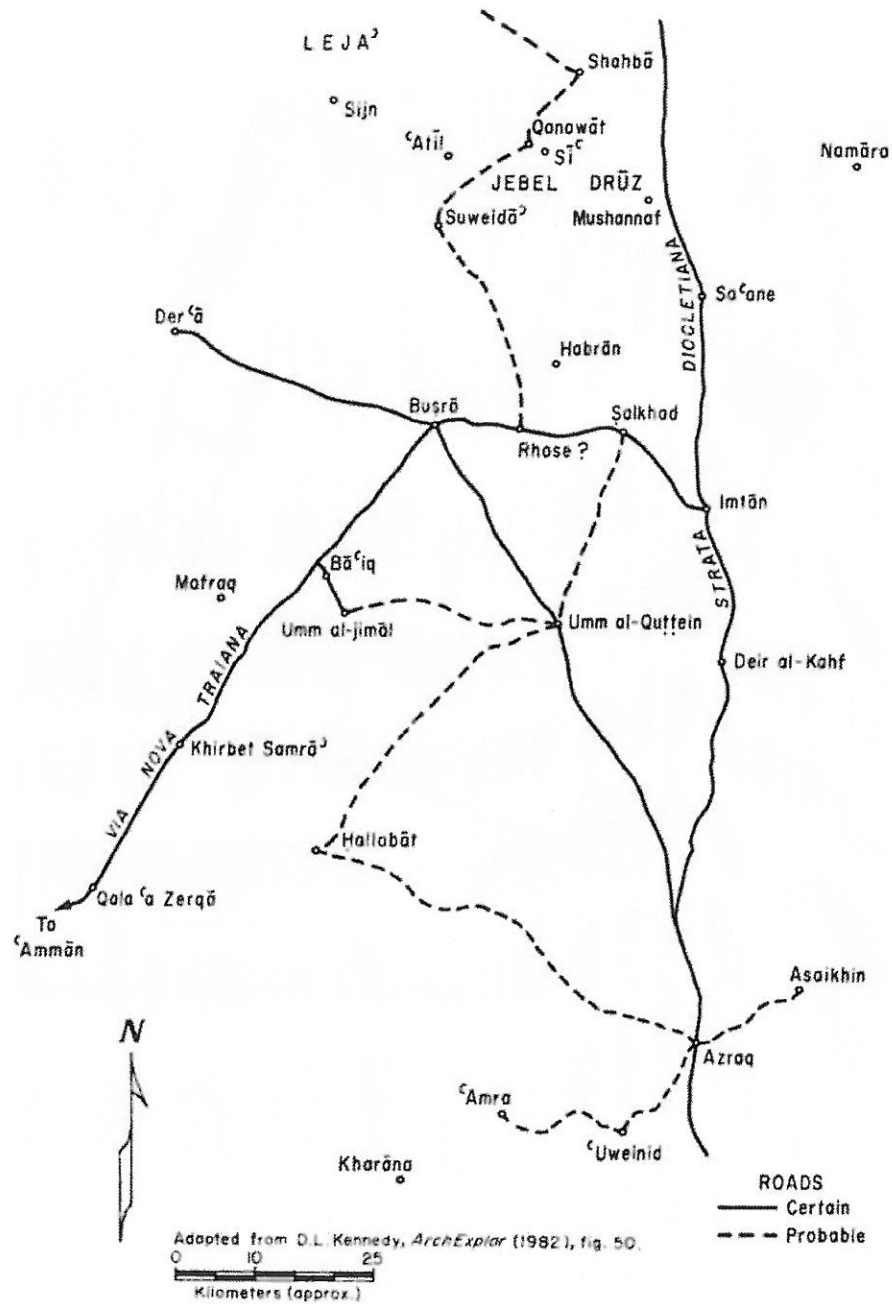


Figure 6 Map of Roman Roads in southeastern Roman Arabia. Bowersock, *Roman Arabia*, 101.

Chapter 3

LEGIONARY FORTRESSES OF THE VIA NOVA TRAIANA

The Via Nova Traiana was a Roman road that ran roughly north-south from Bostra to the Aila on the Red Sea. Emperor Trajan commissioned the road shortly after the annexation of Nabatea in 106 CE. However, the Governor of Provincia Arabia: Claudius Severus, paved it.⁷² There is much debate among scholars as to the original function of the Via Nova Traiana. Academics such as B. Isaac propose that the Via Nova Traiana was not a fortified military line at all. He suggests that it was simply a road that connected northern Arabia with Petra. Furthermore, he argues that the road was fortified to protect travelers, not to defend against large-scale external threats. In his opinion, there is no direct evidence concerning the purpose of the installations lining the route. Conversely, scholars like S.T. Parker and A. Segal argue that it was, in fact, a fortified defensive line. Furthermore, they maintain that its purpose was to prevent nomadic raids as well as secure safe travel for provincials. Both el-Lejjun and Udruh are legionary size fortresses that sit in close proximity to the Via Nova Traiana. The selection of these fortresses was primarily for their legionary significance, as it pertains to the regional strategy, (the large number of infantry troops stationed in one area, which were needed in the time of the First Tetrarchy) and for their proximity to the Via Nova Traiana.

⁷² Arthur Segal, *Town Planning, and Architecture in Provincia Arabia: The cities along the Via Traiana Nova in the 1st-3rd centuries CE*. Oxford: BAR International Series 419. 1988. 1.

Very little has been published concerning the legionary fortress at Uduh. However, Uduh has been selected over other legionary fortresses, because of its isolation from urban centers. Certainly, there were legions stationed at cities like Bostra, which has been thoroughly documented. However, when legionary encampments are attached to cities they take on a different purpose and often become more focused on the city than the region. Uduh, inversely, was isolated from large populations and, therefore, served a purpose similar to el-Lejjun.

El-Lejjun

The legionary fortress at el-Lejjun, was one of the most important military structures in Roman Arabia. El-Lejjun dominated the east-west route through Wadi ed-Daba'a and its location between the Via Nova Traiana and the eastern desert route. Furthermore, 'Ain Lejjun (spring) is the most important water source in the surrounding area. 'Ain Lejjun irrigated the surrounding arable land, which likely supported the occupying legionaries. El-Lejjun's location on the fringe of western agricultural lands made it somewhat unique. It had the ability to protect these agricultural lands, but also project force to the East.⁷³

El-Lejjun was likely built in c. 300 CE. However, the general shape of the defenses has raised questions (see figure 7). The fortress was card-shaped, which was more typical of the late Principate, than the First Tetrarchy. In contrast, the *groma* in the center divided the fortress into four quadrants; typical of later Roman military architecture. Excavations confirmed that all parts of the fortifications were constructed collectively at the initiation of Stratum VI (ca. 284-324 CE).⁷⁴ El-Lejjun was also unique in its size. The fortress, nearly rectangular in dimensions, has walls of the following lengths: 237.76 (N) x 191.91 (E) x 240.29 (S) X 190.18 (W), gave the

⁷³ S.T. Parker, *The Roman Frontier in Central Jordan: Final Report on the Limes Arabicus Project, 1980–1989*, Washington: Dumbarton Oaks Studies, 2006. 114.

⁷⁴ *Ibid.*, 116.

fortress an area of 4.567 ha.⁷⁵ This is striking in comparison to legionary fortresses of the Principate, which were much larger. For example, the average legionary fortress of the Principate was roughly 23 ha. Therefore, el-Lejjun was approximately 20% the size of a Principate legionary fortress. The reason for this was simple: Roman legions had decreased in size since the time of the Principate. Furthermore, Domitian had outlawed multi-legionary camps: “another of his edicts forbade any two legions to share a camp...”⁷⁶ This followed a revolt led by the governor of Germania, Lucius Antonius Saturninus, in 89 CE. Saturninus used his two legions (*legio XIV Gemina* and *legio XXI Rapax*) to wreak havoc until Domitian squashed the revolt.⁷⁷ Therefore, suspicion of multi-legion encampments was well warranted.

El-Lejjun, therefore, housed one of the typical legions of the Tetrarchy, which probably consisted of no more than 2,000 troops, perhaps less. In comparison, legions of the Principate averaged roughly 5,000 men each.⁷⁸ According to the *Notitia Dignitatum*, el-Lejjun was, most likely, the home of the Legio IV Martia, which was often associated with Diocletian.⁷⁹ However, it was more likely attributed to Galerius, due to his association with Mars.⁸⁰ Despite the apparent small stature of el-Lejjun

⁷⁵ Ibid., 115.

⁷⁶ Suetonius, *Twelve Caesars, Life of Domitian* 12.7.

⁷⁷ Ibid., 12.5-7

⁷⁸ Parker, *Roman Frontier*, 548.

⁷⁹ W. Fairley, *Notitia Dignitatum or Register of Dignitaries*, in *Translations and Reprints from Original Sources of European History*, Vol. VI:4. Philadelphia: University of Pennsylvania Press, n.d. 37.22.

⁸⁰ Parker, *Romans and Saracens*, 62-63.

compared to earlier legionary fortresses of the Principate, it possessed solid fortifications. The fortress had a curtain wall ca. 2.4 m thick, which sat on a foundation 2.50 m wide and 2 m deep. It also possessed four gates, one in the center of each wall and four outwardly projecting towers of the semicircular style, one at each corner, that were indicative of the Tetrarchy. Furthermore, el-Lejjun had 20 outwardly projecting U-shaped interval towers, four along each wall. Most importantly, the fortress had a parapet and patrol walk along the rampart. Once again, the value of a parapet cannot be underestimated, however, the large number of interval towers certainly lessened its importance. Evidence that the angle towers of el-Lejjun housed artillery also slightly diminished the importance of a parapet.⁸¹

El-Lejjun was not the only defensive structure in the area. The *castellum* Khirbet el-Fityan lay 1.25 km northwest of the fortress. In addition, a smaller fortress, Rujm Beni Yasser (likely just a fortified watchtower) stood a mere 250 m northwest of the legionary fortress. In addition to housing soldiers and performing assigned tasks, these hilltop fortresses served an invaluable role in compensating for the tactical weakness of locating el-Lejjun in a valley.⁸² Khirbet el-Fityan further complemented el-Lejjun in terms of size. Khirbet el-Fityan was rather large in comparison to other auxiliary *castella* of the Tetrarchy. Khirbet el-Fityan was 0.6 ha as opposed to the average Tetrarchic auxiliary *castellum*, which was 0.16-0.36 ha. In this way, the two fortresses seemed to support each other nicely. In truth, Khirbet el-Fityan was still much smaller than Principate auxiliary forts, which averaged about 1.0 ha. Despite the

⁸¹ Parker, *Roman Frontier*, 116.

⁸² Parker, *Roman Frontier*, 114.

relatively large size of Khirbet el-Fityan, it could not have held the 500-strong auxiliary garrisons of the Principate. Instead, it probably accommodated a 120-160 man Tetrarchic-sized unit, undoubtedly a detachment of the IV Martia.⁸³

El-Lejjun played a crucial role in Roman regional strategy during the time of the Tetrarchy. As previously proposed, the Tetrarchy depended on a strategy of defense-in-depth. This strategy could not work without a large field army in the vicinity; in this way, el-Lejjun complemented the smaller *castella* of the Strata Serviana.

⁸³ Ibid., 548.

Udruh

As noted at the beginning of this chapter, very little has been published about Udruh. No multi-volume work was released, nor any large single-volume work for that matter. Only a few articles were published about Alistair Killick's excavations at Udruh in 1985. Furthermore, no large-scale fieldwork has been attempted since and recent Jordanian excavations of the site have yet to be published. However, based on what has been published, conjectures can be made.

The legionary fortress at Udruh, lay roughly twenty-four kilometers due east of Petra. Its importance is often diminished due to its absence from the *Notitia Dignitatum*. However, Udruh shared many similarities with its famous counterpart: el-Lejjun. Like el-Lejjun, Udruh was near important sources of water. Udruh lay on the western edge of a small fertile area fed by a line of springs that ran southeast towards Ma'an.⁸⁴ Furthermore, both fortresses were of approximately the same size. El-Lejjun, as previously mentioned, was c. 4.6 ha. Udruh was c. 4.7 ha. They also shared similarities in their shapes as well. While el-Lejjun was somewhat rectangular, Udruh was very much trapezoidal, with dimensions (in meters) of 246 (N) x 207 (E) x 248 (S) X 177 (W).⁸⁵

⁸⁴ David Kennedy, *Roman Army in Jordan*, London: The Council for British Research in the Levant, 2004. 178.

⁸⁵ Ibid.

Udruh also shares similarities in construction with el-Lejjun. Both had four protruding corner towers, however, those at Udruh were much larger, projecting 22 meters from the curtain wall. These towers were equipped with ground floor rooms and square spiral staircases. Furthermore, both had twenty interval towers and four gates centered on each wall. Interval towers, with barrel-vaulted staircases, protruded 11 meters from the outer walls and flanked these gates. The northern gate was likely the main entrance, (as opposed to el-Lejjun, which has its main gate in the east), which can be seen by the remaining sockets of a double-leaved door.⁸⁶

Udruh was also unique in its topography. Udruh was built on an east-facing slope; therefore, there was a difference in level running east to west. It was this change in level that likely caused a strange bend in the east wall, just north of the northernmost interval tower (see figure 8).

Kennedy cites experts like S. Gregory, who believed that Udruh was “bigger and better” than el-Lejjun.⁸⁷ There is some merit to this argument. Foremost, Udruh was slightly larger in area. In addition, Udruh exhibited extremely sophisticated craftsmanship, which was evident in the tower sections (this is our main source for conjecture, as many internal structures have collapsed). Finally, Udruh had larger walls than el-Lejjun. At el-Lejjun the curtain wall was 2.4 meters wide, however, at Udruh the curtain wall was c. 3.0 meters wide and 6 meters high (still standing on the western side).

⁸⁶ Ibid., 179.

⁸⁷ S. Gregory, *Roman Military Architecture on the Eastern Frontier*, Amsterdam: Adolf M. Hakkert, 1997. 383-389.

It is logical to assume that the el-Lejjun and Udruh held garrisons of roughly the same size. That would place the legion stationed at Udruh to be approximately 2,000 men (same as el-Lejjun). S. Gregory suggests that an early second-century fort may have been located at Udruh, which was then expanded, in the likeness of el-Lejjun, to house a legion in c. 300 CE.⁸⁸ Gregory also argues that Udruh may have been the location for the Legio VI Ferrata. P. Erdkamp supports this conjecture and proposes that the legion was moved under Diocletian, in order to protect what would become Palaestina Tertia.⁸⁹

Udruh and el-Lejjun were integral parts of a regional strategy of the First Tetrarchy. These fortresses served multiple purposes. First, both blocked access southward towards Aqaba and the lucrative trade routes of the Egyptian corridor.⁹⁰ Second, as previously discussed, these legionary fortresses supplied the large field armies necessary to support defense-in-depth. Finally, they protected the surrounding area, including the important route along the *Via Nova Traiana*.

⁸⁸ *Ibid.*

⁸⁹ P. Erdkamp, *A Companion to the Roman Army*. New York: John Wiley & Sons, 2005. 253.

⁹⁰ Collins, *et al.*, *Roman Military Architecture*, 111.

Figures Chapter 3

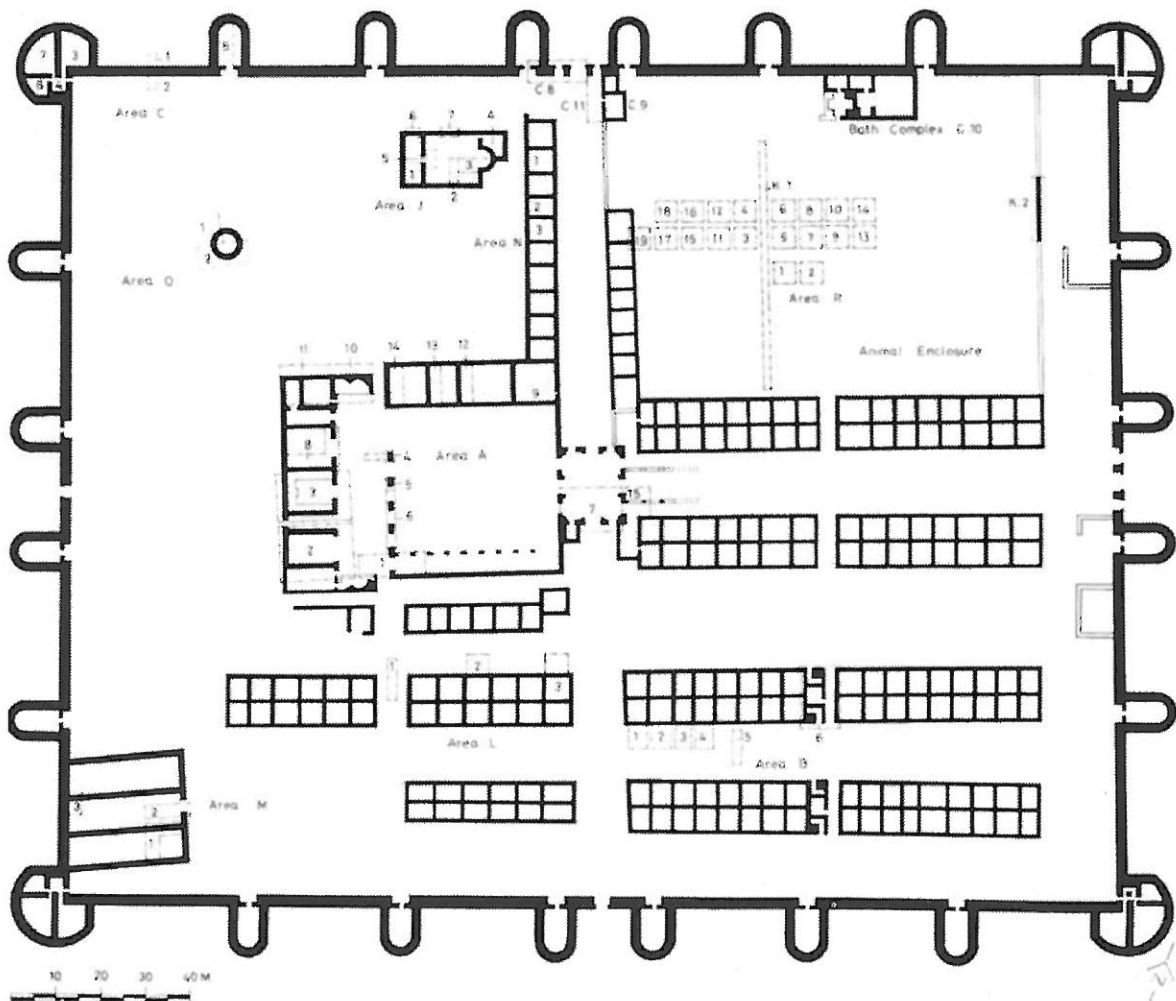


Figure 7 Plan of el-Lejjun. Parker, *Final Report of the Limes Arabicus Project*, 125.

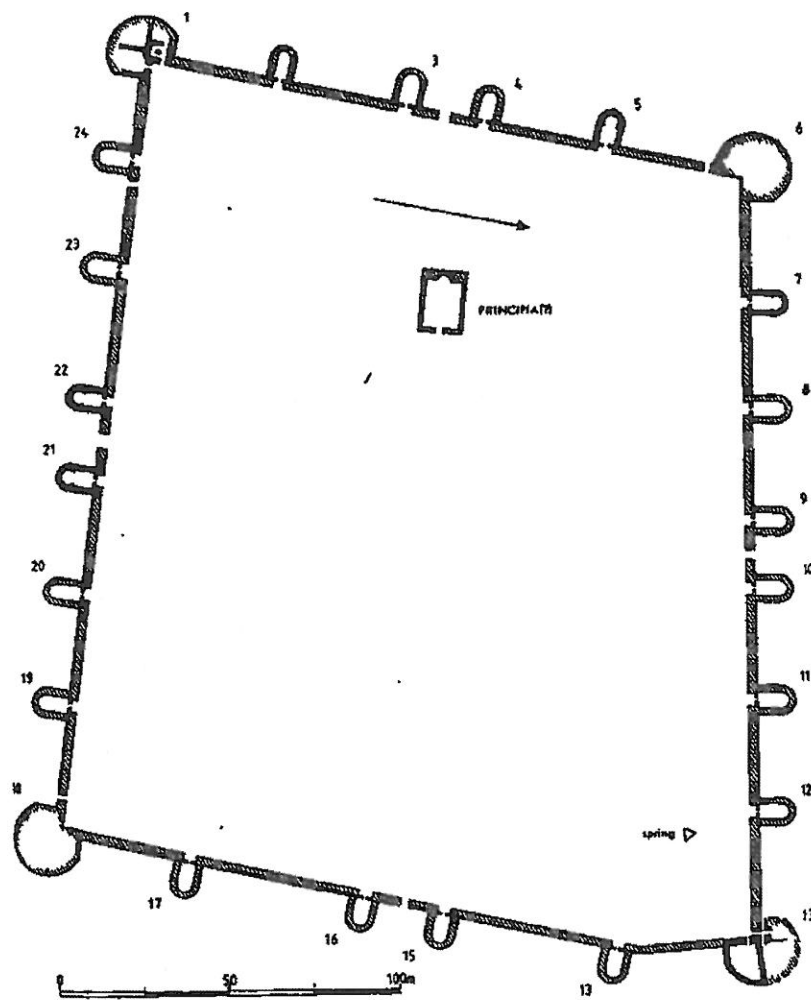


Fig. 17.4: Adrou/Adroa (Udruh): plan (from Gregory 3: F30.1).

Figure 8 Udruh Plan. Roman Army in Jordan, 179.

Chapter 4

ANALYSIS

As stated in the introduction, it is unwise to align fully with either school of thought concerning the purpose of Roman fortifications in the Province of Roman Arabia. This is not to say that neither school of thought is correct. Simply put: they both are. However, it is their apparent assumption of a singular purpose for these fortifications over several centuries that seems flawed. These fortifications filled whatever need Rome had for them at the time. Thus, they demonstrate the multiple shifts in regional strategy that occurred from their original construction to their abandonment.

The shifts in regional strategy separate Roman occupation in Roman Arabia into four phases. The first was the original strategy after the Nabatean annexation: the client system. The second was the shift in strategy to ‘preclusive defense’ under Severan rule. The third was the shift to defense in depth; illustrated by the build-up of the *limes* during the First Tetrarchy. The fourth was the abandonment of the *limes* and reliance on Arab allies. Changes in regional strategy over time resulted in altered responsibilities for these fortresses as discussion below will demonstrate. Evidence does not support the contention that these fortifications had a singular function at all, let alone one purpose for approximately four hundred years.

Initial Annexation

After the annexation of Nabatea, Roman forces began to occupy selected Nabatean fortresses and watchtowers. Graf and Isaac were correct to point out that if fortifications were in place to defend against nomadic incursions then Roman occupation of these defenses should have been much more comprehensive. Therefore, their function was to deal with internal dissension during this time period. Graf notes that Romans made no attempt to occupy watchtowers in the Hisma, east of the Via Nova Traiana.⁹¹ However, Parker points out that there was not necessarily a large sedentary population requiring protection in the Hisma area.⁹² Regardless, if nomadic incursions were a massive threat, watchtowers east of a major thoroughfare would have been an ideal resource. Parker corroborates this point to an extent when he notes that Rujm Beni Yasser was not reoccupied in the late third century.⁹³ If there were a true nomadic threat during this period, a watchtower with a vantage point like Rujm Beni Yasser would have been indispensable. This was especially true because there was clear evidence of nomadic graffiti directly southeast of the *limes Arabicus*.⁹⁴

⁹¹ D. Graf, "A Preliminary Report on a Survey of Nabataean-Roman Military Sites in Southern Jordan," *Annual of the Department of Antiquities, Jordan*. 1979. 15-19.

⁹² Parker, *Romans and Saracens*, 6.

⁹³ Parker, *Roman Frontier*, 537.

⁹⁴ *Ibid.*, 535.

Graf and Isaac both propose that the purpose of these fortresses was to deal with internal dissent. Certainly, when a territory has been recently conquered, there would have been a tendency to revolt. Such was the case with Boudica's rebellion in Britain in 60/61 CE. Roman Britain had hardly been a province for two decades when Boudica raised her fellow tribesmen against Rome.⁹⁵ Furthermore, a revolt came early in the Roman occupation of the East. Hatra, the Mesopotamian city, revolted in 116-117 CE, following which it remained independent for almost another one hundred years. Hatra successfully resisted two Roman sieges under Trajan (117) and Septimius Severus (198/199) and stood strong until the Sassanians, destroyed the city in 241 CE.⁹⁶

These revolts are just two examples throughout Roman history of subject peoples' dissent growing into violence. It is then logical to assume that the Romans would have learned from situations like Boudica's revolt and expected situations such as Hatra to happen. Therefore, positioning Roman forces both in urban areas and also lining major thoroughfares was a way to control recently conquered peoples and display military strength. Because this was the first phase of Roman regional strategy, there is no change in fort construction to discuss.

⁹⁵ Cassius Dio, *Roman History* 62.2.

⁹⁶ *Ibid.*, 68.31.1-4.

Severan Enhancement

The next shift in Roman regional strategy came during the Severan Dynasty. In fairness, the shift largely began with Trajan; Hadrian and Marcus Aurelius simply followed suit. The expansions under Trajan and subsequent “drawing” of physical borders under Hadrian changed the Roman East. As previously discussed, the decay of the client system had already taken place prior to the ascension of Trajan and by the time of Hadrian, frontier defense was largely a solely Roman endeavor. Luttwak argues that the result of this new responsibility was a preclusive model of frontier defense. As we saw above, revolts were possible and Romans were wary of internal dissent. Furthermore, the shift to a semi-static defensive strategy required an increase in Roman manpower on the frontier. This was certainly a huge burden for the provincials,⁹⁷ which was likely a factor in choosing a preclusive defense strategy. It would be reasonable to assume that the Romans understood the requisite nuances to keep provincials happy, yet respectful of Roman dominance. In this regard, preclusive defense achieved both aims.

By engaging enemy troops beyond the boundaries of sedentary provincials, the Romans protected their property and demonstrated a return on investment of their taxes. That is to say, ‘your tax dollars were put to good use.’ However, in addition to

⁹⁷ Luttwak, *Grand Strategy*, 382.

pleasing provincials, preclusive defense demonstrated an ability to project force beyond one's borders.

The apparent flaw with the assessment of preclusive defense under Luttwak's proposed "Antonine system" was the lack of building accredited to them in the East. It is more likely, that under the Antonine system (which also included Nerva, Trajan, and Hadrian, although they were not Antonines), primarily under Hadrian's rule, a preclusive strategy was adopted, but not executed to its fullest.

Under the Severan dynasty, there was a clear attempt to bolster defenses in Roman Arabia. Because the fortress of el-Lejjun was not built until the time of the First Tetrarchy, it cannot support this conjecture. The fortresses of the Strata Serviana, however, all demonstrated signs of construction during the Severan Dynasty.

Qasr el-Hallabat, according to Arce, was rebuilt during the Severan period on top of a previous Nabatean fortress. In opposition, Kennedy asserts that the Nabatean fortress was simply expanded during the Severan period.⁹⁸ The Nabateans, likely built Qasr el-Azraq, which can be deduced from pottery evidence tracing to the first century.⁹⁹ While there are no signs of Severan construction at Qasr el-Azraq itself, there was plenty in the surrounding area. First, Kennedy notes, there was evidence from both Sir Aurel Stein's and Crawford's 1929 visit, that a playing card shaped fortress once existed near Qasr el-Azraq. It was likely dismantled to build a local village, but inscriptions found at Qasr el-Uweinid suggest that Septimius Severus built

⁹⁸ Collins, *et al.*, *Roman Military Architecture*, 103.

⁹⁹ Kennedy, *Archeological Explorations*, 75.

Qasr el-Azraq and that it was garrisoned throughout the Severan Dynasty.¹⁰⁰ Deir el-Kahf had the largest connection to the Severan Dynasty. As previously noted, the fortress itself was built during the Severan period and was constructed in conjunction with a road built by Septimius Severus in 208-210 CE, which ran from Azraq to Ithman. Furthermore, the location of the site was exceedingly important.¹⁰¹ It sat at the intersection of not only the Strata Severiana and *via militaris*, but also blocked the mouth of the Wadi Sirhan. Therefore, we can deduce that it was important that this fortress be located on a road, perhaps for mobility, and that it block a major thoroughfare.

It is important to keep in mind that the preclusive strategy proposed by Luttwak focused largely on meeting threats beyond the borders, often by means of mobile forces. Luttwak suggests, in the case of a high-intensity threat, that mobile forces would slow down the advance of the enemy as a field army assembled (from el-Lejjun or Uduh). More importantly for our purposes, he suggests that mobile forces would likely be able to handle low-intensity threats on their own. This point is crucial, for although there was a Persian threat during this time, the distance of Roman Arabia from Mesopotamia mitigated the possibility that the 'Severan Enhancement' was in response to Persian threats. More likely, the Severan build-up was in response to nomadic incursions, which these smaller mobile forces were adept at confronting.

The necessity of mobile forces in the preclusive regional strategy of Roman Arabia under the Severan Dynasty was paramount. As documented throughout chapter

¹⁰⁰ *Ibid.*, 88.

¹⁰¹ *Ibid.*, 102.

two, all three fortresses potentially housed cavalry. Furthermore, their location along a major road network demonstrated the potential for mobile troops to intercept raiding incursions, rapidly, before they reached large settled areas. Thus, a preclusive regional strategy focused on low-intensity threats was not only plausible, but also likely.

Overhaul of the First Tetrarchy

The next major shift in regional strategy came during the First Tetrarchy. The expansion of *castella* into *quadriburgia* across the entire region marked this shift. Shallow defense-in-depth became the regional strategy in Roman Arabia under the First Tetrarchy. Luttwak provides several possible explanations for this. First, troops residing in fortresses became stagnant by the third century and lost their mobility, thus eliminating the likelihood of a preclusive strategy. Second, there was almost certainly a manpower shortage, partially due to the frequent barbarian invasions of the third century and the losses the Romans would have sustained when confronting them.¹⁰² Finally, many soldiers defended the same areas for most of their lives and had laid down roots and started families. These men would have fought more tenaciously to protect their families within a fortress, than riding out to meet a threat.¹⁰³

Galerius' victory over the Sassanians in 297,

prompted the rapid construction of several new military installations, particularly legionary fortresses and *quadriburgia* housing cavalry units and the refurbishment of several forts built in the preceding centuries. The rough building techniques employed, especially among new *quadriburgia* founded at this time, bear witness to both the pressing need and the speed of construction.¹⁰⁴

¹⁰² Luttwak, *Grand Strategy*, 176.

¹⁰³ *Ibid.*, 174.

¹⁰⁴ Cameron, *Later Roman Empire*, 102.

The three *castella* of the Strata Serviana were enlarged to *quadriburgia* in this period. Furthermore, el-Lejjun was constructed in c. 300 CE, which coincides with the date mentioned in Cameron's quote concerning rapid construction.

Each of the three fortresses of the Strata Serviana was enlarged and equipped differently. For example, Qasr el-Hallabat was simply expanded and equipped with four corner towers. Qasr el-Azraq was enlarged and equipped with intermediate towers that were built *de-novo*. Finally, Deir el-Kahf gained an additional tower protruding from the southeastern corner. The key factor of these expansions was the towers. Protruding towers gave defenders an advantageous viewpoint in the event of a siege. The Sassanians were adept at siege warfare and, thus, Roman fortresses had to adapt to the new threat.

Udruh and el-Lejjun were built (or expanded) in c. 300 CE, which permitted a shallow defense-in-depth strategy. The many *quadriburgia* created during the Tetrarchy likely housed some mobile legionary forces and some auxiliaries. However, the Romans did not build enough strongholds for a formidable defense-in-depth, nor did they still possess the large numbers of troops necessary for territorial superiority in a preclusive strategy. Therefore, their only option was a shallow defense-in-depth.¹⁰⁵ The only factor that prevented the creation of an elastic defense was the inability to field a large army via Udruh or el-Lejjun. Figure 1 illustrates the narrowness of the front that was available for defense-in-depth under this strategy.

¹⁰⁵ Luttwak, *Grand Strategy*, 202.

Luckily for the Romans, the victory of Galerius was decisive and kept the Sassanians at bay for many decades.¹⁰⁶ During this time, the shallow defense-in-depth strategy was also effective in dealing with nomadic incursions and brigand groups.

¹⁰⁶ Eutropius, *Abridgment of Roman History* IX.24-25.1.

Arab Tribes Strategy

The final shift in strategy in Roman Arabia was the withdrawal of Roman soldiers from the frontier and their replacement by Christian Arab tribes, first the Tanakh, later the Salih, and finally the Ghassanid/Jafnids. This strategy served a two-fold function. First, the Arab tribes could more effectively combat the fast-moving Persian cavalry. Second, it gave the Romans more freedom to focus on the other conflicts throughout the empire.¹⁰⁷

Sources suggest that Rome was beginning the transition to using Arab tribes well before the sixth century. For example, the Namara inscription of 328 marked Imru'l-qais, a Lakhmid chief, as “king of all the Arabs” and an ally of Rome.¹⁰⁸ Furthermore, there was mention in the Theodosian Code of a fifth-century law, which referred to the payment of Arab *foederati*.¹⁰⁹

Ghassanid forces came to the forefront after they crushed Salih forces in Syria and gained the attention of Emperor Anastasius (r. 491-518).¹¹⁰ Anastasius established a *foedus* with al-Harith ibn Jabala, leader of the Ghassanids, in 502 CE. *Foedus* treaties often were only intended to last for the life of the tribal leader. Therefore, new

¹⁰⁷ Eusebius, *Life of Constantine* IV.1.

¹⁰⁸ Cameron, *Later Roman Empire*, 144.

¹⁰⁹ Theodosius II, *Codex Theodosianus*, Clyde Pharr.

¹¹⁰ Yasmine Zahran, *Ghassan Resurrected*, London: Stacey International Press, 2006. ix.

foedus treaties were usually signed upon the accession of a new ruler. Following the death of Jabala Rome signed a new treaty with his son Arethas. Justinian I gave Arethas the title 'King of the Arabs' in 529 CE.¹¹¹

The appeal of using Ghassanid forces was three-fold. First, they were well organized and extremely mobile. Second, they were Christians, which was appealing to the primarily Christian Roman Empire at this time. Third, they knew the territory better than the Romans.

Ghassanid forces occupied all three fortresses of the Strata Serviana in the sixth century. In the case of Qasr el-Hallabat, this followed an earthquake in 551 CE. Under Ghassanid occupation it was transformed into a dual purpose palace and monastery. Deir el-Kahf was abandoned in the mid-sixth century and was transformed into a Ghassanid compound. Some rooms were reused as storerooms and others were converted into chapels. The Ghassanids, likely, only occupied Qasr el-Azraq for a few decades, as suggested by an Arabic inscription with Islamic content dating to the early seventh century, which provides a *terminus post quem* for Umayyad occupation.¹¹²

The Ghassanids were loyal vassals of the Romans from the sixth to the mid-seventh centuries. They acted as replacements for Roman *limitanei* (border soldiers), who were transferred to other *limes* throughout the empire during the reign of Heraclius.¹¹³ The Ghassanids held power and protected Roman interests in the East

¹¹¹ Collins, *et al.*, *Roman Military Architecture*, 112.

¹¹² Kennedy, *Archeological Explorations*, 77.

¹¹³ I. Sahid, *Byzantium and the Arabs in the Sixth Century*, Washington, DC: Dumbarton Oaks Research Library and Collection, 2009. 51-68.

until their defeat by the Rashidun Caliphate at the Battle of Yarmouk in 636 CE.¹¹⁴ In the following decade, the Umayyads slowly moved into southern Roman Arabia and inhabited these fortifications. According to Kennedy, the *castella* of the Strata Serviana were likely abandoned before the Persian Invasion of 614 CE and, therefore, were undefended during the Umayyad expansion. Evidence, including inscriptions found at Qasr el-Hallabat, demonstrated this shift in power from Christian Arabs to Muslim Arabs in the late seventh century.¹¹⁵

¹¹⁴ M.W. Walton, *Islam at war*, Westport: CT: Greenwood Publishing Group, 2003. 30.

¹¹⁵ Kennedy, *Archeological Explorations*, 80.

Chapter 5

CONCLUSION

The purpose of Roman fortifications in Roman Arabia changed based on Roman necessity and strategy. The enhancement of Roman forts during the Severan Dynasty reflected the regional strategy of the time. That is to say, Rome needed small defenses to deal with small-scale raids and the like. The expansion of these fortresses to *quadriburgia* during the First Tetrarchy demonstrated the fear of large-scale invasion by the Sassanians. Thus, these fortresses grew in size and exhibited signs of anti-siege design. Finally, the reoccupation by Ghassanid forces reflected the Roman need for soldiers elsewhere in the Empire. Thus, we can conclude that these fortresses had multiple tasks, both within these shifts and throughout them. It would be folly to argue for a single purpose. Examination of these shifts demonstrates the changes in Roman regional strategy throughout Roman Arabia from Roman Annexation to Umayyad occupation.

This paper has only examined five fortresses within southern Roman Arabia, however, it is possible to extrapolate from these installations. Roman Syria, for example, shares similarities to Roman Arabia. Forts like Umm el-Jamal, which lay on the modern Jordanian/Syrian border, were transformed into *quadriburiga*, likely during the Tetrarchy. Furthermore, we know that the entire Roman East felt the pressures of Sassanian expansion in the third-fifth centuries. Thus, we can deduce that the shifting of strategy over time was a necessity in dealing with new threats.

Therefore, it is likely that changes in strategy were not unique to Roman Arabia, but were conducted throughout the East as a whole.

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