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An Evaluation of the Original Identity Problem and Structural Design of Zerzevan Castle

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ABSTRACT

This study deals with the mature period of a Roman hilltop fortress (3rd-6th centuries AD) established at Zerzevan which is part of Upper Mesopotamia, now lying in Diyarbakır Province, Southeast Turkey. The site of Zerzevan was constructed according to predetermined rules and principles, with certain standards. It is possible that the Roman army, which specialized in organizing its frontiers with robust fortifications, hosted legionaries from different regions here.

The main method of research is based on a combination of field evidence and textual data, giving priority to preliminary results of the excavations carried out on the site since 2014. Theories about the characterization of the site corresponding to the typical requirements of a border garrison approach the idea of an *Auxilia*/ Tactical Fortress, usually built by the legionaries (instead of an above-standard size *Castrum Romanum*) which could have been customized according to various factors arising from the geo-political conditions of the region. In this context, it must have been built as a local line of defense utilized in the outer boundaries of the Roman Empire, to meet the minimum requirements of a standard size base and/or outpost. The integrity of the site supports the hypothesis that it could have been ranked as a secondary order castrum in the operational chain of command and order of the Roman army.

Keywords: Zerzevan, Castle, Roman, Castrum, Upper Mesopotamia

Introduction

The easternmost frontiers of the Roman Empire reached as far as southeast Anatolia. The region often witnessed power struggles between the Romans and Parthians/ Sassanids. One of the sites that must have been subjected to these battles is Zerzevan Castle, which is located within the borders of Demirölçek Village, 13 km southeast of the Çınar district of Diyarbakır (Fig.1[1]). The excavations initiated in the area played a considerable role in understanding the Assyrian, Persian, Parthian and Roman periods of the region.

Zerzevan overlooks the floodplains of the Tigris, in immediately south of ancient Amida (Ammianus 18.9)[2] which is equated with present day Diyarbakır. In a broader context, the entirety of the Diyarbakır Province stretches over the sub-region between Tigranokerta (Silvan) and Nisibis (Nusaybin) which is bordered by the Taurus range in the north and deserted in the south (with smaller streams in the south-southeast) and east of the Karacadağ volcanic mass. This zone, which also encompasses the shallow sites neighboring today's Zerzevan, is both favorable for agriculture and livestock activities. Situated on a hilltop amidst Diyarbakır and Mardin, the topographical position enabled the fortified spot to monitor and dominate a wide area where the Taurus range terminates.

The garrison at Zerzevan is located on a rocky hill 124 meters above the plain level. It was a strategic point for watching the road from Amida (Diyarbakır) to Dara (Mardin). The road was part of an ancient trade route, which dates back to the Assyrian (882-611 B.C) and Persian (550-331 B.C) periods. The findings from the Parthian Period (140-85 BC) indicate that the area was also occupied in this interval. In light of the architectural remains and materials unearthed during excavations, the main military settlement was established (along with construction of core buildings) in the Severan period (198-235 AD). The fort walls (correctly termed "ramparts") and associated structures were restored during the rule of Anastasios I (491-518 AD) and Justinian I (527-565 AD) while some of them were reconstructed before the present final state was obtained. The Roman site was abandoned in the 7th century with the advent of Islamic armies.

The Perpetual Problem of Identity

The ancient road running from Edessa (Şanlıurfa) to Nisibis (Nusaybin) was used by the Sassanid ruler Shapur II during his campaign against Constantius II in 359 AD when he set out to capture Amida (Dillemann, 1962, 290; Coşkun, 2019, 21). After this, garrison "cities"

1 For the Imperium Romanum, https://i.redd.it/mgth7fiv10u71.jpg

2 Legio Parthica V was based in Amida (Ammianus.18.9.1; 3-4). Information also conveyed in Buckingham, 1827, 384-390.

were established to ensure border security in the east. Dara is a fine example that grew out of a small settlement before it was officially founded by Anastasios I (491-518 AD) under pressure from Sassanid. The construction was completed around 503-507 AD (Erdoğan, 2014). Procopius gave an account of the early Medieval age military operations, mentioning that during the reign of Justinian I (527-565 AD) the fortresses between Dara and Amida were rebuilt for impregnability and rose to prominence (Procopius.*De Aedificiis*.2.3). Interestingly, he never addressed a place that corresponded to Zerzevan among the reconstructed sites (Dewing 1914; Deichmann and Peschlow, 1977, 34). This suggests that the garrison could have been built before Justinian I. The general opinion is that particular importance was attached to fortifications for border security during this period (Kütük, 2014, 154).

The geographical environs of Zerzevan are barely referred to in the literature. A rare case involved the appellation of Charcha/ Kurkh (marked at the place where Zerzevan hill stands) in some of the texts (Comfort and Marciak, 2018, 32-33 (see C.figure.3, F.figure 6)). Pertinent to its modern name, there emerged suggestions that the ancient name may be Samachi/ Sammachi (Dillemann, 1962, 159; Deichmann and Peschlow, 1977, 33; Marciak, 2014, 39) or Sardebar (Henderson, 1903, 99-21) (both names appearing in *Tabula Peutingeriana*). The site should be defined not only as a place where men-at-arms were lodged but also with the civilian settlers who were engaged in agriculture and permanently served the troops and/or were sheltered in times of emergency.

The ruins of Zerzevan were first visited in 1766 by Carsten Niebuhr, who indicated the site as Kasr Zerzaua and talked briefly about its visible structures. He did not mention an inscription which might have related to the origins of the fortress. He did not witness any later settlement activity, either (Niebuhr, 1780, 323; Ritter, 1844, 389; Deichmann and Peschlow, 1977, 8, fn.1, 30). Eduard Sachau, who traveled from Mardin to Diyarbakır in 1880 also gave concise but non-detailed descriptions of the area and left confirming knowledge that the place called Zarzaua hosted a settlement (Sachau, 1883, 434*ff*.; Deichmann and Peschlow, 1977, 8, fn.1, 31; for appellation, Preusser, 1911, 54). Conrad Preusser stopped at the castle and provided rough information around 1910 (Preusser, 1911, 54 *ff*.; Deichmann and Peschlow, 1977, 31). In 1911, Samuel Guyer wrote his observations with short anecdotes as a memoir with his sister Hanna Schätti-Guyer who joined his voyages. Guyer spoke of the presence of a village not seen by the previous travelers (Guyer, 1968, 156). It seems likely that it corresponds to Demirölçek Village, at about 1 km distance from the settlement, which was founded by the final "inhabitants" of Zerzevan Castle.

The name Zerzevan is derived from the Kurdish words Zêr/gold, Zîv/silver and it may have been named later as an adaptation of Zarzaua. The villagers living in the surrounding area today called the site as the "golden city". Or it could be associated with the name of

the time god, Zervan/Zurvan, in the Persian belief with which Mithras[3] is closely related (Dhalla, 1914; Eliade, 2003; Kızıl, 2013). A Mithraeum (Coşkun and Oğuz-Kırca, 2022, 95-104) recently excavated in the area points to the possibility that it was used as a space for worshipping and fulfillment of certain rituals in the Persian period. It is highly possible that Zervan turned into Zerzevan over time. However, it is still difficult to propose a Roman name, for now (Coşkun, 2017b; Coşkun, 2019).

Key Findings and Archaeological Evidence

Archaeologically, the Parthian period (140-85 BC) marks the beginning in which the site was used frequently. The site (Figs. 2-3) has remained intact and survived to date with the architectural ruins from the 3rd century. Residential quarters and daily utensils brought to light the usage of the domiciles and fort components respectively, beginning from this period. In another category, a wide array of ceramic finds (Fig.4) between the 3rd-7th centuries were uncovered at different localities within the site.

The usage of local limestone, corroborated through the results of archaeometric analyses (see Dursun and Coşkun, 2020), are traceable from the architectural elements. The monumental forms, particularly those with military and religious functions, are indicators of considerable workmanship and well-organized labor in which the local population may have participated.

The ruins, which are spread over 6 hectares on the surface, are intensely observed. Inside the fortified area lies the major architectural remains: A watch and defense tower (the Southern Tower, Fig.5a), a grand church (Fig.5b), administrative complex, an arsenal (Fig.5d) and a rock altar fall in the southern sector. In the north lies the core of the street system, the barracks that formed the residential quarters, a giant double-chambered vaulted cistern and several other small size ones, an underground church, a complex of structures forming the Mithraeum sacred area (Fig.6), as well as many others whose functions have not yet been determined. Along with a *necropolis* (Fig.5c), a main water channel route and offering bowls left outside the ramparts, the site totals approximately ten thousand decares of land (Coşkun, 2016, 101-102).

The main entrance (Fig.7) is accessed from the east by two big bastions, which could be equated with a round plan *Porta Praetoria*. The site is surrounded by ramparts with varying heights of 12-15 m, a thickness of 2.1 - 3.2 m, built in the *opus quadratum* technique with

3 Equivalent figures of Mithras were encountered in the 2nd millennium records of Mesopotamia; the king praying to Samas, the god of justice and the sun, appearing on the throne, in the Code of Hammurabi Stele which was found in the Elamite city of Susa and taken to the Louvre Museum. Here, the appearance of Samas instead of Marduk is the best proof of his interest in justice (Tosun and Yalvaç, 1975, 3, 8). In addition, the Sumerian God, Utu, might have undertaken similar duties.

cut stones (*i.e.*, Kretzschmer, 2010) (bonded with *opus caementicum*) whereas some of the walls were worked *in-situ* in the eastern and southern section being carved into the bedrock. The cut stones were enchased until a certain height was reached (Dursun and Coşkun, 2020, 2-5). Ten bastions and two towers were identified at regular intervals on the 1200 meter (including the gates and bastions) fortification wall. At the same time, outwardly protruding retaining walls are set between the bastions (Fig.8). The fact that the appearance of bastions, the only entrance to the castle accompanied by an ancient road are traced in the eastern wall section is owed entirely to the topographical feature that made the site vulnerable to any attack. The large three-story Southern Tower is preserved up to 19.2 m. The original height was determined to be 21 m (Coşkun, 2016, 103-104; Coşkun, 2017b, 93). The excavations revealed an underground passage sealed with flat blocks and mortar against impending sieges.

The area, which descends towards the north, where the streets and alleys become visible, was the residential quarter consisting of single or multi-chambered two story houses and/or barracks (Fig.9), also designed for horses, livestock and warehouses. A five roomed structure-"Building A" (9.6 x 12.4m) constructed in the middle sector, between the arsenal and the vaulted cistern was probably used by a high rank administrator, presumably a commander (Fig.10). The largest structure of the garrison, the Administrative Complex (Fig.11) with rows of chambers in the south, has not yet been excavated (Coşkun, 2017a, 125 *ff.*; Coşkun, 2019, 47-48).

The grand church that survived to the present must have been built later as the number of congregations living here and around increased. In the meantime, a bronze baptismal bucket, a privileged item currently exhibited in the Diyarbakır Archaeological Museum, was probably obtained from this part of the site[4]. To the north of the grand church was a large structure called the Arsenal, with an elongated narrow form and two chambers that were once roofed with barrel vaults (Deichmann and Peschlow, 1977, Taf. 13,1; Coşkun, 2019, 42)[5]. Surgical elements were excavated in and around this building, which was not far from the administrative quarter.

The giant vaulted cistern (11,2x22.5 m) which functioned as the main reservoir attached to the eastern walls, and the main canal running from the south (only a 616 m portion remains which provides evidence) form the backbone of the garrison's hydraulic distribution system, supported by 63 recordable cisterns scattered across the site, mostly inside or adjacent to the residential units (Coşkun, 2016, 105; Coşkun, 2017b, 95; Coşkun, 2019, 55-59).

4 The church-owned bucket (which was taken from the İstanbul Archaeological Museum) with the ancient Greek inscription on the surface *"ΥΠΕΡ ΕΥΧΗC ΚΑΙ CΩΤΗΡΙΑC ΑΝΤΙΠΑΤΡΟΥ ΚΑΙ ΠΑΝΤΟC ΤΟΥ ΟΙΚΟΥ ΑΥΤΟΥ ΚΥΡΙΟC ΦΥΛΑΞΙ CΑΙ (for the granting of the wish- or vow- of Antipatros and his family. God bless you)"* is dated to the sixth century A.D. Joubin 1898, 55; Devambez, 1937, 47, Taf 24; Fıratlı, 1955, 50, Fig.15, 37; Deichmann-Peschlow 1977, 39; Pleket and Stroud, 1977; Pitarakis, 2015, 354-355, Cat.112.

5 The eastern wall, which was standing until 1975, was demolished. Deichmann and Peschlow, 1977, Taf. 13,1; Coşkun 2019, 42.

Milestones of Roman Defensive Planning and Construction

The research at Zerzevan Castle began to shed light on the ways in which the Romans established their military headquarters and settlements near the Tigris River frontiers and in what ancient inscriptions recognize as the Mesopotamian sub-lands.[6] The steps that were probably used for building fortifications in the outer borders: a general survey of the ground and selection of a spot which had a good command and visibility of the entire zone, mathematical work for inter planning was conducted and construction and engineering activity was started. In the next step, a decision was made to determine the direction of a water line as well as the easy supply of fodder (Polybius.*Histories*.6.26-6.27). To Vegetius, an adequate supply of water, wood (especially for fire) and fodder were as important as choosing the safest place, particularly in case of a nearby enemy, often under the stress caused by time constraints.

The garrisons were square or rectangular structures within geometrical plans and street lines and networks suitable for terrain and settlements. A typical *castrum Romanum* was built by specially trained legionnaires (Legiones/ Legio) (Vegetius.*De re militari*; Cassius Dio. *Historia Romana*.78.9) but these type enclosures sometimes differed from short-term camps which were erected in a few hours by members of a Roman legionary branch. The size of camp was not too large for a small force nor was it too small for a big army. Besides quadrangular forms, a variety of shapes such as semicircular or even triangular camps could be made where the situation was dependent on the nature of the site and the circumstances. According to Polybius, a Roman camp was set up in the perfect square (τετράγωνον *ἰσόπλευρον*) where ramparts and barracks were built at regular intervals (measuring ca. 200 feet) in order to ease the marching of the soldiers and prevent crowding. The whole area would measure ca. 4 *plethra*/ ca. 0,38 ha (Polybius.*Histories*.6.26-6.27)[7]. The orientation of the *Praetorium* was always built toward the marching route of the enemy or facing east (Vegetius.*De re militari*.I.22-24).

Not all of the *castra* presented similar patterns but could have been customized according to specific needs. Although highly variable in size, legionary fortresses followed a specific template, often presenting the silhouette of a playing card. There was not perfect uniformity with all encampments but the basics of a fairly common plan eased the physical and psychological access and organization of the inner territorium. The baselines built by the ancient engineers and architects and those who articulated the art of combat and construction of the edifices, especially in continental Europe and parts of Anatolia and Upper Mesopotamia, notice that the *castra* had three to four principal gates (Campbell, 2006, 33-

6 Indicatively Ammianus (25.9) who identifies Mesopotamia with the Roman administrative unit.

7 As there is no strict agreement on their classification, these were close to smaller size marching camps (Jones, 2017, 523).

49) and towers appearing at regular distances. The lack of *fossa* (double row of ditches) (Vitruvius.*De Architectura*.1.5), or a *clavicula* system in Zerzevan was clearly not needed as it easily provided a natural defense field.

Two Main Buildings

The streets demonstrated an integrity with a pre-planned grid system, forming the backbone of the *castrum* in the "T" form by *Via praetoria* (defining or defined by the location of the main gate) and *Via principalis* (running in front of the headquarters), with the most appropriate lines and alleys (E.g., Chester in north-west England. Lander, 1984, 58-60; Campbell, 1999. On Hellenistic defensive designs, Wycherley 2011, 58; Lander 1984; Campbell, 2006). The two core buildings (Figs.9-10) lying at the heart of a typical *castrum*, the *Praetorium* (commander's residence) and *Principia* (headquarters/administrative complex) were erected side by side or very close to each other (Lander, 1984, 59. *cf*. Chester). The orientation of the *Principia* determined the orientation of the *castrum*. The main gate defined as the *Porta Praetoria* was mostly found in the parallel orientation. The rear gate, namely *Porta decumana* directly headed for and reached the *Principia* while many *castra* possessed *Via quintana* that ran parallel to the *Via principalis* without connection to the gates. The gates to the right and left on the long sides were called the *Porta dextra* and *Porta sinistra*, respectively (Lander, 1984; Campbell, 2006).

Something normally accepted and expected was that the *Principia*, which included an open courtyard in the front and offices behind, stood at the intersection point of the T form street system. In this case, Building A, which currently appears on the said point, demonstrates a villa plan with a visible infrastructure (with traces of sewage or drainage as well as a cistern above the ceiling level). It possessed plumbing fixtures over the floor (Campbell, 2006, 37-40; 49-50). The largest structure with sequential rooms is hypothesized to correspond to a *Principia* located at the front of the grand church facing south. It lies closer to the entrance point of the castle. The Roman *Principia* exhibited a more complex design with a *praetentura* (with barracks and storage areas, often lying in front) and *retentura* (welcoming the *scholae* which were reserved for officers and tribunes). This complex of buildings usually retained a basilica with a corridor and a commander speaking platform and, a *sacellum* or an *aedes* (sanctuary) in the center of which the legion standards were preserved; with an underground section (strongroom or a "safe" room) where the securities, mainly cash were kept. The literature suggested, within the boundaries of possibility, that similar stuff was stored in a special segment at the basement of this building. Future excavations are expected to provide more comprehensive information.

Near the *Principia* were the "public" hygiene rooms or lavatories (Campbell, 2006, 37-41; Goldsworthy, 2013) and an *armamentarium*, often with elongated rooms, and a

valetudinarium (equivalent to a dispensary). The arsenal at Zerzevan seems to match an *armamentarium* in both form and shape. A *valetudinarium* also seems plausible, with several surgical items unearthed at the spot in question. Apart from these, other functional buildings such as the *fabricae* (workshops), *tabernae* (shops for craftsman and artisans like the blacksmiths, carpenters, butchers, shoemakers, etc.), *horrea*, *macellum*, basically the cisterns which were fed by a *castellum* and/or the *tubuli fictiles*, and often a *therme* outside the inner territorium were found in a standard *castrum (*Campbell, 2006, 41-49; Goldsworthy, 2013).

A *centuriae* zone (one for the *centurion* and others for the soldiers) furnished with tents or barracks were constructed in consideration of the legionaries and their families who lodged with their horses and, with enough stables as well as a *gyrus* area for training or a *basilica exercitatoria*. Some of the barracks were reserved for the cavalry who lodged with their mounts. The rear part of Building A, the nearest place to the vaulted cistern, appears to have orderly arranged two story building blocks with high entrances (suitable for a cavalry's horse's height). If the location of the *Praetorium* is correct, nothing could be more reasonable than assigning the barracks quarters to the *centuriae* category. This zone is also acknowledged as the location of the best troop's barracks due to their positioning closest to the *Porta Praetoria (*Campbell, 2006, 50-54; Marcu, 2009, 13-14, 29-30).

The giant vaulted cistern replaced the function of a typical Roman *castellum divisorum*, a design that was detailed according to miscellaneous needs (Coşkun, 2017b, 96; Coşkun, 2019, 62-63). The scattered pattern of the water distribution system is compatible with the topographical limits, with the *castellum* at the forefront. Its proximity to the distinguished structures, mainly the *Praetorium* does not appear to be accidental. Based purely on written information and in the absence of a *therme*, the *latrinae* or general purpose hygiene complex can be found in the immediate vicinity of the *Porta Praetoria* or the unexcavated space between this entrance and the *Principia*. The placement of sitting benches unearthed in the rear sections of the two story buildings matching the *centuriae* zone, seem to be meaningful. In the absence of a public *therme*, functioning private baths in the barracks must be reconsidered.

Discussion

Before it took its present final state, Zerzevan must have undergone several stages. It was refortified or built against the Sassanid attacks[8]. In its current state, Zerzevan retains the conjugate image and function of *Castra Romana* which are documented in continental Europe, *cf*. Chester (Deva) in the UK, Castra Regina in Regensburg, Novaesum (Neuss) near the West bank of Rhine, Germany, and Inchtuthil in Scotland, etc. (Carrington, 1977, 36-42; Dietz and Fischer, 1996; Campbell, 2006: 33; Shirley, 1996, 111-127; Campbell, 2006, 24,

8 Reminding the case at Nicaea/ İznik, see Schneider, 1943; Foss and Winfield, 1986.

39; Gechter, 2007, 207-213). However, the plan is considered to have the status and format of an *Auxilia*, adjusted to the topography of the area. There is scant knowledge about the hill fort type constructions or those located on flat terrain, (*i.e.,* Danube (Pannonia), North Africa or Iberian Peninsula) (Campbell, 2006, 17, 22; Lander, 1984, 8-10) vis-a-vis riverside forts in the European region. A parallel site in terms of its natural layout and appearance could be Balad Sinjar (Parker, 2000, 122-138) at Singara in the south-east of Nisibis (modern Sinjar in northern Iraq), which was a fortress of *Legio I Parthica,* one of the eastern frontiers of Rome.

Notable legionnaire headquarters identified in ancient passages in Anatolia (Parker, 2000, 122; Uzunoğlu, 2012, 96-97)[9] were established in Melitene (Malatya) (Gabriel, 1940, 264-269; Mitford, 1998, 16); Zeugma that hosted Legio IV Scythica which were deployed by Marcus Antonius against the Parthians (Cassius Dio.*Historia Romana*.51.23.3; Campbell, 1999) at Belkıs (Wagner, 1977, 517-540; Görkay, 2017)[10]; Samosata (Adıyaman) and Satala (Gümüşhane) (Lightfoot, 1998, 273-284; Hartmann *et al*. 2006). Garrison cities formed a link in the eastern *limes* chain of castles on the Sassanid border. Important stations located between the Northern Mesopotamian Plain and the Eastern Anatolian Plateau included Amida (Diyarbakır), Edessa (Urfa) and Carrhae (Harran) as fortified settlements and newly established outposts. Dara (modern Oğuz Village), situated between Amida and Nisibis (Ahunbay, 1991, 391-392), is a good example.

In fact, evidence in Anatolia is inconclusive due to some under-reported cases or sites like Amida that have been completely modified. Ancyra (ancient Ankara) is one of these instances. The oblong hilltop fortification at Ancyra, where the outer ramparts measure ca. 350 m in the N-S, 180 m in the E-W axis, with wall heights of 14-15 m, (Strabo 4.1.13; 12.5.2; Görkay, 2011, 206), expanded its borders after the occupation of the Galatians by the Romans in the 2nd century B.C and overflowed today's boundaries (Foss, 1977; Serin, 2011).[11] This *castrum* was one of those which had its share of Sassanid attacks in the 7th century (İdil, 1997). Unlike the case of Ancyra which was built with spolia blocks removed from ancient city structures (Kadıoğlu and Görkay, 2011), Zerzevan revealed no dramatic change in the current appearance of the ramparts. When the Sassanids occupied Ancyra and the city was devastated in the beginning of the 7th century, the settlement shrank to the inner castle (Eyice 1993). Such was not the case in Zerzevan. Zerzevan presents itself as a unique body in regional geography, which as far as is known, does not go beyond the pre-designed insulae. When compared to sites in the region, such as Amida, Dara, and Zenobia-Halabiya the architectural fit sought in this context of ramparts and towers appears to be more or

9 For those who organized at this level by establishing headquarters as well as many other legions stationed in Anatolia, Parker, 2000, 122; Uzunoğlu, 2012, 96-97.

10 Over the region, Zeugma legion settlement is closest to that of Amida and Dara but is representative of a civic case (Görkay, 2017, 149, 165).

11 For third century A.D city walls, specifically Kadıoğlu and Görkay, 2011, 536-538.

less similar to that of Zenobia-Halabiya at Deir-Ezzor in northeast Syria (Blétry, 2020, 137-146). Regarding the Roman road network in northern Mesopotamia where physical evidence is still poor, the Tabula Peutingeriana and Antonine Itinerary, especially for the Osrhoene region (corresponding to western Mesopotamia/ east of Euphrates) provides somewhat better sources for understanding the ancient situation between the Euphrates and Tigris Rivers where milestones and forts were surveyed. Roadside forts seen between Doliche (Dülük, Gaziantep) and Samosata, are similar to the positioning of Zerzevan between Amida and Nisibis. Eskihisar may be another site which guarded the route between the legionary bases of Zeugma and Samosata, in the eastern bank of the Euphrates (Guyer, 1939, 183-190). Epigraphic evidence as well as stamped tiles have enlightened scholars that a *praetorium* structure at Eskihisar was built by Legio IV Scythica, in the 2nd century A.D (Wagner, 1983, 112-114). Ancient outposts located at regular intervals were also reported east of Edessa in late Ottoman records (Taylor, 1868, 353). In any case, Zerzevan's local features differ significantly from its "counterparts", which used similar masonry techniques, especially in the defensive parts.

Presumably, Zerzevan changed hands between the Romans and the Sassanids. A pitfall of this study could be the construction of "ideational landscapes" (Wilkinson, 2003, 6) as the social territorium of Zerzevan exceeded idealized frontier outposts. We will never know for sure. But physical limits always exist, as long as geography allows for a hypothetical answer for the decision to establish such an outpost at a location distant or separate from the neighboring legionary strongholds in the Syrian Province. In the absence of a deep waterline for transportation and related logistical concerns, the Roman army must have considered terrestrial solutions for this area. The auxiliary fortifications which are mentioned in the *Itinerarium Antonini Augusti* and *Tabula Peutingeriana* (Tigranokerta, Amida, Nisibis lying to the immediate southeast of the Tigris arc), are all situated within a day's walking distance (ca. 20km) from each other (Mitford, 1977, 507; also, Löhberg, 2006). Rather than directly identifying the fortification as a legionary base, the articulation of *Auxilia* (Kaya, 2005, 88-90) whose members were recruited from local forces could be a reasonable answer in the absence of an inscription or any other clear evidence for a direct appellation of present-day Zerzevan, as emphasized above. Its physical proximity to both the legionary fortresses of Nisibis and Resaina on the modern borders of Syria and Turkey, and to Singara in northern Iraq, makes the situation more understandable.

Zerzevan stands out with its layout (Fig.3, Fig.8) adapted to topographical conditions. It was a quasi-oval (not rigidly circular) geometric shape designed with regularly spaced bastions and/or towers, as conveyed by Vitruvius. The customization of the plan was easily recognizable with the separately placed *Praetorium* and the *Principia*. However, the positioning of Building A and the Administrative Complex, do not abide by the principles

in an ideal or fairly standard *castrum* plan (Table 1). But we maintain a second assumption that (in the beginning of ongoing excavations) the street system could have changed over time. If not, Zerzevan should be cited as a prime example of how a hilltop castle can be manipulated according to practical and geographical factors as well as factors yet to be identified. Deviating from recorded history and other excavated sites, the *Porta dextra* and *Porta sinistra* are located on the north and south wings of the main axial orientation in Zerzevan. Looking at the overall picture, the *Via praetoria* and *Via principalis* changed roles in accordance with the current situation of the two main buildings and the *Porta Praetoria*, affecting the "classical" position of the *porta dextra* and *porta sinistra*. Also, two candidates which replaced the function of a *Porta decumana* and *Via quintana* now on the front/ west of the arsenal (where *tabernae, macellum*, etc. could have been planned) may be stressed. The passage discovered under the Southern Tower might be substituting for a *Porta decumana*.

Conclusion

In the light of these archaeological finds, the frequent use of the garrison at Zerzevan can be traced back to the Assyrian period while the current picture which emerged in the 3rd-4th centuries A.D was shaped by Rome. Situated close by the eastern *limes* in the Mesopotamian borderland, Zerzevan could be named Samachi, Sardebar or something that denotes a kind of home to a local society about which we still do not have a complete idea. As one of the best preserved Roman outposts, it represents a standard legouesque formation, customized according to a variety of physical conditions and not yet completely fixed. Nevertheless, it overlaps with a good many elements of a Roman *castrum* with a certain level of institutionalization, resulting from the complementarity of defensive features in a non-linear but still T form grid system of streets and residential areas. But more than that, it is a magnificent prototype that shows how a typical Roman garrison in a specific region, such as Upper Mesopotamia, could be designed by constructing equivalent elements whose functions did not change from those required for an outpost. Hence, it is a unique case study in terms of its distinctive layout. Through this opportunity, we can witness an original construction scheme with a meticulously designed outpost, the equivalent of a medium-sized *castrum* outside continental Europe. The layout and construction had the same function to fit with the changing topography and localities.

It would make no sense to call it Samachi or to identify it with any other local name. What purpose it served should matter to the scholarly world. Its *terra incognita* character reinforces the idea that it may have been missioned as an *Auxilia* (neither an overnight camp nor a fully conscripted legionary castle), where local forces were often referred as second order Roman bases. Excavations are expected to shed further light in the future. In addition to permanent and/or patrolling forces in frequent contact with the Sassanid borders, local or Romanized

groups and allies recruited from across the region may have acted as military reinforcements on demand or in emergency cases.

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References

Ancient sources

Ammianus Marcellinus. *History (vol I)*. Rolfe, J.C., trans., London, 1939.

Lucius Cassius Dio. *Historia Romana (Roman history)*, Cary, E., trans., the Loeb Classical Library, 1968.

Marcus Vitruvius Pollio. *De architectura (mimarlık üzerine on kitap)*. Şevki Vanlı Mimarlık Vakfı, Güven, S., trans., Şevki Vanlı Mimarlık Vakfı, 1990; *the ten books on architecture (1-10)*. Morgan M.H., trans., Dover Publications, 1960.

Polybius. *Histories*. Shuckburgh, E.S., trans., Macmillan. 1889, reprint Bloomington, 1962.

Procopius of Caesarea. *De aedificiis (on buildings)*, Dewing, H.B., trans., the Loeb Classical Library, 1949.

Publius Flavius Vegetius Renatus. *De re militari (epitoma rei militaris)*, Lang, C. (ed.), Stuttgart, 1872. 2nd ed. Leipzig, 1885; Milner, N.P., trans. Liverpool, 1993, 2nd revised ed., 2011.

Strabo. *Geographika: antik Anadolu coğrafyası (books 12-14)*. Pekman, A., trans, Arkeoloji ve Sanat Yayınları, 2005.

Modern Sources

Ahunbay, M. (1991). Dara- Anastasiopolis. *KST, 12,* 391–399.

Blétry, S. (2020). The fortifications of Zenobia reinterpreted. In E.E.Intagliata, S.J.Barker, & C. Courault (Eds.), *City walls in late antiquity* (pp. 137-147). Oxbow Books.

Buckingham, J.S. (1827). *Travels in Mesopotamia (including a journey from Aleppo to Bagdad by the route of Beer, Orfah, Diarbekr, Mardin, & Mousul; with research on the ruins of Niniveh, Babylon, and other ancient cities) (vol.1)*. Henry Colburn.

Campbell, J.B. (1999). Legio. *DNP*, 7, 7–22.

Campbell, D.B. (2006). *Roman legionary fortresses 27 BC– AD 378*. Osprey Publishing.

Carrington, P. (1977). The planning and date of the Roman legionary fortress at Chester. *Journal of the Chester Archaeological Society, 60*, 35–42.

Comfort, A., & Marciak, M. (2018). *How did the Persian king of kings get his wine? the upper Tigris in antiquity (c.7000 bce to 636 ce)*. Archaeopress.

Coşkun, A. (2016). Zerzevan kalesi 2014 yılı kazı çalışmaları: ilk sezon. *KST, 37 (1),* 101-128.

Coşkun, A. (2017a). 2015 yılı Zerzevan kalesi kazı çalışmaları (2. sezon). *KST 38 (1)*, 125-150.

Coşkun, A. (2017b). Zerzevan castle in the light of recent archeological research. *Anadolu (Anatolia), 43*, 91-110.

Coşkun, A. (2019). *Zerzevan kalesi-Roma'nın sınır garnizonu / Zerzevan castle - Roman border garrison*. Diyarbakır Valiliği.

Coşkun, A., & Oğuz Kırca, E.D. (2022). Beyond the Roman east: an archaeological evaluation of the Mithraeum based on its architectural authenticity at castrum Zerzevan (Diyarbakır, Turkey). *Journal of Ancient History and Archaeology, 9 (2)*, 94-105.

Deichmann, F.W., & Peschlow, U. (1977). *Zwei spätantike Ruinenstätten in nordmesopotamien*. Bayerische Akademie der Wissenschaften.

Devambez, P. (1937). *İstanbul müzeleri. Asariatika Müzesi: tunç eserler rehberi - guide illustre de bronzes*. İstanbul.

Dewing H. B. (1914). *Procopius, history of the wars, I*. New York.

Dietz, K., Fischer, T. (1996). *Die Römer in Regensburg*. Regensburg.

Dhalla, M.N. (1914). *Zoroastrian theologoy from the earliest times to the present day*. New York.

Dillemann, L. (1962). *Haute Mésopotamie orientale et pays adjacents: contribution a la géographie historique de la région, du Ve s. avant l'ére chrétienneau VIe s. de cette ére*. Paris.

Dursun, F., & Coşkun, A. (2020). A preliminary study on material properties of the *Zerzevan* castle, Turkey. *Materials Science and Engineering, 949*, 1-8.

Eliade, M. (2003). *Dinsel inançlar ve düşünceler tarihi*, çev. A. Berktay. Kabalcı Yayınevi.

Erdoğan, N. (2014). *Anastasiopolis- Dara Antik Kenti*. Mardin.

Eyice, S. (1993). P.Guillaume de Jerphanion ve Ankara kalesi. *Ankara Dergisi*, 2 (5), 9-31. Ankara Büyükşehir Belediyesi.

Fıratlı, N. (1955). *A short guide to the Byzantine works of art*. İstanbul.

Foss, C. (1977). Late antique and byzantine Ankara. *Dumbarton Oaks Papers, 31*: 27-87.

Foss, C., Winfield, D. (1986). *Byzantine fortifications: an introduction*. University of South Africa.

Gabriel, A. (1940). *Voyages archéologiques dans la Turquie* orientale. Paris.

Gechter, M. (2007). Der Römische militärplatz Neuss (Novaesium). In G. Uelsberg (Ed.), *Krieg und frieden–Kelten, Römer und Germanen* (pp. 207–213). Begleitbuch Zur Gleichnamigen Ausstellung im Rheinischen Landesmuseum.

Goldsworthy, A. (2013). *Armia Rzymska na wojnie 100 p.n.e. – 200 n.*e. Oświęcim.

Görkay, K. (2011). *Roman city walls (3rd century city walls), Roman Ancyra*. İstanbul.

Görkay, K. (2017). *Zeugma lejyon yerleşkesi: yeni araştırmalar, sonuçlar ve ön değerlendirmeler*. *Anadolu (Anatolia), 43*, 147-179.

Guyer, H.S. (1968). *Reise durch Mesopotamien*. Zürich.

Guyer, S. (1939). Eski Hisar, ein römisches lagerkastell im gebiet von Edessa. In *Mélanges syriens offerts à monsieur René Dussaud par ses amis et ses élèves* (pp. 183-190). Paris.

Hartmann, M., Drahor, M.G., Speidel, M.A., & Çiğdem, S. (2006). New research at the Roman legionary camp at Satala, northeast Anatolia; geophysical and archaeological survey. *AST, 21,* 197–204.

Henderson, B. 1903. Controversies in Armenian topography I: the site of Tigranocerta. The *Journal of Philology, 28*, 99-121.

İdil, V. (1997). *Ankara: the ancient sites and museums*. Ankara.

Jones, R. (2017). Roman frontier studies 2009. In N. Hodgson, J.P. Bidwell, & J. Schachtman (Eds.), *Proceedings of the XXI international congress of Roman frontier studies (limes congress) held at Newcastle upon Tyne*, August 2009 (pp. 521-531). Archaeopress Publishing.

Joubin, A. (1898). *Musee imperial Ottoman. bronzes et bijoux*. İstanbul.

Kadıoğlu, M., & Görkay, K. (2011). Roma döneminde Ankyra. In Y. Kurt (Ed.), *Tarihte Ankara uluslararası sempozyumu bildirileri* (pp. 531-541). Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi.

Kaya, M.A. (2005). Roma lejyonerleri ve Anadolu. *Tarih Araştırmaları Dergisi, 24 (37)*, 87-98.

Kızıl, H. (2013). Zurvanizm'in kuruluşu ve Sasaniler dönemindeki etkileri. *EKEV Akademi Dergi, 56*, 295-310.

Kretzschmer, F. (2010). *Resimlerle antik Roma'da mimarlik ve mühendislik*, çev. İlkgelen, Z.Z. Arkeoloji ve Sanat Yayınları.

Kütük, A. (2014). İmparator I. Justinianos'un ilk yıllarında Bizans imparatorluğunun Mezopotamya sınırı (527-532). *Tarih Okulu Dergisi, 18*, 141-164.

Lander, J. (1984). *Roman stone fortifications: variation and change from the first century a.d. to the fourth*. Bar International Series.

Lightfoot, Ch.S. (1998). Survey work at Satala, a Roman legionary fortress in north-east Turkey. In R. Matthews (Ed.), *Ancient Anatolia. fifty years' work by the British institute of archaeology at Ankara* (pp. 273-284). London.

Löhberg, B. (2006). *Das itinerarium provinciarum Antonini Augusti*. Frank & Timme.

Marciak, M. (2014). The cultural landscape of Sophene from hellenistic to early Byzantine times. *Göttinger Forum für Altertumswissenschaft, 17*, 13-56.

Marcu, F. (2009). *The internal planning of Roman forts of Dacia*. Mega Publishing House.

Mitford, T.B. (1977). *The Euphrates frontier in Cappadocia. Studien zu den 129 militärgrenzen Roms II*, 38 (501-511). Köln.

Mitford, T.B. (1998). The roman frontier on the upper Euphrates. In R. Matthews (Ed.), *Ancient Anatolia: fifty years' work by the British institute at Ankara* (pp. 255-272). London.

Niebuhr, C. (1780). *Voyage en Arabie & en d'autres pays circonvoisins*. Amsterdam.

Parker, S.T. (2000). Roman legionary fortresses in the east. In R.J. Brewer (Ed.), *Roman fortresses and their legions. papers in honour of G.C. Boon* (pp. 121–138). Society of Antiquaries of London/National Museums & Galleries of Wales.

Pitarakis, B. (2015). *Hayat kısa, sanat uzun- Bizans'ta şifa sanatı/ life is short, art long – the art of healing in Byzantium.* İstanbul.

Pleket, H. W., & Stroud, R.S. (1977). Samachi (kale'i Zerzevan; 45 km s. of Amida). inscription on a bronze bucket, 6th cent. A.D. *Supplementum Epigraphicum Graecum, 27*.

Preusser, C. (1911). *Nordmesopotamische baudenkmäler altchristlicher und islamischer zeit*. Leipzig.

Ritter, C. (1844). *Die erdkunde von Asien 7-2*. Berlin.

Sachau, E. (1883). *Reise in Syrien und Mesopotamien*. Leipzig.

Serin, U. (2011). Late antique and Byzantine Ankara: topography and architecture. In *Marmoribus vestita. miscellanea in onore di Federico Guidobaldi* (pp. 1257-1280). Pontificio Istituto di Archeologia Cristiana.

Schneider, A.W. (1943). Die Römische und Byzantinische denkmäler von İznik-Nicaea. *Istanbuler Forschungen, 16*. Berlin.

Shirley, E.A.M. (1996). The building of the legionary fortress at Inchtuthil. *Britannia, 27*, 111–128.

Taylor, J.G. (1868). Journal of a tour in Armenia, Kurdistan and upper Mesopotamia. *Journal of the Royal Geographical Society, 38*, 281-361.

Tosun, M., & Yalvaç, K. (1975). *Sumer, Babil, Assur kanunları ve Ammi-Şaduqa fermanı*. Türk Tarih Kurumu.

Uzunoğlu, H. (2012). Anadolu'da Roma lejyonları. In N.E. Akyürek Şahin, B. Takmer, & F. Onur (Eds.), *Eskiçağ yazıları 2* (pp. 93-128). Arkeoloji ve Sanat Yayınları.

Wagner, J. (1977). Legio IIII Scythica in Zeugma am Euphrat. *Limes, 10*, 517-539. Köln.

Wagner, J. (1983). Provincia Osrhoene. In S. Mitchell (Ed.), *Armies and frontiers in roman and byzantine Anatolia* (proceedings of a colloquium held at university college) (pp. 103-129). Swansea, April 1981. Oxford, BAR International Series.

Wilkinson, T.J. (2003). *Archaeological landscapes of the near east*. The University of Arizona Press.

Wycherley, R.E. (2011). *Antik çağda kentler nasıl kuruldu?* Arkeoloji ve Sanat Yayınları.

Table 1: Comparative Review of the Major Components of A Roman Fortress and Zerzevan

	Standard *Castrum Romanum*	Zerzevan (Late Roman)
Zonal command & visibility	ok	ok
Geometry of general layout	perfect square/oval	elongated oval
Size	up to 50 ha	6 ha
Height/ thickness of rampart system	varying; early stone walls reached 4,5-5 m, widths of 3-9 m	12-15 m high, 2.1 - 3.2 thick
Masonry technique	miscellaneous timber built forts (43 AD-early 2nd century in general) stone with earthen ramparts, co-usage of brick, turf, timber (from 2nd century)	opus quadratum bonded with opus caementicum
Watch & defense tower	ok	one standing
Fossa	ok	X
Towers/ bastions located at regular intervals	ok	ok
Supply of water	ok	ok
Number of principal gates	3-4	1 excavated
Orientation of Porta Praetoria	marching route of enemy/for NA situations- east	east
T form street system	ok	ok/ as much as possible given the current state of excavations
Grid plan	ok	ok
Via praetoria	running from porta praetoria to Principia	E-W axis
Via principalis	running from porta principalis dextra to sinistra	N-S axis
Porta dextra	on long sides	on short sides
Porta sinistra	on long sides	on short sides
Principia	intersection point of T form street system	in the middle-south sector, lying afar
Complex of buildings	ok	ok
Main spaces	praetentura & retentura	multi-chambered complex
Structures inside or in connection	basilica, speaking platform, aedes with strongroom	grand church, others not excavated
Closer facilities	common latrinae, armamentarium, valetudinarium, fabricae, tabernae, macellum, horrea, etc.	arsenal matching armamentarium possible space for dispensary
Praetorium	near the Principia	intersection point of T form street system, close by Porta Praetoria
Villa plan	ok	ok
Private infrastructure	ok	ok
Orientation of castrum	according to Principia	according to administrative complex/ east
Via quintana	ok	possibly

Porta decumana	directly heading for Principia	replaced by a hidden passage running from the Southern tower (as if sourcing by a porta dextra?) to Principia?
Centuriae	orderly arranged quarters of barracks	orderly arranged two story buildings with high entrances
Housing	best troops lodged close to Porta Praetoria	at the rear part of Building A, near Porta Praetoria
Therme	ok outside ramparts	X (if not earthed inside) some private baths? at the rear section of two-story buildings neighboring the vaulted cistern
Water structures	miscellaneous	main canal, vaulted cistern, secondary cisterns
Gyrus, basilica exercitatoria	ok	X
Necropolis	ok outside ramparts	ok outside ramparts

Figures

Figure 1: Geographical location of Zerzevan Castle (https://i.redd.it/mgth7fiv10u71.jpg)

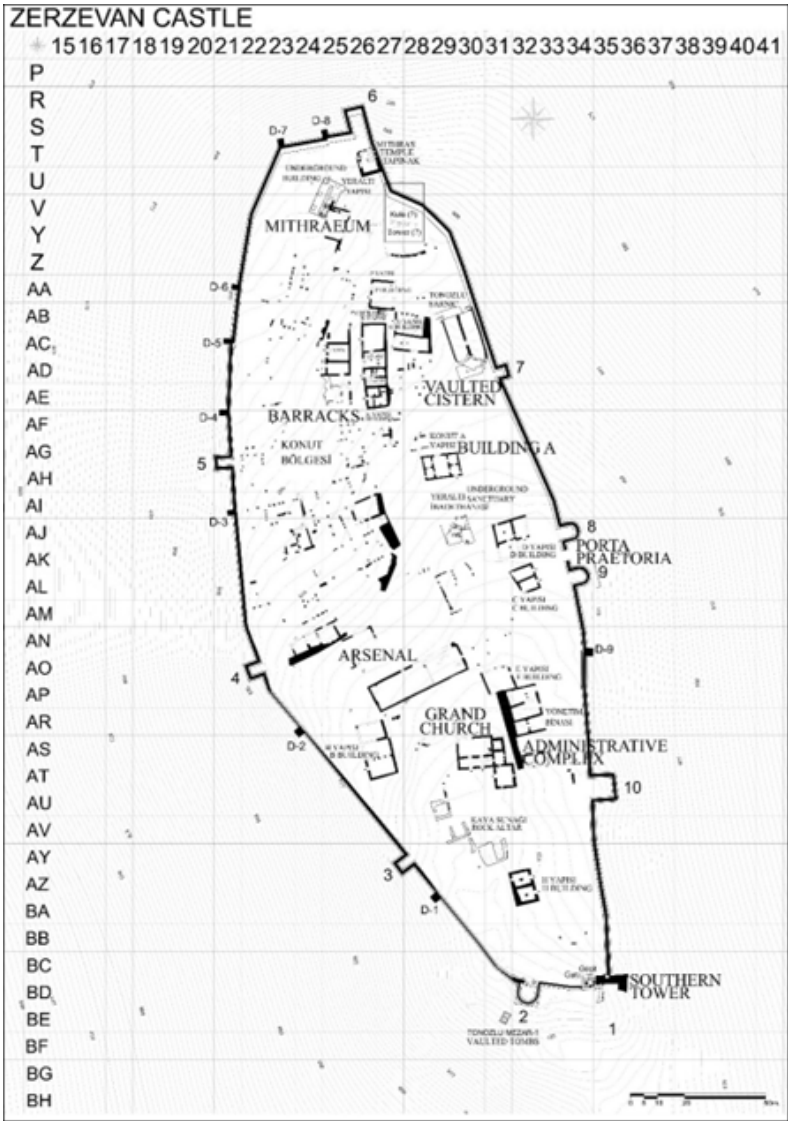

Figure 2: Plan of Zerzevan Castle (Excavation Archive)

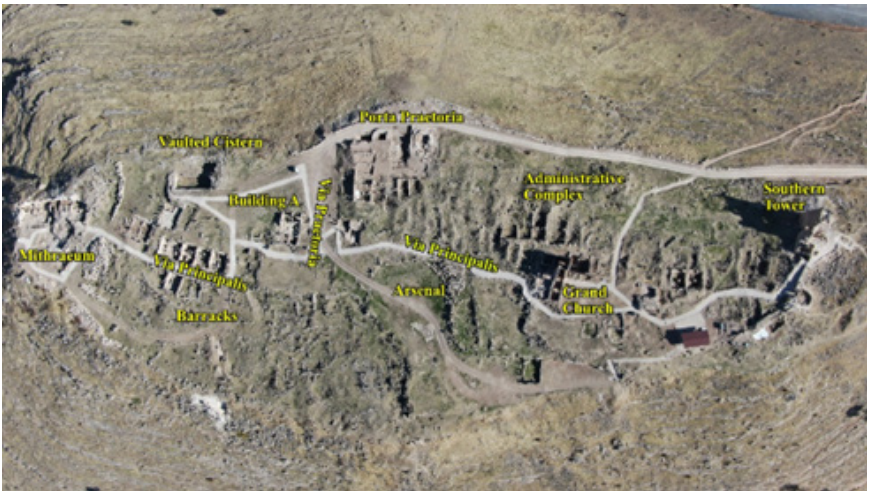

Figure 3: Main architectural buildings marked on aerial view (Excavation Archive)

Figure 4: Samples of ceramic finds (Excavation Archive)

Figure 5: Southern Tower (a), Grand Church (b), inner image of a rock tomb (c); aerial view of the Arsenal (d) (Excavation Archive)

Figure 6: Aerial view of the Mithraeum (Excavation Archive)

Figure 7: The location of the main gate/*Porta Praetoria* on aerial view (Excavation Archive)

Figure 8: A photograph from the walls (top left) and 3D reconstruction of the rampart system (Excavation Archive)

Figure 9: Photograph from the inner space of a barrack (top right); location of the quarter of barracks on aerial view (Excavation Archive)

Figure 10: Aerial view image of the plan of "Building A" (Excavation Archive)

Figure 11: Aerial view of the "Administrative Complex" in front of the Grand Church (Excavation Archive)