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Ottoman fortifications on the territory of Banat (the 16th–18th Centuries)

Silviu Iliuță

Abstract: Most of the Banat historical province was conquered by the Ottoman army in the 16th century. By the mid-16th century the Ottoman Empire established what is known as the *Vilayet* of Timișoara (or Eyalet of Timișoara), an administrative-territorial unit which was dissolved in 1716 and, two years later, replaced by a similar unit named *Temescher Banat*. In the following pages I will attempt to reconstruct the defense system of the *Eyâlet-i Temeşvar* using information available in academic literature.

Keywords: ottoman fortifications; stronghold; defense; palanka; Banat.

Introduction

The historical province of Banat, delimited to the north by the Mureș River, to the east by the Poiana-Ruscă Mountains, to the south by the Danube, and to the west by the Tisza, is today divided between Romania, Serbia, and Hungary and represents a significant portion of the Ottoman administrative-territorial unit established by the mid-16th century, the Eyalet of Timișoara¹. Between 1552 and 1716, said territory was strongly disputed among the two power poles present in the region: the Ottoman Empire and the Habsburg Empire. During the 17th century, the Banat represented approximately 50% of the Eyalet territory. Before the Peace of Karlowitz (26 January 1699), areas under Ottoman control fell one by one to the hands of the Habsburgs, and by the early 18th century, the Eyalet's territory stretched only within the borders of the Banat, on an approximately 28.000 km² area².

Just after the conquest of the Timișoara Fortress, the Ottoman administration in the region establishes the Eyalet of Timișoara in 1552 and appoints Gazi Kasım Pasha, with the support of Kara Ahmed Pasha, as *beglerbeg*³ of Timișoara⁴. Several actions then followed intended to reinforce the power of the new leaders: *timar-i defter*, the timar financial registry in 1552⁵; *tahrir-i vilayet*, property census – starting with 1554⁶, enactment of the law books titled *kanunname*⁷ in 1567⁸. Concurrently, the authorities commenced systemizing transportation and communication ways by setting up and maintaining main roads – military and trade arteries that would underlie, as we shall see below, the Ottoman defensive system of the Banat.

In the newly conquered territories, the Ottomans subdued, with or without a fight, the fortifications built by the former Hungarian administration, which they either preserved, maintained and improved or demolished to prevent the formation of resistance groups against the newly established rule. Aided by information found in the academic literature, I attempted to reconstruct the image of the Ottoman defensive system, addressing topics like the function of the defensive system, the fortification's construction manner and repair process, their location within the analyzed territory, or the distribution of troops garrisoned in fortresses. The paper is also accompanied by a catalogue of all Ottoman fortifications identified in the [...] Banat area. In the said catalogue I unified information [...] I unified information recovered from historical sources to facilitate their research. I have also created

¹ Tr. *Eyâlet-i Temeşvar*

² Area computed by Quantum GIS software, the value being of approximately 28314.87 km².

³ *Beyal* beylor, equivalent of governor; Somel 2010, 127.

⁴ Feneșan 2014, 122.

⁵ Feneșan 2014, 24.

⁶ Feneșan 2014, 29.

⁷ Somel 2010, 245.

⁸ Feneșan 2014, 38.

a map on which I marked each fortress with its accurate or approximate location (where historical or archaeological information was insufficient), which I used to determine reaction times in the event of an attack or how the position of a fortress impacted garrison compositions. For easier understanding, each fortress was assigned a number on both the map and in the legend per the catalogue and kept the modern names of the places since certain Ottoman names are not entirely similar to those used today.

Aided by these newly set up working tools I attempted to reconstruct a clear image of how the Ottoman defensive system operated in the Banat between the 16th and 18th centuries.

1. The Ottoman defensive system of the Banat

The Ottoman defence of the Banat relied mainly on mutual military aid among the fortresses, facilitated by the well-developed communications network constantly maintained with the support of specialized institutions, like the *derbendcis*⁹. I identified herein some forty-five fortresses of various ranks, which shall be further discussed starting with aspects like building techniques, location or composition of the garrisons.

1.1 How the Ottoman defensive system operated in the Banat

In medieval times, the territory controlled by the Hungarians was strongly fortified. Because of this, it is difficult to say with certainty how many fortresses were conquered by the Ottomans. According to currently available data, most fortifications in areas conquered by the Ottomans were subdued in the 16th century¹⁰. After 1541, with the conquest of Buda, they set up a network of citadels east of the Danube intending to protect communication and transport pathways already established and well-organized beginning with 1526, just after the victory at Mohács. During the same period, the most important fortifications were believed to lie on the Danube line. There, the Ottoman administration chose to develop the *palanka* system, in contrast to the Banat, where the single fortifications of the *palanka* type are at Dudeștii-Vechi and Mehadia, and paid less attention to older fortresses (which they called *kale*¹¹, built by the Hungarians, commonly out of hard materials)¹². In the case of the fortifications which the Ottoman empire conquered, there were two options: these were either repaired and improved (later also maintained) or demolished. On the territory of today's Hungary, where the investigation of the Ottoman period is more advanced¹³ than in Romania, recent studies have shown that most of the defence works built by the Ottomans are of *palanka*¹⁴ or *parkan* type (fortifications with timber structures different from palankas only by their geographical location, these being located in border areas), those of *kale* type being rarer¹⁵ and most often built since the period of the Hungarian Kingdom, before the Ottoman conquest.

In fortified points whose faith was not demolition, the Ottomans positioned troops, firstly by “borrowing” manpower from nearby fortresses, the main criterion for the installation of a number of soldiers being the fortification's spatial size¹⁶. Thus, in large fortresses, *Eyalet* centres (as in the case of Buda or Timișoara) one finds in *timar-i defter* (hereinafter termed registers or payment registers drafted once with 1552), numbers that exceed thousands many times. Inside medium-sized fortresses (like Lipova) were officially quartered between 200 and 500 soldiers, while in those smaller (like Ciacova or Denta), the number of soldiers did not ordinarily exceed 100¹⁷.

In the second case, defensive works were destroyed to prevent the local nobles to use the fortresses in the set-up of groups opposing the new leaders¹⁸. Gábor Ágoston shows that the majority of Hungarian fortifications conquered by the Ottomans were reused and not demolished¹⁹.

⁹ Halaçoğlu 1994, 162 *apud* <https://islamansiklopedisi.org.tr/derbend--karakol>

¹⁰ Nicolle 2010, 58.

¹¹ Eyice 2001, 23 *apud* <https://islamansiklopedisi.org.tr/kale>

¹² Nicolle 2010, 21.

¹³ Nicolle 2010, 59.

¹⁴ Eyice 2001, 23 *apud* <https://islamansiklopedisi.org.tr/kale>

¹⁵ Ágoston 2011, 227.

¹⁶ Ágoston 2009, 68.

¹⁷ Ágoston 2011, 227.

¹⁸ Akto 2019, 20.

¹⁹ Ágoston 2009, 68.

Contrary to certain views expressed by several Hungarian scholars²⁰, I assume that the Ottomans had vast knowledge of the peculiarities of the land of the newly conquered territories (also given the performed censuses, *tahrir-i vilayet*) and kept these in mind when the new administrative units²¹ were organized. According to Cristina Feneşan, in the Eyalet of Timișoara had survived among other, old Romanian institutions like the knyazi institution, that of the heralds and multiple old districts: Mănăștiur (*Monostor*), Fârdea (*Tverd*) or Șudea (*Sugya*)²². These areas were overtaken from the former shire of Timiș just after 1553, when the Ottoman authorities initiated the property census and concurrently, a detailed inquiry of the shire's administrative organization. According to the documents, the decision to preserve the previously mentioned former districts was taken upon the advice of the *Ehi-i Vukûf ve Müsinn*²³, “the counsel of the elderly, skilful men”.

The total number of the fortifications in the Eyalet of Buda was estimated to be 130, while for those in the Eyalet of Timișoara references are contradictory, being identified from 39²⁴ to 76²⁵ fortresses²⁶.

Historian David Nicolle noted that in these parts of Europe, timber-and-earth fortifications are not unknown; on the contrary, these were used since Antiquity²⁷. The general idea expressed in historiography according to which this type of reinforcement was effortlessly conquered as it was easily set on fire is contradicted by historical and archaeological evidence. According to historical sources²⁸, the Ottoman explorer Evliya Çelebi²⁹ mentions in his Book of Travel/*Seyahatname* that Timișoara's fortification had its walls covered with gypsum and whitewashed. In several archaeological sites (like Timișoara or Ciacova³⁰) were discovered remains of the clay or mortar layers applied on top of the timber structure, which provided somewhat protection against fire. This type of fortification was much varied in terms of shape and size³¹ (hence likely part of the European criticism) – some of the reinforcements (generally, those small-sized) being simple palisades composed of a single timber wall and a defensive ditch. Larger fortresses were most often provided by double log walls, filled with earth or mortar, a technique which resulted in considerable wall thicknesses. These structures could thus be used by the garrisoned troops for patrol or the assembly of artillery equipment, having the advantage of an elevated position compared to the ground in the proximity³². Materials out of which these fortifications were built could differ from one geographical area to another, in Europe they were made most often out of timber and earth.

To understand the Ottoman fortifications system from the historical Banat, it is first necessary to generally define the ensemble of the reinforcements composing it. We shall give below a few details regarding the fortification types used by the Ottomans in this part of the empire and discuss the issue of one of the most important components of the defensive system, namely the communication paths.

Kale

The *kale*-type fortifications were commonly conquered structures, larger in size, built of hard materials like stone or brick and later renovated, extended and maintained³³. We know for certain that some of the fortifications mentioned in historical sources³⁴ as *kale* (for instance Timișoara or Ciacova) were built in timber, therefore, at least for the Banat area, this classification of the defensive works seems uncertain.

Data recovered from the field indicates that Timișoara and Ciacova were timber-made, however in two different constructional techniques. According to this information, we note certain inconsistencies between the previously discussed classification and field facts. The recent investigations

²⁰ For instance in: Hóman, Szekfű 1928.

²¹ Ágoston 2009, 68.

²² Feneşan 2016, 114.

²³ Feneşan 2016, 114.

²⁴ Akto 2019, 33.

²⁵ Guboglu 1970, 36.

²⁶ The number generally varies in each work published until this text was prepared.

²⁷ Nicolle 2010, 21.

²⁸ Mehmet, Stoicescu 1976, 497.

²⁹ Also known as Derviş Mehmed Zilli.

³⁰ Forthcoming information.

³¹ Nicolle 2010, 21; Akto 2019, 27.

³² Nicolle 2010, 21.

³³ Hegyi 2000, 167.

³⁴ Hegyi 2000, 186–189.

performed in said fortresses yielded relevant data on the building fashion. For instance, the Ottoman fortress of Timișoara frames, according to Evliya Çelebi, among the *dolma rihtim palanka duvar*, while Ciacova in the class of *yalm kat çit palanka*³⁵. Unfortunately, the archaeological excavations conducted over time in other *kale* are either unpublished or partially published, most of them failing to mention the constructional technique. Therefore, one may believe that all fortifications conquered by the Ottomans in Hungary are called *kale*, while the ranks of *palanka* and *parkan* are reserved for those built from the ground up by the Ottomans.

The class of fortresses termed *kale* from today's space of the province of Banat frame the following: *Beşkelek, Çenar, Felnak, Haram, Irşova, Pofça, Puva, Semlik, Şakvan, Tamaşvar*³⁶.

Palanka

The *palanka* is not, with certainty, an Ottoman invention, the building technique being very similar to that of Roman date earth-and-timber forts. To the Ottomans, the technique originates from the early period of the empire, when, in the siege of certain fortifications are mentioned *havale*³⁷ type structures. These are reinforcements similar to palankas, of small sizes, built nearby fortresses which the Ottomans sieged. These strongholds were used to shelter machinery and troops against enemy fire. Such structures are documented during the siege of the Bursa fortress in 1326, being subsequently more frequently mentioned, including much later, in 1566, when the fortress of Seghedin (Szighetvár)³⁸ was under siege.

Likely inspired by the *havale* model, the *palanka* has similar features being a defining fortification type of the Ottoman defensive system from this part of the empire. Together with *kale* and *parkan*, they formed, as we shall see below, a well-organized network of fortifications that offered the opportunity of swift action if needed on both roads and navigable rivers³⁹. The fortified elements are specific to the 15th century. Strongholds include rounded bastions by their extremities and walls strategically reinforced in key points⁴⁰. Laying siege on such fortifications with equal firepower could cause irreparable damage in many cases. Their role was yet not to be entirely indestructible before warfare machinery. These earth-and-timber structures, compared to their stone or brick counterparts, had the advantage of material elasticity. Thus, the forceful cannon strikes could be absorbed with great efficiency, thus making possible the enemy's delay until the units from neighbouring fortresses could provide military support.

Among the *palankas* are included the following citadels: Besenyő, Mehadia⁴¹.

Parkan

The Turkish scholar Burcu Özgüven argues that the single notable difference between the *palanka* and *parkan* is location. The parkans were situated in border areas, while palankas by roads or navigable waterways used for trade and movement of armed forces⁴².

Parkan are the following fortifications: *Duna Varad, Façat, Paçova, Sarad, and Varat*⁴³.

Derbent

According to some scholars, *derbent* are fortifications resembling the *palanka* and the *parkan*, located in areas deemed dangerous like mountain passes, passages etc⁴⁴.

According to Cristina Feneşan *derbent*⁴⁵ was an institution part of the Ottoman empire whose primary purpose was to ensure the circulation of individuals and goods as well as all communication-related aspects: road building, road maintenance, and performance of various works (bridge

³⁵ Özgüven 2001.

³⁶ Hegyi 2000, 186–189.

³⁷ Özgüven 2001, 1–2.

³⁸ Özgüven 2001, 1–2.

³⁹ Özgüven 2001, 6.

⁴⁰ Özgüven 2003, 158.

⁴¹ Hegyi 2000, 186–189.

⁴² Özgüven 2001, 3.

⁴³ Hegyi 2000, 186–189.

⁴⁴ Akto 2019, 27.

⁴⁵ The term meant a pass, narrow place or straits.

construction and maintenance). It also dealt with and kept the postal system infrastructure (staff, postal horses (*ulak*) etc.). *Derbentjii*, as called by said author, were recruited from villages or towns located in the vicinity of the main roads or roads deemed dangerous for travelers. On the territory of Banat, the single relevant data on this institution comes from the area included in the territory of today's Serbia, where villages responsible for such actions were as follows: Haramul Vechi, Kusić and Janesevo. The same institution operated in the urban environment at Vârșeț, Kovin and Pančevo. In the *sandjak* of Timișoara, the *derbentjii* from the Kusić village were bound to monitor the road connecting Timișoara to Vârșeț and the fortress of *Duna Varad*⁴⁶ to *Haram*. For this to be successful, the officials carried light weapons and rarely hot weapons. In exchange for their service, the villages and towns they inhabited were exempted from various taxes and duties⁴⁷.

Communication paths

Land survey is one of the criteria based on which the Ottoman defensive system in the Banat was designed and later developed. Land configuration differences seemingly determined the frequency of fortifications, road positioning and garrison composition⁴⁸. An eloquent example in this respect may be provided by the Ottoman registers that do not record a significant number of mounted troops⁴⁹ in fortresses located in wetlands⁵⁰ (due to poor horse mobility).

The communications network is one of the many important components of the defensive system. The fortifications had well-established communication ways in-between, which benefited their defence. (Pl. 1⁵¹) On the other hand, these connections could have been equally detrimental, as if the major fortification in the region was conquered, the smaller could be besieged and captured easily⁵². In the Buda Eyalet area, the literature marks the distance between fortifications as one or less marching days one from the other⁵³, hence it may be assumed that circumstances were not much different in our area of interest.

Fortifications located by the edge of the empire (in the frontier area, hence in an especially strategic important place) lay occasionally in a deplorable condition. A good example in this respect is the fortification of Pécs in 1664 which, in a poor state, was easily conquered by the Habsburg troops⁵⁴. The condition of the Ciacova fortress was not much more fortunate around 1603–1604. In the mentioned period, Wathay Ferenc is taken prisoner and locked up temporarily inside the Ciacova fortress. To Wathay belongs a miniature⁵⁵ depicting the poor state of the fortress's bridge pulley system which is shown to be damaged.

The new Ottoman fortifications system, carefully set up and systemized until after 1580, was not long-lived in its original form. Over time, the fortresses passed repeatedly from the Ottomans to the Habsburgs, borders changing rather often between the two empires⁵⁶. Most affected was the civil population in the condominium area⁵⁷, which paid taxes to both the Ottomans and the Habsburgs. Also, cases when the troops of the Ottoman empire raided these parts to plunder the villages and take prisoners⁵⁸, later sold on the empire's slave markets were not infrequent. The parts north of the Mureș River remained under Ottoman control until almost the late 17th century, while those south of the river until 1716. Compared to the historical sources discussing the issue of the Buda Eyalet, those surviving on the Timișoara Eyalet are poor in information (quantity and quality wise) and most often, the construction of the fortresses in this region is impossible to properly date⁵⁹.

The Ottoman fortifications system in the Banat functioned similarly to a living organism, being

⁴⁶ The Saint Ladislau (Sf. Ladislau) fortress.

⁴⁷ Feneșan 2017, 133–138.

⁴⁸ Akto 2019, 21.

⁴⁹ At least for the *Kanije* fortification on the territory of today's Hungary.

⁵⁰ Ágoston 2009, 71.

⁵¹ The road structure is inspired by Hegyi 2019.

⁵² Akto 2019, 21.

⁵³ Hegyi 2000, 161.

⁵⁴ Nicolle 2010, 48.

⁵⁵ Wathay 1604, 28/1.

⁵⁶ Hegyi 2000 167.

⁵⁷ Border area subject to taxation to both the Habsburg and Ottoman empires.

⁵⁸ Mehmet, Stoicescu *et al.* 1976, 338; 574.

⁵⁹ Hegyi 2000, 186.

an active network that acted locally, quickly and efficiently to protect assets and people. Owing to unfortunate circumstances (for instance the incomplete survival of pay registers and lack of specialists in the study of the Ottoman period), the quantity of currently available information is unsatisfactory. Without comprehensive studies (regarding archival documents and archaeological sites), the draft of works tackling the entire Ottoman defensive system from the Banat is a burdensome process generally reliant on studies made by Hungarian historians. In this state of research, the only useful data are the fortress descriptions of the period, the fragmentarily surviving Ottoman registers, the few old maps (in general, published by Hungarians researchers) and few archaeological excavations, most often partially published. Thus, in the current study, we identified some 45 fortresses in the historical Banat, based on which we reconstructed the Ottoman defensive system in the 164 years during which the Ottomans lived beside the Romanians, Hungarians and also Serbians.

1.2 The construction manner of the fortresses

As aforementioned, the fortifications of the Ottoman empire in the Banat were divided into several classes precisely in the documents of the imperial administration: *kale*, *palanka* and *parkan*. Below we shall address the constructions of the *palanka* and *parkan* type fortifications as these are the only ones that, according to historical sources, were built by the Ottomans⁶⁰.

Palanka or *parkan* walls were commonly built of oak trunks, chosen because of their resistance over time, set vertically, close to one another and covered with loam or mortar⁶¹ to prevent inasmuch as possible fires and decay. The oak trunks were placed at a relative distance one from the other (in general between 0.20–0.40 m). Also, their size varied from 0.15 to 0.40 m⁶². The archaeological excavation conducted at Ciacova in 2017–2018 yielded small posts (0.15–0.20 m) grouped as two, a method likely used to compensate for the lack of larger wooden post⁶³. The construction of such fortifications was a process developed in a relatively short time on the whole, compared to building in materials like stone or brick. In many cases (although unattested archaeologically to date in the Banat region) *palankas* had a roofed tower above the main gate for defensive purposes⁶⁴.

Besides safeguarding warfare pieces of equipment (battle machinery, weapons, gunpowder etc.), the construction of such a fortress also aimed at protecting the garrison (most often, houses were within the walls) as well as the community's valuables⁶⁵. Regarding the building techniques of the Ottomans, Wenner von Craillzheim wrote in 1622 the following about the *palankas*: “*such palankas are partly made of simple timber elements and partly of double or triple layers [of the same material] held together with mortar [and of tree trunks set transversally within the wall] and filled [with earth]*”⁶⁶. The term *palanka* was often used by the Ottoman travellers like Evliya Çelebi or Pecevi⁶⁷.

The word *palanka* originates from ancient Greek (φάλαγξ – *phálanx*), which could mean besides the well-known battle formation also tree trunk or log in reference to the material out of which the fortification was built⁶⁸. Architecturally, these constructions are commonly made according to a simple, rectangular plan, surrounded by a ditch (*şarampa*) and guarded by a tower above the gate called *ağaçtan lonca köşkü*. Concerning the constructional technique of the defensive ditch, there is little information to date. We may infer that the tools used in this process included shovels and spades (in fact recorded in the preserved inventory registries⁶⁹). I mention here the find of such an Ottoman period spade at Ciacova, in a feature located *intra muros* (the material is currently being processed and will be included in a future paper), associated with pottery fragments of *Mohács* type and green glaze ceramics. The building technique noted at Ciacova involves small gradient slopes on external parts, respectively

⁶⁰ The same building technique is theoretically valid for the *parkan* type fortifications which, according to the literature, were built similarly.

⁶¹ Özgüven 2003, 158.

⁶² Vadas, Szabó 2018, 490.

⁶³ Forthcoming information.

⁶⁴ Like the case at Timișoara or Felnac, if one should believe Wathay Ferenc.

⁶⁵ Özgüven 2003, 158.

⁶⁶ Özgüven 2001, 2.

⁶⁷ Özgüven 2001, 3.

⁶⁸ Woodhouse 1910, 617.

⁶⁹ Stein 2007, 56–59.

larger internally (towards the fortress) – similar data being noted and published for the Bács fortress⁷⁰ in Hungary. The fortification gate was reached after a bridge was crossed first. By the fortification corners, there are round or angled bastions (like at Bács⁷¹), on which artillery equipment was affixed⁷². *Palankas* walls are of two sorts: double or triple, filled with mortar (or earth), termed “*dolm arihtim palanka duvar*”; and simple, called, according to Evliya Çelebi, *yalın kat çit palanka*⁷³.

One of the major issues of understanding Ottoman military architecture is represented by the lack of architectural treatises detailing the building techniques and methods. In the fortress builder’s guild of the Ottoman Empire, the practice of sharing such knowledge was discouraged, contrary to the fashion in the western states⁷⁴. Among the views expressed at the time by European travellers, most are negative. The foreign observers, accustomed to the Italian style, *trace italienne*, criticised the forms chosen by the Ottomans: round bastions, conical roofs etc⁷⁵. According to Christopher Duffy, by early 19th century, a European observer recorded the following on the palankas: “With regard to the art of fortification among the Turks, little can be said in its praise. They have no idea of a regular system either of bastions or of lines, or outworks or covered ways, nor of conforming the height of the works to the nature of the ground in front. When we find anything of this kind in a Turkish fortress, we may be assured that it has been in the hands of some European power, by which it has been improved or originally constructed.”⁷⁶).

The literature of the last century suggested that the Italian style was unfamiliar to the Ottomans. According to G. Ágoston, this is not valid, as among the fortifications they conquered (like Egri, Uyvar, *Kanije* or Gyor) there were also some built in this manner⁷⁷. In this respect, we also mention the Barcs *palanka* (Hungary), whose bastions exhibit straight angles⁷⁸. Thus, it may be assumed that the rareness of this constructional style is due to Ottoman’s preference for building circular bastion irregularly-shaped fortifications, apparently missing careful systematization.

Concerning Ottoman military architecture, the most difficult topic to be cleared is undoubtedly represented by finding written information regarding the era. As previously argued, compared to the Europeans, the Ottomans wrote no treaties of military architecture for reasons one may only presume (economy, security), truly valuable information being carefully preserved and passed on by masters. Existing narrative sources are vague in terms of fortification construction, providing therewith data as poor as possible in historical information. Montecucoli notes that civil settlements lay at a distance from the fortifications and that these were generally open⁷⁹, which is contradicted in the Banat by the existence of the two suburbs of Ottoman Timișoara protected at their turn by palisades and defensive ditches⁸⁰.

When discussing fortification repairs, written sources are again poor in information. For instance, in 1663 after the conquest of the *Uyvar*, Fındıklılı Mehmed Ağa reports that all efforts were focused on the fortifications repair and ditch cleaning (deliberately filled by the Ottomans during sieges, according to the historical accounts) without providing yet other details on what such “repairs” entailed. In the 17th century, a Vizier whose name is unknown, orders the improvement of the Timișoara fortress by adding a few mobile towers (on wooden teams) and the repair of the external walls of fortresses in the *sandjak* of Timișoara⁸¹. The working techniques are somewhat detailed in a 1677–1678 document reporting the repairs carried out at Gradiška *palanka* (in today’s Bosnia and Herzegovina), at the *beylerbey*’s order. The entire operation lasted for around 10 weeks and was carried out late in the summer. The document mentions the employees specialized in the construction of palankas, “*those who built the parallel lines between the vertical logs and filled the remaining space with earth*” as well as blacksmiths and carpenters. It also mentions that such specialized builders were called upon only when necessary⁸².

⁷⁰ Gyöngyi, Márton 1996, 163–182.

⁷¹ Gyöngyi, Márton 1996, 163–182.

⁷² Özgüven 2001, 5.

⁷³ Özgüven 2001, 5–6.

⁷⁴ Şakul 2013, 16.

⁷⁵ Şakul 2013, 16–17.

⁷⁶ Duffy 1979, 216.

⁷⁷ Ágoston 2009, 24.

⁷⁸ Gyöngyi, Sümegi 2011, 114.

⁷⁹ Stein 2007, 48.

⁸⁰ Oprış 2007, 16–19.

⁸¹ Stein 2007, 50–51.

⁸² Stein 2007, 50–53.

The first illustration depicting the *palanka* belongs to count Luigi Ferdinando Marsigli and was published in Diderot's work⁸³. It closely renders the *palanka* design, presenting in detail the walls, while their assembly manner may be easily deduced. An even better-exemplified scheme of the building technique of the earth-and-timber walls is found in David Nicolle's work⁸⁴.

A special building technique (unrecorded so far in the Banat) involves the use of *Horosani-type* mortar, out of which were built resistance structures supporting the wooden mass able to stop somewhat easily (with minimum damages) cannon blows. The preparation of this mortar type involved among other mixing crushed bricks with calcium oxide (quicklime) and the use of the resulting matter for reinforcing wooden structures. Most repairs (or fortification constructions) were performed after the area was secured by the Ottoman troops (usually by taking control over the larger fortresses in the region)⁸⁵.

According to Kl. Hegyi, in the Banat area it is unknown whether such fortifications were built, however eloquent examples in this respect may be found rather close, on the current territory of Hungary. There, the Ottomans built such forts on ruinous sites (of fortified churches or citadels) or, simply, from the ground up⁸⁶. The *palankas* or *parkans*, though not so active militarily as the considerably larger fortifications are especially important, as we shall see, for the Ottoman defensive system, these being the main centers from which action was swift in the event of an attack.

Although historiographic sources are at first sight scant in information, once historical data were compiled with the archaeological ones, we succeeded to supplement general knowledge on the building techniques that the craftsmen of the time strived to protect and identified a mortar type yet to be archaeologically attested on the territory of Banat. Also, we detailed the repair process of a *palanka* and the views of foreign European travellers on the shapes and building techniques used by the Ottomans. Once more, the above-presented information refutes the arguments of nationalist historiography according to which the Ottomans had no concept of organized structures and were unaware of the building techniques deemed modern at the time.

1.3 Fortress locations

The location of the Ottoman fortresses within the territory of the Banat is likely one of the most important aspects of the network existing here. As previously stated, the key to the fortresses' defence was the support that the attacked citadels could receive in the shortest possible time from the neighboring fortifications. To ease the research process, we adopted the road model provided by Kl. Hegyi and designed a map (Pl. 1) illustrating the identified fortifications, land communication paths, main rivers and a few suggestions for secondary roads. With the aid of this resource, we propose to check, since possible, certain assertions related to reaction times, fortress locations or the composition of garrisons quartered there.

Regarding the locations in the discussed area, most fortresses lay on the main arteries (for commercial and military purposes) or nearby rivers (the Danube or rivers like the Mureș, Timiș, Bega or Bârzava). Out of the forty-five identified Ottoman fortifications in our area of interest, the majority are situated on the main roads that cross the region. To better understand the Ottoman communications system, we shall discuss the land routes in-between the most important points, as follows:

- 1) on route *Irșova –Pece* we identified nine fortifications (467 km)
- 2) *Varat–Yenipalanka*, six fortifications (262 km)
- 3) *Lugoș–Marçina*, four fortifications (36 km)
- 4) *Semlik–Paņcova*, three fortifications (65 km)
- 5) *Szeged–Beșkelek*, four fortifications (133 km)

Among fortifications by waterways, we shall mention only those by the above-mentioned rivers (since almost all lay in the vicinity of a water source servicing the nearby fortress or settlement), as follows:

- 1) on the Danube, we identified eight fortifications, on an approximately 260 km stretch

⁸³ Diderot, d'Alambert 1751, 149, plate XLI.

⁸⁴ Nicolle 2010, 26.

⁸⁵ Ágoston 2009, 17–18.

⁸⁶ Hegyi 2000, 166.

2) on the Mureş River, five (located on both the river course and very close to it), in an approximately 200 km segment

3) on the Bega River, four (today channeled and with a fundamentally different course), in a segment of approximately 200 km

4) river Timiș seven (dammed, with an occasionally changed course) on an approximately 280 km stretch

5) on river Bârzava two, in an approximately 150 km segment

6) on river Caraș three, in a segment of approximately 100 km

7) on river Tisza a single fortification, in a segment of approximately 160 km

The distance between the identified fortresses varies. Each fortification lies at a maximum of one marching day one from the other (data computed by software *Quantum GIS*, the standard moving speed on foot value being 4.8 – 5 km/h). The analysis was based on the distance computation between the fortifications, using the model of the communication network provided by Klára Hegyi⁸⁷. In the event of an attack on Timișoara, for instance, troops from approximately seven fortresses could have intervened in under a day, had these not been already conquered. The advantage of this defensive system consisted, as we supposed before this analysis, not in the resistance capabilities of a single fortification before the attackers but the swift intervention of the troops installed in the neighboring fortresses via the available vast communications network (by both water and land).

In terms of the geomorphological aspects of the terrain, the single landscape depiction in the Ottoman period is Engel Pál's map, published in 1996⁸⁸. It renders vast areas covered with marshlands, a landscape that radically changed with the drainage and damming works carried out by the Habsburgs after the conquest of the Eyalet. The map that displays the *sandjaks*⁸⁹ of Timișoara and Moldova is, according to our knowledge, the only landscape reconstruction of these territories in medieval times and therefore, an important resource for the current study.

Thus, with the aid of the map designed in Quantum GIS, we created one of the most complete overall images of the Ottoman Banat in terms of the communications network and fortifications system. Aided by this essential resource I could compute the required average time for movement in-between the fortifications and trace the main commercial routes (by land and rivers). Also, as mentioned, I suggested secondary routes in between close fortifications using maps drawn up just after the Austrian conquest, aided also by modern satellite images.

1.4 Troops distribution in the fortifications and the soldier lifestyles

The analysis of garrison compositions in the fortifications from the investigated area relied on some of the most important documents of the Ottoman period published for this region: the pay registers periodically drafted by the tax authorities of the empire. The main reason behind their study arose from the need to classify fortresses according to their military strengths and verify several theories launched in the academic literature. Besides the above-mentioned registries, we also examined certain inventory lists (drafted for both fortifications and individuals in the empire's administration) in order to reconstruct the lifestyle of the soldiers.

Within fortifications, troops were distributed according to several criteria: fortification sizes, strategic location, needs of the Ottoman Empire, etc. For the Banat area, the main documents referencing the number of troops garrisoned within fortresses are the registers drawn up between 1552 and 1716⁹⁰. These documents have generally survived fragmentarily, missing certain years for some of the fortifications like Ciacova, Novi Bečej or Denta. The troops' diversity in the Ottoman Banat fortifications is impressive, garrisons being composed of the following: infantry units (*azeb*), horsemen (*farisan*), artillery / gunners (*topçu* and *top arabacı*), *martolos*, fortress defenders (*müstahfız*) or janisaries (*yeniçeri*). The same registers record army auxiliaries as well, like artisans, pontoniers, religious staff and others⁹¹. We shall list below the data available to date (published for the first time by Klára

⁸⁷ Hegyi 2019, 310, MAP 1.

⁸⁸ Engel 1996, 70–71.

⁸⁹ Ottoman administrative-territorial unit inferior to the Eyalet.

⁹⁰ Hegyi 2000, 186–190.

⁹¹ Hegyi 2000, 174.

Hegyi⁹²) on the military strengths of the fortifications in the Banat. To ease the working process and better understand the data we shall present these in tables, alphabetically, using current names (when available), as follows: Bocșa, Cenad, Ciacova, Coronini, Kovin, *Daubadad*, Denta, Drencova, Dudeștii-Vechi, Făget, Felnac, *Haram*, *Ictar*, Jimbolia, Lipova, Liubcova, Mehadia, Novi-Bečej, Orșova, Pančevo, Rudna, *Sarad*, Timișoara, Vârșeț, *Yenipalanka*, Zdrenjanin (Tab. 1–26).

Because troop titles from the Ottoman period may be somewhat confusing, we shall attempt to provide an as concise as possible explanation. Thus, according to Mark Stein, the *azebii* (azaps) are unmarried men in a generally good health state, strong and brave. Ottoman customs say they must not have children or other direct dependent persons⁹³. The same author theorizes that Ottoman cavalrymen, although apparently without much use in terms of defending a fortification played quite a well-established role. In the event of an attack, they harassed enemy troops, cut communication lines and supply routes or set up raids on enemy territory plundering nearby fortresses and villages⁹⁴. The gunners were for instance responsible for making and maintaining battle machinery, besides their use. Cannon transport was the task of a special class of *topçu*⁹⁵, *top arabacı* who built and maintained the carriage teams and used animals of burden⁹⁶. *Mustafiz* or fortress defenders, as called by Cristina Feneșan⁹⁷ are units directly responsible for the fortification integrity. They carried out repairs, cleared the silted defensive ditches or extended and improved the fortress. In their units were distributed the artisans (ironsmiths, carpenters or *kolofatce*, masons). The term *mustafiz* seemingly originates from Arabic and means “*he who defends a place*”⁹⁸. The *martolos* units were mixed Christian and Muslim troops that in the 17th century represented some of the most significant strengths of the Ottoman army. The reasons for which Christians would enrol in the Ottoman army could be varied and also, intuitive. The *martolos* were exempted from local taxes and fees or war taxes⁹⁹. The craftsmen (carpenters, blacksmiths or masons) were, as aforementioned, raised in the *mustafiz* units and generally dealt with maintaining the fortifications, production of necessary raw materials and coordination of works¹⁰⁰.

The southeast European historiography of the early period wrote lengthily about the “*Turks*” and their leadership. Now, there is a consensus that most¹⁰¹ Ottoman soldiers and clerks from today’s Hungary (implicitly, the Banat) come in fact from the Balkans¹⁰². While the official language of the empire administration was Ottoman Turkish, most often the Ottoman authorities from the Buda or Timișoara Eyalets spoke Hungarian for practical reasons. According to Gabor Ágoston, it was much easier to find a Hungarian speaker who also spoke Ottoman Turkish than an Ottoman Turkish speaker who was speaking Hungarian and was also familiar with German or Latin. Hence, translators and scribes played a highly important role and because of them, many texts and letters of high officials of the empire written in Hungarian¹⁰³ are available to us today.

Inventory lists of equipment from fortification deposits have also survived over time. The stored supplies and pieces of equipment used within the fortresses may provide relevant information in connection to the lifestyle and occupations of its inhabitants. Three identified such lists survived for the area of interest and provide information on the military storage facility of the fortification at *Egri*, the supply storage in the fortress of *Ada Kale* and supply registers for various frontier forts¹⁰⁴ (without mentioning their name or location). Upon their analysis, Mark Stein divides equipment recorded by documents into a few classes as follows: artillery weaponry¹⁰⁵, hand weapons, consumables for fire

⁹² Hegyi 2007.

⁹³ Stein 2007, 76.

⁹⁴ Stein 2007, 78.

⁹⁵ Gunner.

⁹⁶ Stein 2007, 81.

⁹⁷ Feneșan 2014, 25.

⁹⁸ Stein 2007, 86–87.

⁹⁹ Stein 2007, 89–90.

¹⁰⁰ Stein 2007, 104.

¹⁰¹ Most public officials, the Pashas, *kadi*, teachers, dervishes, soldiers and so on.

¹⁰² Ágoston 2011, 232.

¹⁰³ Ágoston 2011, 233.

¹⁰⁴ Stein 2007, 54.

¹⁰⁵ It seems that the number of gunners was directly influenced by the position, size, danger degree of the area or even by the presence there of a foundry.

weapons (gunpowder, projectiles), armors, raw materials, tools, wares and materials for the maintenance of fortifications. A large quantity of weapons is recorded in the armories of the fortifications for which the inventory lists were drafted: bows of various types (of type *Istanbul*, *Tatar* and *Turkmen*, the latter two likely used on horseback), various arrow types (Egyptian and “decorated” arrows), axes, daggers, swords and bludgeons. Gunpowder (an important resource in battle) was generally produced in larger fortifications like Timișoara or Buda¹⁰⁶. According to the supplies list, some of the small fortifications produced gunpowder but only for their own use¹⁰⁷. Cannonballs, musket lead balls, transport teams, exchange parts, horses, asses or oxen are also included on the lists. Fortress maintenance requires (as recorded on the inventory lists) nails, saws, hammers, carpenter’s axes, spades (like the one unearthed in Ciacova) or shovels. On the same list emerge raw materials and tools for artisans (various metals, blacksmith hammers, anvils, tongs, chains, wax, bitumen, fabrics, oils) yet also domestic use objects like wares and household objects: cooking and tableware, pans, rugs, sheets, cane and leather baskets, paper, leather buckets or torches¹⁰⁸. For instance, the excavations conducted in the Ciacova city yielded *in situ* in a feature dated to the Ottoman rule period olive and peach kernels in the *intra-muros* area, close to the fortress’s eastern wall. Unfortunately, for the Ottoman Banat there is, at the time when this paper was drafted, no published inventory list, hence we may only assume that some of the weapons, tools and the remainder objects found on the discussed lists are also found on inventory lists for the fortifications in the historical Banat area. In this respect, we mention the many archaeological finds from Timișoara¹⁰⁹ or Ciacova¹¹⁰.

An interesting aspect to clarify is the inventory of the fortress staff. The discussion is limited to the rareness of such inventory lists drafted in very special situations (when the deceased had no successors or they were too far to claim the property¹¹¹). In this case, we found a single example worth analysis here: a public official who died in 1553. The list of Kiâtib Pervânebin ‘Abdullah’s possessions, who died on July the 2nd 1553 contains 35 goods (the house and garden included). The total value of his assets is ~6600 *akçe*¹¹². By comparison, the total property value of the high-ranking timariot, Mehmed Çelebi deceased in August 1568 rose to no less than 47000 *akçe*¹¹³.

Although the assets value of a simple soldier most likely did not amount to the assets value of Kiâtib Pervâne, the list which contained weapons, dress items, wares and domestic use objects offers the opportunity to identify at least hypothetically the possessions owned by the 16th-century Ottoman middle class.

According to G. Ágoston’s observations, the garrison composition of a fortress was influenced, besides the already mentioned physical size of the construction, by its geographical location as well. Ágoston noted that the Ottoman registers recorded fewer troops fighting on horseback in the wetlands of the empire and offers the example of the fortification at *Kanije* (Nagykanizsa, Hungary), encircled by swamps in the Ottoman period. In the fortification, much of the garrison is composed of infantry troops, the ratio between mounted and infantry units being 60:37 by mid-1600s. On the contrary, Ágoston mentions that cavalry units were mostly present in fortifications by the Hungarian frontiers (in territories under both Habsburg and Ottoman control) without yet further specifications and examples in this respect.

In my area of interest, the morphological aspects of the land during the period tackled by the reputed Hungarian scholar are most likely similar to those in the proximity of Kanija. The single map depicting the Banat landscape in the discussed period was drafted by Engel Pál¹¹⁴. Accordingly, most spread marshlands from the Timișoara Eyalet are located in the Timișoara, Ciacova and Alibunar areas. The first survey figures these areas partially drained, while later surveys show that many of the lands covered by marshy soils had disappeared, while those existing were strongly channeled and

¹⁰⁶ Stein 2007, 55.

¹⁰⁷ Stein 2007, 56.

¹⁰⁸ Stein 2007, 56–60.

¹⁰⁹ Published in various studies over the course of time, see: Drașovean *et al.* 2007; Drașovean *et al.* 2018; Flutur *et al.* 2018; etc.

¹¹⁰ Weapons, tools, building materials, forthcoming.

¹¹¹ Gerelyes 1985, 276.

¹¹² Ottoman coin *apud* Somel 2010, 295; Gerelyes 1985, 296–297.

¹¹³ Gerelyes 1985, 301–305.

¹¹⁴ Engel 1996, 70–71.

almost entirely drained. A drawback in the research and analysis of this area is represented by a fact mentioned earlier: the fragmentary preservation of the Ottoman pay registries for the Banat area.

In the analysis we shall use the same method that Ágoston applied for the *Kanije* fortification: computation of the infantry, respectively cavalry percentages in the total quartered troops, of the yearly mean and the ratio between the two resulting numbers. Wishing to preserve a somewhat unity of the text and easier understanding of the information, we shall present below datasets still in the alphabetical order of the fortifications. Thus, according to the data listed in table 27 (see Tab. 27), we note that G. Ágoston's hypothesis regarding the *Kanije* fortress is also valid for the fortresses in our research area. In conclusion, we believe it is possible to obtain much more information from the apparently incomplete Ottoman registers upon this model, by correlating historical and archaeological data (where these exist). Thus, an approximate hypothetical force may be determined depending on fortification sizes based on known examples from the field, using garrison sizes.

Another interesting aspect further reported by Ágoston is that when the entire province was secured and the power of the new leaders consolidated, the Ottomans withdrew (or, better said, distributed in the fortifications from respective territory) the existing strengths and soldiers directly paid by the Porte (janissaries¹¹⁵), which were gradually reduced as provinces became increasingly safer¹¹⁶.

Concluding, the garrison of a fortification was influenced, in terms of its composition, by several factors. In large fortresses, sensitive points of the province, the type and number of soldiers were directly proportional to the fortification's physical sizes and degree of importance. In smaller fortresses, there were generally fewer soldiers and little diversity of troops, firstly due to the restricted space within the walls. Within the strongholds, the soldiers had a varied inventory available, comprising among other weaponry or domestic use objects. When not involved in the empire's conflicts, the soldiers carried out diverse activities like fortification maintenance, manufacture of various objects and weapons, gunpowder, aided tax and fee collection from the inhabitants of the nearby settlements or raiding enemy territories.

2. The Ottoman fortresses of the Banat

2.1 *Alibunar*¹¹⁷

Current name: Alibunar, district of Southern Banat, Voivodina, Serbia

Ottoman conquest date: the 16th century (?)

Current condition: destroyed

2.2 *Varat*

Current name: Arad Municipality, Arad County

Alternate name: Yeni-Varat¹¹⁸

Attestation: 1324¹¹⁹

Ottoman conquest date: 1552¹²⁰

Layout data: flat square shape, unknown surface area

Current condition: destroyed, overlapped by modern and contemporary buildings

Location: The Drăgășani quarters¹²¹ (Pl. 7¹²²)

Mentions by foreign travellers:

The Arad *palanka* is built in wood with double walls filled with earth and an approximately 400 feet circumference. It was rebuilt in 1554, having been destroyed after its siege in 1552. The second known reconstruction occurred in 1658 when it was destroyed by a fire. It has two large wooden gates – the Lake gate facing Ineu and the Timișoara gate. Inside, near the Timișoara gate there is a single, very

¹¹⁵ Janissary strengths are reported only in the Ottoman fortification of Timișoara.

¹¹⁶ Ágoston 2011, 229.

¹¹⁷ Hegyi 2018 apud D. Akto 2019, 125.

¹¹⁸ Mehmet, Stoicescu *et al.* 1976, 650.

¹¹⁹ Niedermaier 2016, 289.

¹²⁰ Ciure 2016.

¹²¹ Mărginean 2016, 214.

¹²² Illustration and positioning after Niedermaier 2016. The shape presented in the illustration here is likely later, post 1658 (?).

solid gated small palanka. The external fortress is encircled by a water-filled defensive ditch crossed by a bridge in front of the gate and a booth by its end, which likely served as customs or checkpoint. Köprülü Mehmed Pasha built Arad a mosque, a caravanserai, *medrese* (schools with cult places), guest houses and public utility buildings. The external fortress has a small bath and a long, narrow market¹²³.

Archaeological research: we are not aware of any published archaeological excavations aimed at investigating the medieval fortification in the Arad Municipality.

Illustrations and mentions on cartographic documents: Plans published in the *Studiul istoric de fundamentare privind zone construite protejate* issued during the update of the General Urban Plan of Arad Municipality¹²⁴ *Situations Plan von derkameral Stadt Alt Arad und nächst an...* [S 12 – Div. XIX. – No. 117:4.] with the *Magyar Nemzeti Levéltár Magyar Országos Levéltára* call number C 128 Maros 1818. aug. 1./A¹²⁵

2.3 **Pofça**¹²⁶

Current name: Bocșa city, Timiș county

Alternate name: The Cuiești fortress, *Kuesd*

Attestation: 1534¹²⁷

Ottoman conquest date: 1552, 1595¹²⁸

Layout data: rectangular

Current condition: in ruins

Location: located on the headland called “Buza Turcului”, north of the current city (Pl. 16¹²⁹)

Mentions by foreign travellers:

According to Silahdar Fândklie Mehemed Aga, who observed the Ottoman siege of 1695, the fortification of *Pofça* was a small, two-towered fortress located in a hardly accessible area¹³⁰.

Archaeological research: 1986¹³¹

Military units: see Tab. 1

Illustrations and mentions on cartographic documents: a plan drafted by Luigi Fernando Marsigli in 1697¹³²

2.4 **Kevelaboş**¹³³

Current name: Caransebeș Municipality, Caraș-Severin County

Alternate name: Cavaransebeș, Sebeș

Attestation: 1325¹³⁴

Ottoman conquest date: 14 September 1658¹³⁵

Layout data: rectangularly-shaped fortress with rounded corners, 6 bastions (of which 1 round and 5 rectangular) and an approximate surface area of 5.7 ha

Current condition: overlapped by private constructions (houses), destroyed

Location: in the area of streets Potocului, Romanilor, General Mihail Trapșa and Traian Doda, on the territory of Caransebeș Municipality (Pl. 10¹³⁶)

Mentions by foreign travellers:

According to the description of the Italian traveler Giovan Andreea Gromo, who visited the

¹²³ Evliya Çelebi *apud* Mehmet, Stoicescu *el al.* 1976, 504–505.

¹²⁴ http://www.primariaarad.ro/html/ron/temp/PUG-2015/1.2.10.Studiu_istoric_de_fundamentare_privind_zone_constructuite-protejate.pdf accessed on 10.10.2020

¹²⁵ <https://maps.hungaricana.hu/en/MOLTerkeptar/6329/?list=eyJxdWVyeSI6ICJhcmFkIn0> accessed on 17.10.2020

¹²⁶ Name found in Evliya Çelebi's work.

¹²⁷ Sebastyén 1984, 46.

¹²⁸ Sebastyén 1984, 46.

¹²⁹ Illustration and positioning after Sebastyén 1984

¹³⁰ Guboglu 1974, 432.

¹³¹ Țeicu 2009, 81.

¹³² Sebastyén 1984, 43.

¹³³ Mehmet, Stoicescu *el al.* 1976, 534.

¹³⁴ Țeicu 2009, 108.

¹³⁵ Feneșan 2017, 276.

¹³⁶ Illustration and positioning after Țeicu 2009.

fortress of Caransebeș in 1566–1567 (when still not under the Ottoman rule). It was a fortress with walls made of friable stone and waterless ditches¹³⁷.

The next description of the fortress belongs to István Szamosközy, a Hungarian historian and chronicler, who visits the fortification in 1603. He reports that Caransebeș is a somewhat circular city, with old, not very strong walls, without bastions¹³⁸.

According to the Ottoman explorer Evliya Çelebi, the Caransebeș fortress (or Sebeș) was a sound construction located on the Timiș river bank, 400 feet in circumference. Its ditch was not deep and overtopped by two swing bridges in front of the two access gates inside the fortification. Inside there were approximately 300 Hungarian houses, a small mosque covered with shingles and a tall minaret. In the middle there was a powerful, five-cornered fortress, solid and difficult to conquer. It had a single gate, northwards, reached by climbing 30 stone steps. The inner fortification was full of warfare materials, Hungarian cannons and likely valuables. Çelebi mentions in Caransebeș an existing bazaar and fair, without yet locating these precisely¹³⁹.

The last description known in the literature, published in the Monograph of the Caransebeș city in 1909 and dated to 1695 speaks of five bastions (described briefly) of earth on a wattle structure “built not long ago” (between one and two years). Despite these recent works, in some paragraphs below, engineer Malherbe mentions the fortification’s poor condition, whose rotten wooden palisades started to fall apart. By the end of the text, Malherbe’s notes are dated to “19^{bre} 1695¹⁴⁰”¹⁴¹.

Archaeological research: 2016–2017¹⁴² and 2018¹⁴³

Illustrations and mentions on cartographic documents: A plan drafted by Luigi Fernando Marsigli in 1697¹⁴⁴

2.5 **Krassóvár**

Current name: Carașova village, Carașova commune, Caraș-Severin County

Attestation: 1323¹⁴⁵

Ottoman conquest date: 1551¹⁴⁶

Layout data: polygonal, sized 29 × 32 meters¹⁴⁷

Current condition: in ruins

Location: to the north-west of Carașova, at a point called “Cetatea turcului”

Archaeological research: 1998, 2000, 2001¹⁴⁸

2.6 **Çenar**¹⁴⁹

Current name: Cenad village, Cenad commune, Timiș county

Attestation: 1030¹⁵⁰

Ottoman conquest date: 1551 / 1598–99¹⁵¹

Layout data: rectangular with an approximate surface area of 8 ha

Current condition: destroyed, topped by public and private buildings

Location: central to the village, overlapped by the Roman-Catholic church and other buildings (Pl. 13¹⁵²)

¹³⁷ Holban *et al.* 1970, 329.

¹³⁸ Sebastyén 1984, 43.

¹³⁹ Mehmet, Stoicescu *et al.* 1976, 534–535.

¹⁴⁰ 19 October 1695.

¹⁴¹ Ghidiu, Bălan 1909, 353–361.

¹⁴² Oța *et al.* 2019, 15.

¹⁴³ <http://cronica.cimec.ro/detalii.asp?k=6094&d=Caransebes-Caras-Severin-Strada-Potocului-nr-22-2018> accessed on 10.10.2020

¹⁴⁴ Sebastyén 1984, 41.

¹⁴⁵ Oța, Oța 2008, 187.

¹⁴⁶ Likely conquered in 1551 by Kodja Mehmed Pasha, who in the same year conquered the fortresses of *Beș Kelek*, *Felnac*, *Peciu*.

¹⁴⁷ Țicu 2009, 80.

¹⁴⁸ <http://ran.cimec.ro/sel.asp?descript=carasova-carasova-caras-severin-cetatea-medievala-de-la-carasova-grad-cod-sit-ran-51813.01> accessed on 13.10.2020

¹⁴⁹ Mehmet, Stoicescu *et al.* 1976, 452.

¹⁵⁰ Sebastyén 1984, 49; then was attested the fortress called *Cenad*.

¹⁵¹ Mehmet, Stoicescu *et al.* 1976, 646.

¹⁵² Located after Măruia 2011.

Mentions by foreign travellers:

According to Evliya Çelebi's reports, the Cenad fortress is located at a bowshot from the Mureş River. "The large external town" is a fortified settlement, surrounded by a wooden wall of thick logs. It has three solid gates, oriented to the north, west and east. Within the walls there are 500 stone houses covered with shingles, reed and thatch. There are found 12 prayer locations, of which three mosques, three *medrese*, three dervish monasteries, 4 schools and 300 small shops. Besides these, it had a bath and three inns. The water supply of this enclosure and those internal was made from the Mureş River¹⁵³.

The fortified town, called by Evliya Çelebi *Cenad town* is a powerful *palanka* 1000 feet in circumference. The fortification wall is made of timber and battered earth and has a westward gate. Inside the fortification there are approximately 190 houses of various sizes covered with shingles or tiles and eight small shops. The streets in the fortified town (external fortress) are wood paved because of the harsh winters with much snowfall. The internal fortification is square-shaped, has hard walls and is 700 feet all around. Inside the fortress there are four mosques with minarets transformed from churches. The supplies and ammunition storage are also within the internal fortress. The entry gates, two in number, are double and iron made. Between the gates and the fortress ditch there is an underground dungeon and a brick-made tower¹⁵⁴.

Archaeological research: 1970–1995, the single relevant for our research topic being those of 1995¹⁵⁵. The subsequent investigations (between 1995 and 2013) remained regrettably unpublished.

Military units: see Tab. 2

Illustrations and mentions on cartographic documents: a miniature depicting the submission of the Cenad fortress in 1551¹⁵⁶; a plan made by Luigi Fernando Marsigli in 1697¹⁵⁷

2.7 Yeçey

Current name: Cenei village, Cenei commune, Timiș county

Attestation: 1370¹⁵⁸

Ottoman conquest date: 1551 (?)

Current condition: destroyed

Mentions by foreign travellers: Evliya Çelebi mentions the existence of the fortress¹⁵⁹, west of Timișoara.

2.8 Vefraş¹⁶⁰

Current name: Chelmac village, Conop commune, Arad County

Alternate name: *Vepries*(?)¹⁶¹

Attestation: 1615¹⁶²

Ottoman conquest date: 1551–1552 (?)

Current condition: destroyed

Location: possibly north of the current village where ruins are reported on the second and third Habsburg surveys.

Mentions by the foreign travellers:

On the fortress of *Vefraş* (likely the Chelmac fortress, according to Çelebi's location), the Ottoman traveler Evliya Çelebi informs us there is stonework set on the bank towards the Radna of river Mureş. It has a *dizdar*, 70 soldiers and 300 houses inside¹⁶³.

Archaeological research: 2004¹⁶⁴

¹⁵³ Mehmet, Stoicescu *el al.* 1976, 647–648.

¹⁵⁴ Mehmet, Stoicescu *el al.* 1976, 647.

¹⁵⁵ <http://cronica.cimec.ro/detaliu.asp?k=316&d=Cenad-Timis-Cetatea-medievala-1995> accessed on 09.09.2020

¹⁵⁶ Fehér 1976 apud Feneşan 2014, 431.

¹⁵⁷ Sebastyén 1984, 47.

¹⁵⁸ Pascu *el al.* 1977, 102; Paul, Stephen of Cenei's son is mentioned.

¹⁵⁹ Mehmet, Stoicescu *el al.* 1976, 501.

¹⁶⁰ Mentioned as *Vepries* in article two of the Karlowitz Peace Treaty, in 1699 apud Forțiu 2019, 3.

¹⁶¹ Forțiu 2016, 1

¹⁶² Sebastyén 1984, 49.

¹⁶³ Mehmet, Stoicescu *el al.* 1976, 509.

¹⁶⁴ Țeicu, Mărginean 2008.

*Illustrations and mentions on cartographic documents: a plan drawn up by Luigi Fernando Marsigli in 1697*¹⁶⁵

2.9 **Şakvan**

Current name: Ciacova city, Timiș County

Alternate name: Chaak, Csak, Csakowa¹⁶⁶

Attestation: 1332–1337¹⁶⁷

Ottoman conquest date: 18 September 1551¹⁶⁸

Layout data: approximately 1.5 ha

Current condition: destroyed, covered with a consistent layer of debris and yellow clay in the modern and contemporary periods. The defensive tower has survived.

Location: in Cetății Square and the adjacent streets from the Ciacova city

Mentions by foreign travellers:

In Wathay Ferenc's 1604–1605 work, the fifth poem shows a miniature depicting the Ciacova fortress. The fortification's defensive elements which the author figured are as follows: the defensive ditch, the wooden and battered earth palisade and the tower-house (the single standing today as well). Beside the tower emerge other nine buildings, two attached to the tower and another seven within the fortification. Amongst the latter, three draw our attention in particular: a building that seems to have two floors (a ground floor made of differently figured material, possibly stone) and a chimney, covered with shingles or ceramic tiles. Another interesting building is that in the shape of an apse, possibly a small mosque within the fortress that might have been used by the soldiers garrisoned there, while a third, of which only the roof is visible, draws attention precisely by its depiction as being made of shingles, the remaining buildings being covered with straws, except the previously mentioned two-floor building¹⁶⁹.

The 17th century illustration renders a swing bridge over the defensive ditch composed of two parts – one fixed, made of wooden posts knocked in the ground supporting the bridge structure most likely made of thick planks and another part, mobile, connecting the first passageway to the fortress interior. The latter seems to have been made still of wooden planks yet much more carefully worked – on the drawing these are figured straight and in-between on three symmetrically set lines are noticeable objects that seem to be nailed to increase resistance. The swinging side of the bridge is most likely connected with a light, thick rope part of the swinging mechanism. This rope seems to be intact only on the right side, with the left being broken and fallen into the defensive ditch.

The gate is incorporated into the palisade and is supported by a wooden beams structure. Two of these beams are knocked into the ground, while a third is set across those preceding. In the lower part the two vertical beams there are supporting posts struck obliquely into the ground, most likely to take over the supported weight. In the event of danger, when the mobile bridge was elevated, it practically covered the gate and closed the fortress¹⁷⁰.

In his journey through Banat, Çelebi mentions a fortress named *Şakvan* without yet providing a secure location or description¹⁷¹.

Archaeological research: five archaeological excavation campaigns between 2000–2018¹⁷²

Military units: see Tab. 3

Illustrations and mentions on cartographic documents Tabula Hungarie – mentioned as Czokoan: miniature made by Wathay Ferenc¹⁷³; map of Ciacova district¹⁷⁴; the first, second and third Habsburg surveys¹⁷⁵ (partially)

¹⁶⁵ Sebastyén 1984, 47.

¹⁶⁶ Merschdorf 2016, 83–86

¹⁶⁷ In the same document that records the fortress of Lugoj.

¹⁶⁸ Secară 1971, 164.

¹⁶⁹ Wathay 1604, 28/1.

¹⁷⁰ Wathay 1604, 28/1.

¹⁷¹ Mehmet, Stoicescu *et al.* 1976, 502.

¹⁷² Ene *et al.* 2018, 71–72.

¹⁷³ Wathay 1604, 28/1.

¹⁷⁴ *Mappa von dem Csakowaer District*, in the collection *HM Hadtörténeti Intézet és Múzeum*, call number B IX a 618, <https://maps.hungaricana.hu/en/HTITerkeptar/527/?list=eyJxdWVyeSI6ICJdc2Frb3dhZXIifQ> accessed on 14.10.2020

¹⁷⁵ <http://mapire.eu> accessed on 06.08.2020

2.10 **Duna Varad**

Current name: Coronini village, Coronini commune, Caraş-Severin County

Alternate name: Saint Ladislau, Pescari, Moldova

Attestation: 1430¹⁷⁶

Ottoman conquest date: the 15th century (?)

Layout data: ellipse-shaped construction, sized 190 × 100 meters¹⁷⁷

Current condition: in ruins

Location: south of Coronini village, by the banks of the Danube.

Mentions by foreign travellers:

According to explorer Evliya Çelebi, the fortress was built on a cliff by the bank of the Danube, which could be reached with difficulty. After Mehmed Paşa had conquered the Golumbac fortress (in today's Serbia) he used cannons to besiege it for a long time, the Moldova garrison eventually capitulating¹⁷⁸. The text also argues that the traveller did not visit the fortress in person owing to the difficult travel conditions.

Archaeological research: a few excavations campaigns between 1970–1975¹⁷⁹ and, according to a document issued by the National Commission of Archaeology on 15.11.2019, a rescue excavation conducted by the Museum of Highland Banat in the same year¹⁸⁰.

Military units: see Tab. 4

2.11 **Daubadad**¹⁸¹

Ottoman conquest date: 1551–1552 (?)

Military units: see Tab. 6

2.12 **Danta**

Current name: Denta village, Denta commune, Timiş County

Attestation: 1322¹⁸²

Ottoman conquest date: 1551 (?)

Current condition: destroyed

Military units: see Tab. 7

2.13 **Dezna**

Ottoman conquest date: the 17th century (?)

Layout data: rectangular

Current condition: destroyed

Mentions by foreign travellers:

This fortress was conquered by Köprülü Mehmed Pasha who quartered there, according to E. Çelebi, 700 soldiers. The fortification is related to the Sebeş (Caransebeş) sandjak in the Timișoara Eyalet and is flourishing, in four corners, located between woodlands and mountains, on the Timiș river bank. In the fortress there was a *dizdar* and common soldiers. Çelebi reports that the fortification has neither a bazaar nor a marketplace. In the work *Călători străini despre Țările Române*, tome 6 this fortification is identified as the fortress of Desna, in Arad County, which is impossible since Çelebi says it lay on the Timiș river bank, in the Sebeş district¹⁸³.

2.14 **Drenkova**

Current name: Drenkova village, Berzasca commune, Caraş-Severin County

Attestation: after 1419¹⁸⁴

¹⁷⁶ Țeicu 2009, 114.

¹⁷⁷ Țeicu 2009, 114.

¹⁷⁸ Mehmet, Stoicescu *el al.* 1976, 692.

¹⁷⁹ Matei, Uzum 1973, 141–155.

¹⁸⁰ http://www.cultura.ro/sites/default/files/inline-files/Ordinea%20de%20zi%20CNA%20din%2015%2011%202019_2.pdf accessed on 14.10.2020

¹⁸¹ Hegyi 2007, 1421.

¹⁸² Hațegan 2013, 125.

¹⁸³ Mehmet, Stoicescu *el al.* 1976, 535.

¹⁸⁴ Engel 1996, 204.

Ottoman conquest date: the 16th–17th century (?)

Layout data: rectangular, sized 23 × 21 meters¹⁸⁵

Current condition: destroyed

Location: on the Danube bank

Military units: see Tab. 8

2.15 **Besenyő**

Current name: Dudeștii-Vechi village, Dudeștii Vechi commune, Timiș County

Alternate name: Beșenova

Ottoman conquest date: 1551¹⁸⁶

Current condition: destroyed

Location: unidentified in the field – likely overlapped by the current village

Mentions by foreign travellers:

The fortress, conquered by Kodja Mehmed Pasha, is according to Evliya Çelebi, a small *palanka*, square in shape, located on the bank of a marshy lake. It measures approximately 1000 feet in circumference. In the fortress, there is a *dizdar* and 80 soldiers as well as a *naib* of the *kadi* in Cenad. Within the fortress walls there is a mosque made out of a church, two *mecete*, one *medrese*, one *tekke*, two schools, a bath, a caravanserai, eight small shops and two inns covered with planks¹⁸⁷.

Archaeological research: we are not aware of any published archaeological excavations aimed at investigating the medieval fortress at Dudeștii Vechi.

Military units: see Tab. 9

2.16 **Façat**

Current name: Făget city, Timiș County

Alternate name: Kaçat (erroneous)¹⁸⁸

Attestation: 1548¹⁸⁹

Ottoman conquest date: the 16th century (?)

Layout data: square-shaped with two rounded bastions, approximately 600m²

Current condition: in ruins / partially restored

Location: the ruins of the fortification lie to the north of the Făget city, at approximately 200 m north-west the cemetery (Pl. 12¹⁹⁰)

Mentions by foreign travellers:

The fortress is mentioned in 1529–1530 by chronicler Mustafa Gelalzade, who travelled in these parts after the siege of Mohács¹⁹¹.

About the Făget fortification speaks in more detail Evliya Çelebi, who visited the area in mid-17th century. He reports that the fortification was built by a woman called Tilen – likely Stefan Bekes's spouse¹⁹². In terms of its layout, Çelebi argues that the fortress of Făget is square-shaped, pleasant, covered entirely with shingles and strong. Its gate lay westwards, oriented towards the plain. Regarding its military units, Çelebi mentions a *dizdar* and 300 soldiers as well as enough warfare material. The same Ottoman traveller informs us that the fortification had no marketplace or bazaar and is just a *serhat tower*¹⁹³.

Archaeological research: 1983–1992¹⁹⁴, 1994¹⁹⁵, 1995¹⁹⁶, 1998¹⁹⁷

Military units: see Tab. 10

¹⁸⁵ Țeicu 2009, 81.

¹⁸⁶ Conquered likely in 1551 by Kodja Mehmed Pasha, who in the same year also conquered the fortresses of *Beș Kelek*, *Felnac*, *Peciu*.

¹⁸⁷ Mehmet, Stoicescu *et al.* 1976, 648.

¹⁸⁸ According to Çelebi.

¹⁸⁹ Căliman 2018, 23.

¹⁹⁰ Plan after Măruia 2011.

¹⁹¹ Guboglu, Mehmet 1966, 277.

¹⁹² Although the fortress was still standing in 1602, when Bekes's presence is recorded there.

¹⁹³ Mehmet, Stoicescu *et al.* 1976, 503.

¹⁹⁴ <http://cronica.cimec.ro/detaliu.asp?k=821> accessed on 07.09.2020.

¹⁹⁵ <http://cronica.cimec.ro/detaliu.asp?k=17> accessed on 07.09.2020.

¹⁹⁶ <http://cronica.cimec.ro/detaliu.asp?k=317> accessed on 07.09.2020.

¹⁹⁷ <http://cronica.cimec.ro/detaliu.asp?k=1605> accessed on 07.09.2020.

Illustrations and mentions on cartographic documents: A plan made by Luigi Fernando Marsigli in 1697¹⁹⁸

2.17 **Felnak**

Current name: Felnac village, Felnac commune, Arad County

Attestation: 1330¹⁹⁹

Ottoman conquest date: 1551 by Kodja Mehmed Pasha²⁰⁰

Layout data: uncertain layout, possibly rectangular

Current condition: destroyed, covered with modern constructions

Location: north of the village, in a built area (houses)²⁰¹

Mentions by foreign travellers:

The first traveller to describe the fortress of Felnac (by making a miniature) is Wathay Ferenc, who is taken prisoner nearby this fortification. Wathay renders a brick fortress (which suits Çelebi's statements) in four corners, each with a tower by its extremity. Inside the fortress are visible four buildings, however because of how they were illustrated, it is impossible to say what role they fulfilled. Nevertheless, the mosque mentioned by Çelebi does not seem to be visible. Another common point is the height reported by Çelebi and visible on the 1603–1604 miniature²⁰² as well.

E. Çelebi argues that the Felnac fortress was built by a figure whose name was identical²⁰³. The fortification lies on the Mureş River bank, on a mound, entirely built in brick. In terms of layout, it is approximately 400 feet in circumference and is single-gated southwards. Within are five houses, five imperial cannons as well as a small mosque. It is surrounded by a defensive ditch crossed by a mobile bridge pulled by chains, in front of a booth (likely a check or customs point?). About the city in the fortress's proximity, we find it is not surrounded by *palanka* and is composed of approximately 100 board-covered houses divided by courtyards and gardens, 10 small shops and many vineyards²⁰⁴.

Military units: see Tab. 11

Illustrations and mentions on cartographic documents: A miniature by Wathay Ferenc²⁰⁵

2.18 **Peștera Veterani**

Current name: Grota Veterani, by the Danube bank, south Dubova

Alternate name: possibly *Inlik*, *Peth*

Attestation: 1430²⁰⁶

Ottoman conquest date: the 15th century (?)

Current condition: in ruin

Location: nearby the Veterani Cave, by the Danube bank, at an approximately 70 meters elevation from the water surface

Mentions by foreign travellers:

When E. Çelebi visits the geographical area of the Banat, the *Inlik* fortress, located on a cliff that “rises to the skies” was no longer inhabited, with only a few gunslingers who monitored the passage of vessels where “the Danube is inconceivably narrow”²⁰⁷.

Archaeological research: archaeological excavations were performed in the '60s–'70s of the past century, yet “did not lead to the expected clarifications”²⁰⁸.

¹⁹⁸ Sebastyén 1984, 46.

¹⁹⁹ Ionașcu *et al.* 1953, 313.

²⁰⁰ According to Evliya Çelebi

²⁰¹ Forțiu 2016, 928.

²⁰² Wathay 1604, 34/1.

²⁰³ Which, seemingly, did not exist in fact.

²⁰⁴ Mehmet, Stoicescu *et al.* 1976, 503–504.

²⁰⁵ Ferenc 1604, 34/1.

²⁰⁶ Țicu 2009, 105.

²⁰⁷ Mehmet, Stoicescu *et al.* 1976, 694.

²⁰⁸ Boroneanț 2000, 89.

2.19 **Haram**

Haram-ı atec or Haramul Vechi is a fortress which controlled an old ford of the Danube. It was occupied in the late 15th century, before 1483. After 1552, when the Ottomans took over the control of Timișoara, its importance diminished²⁰⁹.

Current name: Banatska Palanka, Southern Banat, Vojvodina, Serbia

Alternate name: *Karasovar*²¹⁰, *Stara Palanka*

Attestation: 1177²¹¹

Ottoman conquest date: by the late 15th century (?)

Layout data: rectangular shapes with 92 × 92 meter sides²¹²

Current condition: destroyed

Location: The Sapaja island (on the Danube), partially destroyed²¹³

Archaeological research: 1982–1983²¹⁴

Military units: see Tab. 12

2.20 **Ianova**

Current name: Ianova village, Remetea Mare commune, Timiș county

Alternate name: *Temesjenő*

Attestation: 1333–1335²¹⁵

Ottoman conquest date: 1551–1552 (?)

Current condition: destroyed

Location: The Ianova fortification known as “Cetatea Turcească” was identified south of the current settlement of Ianova (Timiș county) within project eGISpat in 2006 when a survey of the area was performed. The collected archaeological materials²¹⁶ exhibit similar features to settlements known in the literature as having been used by the Ottomans in the 16th–18th century.

2.21 **Ictar**

In the current state of research, the single information on the Ictar-Budinț fortress is provided by the Ottoman pay registers recording troops there between 1621–1622²¹⁷. This fortification was likely a temporary outpost of the Ottoman troops.

Current name: Ictar-Budinț village, Topolovățu-Mare commune, Timiș county

Attestation: 1364²¹⁸

Date of the Ottoman conquest: 1551–1552 (?)

Current condition: destroyed

Military units: see Tab. 13

2.22 **Zidovar**²¹⁹

Current name: Jdioara village, Criciova commune, Timiș County

Alternate name: *Jedvar* (?)

Attestation: 1320²²⁰

Ottoman conquest date: 1658²²¹ (?)

Layout data: rectangular shape with rounded corners, provided with two square towers on the west and southeast sides. Its built area measures approximately 1000 m².

²⁰⁹ Feneșan 2017, 127.

²¹⁰ Often mistaken in the academic literature with the fortress of Carașova, Caraș-Severin county

²¹¹ Țeicu 2009, 84.

²¹² Țeicu 2009, 84.

²¹³ Information inferred subsequent to the examination of the 18th century map and current satellite images.

²¹⁴ Dimitrijević 1984, 105.

²¹⁵ Țeicu 2007, 131.

²¹⁶ Măruia *el al.* 2011, 237–245.

²¹⁷ See Tab. 15.

²¹⁸ Pascu *el al.* 1985, 342.

²¹⁹ Medeleț 1998, 619.

²²⁰ Țeicu 2009, 87.

²²¹ Oțetea *el al.* 1964, 35.

Current condition: in ruin, included in the touristic circuit

Location: located 1.2 km north-east from the Holy Apostles church in the Jdioara commune, Timiș county, on a high plateau with steep slopes and an access road²²² only westwards (Pl. 15²²³)

Mentions by foreign travellers:

In the first part of *Seyahatnâmesi*, Evliya Çelebi states that the fortress of *Jedvar*²²⁴ is a square wooden *palanka* located in the highlands by the Timiș river bank and since it was a new conquest, had no public buildings²²⁵. Later, Çelebi speaks of the *Zedvar* fortification that belongs to the prince of Transylvania, John Kemény and argues it is a beautiful stone fortress, has three bastions and lies on a cliff in the mountains and amid woodlands. River *Zedvar* passes by its vicinity (in fact, river Nădrag) which, running eastwards flows into the *Someș* river²²⁶ (*Someș*), in fact Timiș.

We believe that the second description is more illustrative of what the fortification of Jdioara is concerned, as it is validated by several aspects known at present: the fortress lies on a headland at 290 meters elevation, is stone built and has two archaeologically recorded bastions (towers), the surrounding land being covered by woodlands, while river Nădrag flows nearby. A third tower, mentioned by the Ottoman traveller likely lay above the gate.

Archaeological research: 1930; 1973²²⁷, 1977²²⁸

Illustrations and mentions on cartographic documents: A plan made by Luigi Fernando Marsigli in 1697²²⁹

2.23 **Csonbol**²³⁰

Current name: Jimbolia city, Timiș County

Attestation: 1332–1337

Ottoman conquest date: 1551 (?)

Current condition: destroyed

Military units: see Tab. 14

2.24 **Kimin**²³¹

Attestation: Not identified in the literature, mentioned only in the context of the *Karlowitz* Peace Treaty, 1699

Current condition: destroyed

Location: in the vicinity of Lugoj Municipality (?)

2.25 **Köfin**

The *Köfin* fortress is located on a former ford of the Danube, which it defended. It was built by the Ottomans on top of a Roman *castellum*. The former fortress existing there was occupied in the same period as the Haram fortification, namely by the late 15th century, before 1483²³².

Current name: Kovin, Southern Banat district, Vojvodina, Serbia

Alternate name: *Kufin*

Attestation: 1185²³³

Ottoman conquest date: late 15th century (?)

Layout data: rectangular shaped, sized 150 × 130 meters²³⁴

Current condition: destroyed

²²² Used today for touristic purposes.

²²³ Plan after Măruia 2011.

²²⁴ Name interpreted by N. Stoicescu as Jdioara apud. Mehmet, Stoicescu *el al.* 1976, 534.

²²⁵ Mehmet, Stoicescu *el al.* 1976, 534.

²²⁶ Mehmet, Stoicescu *el al.* 1976, 541.

²²⁷ Bejan 1975, 157–62.

²²⁸ Bejan 1978.

²²⁹ Sebastyén 1984, 44.

²³⁰ Hegyi 2007, 1404.

²³¹ Forțiu 2019, 3.

²³² Feneșan 2017, 127.

²³³ Țeicu 2009, 101. Year is erroneously edited 1885.

²³⁴ Țeicu 2009, 101.

Location: on the city territory (Pl. 2²³⁵), overlapped by private buildings²³⁶

Archaeological research: 1968, 1986²³⁷

Military units: see Tab. 5

2.26 **Küciük-Kanizse**²³⁸

Alternate name: *Klein Kanisa, Kis Kanizsa, Canija Mică*²³⁹

Attestation: Not identified in the literature, mentioned only in the context of the *Karlowitz Peace Treaty*, 1699

Current condition: destroyed

Location: on the Banat bank of the Tisza River, north of Novi Kneževac

2.27 **Küçük-Sadj**

Current name: Sacoșu-Turcesc village, Sacoșu-Turcesc commune, Timiș county²⁴⁰

Alternate name: *Küciüksaci*

Attestation: 1321²⁴¹

Ottoman conquest date: 1551–1552 (?)

Current condition: destroyed

Mentions by foreign travellers: The fortress is mentioned in 1529–1530 by chronicler Mustafa Gelalzade, who travelled in these parts after the siege of Mohács²⁴². He calls it *Küciüksaci*, a very similar name to what Evliya Çelebi gave, *Küçük-Sadj*²⁴³.

2.28 **Puva**²⁴⁴

Current name: Lipova city, Arad County

Alternate name: Pava

Attestation: 1344²⁴⁵

Ottoman conquest date: 1551²⁴⁶ / 1595²⁴⁷

Layout name: pentagonal shape, with an approximate area of 7^{ha}

Current condition: destroyed, topped by public and private buildings

Location: south-west the center of Lipova city, in the area of streets Timișoara, Cuza Vodă, Vasile Alecsandri etc. (Pl. 9²⁴⁸)

Mentions by foreign travellers:

On the Lipova fortress, traveller Evliya Çelebi says its name comes from the Serbian language, where *lipa* means beautiful²⁴⁹. The Lipova fortress is a beautiful stone fortress, pentagonal in shape, according to the same Ottoman traveller. Its circumference is 10.000 feet. Similarly to Timișoara, the Lipova fortress has several gates: 1. The Bridge Gate

2. The Azaps Gate

3. The Water Gate

4. The *Battal* Gate

5. The Timișoara Gate

6. The Martalogi Gate

²³⁵ Illustrations and positioning after Țeicu 2009.

²³⁶ Țeicu 2009, 101.

²³⁷ Iambor 2005, 67–69.

²³⁸ Forțiu 2019, 3.

²³⁹ Forțiu 2019, 3.

²⁴⁰ Uncertain data.

²⁴¹ Hațegan 2013, 321.

²⁴² Guboglu, Mehmet 1966, 277.

²⁴³ Mehmet, Stoicescu *et al.* 1976, 502.

²⁴⁴ Mehmet, Stoicescu *et al.* 1976, 452.

²⁴⁵ Niedermaier 2016, 369.

²⁴⁶ See section IX.

²⁴⁷ Feneșan 2017, 269.

²⁴⁸ Illustrations and positioning after Niedermaier 2016.

²⁴⁹ The fortress's name originates in fact from the Slavic language and means linden tree.

7. The Şarampo Gate²⁵⁰

There are five mosques in the fortress and one small mosque. There are also 1500 houses with shingle roofs, related gardens and vines, 200 shops and wood-planked streets. Regarding water supply, E. Çelebi mentions that the city has no fountains, its inhabitants likely using the Mureş River waters²⁵¹.

In the southern part of the large enclosure lies the middle fortress, pentagonal in shape with sound bastions and a circumference of approximately 5000 feet. It has a double-filling wall and ceiling and is approximately 50 feet high. It is entirely made of wood and has a defensive ditch where the Mureş River flows. Over the defensive ditch encircling the five-bastion fortress,²⁵² there is a mobile bridge in front of one of the gates, on the eastern side. In this part of the fortification there are 150 houses for soldiers²⁵³.

The last fortified enclosure from Lipova, called by Çelebi “the beautiful citadel” is a stone fortification with two defensive towers. The fortress ditch is filled with Mureş River waters and is crossed by a bridge towards the single entrance into the enclosure. Inside, there is a prison from which prisoners are removed in daytime for labor. This part of the fortification is dwelled only by the *dizdar*, the imam and muezzins, as there are stored valuables and warfare supplies. Regarding the town inhabitants, Evliya Çelebi reports they make belts and speak Hungarian and Bosnian²⁵⁴.

Archaeological research: we are not aware of any published archaeological excavations.

Military units: see Tab. 15

Illustrations and mentions on cartographic documents: a miniature rendering the occupation of the Lipova fortress in 1551²⁵⁵; a plan made by Luigi Fernando Marsigli in 1697²⁵⁶

2.29 Lubkova

Current name: Liubcova village, Berzeasca commune, Timiş county

Ottoman conquest date: built by the Ottomans, likely in the 16th century (?)

Current condition: destroyed

Mentions by foreign travellers:

From data supplied by Evliya Çelebi, it results that the Liubcova fortification was built by the Ottomans. Inside the fortress, by the late 17th century there were 60 soldiers. The fortification located nearby the Danube is a small, four-cornered *palanka* situated on a wide meadow, 200 feet from the river. In it there are five houses. It is surrounded by a double defensive ditch and guarded by five towers. In front of the gate, in the *extra-muros* space there is a roofed mosque and plank minaret²⁵⁷.

Archaeological research: Archaeological excavations were conducted there during 1960–1980, however the medieval materials were either unidentified or disregarded when excavations results were published²⁵⁸.

Military units: see Tab. 16

2.30 Lugos

Current name: Lugoj Municipality, Timiş County

Attestation: 1334²⁵⁹

Ottoman conquest date: 14 September 1658²⁶⁰

Layout data: flat pentagonal shape with an approximate area of 3.5 ha.

Current condition: strongly affected by modern and contemporary constructions

Location: destroyed, partially topped by buildings in the “Constantin Drăgan” University area, in the middle of the city (Pl. 14²⁶¹)

²⁵⁰ Şarampo means ditch in Turkish.

²⁵¹ Mehmet, Stoicescu *el al.* 1976, 505–507.

²⁵² On which are mounted 15 tower siege cannons.

²⁵³ Mehmet, Stoicescu *el al.* 1976, 507.

²⁵⁴ Mehmet, Stoicescu *el al.* 1976, 507–508.

²⁵⁵ Fehér 1976 apud Feneşan 2014, 432.

²⁵⁶ Sebastyén 1984, 45.

²⁵⁷ Mehmet, Stoicescu *el al.* 1976, 692–693.

²⁵⁸ <http://arheologie.ulbsibiu.ro/publicatii/bibliotheca/arheologie/istorie/l.htm> accessed on 22.09.2020.

²⁵⁹ Sebastyén 1984, 44.

²⁶⁰ Feneşan 2017, 276.

²⁶¹ Illustration and positioning after Sebastyén 1984.

Illustrations and mentions on cartographic documents:

In 1603, István Szamosközy argues about the Lugoj fortification that the town was surrounded by a poor defensive ditch, the fortress being defended by ca. 12 soldiers²⁶².

On the fortress of Lugoj, Evliya Çelebi wrote by mid-17th century that it was a timber-and-earth fortification, square, set in the plain on the bank of Timiș river, its ditches being filled with river water. The fortress has a single-entry gate in front of the mobile bridge. The bridge was pulled each night, says the said author²⁶³. Inside the fortress there are 300 houses covered with reeds and planks. Since it was a relatively new conquest, the Muslims did not build mosques, caravanserais, baths or shops. The internal citadel was also square, built-in stone with a related defensive ditch. The access gate inside the internal fortification was in wood and oriented eastwards, with a mobile bridge²⁶⁴ in front of it as well.

Archaeological research: 1987–1993²⁶⁵

Illustrations and mentions on cartographic documents: A plan made by Luigi Fernando Marsigli in 1697²⁶⁶.

2.31 Marçina

Current name: Margina village, Margina commune, Timiș county

Attestation: 1439²⁶⁷

Ottoman conquest date: 1552²⁶⁸

Current condition: destroyed

Location: likely east of the current city²⁶⁹, parallel with the road running from Margina to Coșava.

Mentions by foreign travellers:

The fortress is mentioned in 1529–1530 by chronicler Mustafa Gelalzade, who travelled in these parts after the siege of Mohács²⁷⁰. In 1660 it is mentioned by Evliya Çelebi as *Marçina*²⁷¹.

Archaeological research: A 1999 archaeological sondage did not identify elements evidencing an existing fortification on the eastern side of the current village²⁷².

2.32 Moșdar

Current name: Mănăștiur village, Mănăștiur commune, Timiș County

Attestation: 1505²⁷³

Ottoman conquest date: 1552 (?)

Layout data: a circular enclosure with an approximate area of 1 ha

Current condition: destroyed

Location: to the north-east of the city hall of Mănăștiur city, at the point called “La mănăstire”. This is likely the fortified church on whose location were identified archaeological materials datable to the 15th–18th century (Pl. 5²⁷⁴)

Mentions by foreign travellers: The fortress is mentioned by the Ottoman traveller Evliya Çelebi as *Moșdar*²⁷⁵.

Archaeological research: The archaeological excavations conducted between 1979–1986 yielded only a fortified church, likely the one which E. Çelebi identified as a fortress²⁷⁶.

²⁶² Sebestyén 1984, 45.

²⁶³ Mehmet, Stoicescu *el al.* 1976, 533.

²⁶⁴ Mehmet, Stoicescu *el al.* 1976, 533–534.

²⁶⁵ <http://cronica.cimec.ro/detalii.asp?k=150&d=Lugoj-Timis-Cetatea-Veche-1994> accessed on 03.07.2020.

²⁶⁶ Sebestyén 1984, 42.

²⁶⁷ Păcurar *el al.* 2017, 58.

²⁶⁸ Păcurar *el al.* 2017, 27.

²⁶⁹ Măruia *el al.* 2011, 261.

²⁷⁰ Guboglu, Mehmet 1966, 277.

²⁷¹ Mehmet, Stoicescu *el al.* 1976, 502.

²⁷² L. Măruia *el al.* 2011, 261

²⁷³ Hațegan 2013, 247.

²⁷⁴ Plan after Măruia 2011

²⁷⁵ Mehmet, Stoicescu *el al.* 1976, 502.

²⁷⁶ Țicu 2007, 78.

2.33 Mehadia

Current name: Mehadia village, Mehadia commune, Caraş-Severin County

Attestation: 1323²⁷⁷

Ottoman conquest date: 1523 (?)

Current condition: in ruin

Location: at 1 km north-east the current settlement (Pl. 4²⁷⁸)

Mentions by foreign travellers:

The Italian peregrine Giovan Andreea Gromo, who travelled in Banat in 1566–1567, describes the fortress of Mehadia as a strong castle, well defended, sitting on a cliff. The fortress is according to him well supplied with foodstuffs and warfare materials. About the surrounding settlement, he argues that “nothing is plentiful”, there is no wine, while the bread is almost inexistent²⁷⁹.

Military units: see Tab. 17

Illustrations and mentions on cartographic documents: a plan²⁸⁰ made by Luigi Fernando Marsigli in 1697²⁸¹.

2.34 Pece

Current name: Novi Bečej, Banatul Central district, Voivodina, Serbia

Attestation: 1315²⁸²

Ottoman conquest date: 19 September 1551²⁸³

Layout data: square in shape, four-cornered, with a defensive ditch only on the north-north-west side and an approximate surface area of 5 ha.

Current condition: in ruin, partially covered by the course of the Tisza

Location: in the vicinity of the Tisza River course, on the territory of Novi Bečej city²⁸⁴ (Pl. 8²⁸⁵)

Mentions by foreign travellers:

About the fortress at Pece Evliya Çelebi argues it was conquered by Mehmed Paşa in seven days, in Hijri year 958²⁸⁶, it was rebuilt and provided with many troops²⁸⁷. We believe that M. Guboglu erroneously identified Pece as Becei²⁸⁸, Timiş County. In the support of this argument, we mention the lack of bibliographical references of a Becei fortress in 1552–1716 as well as the large number of units reported by Çelebi: approximately 600 soldiers (recorded by registers) in 1552²⁸⁹.

Archaeological research: unpublished²⁹⁰

Military units: see Tab. 18

Illustrations and mentions on cartographic documents: an Ottoman miniature depicting the siege of the Bečej fortress in 1551²⁹¹; the plans of engineer Johan Kristijan de Kolet drawn up by early 1700, prior to the fortress’s demolishing²⁹².

2.35 Irşova²⁹³

Current name: Orşova Municipality, Mehedinţi County

²⁷⁷ Haţegan 2013, 248.

²⁷⁸ Illustration and positioning after Munteanu-Dumitru 1988, 108.

²⁷⁹ Holban *et al.* 1970, 328.

²⁸⁰ Archaeological excavations contradict Marsigli’s plan.

²⁸¹ Sebastyén 1984, 43.

²⁸² Ţeicu 2009, 75.

²⁸³ Feneşan 2017, 131.

²⁸⁴ Ţeicu 2009, 76.

²⁸⁵ Identified in the field based on ruins visible on satellite images and sketches published in Šmit, Bošković 1939, 301–329 apud <http://perpetuum-mobile.net/putopisi/2006-novi-becej-i-araca/> today non-functional, accessed on 10.10.2020.

²⁸⁶ Which corresponds in the Christian calendar to year 1551.

²⁸⁷ Mehmet, Stoicescu *et al.* 1976, 492.

²⁸⁸ Guboglu 1970, 32.

²⁸⁹ See Tab. 2.

²⁹⁰ We were unable to identify published archaeological excavations, instead we found images of a 2009 rescue excavation and a video presentation of the 2020 excavations on Serbian authorities’ sites, https://www.youtube.com/watch?v=Vh4RQkBITGU&feature=emb_title accessed on 20.10.2020.

²⁹¹ Fehér 1976 apud Feneşan 2014, 429.

²⁹² <http://perpetuum-mobile.net/putopisi/2006-novi-becej-i-araca/> accessed on 10.10.2020.

²⁹³ Hegyi 2007, 1413.

Attestation: 1349²⁹⁴

Ottoman conquest date: 1542²⁹⁵

Current condition: destroyed

Location: topped by public and private buildings in the Cerna River flowing area into the Danube.

Mentions by foreign travellers:

According to Evliya Çelebi, the Orșova fortress is a beautiful, four-cornered *palanka*, built in wood and encircled by earthen walls, with an approximate circumference of 800 feet. Access is made by two gates: one small, oriented eastward and another, whose sizes are unknown, oriented westwards, towards the city. The southern part of the fortress is very close to the Danube so during heavy rainfall seasons the fortification is partially flooded. On the northern side of the fortress there are heights and deeper ditches. Within the walls, the most beautiful building is the Bey palace and a total number of 50 houses covered with shingles. The same traveller reports that nearby the northern gate there was a small mosque. The internal citadel was stone made before the Ottoman conquest and is according to Çelebi, very sturdy. Inside dwell only the *dizdar*, the imam, the *muezzin* and the *metterbasi*. Nearby the dungeon of this internal fortress there was a wooden tower with a large clock whose bang was heard from far away²⁹⁶.

Archaeological research: we are not aware of any published archaeological excavations of the Orșova fortress.

Military units: see Tab. 19

Illustrations and mentions on cartographic documents: first Austrian survey (ruins)²⁹⁷.

2.36 **Pançova**

Current name: Pančevo, Southern Banat, Vojvodina, Serbia

Attestation: 1414²⁹⁸

Ottoman conquest date: 1551 (?)

Current condition: in ruin

Location: covered by the waters of the Danube²⁹⁹

Mentions by foreign travellers:

About the fortress of *Pançova* Evliya Çelebi argues it is a wooden *palanka*, square in shape, sitting in a meadow formed by the Sava River flowing into the Danube. The fortress's circumference is approximately 100 feet. Within, there is a *dizdar* and 50 soldiers, ammunition storage facilities, sufficient warfare material, one mosque, a caravanserai and a small bazaar. Çelebi mentions there was no bath. The houses within the fortress are covered with reed and wattle³⁰⁰. Similarly to other fortresses from the Timișoara Eyalet, one may assume this fortress also had a defensive ditch and mobile bridge, which the Ottoman traveller failed to mention.

Archaeological research: archaeological excavations were performed over the course of the '80–'90s of the past century, research being published in a few articles of excavation reports type³⁰¹.

Military units: see Tab. 20

Illustrations and mentions on cartographic documents: two maps that depict the Panciova fortress prior to the Austrian systemization found in the *Hadtörténeti Intézetés Múzeum* Collections, call numbers G I h 490/2³⁰² and G I h 482³⁰³.

2.37 **Peciu**

Current name: Peciu Nou village, Peciu nou commune, Timiș county

Attestation: 1333–1335³⁰⁴

²⁹⁴ Țeicu 2009, 105.

²⁹⁵ Holban *et al.* 1970, 326.

²⁹⁶ Mehmet, Stoicescu *et al.* 1976, 694–695.

²⁹⁷ www.mapire.eu accessed on 09.10.2020.

²⁹⁸ Țeicu 2009, 82.

²⁹⁹ Țeicu 2009, 82.

³⁰⁰ Mehmet, Stoicescu *et al.* 1976, 491.

³⁰¹ Đorđević 2013, 15–16.

³⁰² <https://maps.hungaricana.hu/en/HTITerkeptar/35727/?list=eyJxdWVyeSI6ICJwYW5jZXZvIn0> accessed on 15.10.2020.

³⁰³ <https://maps.hungaricana.hu/en/HTITerkeptar/35722/?list=eyJxdWVyeSI6ICJwYW5jZXZvIn0> accessed on 15.10.2020.

³⁰⁴ Hațegan 2013, 287.

Ottoman conquest date: 1551³⁰⁵

Current condition: destroyed

Location: unidentified in the field

Mentions by foreign travellers:

The fortress was conquered, according to E. Çelebi, in 1551 by Kodja Mehmed Pasha. Within its walls were then camped a commander and 40 guarding soldiers. The construction is brick made, square, and no more than 500 feet in circumference. The fortress ditch is filled with water crossed by mobile bridges in front of the two entrance gates into the fortress. In the settlement nearby the fortification, there is a mosque, a *medrese*, three schools, a bath, forty small shops and 100 low houses covered with tiles or reed³⁰⁶.

Archaeological research: we are not aware of any existing published archaeological research.

2.38 Rudna

Current name: Ruda village, Giulvăz commune, Timiș County

Attestation: 1333³⁰⁷

Ottoman conquest date: 1551 (?)

Current condition: destroyed

Location: the fortress was not identified in the field.

On the fortress of Rudna, Evliya Çelebi argues it is a *palanka* built by Ulama Pasha in the 16th century. At the time when the Ottoman explorer travelled through Banat (mid–17th century) the fortress lay in ruin. Within, there were still found 20 Christian houses and a commander with 20 *martolos*³⁰⁸.

Military units: see Tab. 21

2.39 Sarad

Attestation: 1479³⁰⁹

Ottoman conquest date: 1551–1552 (?)

Current condition: destroyed

Location: likely south the Pișchia village, Timiș County

Military units: see Tab. 22

2.40 Şemkoloş

Current name: Sânnicolau Mare city, Timiș County

Attestation: the 14th century (?)

Ottoman conquest date: 1551–1552 (?)

Current condition: destroyed

Location: the fortress was not identified in the field

Mentions by foreign travellers: the fortress is mentioned by Evliya Çelebi as *Şemkoloş* however unfortunately no description is provided³¹⁰.

Archaeological research: the excavations performed there in late the 90s and early 2000s did not evidence the existence of a medieval fortification in the investigated area³¹¹.

2.41 Mezeusumlov³¹²

Current name: Şemlacul Mare village, Gătaia city, Timiș County

Attestation: 1424³¹³

Ottoman conquest date: 1552 (?)

Current condition: destroyed

³⁰⁵ According to Evliya Çelebi.

³⁰⁶ Mehmet, Stoicescu *el al.* 1976, 649.

³⁰⁷ Haşegan 2013, 319.

³⁰⁸ Mehmet, Stoicescu *el al.* 1976, 509.

³⁰⁹ Ţeicu 2009, 107.

³¹⁰ Mehmet, Stoicescu *el al.* 1976, 502.

³¹¹ Bejan, Măruia 2007, 311.

³¹² Rădulescu 2002, 79.

³¹³ Rădulescu 2002, 78.

2.42 **Tamaşvar**

Current name: Timișoara Municipality, Timiș County

Alternate name: Temesvár, Temeschwar

Attestation: 1322³¹⁴

Ottoman conquest date: 27 July 1552 (with a failed siege in the autumn of 1551)³¹⁵

Layout data: the fortress (together with its suburbs) had a pentagonal shape and a surface area of approximately 36 hectares³¹⁶.

Current condition: topped by the current town of Timișoara

Location: Cetate quarters, Timișoara (Pl. 11)³¹⁷

Mentions by foreign travellers:

There are three descriptions and one graphic representation of the Timișoara fortress, all dated to the 17th–18th century. Since we did not note major differences between the four documents, we shall attempt to synthesize the information to draft a clear, concise text, as close to historical facts as possible. Chronologically, the four authors who directly or indirectly described the fortress of Timișoara are as follows: Wathay Ferenc, Evliya Çelebi, Henrik Ottendorf and Tutovicz Janos. The first is a graphical representation in the form of a miniature, the next three providing text descriptions (commonly drafted for a military purpose) as well as plans and sketches.

According to the descriptions of the period, the fortress of Timișoara lay on rank soil, in the marshlands created by the Timiș and Bega (or Beghei) rivers and was built of thick oak or elm trunks. The fortification's walls are built of wattle plastered with clay or gypsum and whitewashed. The inner fortress was made of timber and had, according to E. Çelebi a double wall of logs in-between battered with clay and mortar. It was made in this manner because of the flexibility provided by the constructional technique. Because of the surrounding marshes and the fact that walls were plastered, such a construction was unlikely to burn, while the barely accessible land just nearby the fortification hindered the construction of redoubts or trenches. On all its sides, the fortified structure was surrounded by defensive ditches of variable sizes. E. Çelebi explained that wood was the main building material because a hard-material-built fortress could easily sink into the marshy soil of Timișoara while building stone was missing from the area³¹⁸. The fortification had five gates, which according to Evliya Çelebi were iron-made and fixed in wood, in front of which there was a retractable bridge. The five entrances were called:

1. The Rooster Gate³¹⁹ (or the Seghedin Gate³²⁰)

The Rooster Gate was thus called as most likely there stood a sheet iron rooster. It lies on the northwest side of the town and was entirely built in stone or brick before 1552. To the exterior, it was protected by a semicircular fortification on which small artillery pieces could be assembled. Directly on top of the gate's masonry there stood a roof, so artillery equipment could not be mounted there³²¹.

2. The Azaps Gate (or the Arad Gate)

On the Azaps Gate was placed a clock, which most often did not work, according to H. Ottendorf. The gate lies on the opposite side of the Rooster Gate and was also protected by a semicircular fortification. The structure was built only in the *intra-muros* part and together with the earth fortification erected there, the wall was approximately 3.8 meters wide in total. The author of the description mentions that between the Azaps Gate and the Rooster Gate the wall was protected by a double defensive ditch³²².

3. The Bank Gate (or Water Gate)

This gate was situated according to the examined plans on the south-eastern side of the citadel. The ditch between the Water Gate and the Azaps Gate is, according to the descriptions, lined with

³¹⁴ Țicu 2009, 112.

³¹⁵ Feneșan 2014, 119.

³¹⁶ Area computed by software Qgis 3.14 PI based on georeferencing the map of cartographer François Perrette.

³¹⁷ Plan georeferenced after Opreș 2007.

³¹⁸ Mehmet, Stoicescu *et al.* 1976, 496–500.

³¹⁹ First name is provided according to Evliya Çelebi.

³²⁰ The second name is provided by Tutovicz János.

³²¹ Feneșan 2014b, 296.

³²² Feneșan 2014b, 296–297.

longs on both sides and filled with water. The ditch-related rampart was 3.5 meters high and not serviced by a covered road. According to the Austrian spy, Tutovicz, the more elevated land favoured the construction of trenches³²³ there.

4. The Citadel Gate (the small castle gate)

This entrance lies on the southern side of the fortress and is connected to the fortified city and the fortress by a mobile bridge. The ditch before this gate was narrow and filled with the Beghei river water³²⁴.

5. The Blood Gate (or the Tower Gate)

Tutovicz also mentions a fifth gate, likely located on the southwestern side of the fortress, the so-called Gate of the Blood (as termed by H. Ottendorf), yet no description follows³²⁵.

Within the town there are four suburbs with 1200 single-roofed, stove-heated houses³²⁶. Çelebi speaks of four mosques³²⁷, 400 small shops, one bazaar yet also of wood-planked streets. Regarding the water supply of the inhabitants, the Ottoman traveller argues that the Muslims preferred running water, so they drank water from fortress ditches, where everybody discarded their waste. The same scholar reminds the existence within the fortress of coffee houses and grain barns³²⁸.

The internal courtyard is flat rectangular and stone-built, described as a sturdy, beautiful construction surrounded by the Timiș River. In front, there was a large square paved with a hard mortar layer, most likely the same discovered on street Lucian Blaga during the archaeological campaign of 16 January – 10 April 2014³²⁹. The fortress towers and storage facilities are, according to Çelebi, full of treasures, equipment and supplies and no one, except the high priests, is allowed access inside.

According to Henrik Ottendorf, who visited the town in 1663, the castle is an old construction, with a simple, rectangular layout and strong walls and towers. The town is surrounded by a wall with sound palisades made of wattle-and-daub and on certain stretches, it was doubled and filled with earth. The ditches encircling the fortress are deep yet neglected, the Ottomans cleaning them rarely³³⁰. Town streets and suburbs are wooden planked because of the marshy soil, which, even in little rain turned into mud. The “island”³³¹ inhabitants are all “Turks”³³², while the Christians inhabited the suburbs and lived, like many Muslims, on trade and farming³³³. Ottendorf also reports certain topical events that affected the fortress of Timișoara in one way or another: in 1566, the fortress was partially destroyed by the explosion of the gunpowder house, in 1597 it was unsuccessfully besieged and in 1603, the suburbs were set ablaze by outlaws³³⁴.

The last traveller to speak of the fortress of Timișoara during the Ottoman period was Tutovicz János, the town judge of Seghedin (Szeged, Hungary). He was most likely contacted in 1716 by the leadership of the Austrian troops sometime prior to the conquest of Petrovaradin (on 5 August 1716). It is unclear how he entered the fortress, yet his description seems to have been decisive for the Austrian conquest³³⁵. He generally spoke of the weak points of the Ottoman fortress of Timișoara. We mentioned his reports when discussing the fortification gates above.

In the illustration made in the early 17th century by Wathay Ferenc are visible two of Timișoara’s mosques, the citadel with four towers (out of which three are circular and one is square), a few taller buildings, the houses inside the fortification as well as three of the fortress gates. On the left side is rendered the Rooster Gate, in the middle likely the Azaps Gate and to the left, in front of the castle, the small fortress gate, the only of all the three rendered as provided with a defensive tower. According to

³²³ Feneșan 2014b, 297.

³²⁴ Feneșan 2014b, 297.

³²⁵ Feneșan 2014b, 297.

³²⁶ Çelebi reports that the only “stone” structures of the town are house chimneys.

³²⁷ Compared to Ottendorf, who mentions eight.

³²⁸ Mehmet, Stoicescu *et al.* 1976, 497–499.

³²⁹ Flutur *et al.* 2018, 9–11.

³³⁰ Hașegan, Negrescu 2006, 11.

³³¹ The inner city.

³³² Likely, the traveller was strictly referring to the religious affiliation of the fortified town inhabitants.

³³³ Hașegan, Negrescu 2006, 16.

³³⁴ Hașegan, Negrescu 2006, 17.

³³⁵ Feneșan 2014, 296.

the depiction, the only gate figured differently is the Rooster Gate (or the Seghedin Gate), the material of which it was made likely being brick or worked stone blocks. According to Ottendorf's description, between the two mosques figured by W. Ferenc lies the bazaar of Timișoara's fortress, described as composed of vaulted structures in which various foodstuffs were sold and purchased³³⁶.

Thus, according to the three descriptions of Ottoman Timișoara, the town was very well fortified, defended by ditches and high palisades on all sides. Its inhabitants had available beside the bazaar, also market places, coffee houses and baths (archaeologically recorded since 2015) as well as eight cult places. One may assume that the last description of the town city aided its conquest by the Austrians to a certain extent as the decisive attack of the Habsburg troops occurred precisely on the segment described by Tutovicz as the most poorly fortified, namely somewhere nearby the Water Gate area.

Archaeological research: approximately 25 archaeological excavations campaigns were conducted on the territory of medieval Timișoara³³⁷.

Military units: see Tab. 23

Illustrations and mentions on cartographic documents: a miniature depicting the conquest of the fortress of Timișoara in 1552³³⁸; a Persian miniature made by Fütühat-i Camila³³⁹; miniature by Wathay Ferenc, a drawing made by H. Ottendorf during his visit of the Timișoara town³⁴⁰; plans drawn up by captain-chief engineer Perrette³⁴¹.

2.43 **Semlik**³⁴²

Current name: Vrșac, Southern Banat district, Vojvodina, Serbia

Alternate names: Virsics, Versec³⁴³

Attestation: 1323³⁴⁴

Ottoman conquest date: 1551

Layout data: pentagonal shape, approximate surface area of 1300 m²

Current condition: restored

Location: north-west the city of Vârșeț (Pl. 3³⁴⁵)

*Archaeological research*³⁴⁶: 1997–2000³⁴⁷

Military units: see Tab. 24

2.44 **Yenipalanka**

Current name: Banatska Palanka, South Banat district, Vojvodina, Serbia

Alternate names: Ienipalanka, Uj-Palanka

Attestation: the 15th century (?)

Ottoman conquest date: according to E. Çelebi, in the 15th century

Current condition: destroyed

Mentions by foreign travellers:

According to Evliya Çelebi's descriptions, the Uj-Palanka fortification was conquered by the late 15th century. In 1661–1662, Ahmed Pasha built a new fortification there (hence the name *Uj-Palanka* or *Ieni Palanka*). The fortress, square in shape, stands on a height in the vicinity of the Danube and had inside a mosque, 50 houses covered with planks and the Pasha Sarayı covered with tiles. Access was made by two gates, one eastward and another, smaller, towards the Danube. Before the gates, there was a deep ditch covered by mobile bridges pulled by cranes (pulleys?)³⁴⁸.

³³⁶ Hațegan, Negrescu 2006, 14.

³³⁷ We also included the excavations performed in the Palanca Mare and Palanca Mică suburbs.

³³⁸ Fehér 1976 *apud* Feneșan 2014, 434.

³³⁹ Fehér 1976 *apud* Feneșan 2014, 433.

³⁴⁰ Feneșan 2014, 440.

³⁴¹ Opriș 2007, 16–19.

³⁴² Hegyi 2007, 1371.

³⁴³ Hegyi 2007, 1371.

³⁴⁴ Țeicu 2009, 113.

³⁴⁵ Plan after Nikolić 2011 and current satellite images.

³⁴⁶ The archaeological investigations make no mention of Ottoman date finds.

³⁴⁷ Nikolić 2011, 95.

³⁴⁸ Guboglu 1970, 55.

Military units: see Tab. 25

Illustrations and mentions on cartographic documents: an undated plan of which there is no further information, found by chance, most likely the closest to 16th–18th-century facts³⁴⁹; a 1722 plan, likely the fortification was fundamentally changed by the Habsburgs³⁵⁰; the map *Plan der Gegendum Weisskirchennest der Schanze bei Uipalanka* now with the *Hadörténeti Intézetés Múzeum*, Budapest, call number G I h 168/1³⁵¹.

2.45 **Beşkelek**

Current name: Zrenjanin, Central Banat, Voivodina, Serbia

Alternate name: Becicherec

Attestation: the 14th century³⁵²

Ottoman conquest date: 25 September 1551³⁵³

Layout data: rectangular shape, with an approximate area of 4.5 ha

Current condition: destroyed

Location: in the middle of the town, topped by public and private buildings (Pl. 6³⁵⁴)³⁵⁵

Mentions by foreign travellers:

According to the Ottoman traveller Evliya Çelebi, the name means in the Ottoman Turkish language “cinci pepeni galbeni³⁵⁶” (“five melons”). The fortification was conquered by Kodja Sokollu Tavit Mehmet Pasha in 1551, who made it prosper. All public buildings were built in the town upon his orders: caravanserais, baths, guest houses, *medrese*, the bazaar, etc. The fortress is not properly described, Çelebi mentioning only that prior to its conquest, the fortification was a small *palanka*³⁵⁷.

Military units: see Tab. 26

Illustrations and mentions on cartographic documents: one miniature rendering the fortress siege in 1551³⁵⁸; sketches made by Luigi Fernando Marsigli in the 17th century³⁵⁹.

Conclusions

The study of the Ottoman period in Romania received an impetus in recent years, owing to the Hungarian scholar’s interest, who published large scale-studies (both historical and archaeological) discussing the respective period, and the increased attention for the examination of the Near East in general historiography. The impulse offered by the Hungarian scientific community made the Romanian and Serbian scholars put out studies, which, corroborated, and lay the foundations for the study of the Ottoman period in the Banat. We attempted here to answer the question we posed in the introductory part of this paper: “What does the Ottoman defensive system actually looks like in the area known today as the Banat?”. Thus, we started by explaining how the Ottoman defence operated in the area, starting from fortifications built by the Hungarian administration and the pathways by which the Ottomans consolidated their power in this region. We further addressed the issue of the three fortification types identified in Ottoman censuses: *kale*, *palanka* and *parkan* and provided new information related to certain aspects of the communications network in the Banat, in our view, the most important component of the entire defensive system. Next, we reviewed all available data on the construction and repair manner of the fortifications. Because of the Ottoman practice not to draft

³⁴⁹ <https://sok.riksarkivet.se/amnesomrade?postid=Arkis+62d1c66b-4674-4553-846e-cd992c333eca&infosida=amnesomrade-militaria&flik=1&s=Balder> accessed on 08.10.2020.

³⁵⁰ <https://mapy.mzk.cz/mzk03/001/052/925/2619316594/> accessed on 09.10.2020.

³⁵¹ <https://maps.hungaricana.hu/en/HTITerkeptar/34928/?list=eyJxdWVyeSI6ICJ1aXBhbGFua2EifQ> accessed on 08.10.2020.

³⁵² The fortress is recorded by the same papal diploma that records the fortress of Caraşova, in 1323, issued by Pope John the 22nd.

³⁵³ Feneşan 2017, 131.

³⁵⁴ Approximate location with the aid of Marsigli’s sketches and the official site of the Zrenjanin Cityhall; <http://www.zrenjanin.rs/sr-lat/o-gradu/gradska-kuca/na-temeljima-beckerecke-tvrđjave> accessed on 15.10.2020.

³⁵⁵ Approximate location.

³⁵⁶ Ottoman Turkish – *Beş Kelek*.

³⁵⁷ Mehmet, Stoicescu *el al.* 1976, 649–650.

³⁵⁸ Fehér 1976 *apud* Feneşan 2014, 430.

³⁵⁹ <http://www.zrenjanin.rs/sr-lat/o-gradu/gradska-kuca/na-temeljima-beckerecke-tvrđjave> accessed on 15.10.2020.

military architecture treaties (mainly for military reasons), explaining how they built their fortifications is we believe difficult and far from being entirely clarified.

Regarding the field location of the fortifications, most existing data come at this point from Romania. This is due to the Hungarian and Serbian specialists' preference to address less the topic of the fortresses from the Banat for reasons that remain unknown to us so far. By mapping fortresses and road networks, it may be noted that fortifications always lie on military or trade important arteries or waterways that allow upstream or downstream movement towards neighboring fortifications, swiftly and efficiently. Using available data to date, we could make approximate determinations of displacement times between fortresses or reaction times in the event of attacks. An interesting analysis whose concept we adopted from one of the examined Hungarian scholars reconfirmed that, similarly to Hungary, in the Banat the Ottomans were well aware of the area's geography and acted as such. In fortresses located in marshlands they settled troops according to the land peculiarities – the ratio between infantry and cavalry units being well proportionate. Cavalrymen, placed in most fortresses from the Banat were fewer than infantrymen – owing to the cavalry's reduced mobility. Their role was nonetheless well established, being efficient, in the event of an attack, in weakening the enemy's communication and supply lines. In the second part of the work we reviewed, where available, all information found in the academic literature on the forty-five identified fortresses in the Ottoman Banat area. The main discussed aspects included the following: names (current and Ottoman as well), attestation, the date of the Ottoman conquest, layout data, condition, location, contemporary mentions, conducted archaeological research, known military units and illustrations. We have thus drawn up a catalogue that may be a starting point for future studies addressing each fortification.

Returning to the question posed in the introduction here, we may contend, as we did over the course of the paper, that the defensive system in the Banat operated for 164 years similarly to a living organism, being an intricate network that facilitated transport and communications between the fortresses, alike a neuronal network by which information moves at high speed, whilst any possible dangers were removed in the shortest time with the aid of the centers nearby.

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- <https://www.mapire.eu> accessed on 09.10.2020

Tab. 1. Troops stationed in Bocșa.

	1554	1569	1579	1591	1621	1628-1630	1634	1655
Bocșa¹	20AP 3T	19AP	19AP 3T	31C 32M	27C 22AZ 16M	16C 9M	19C 11M	300S

¹ Hegyi 2007, 1386-1390.

Tab. 2. Troops stationed in Cenad.

	1591	1621	1628-1630	1634	1655	1700-1707
Cenad¹	43C 31M	20AP 10T 38C 19AZ 15M	31AP 11T 46C 31AZ 18M	31AP 11T 69C 31AZ 19M	300S	40, 40, 34S

¹ Hegyi 2007, 1430-1434.

Tab. 3. Troops stationed in Ciacova.

	1554	1569	1579	1621	1634
Ciacova¹	12AP 1T	10AP 2T 1MŞ	10AP	4AP 17C 18AZ 29M	5AP 17M

¹ Hegyi 2007, 1391-1393.

Tab. 4. Troops stationed in Coronini.

	1569	1579	1591*	1604-1605	1621	1634	1655
Coronini¹	29AP 35T 20AZ 24M	28AP 4T	22AZ 26M ?SP ²	28C 53AZ 22M	16C 44AZ 35M	41AZ	300S

¹ Hegyi 2007, 1407-1412.² Unknown number

Tab. 5. Troops stationed in Kovin.

	1606	1621	1629-1630
Kovin¹	29AP 8T 29AZ 40M	17AP 6T 19AZ	14AP 4T

¹ Hegyi 2007, 1398-1399.

Tab. 6. Troops stationed in Daubadad.

	1581	1629-1630	1634
Daubadad¹	22AZ	11AZ 10M	11AZ 10M

¹ Hegyi 2007, 1420-1422.

Tab. 7. Troops stationed in Denta.

	1621	1634	1650	1700-1707
Denta¹	12AP 30C 1I 18AZ 26M	17C 11M	50S	47, 40, 36S

¹ Hegyi 2007, 1400-1402.

Tab. 8. Troops stationed in Drencova.

	1621
Drencova¹	17M

¹ Hegyi 2007, 1429.

Tab. 9. Troops stationed in Dudeștii-Vechi.

	1621	1628–1630	1634	1655
Dudeștii-Vechi¹	15AP 5T 21C 21M	18AP 14T 17M	14AZ 4T 18M	80S

¹ Hegyi 2007, 1445–1446.

Tab. 10. Troops stationed in Făget.

	1554	1569	1579	1591	1629–1630	1634	1660	1700–1707
Făget¹	26AP 4T	32AP 8T	32AP 8T	91C 12AZ	?AP ² ?T ³ 34C 18AZ	34C 18AZ	300S	25, 25, 21S

¹ Hegyi 2007, 1381–1385.² Unknown number³ Unknown number

Tab. 11. Troops stationed in Felnac.

	1554	1569	1579	1621	1629–1630*¹	1634*	1660
Felnac²	25AP 4T	17S	16AP	2AP 2T 34C 46AZ 27M	?AP ?T ?C ?M	23C 8M	50S

¹ Available data unfortunately does not provide exact numbers.² Hegyi 2007, 1377–1380.

Tab. 12. Troops stationed in Haram.

	1607*	1621
Haram¹	84S (AP+T+C+M)	15AP 12T 24C 27AZ

¹ Hegyi 2007, 1417–1418.

Tab. 13. Troops stationed in Ictar-Budinț.

	1621*	1622
Ictar-Budinț¹	93S (AP+T)	34C 39M

¹ Hegyi 2007, 1403.

Tab. 14. Troops stationed in Jimbolia.

	1628–1630*	1634
Jimbolia¹	?M ²	23M

¹ Hegyi 2007, 1404.² Unknown number

Tab. 15. Troops stationed in Lipova.

	1554	1567	1579	1591	1621	1628-1630	1660	1700-1707
Lipova¹	133AP 31T 1B	103AP 27T	103AZ 17T	62C 3MŞ 117AZ 43M	87AP 18T 46G 309C 350AZ 9P 134M	54AP 17T 19G 303C 365AZ 10P 108M	800S	40, 40, 34

¹ Hegyi 2007, 1447-1457.

Tab. 16. Troops stationed in Liubcova.

	1603-1608	1621	1629-1630	1634	1655
Liubcova¹	6T 64M	20AP 3T 20M	2T 37M	2T 40M	60S

¹ Hegyi 2007, 1423-1425.

Tab. 17. Troops stationed in Mehadia.

	1621	1629-1630	1634	1700
Mehadia¹	11AP 20C 15AZ 17M	11AP 20C 15AZ 18M	10AP 20C 15AZ 18M	37S

¹ Hegyi 2007, 1426-1428.

Tab. 18. Troops stationed in Novi-Bečej.

	1552	1621	1629-1630*	1655
Novi-Bečej¹	104AP 27T 201C 165AZ 100M	18AP 5T 26AZ 1M	?AP ² ?T ³ 27AZ ?M ⁴	40S

¹ Hegyi 2007, 1439-1442.² Unknown number.³ Unknown number.⁴ Unknown number.

Tab. 19. Troops stationed in Orșova.

	1621	1629-1630	1634	1655
Orșova¹	30AP 13T 38C 62AZ 45M	28AP 15T 29C 51AZ 45M	27AP 13T 29C 55AZ 40M	150S

¹ Hegyi 2007, 1413-1416.

Tab. 20. Troops stationed in Pančevo.

	1606	1621	1629-1630	1634	1660	1700-1707
Pančevo¹	37AP 46C 50AZ 80M	31AP 49C 31AZ	34AP 40C 12M	35AP 43C	50S	169, 169, 151

¹ Hegyi 2007, 1394-1397.

Tab. 21. Troops stationed in Rudna.

	1628–1630	1634
Rudna¹	33M	12M

¹ Hegyi 2007, 1405.

Tab. 22. Troops stationed in Sarad.

	1628–1630	1634	1650
Sarad¹	14M	14M	30C 14M

¹ Hegyi 2007, 1406.

Tab. 23. Troops stationed in Timișoara.

	1552	1554	1569	1579	1591	1621	1629–1630	1631–1632*¹	1633–1634	Sec 17–18
Timișoara²	1600S?	251AP 50T 9MŞ	153AP 6MŞ 41T	155AP 27MŞ 41T	96C 120AZ 41M	77AP 55T 19G 15S 69M 278C 202AZ 11P 22M	118AP 70T 36S 71MŞ 289C 224AZ 14P 63M 161JS	96AP 76T 35S 73MŞ 259C 261AZ 14P 63M	134AP 77T 31S 75MŞ 320C 249AZ 14P 63M	3371S ³

¹ AP outside the first enclosure were not included in this record.² Hegyi 2007, 1351–1370.³ Maximum number of troops in the discussed interval.

Tab. 24. Troops stationed in Vârșeț.

	1554	1569	1579	1591	1607	1621	1628–1630	1634	1655	1700–1707
Vârșeț¹	11AP	11AP	11AP	22AP 22M	11T 21C 33M	2AP 12T 77C 24AZ 64M	10AP 6T 32C 16AZ 30M	12AP 10T 35C 26AZ 33M	20S	50, 57, 48S

¹ Hegyi 2007, 1371–1376.

Tab. 25. Troops stationed in Yenipalanka.

	1621	1628–1630	1634
Yenipalanka¹	24M	15AP 7T 15M	15AP 8T 17M

¹ Hegyi 2007, 1419–1420.

Tab. 26. Troops stationed in Zdrenjanin.

	1552	1621	1700–1707
Zdrenjanin¹	132AP 15T 5MŞ 302C 134AZ 101M	19AP 6T 5TEX 11C	40, 40, 34S

¹ Hegyi 2007, 1435–1438.

Tab. 27. Ratio of infantry-cavalry units between 1552–1650.

Name	1552	1554	1567	1569	1579	1581	1591	1603-1608	1604-1605	1606	1607	1621	1622	1628-1630	1631-1632	1633-1634	1634	1650
Bocșa	X ¹	100:0	X	100:0	100:0	X	X	X	X	X	X	59:41	X	36:64	X	X	63:37	X
Cenad	X	X	X	X	X	X	42:58	X	X	X	X	63:37	X	67:33	X	X	57:43	X
Ciacova	X	100:0	X	100:0	100:0	X	X	X	X	X	X	75:25	X	X	X	X	100:0	X
Coronini	X	X	X	100:0	100:0	X	100:0	X	74:26	X	X	83:17	X	X	X	X	100:0	X
Kovin	X	X	X	X	X	X	X	X	X	100:0	X	100:0	X	100:0	X	X	X	X
Daubadad	X	X	X	X	X	100:0	X	X	X	X	X	X	X	100:0	X	X	100:0	X
Denta	X	X	X	X	X	X	X	X	X	X	X	56:34	X	X	X	X	100:0	X
Drencova	X	X	X	X	X	X	X	X	X	X	X	100:0	X	X	X	X	X	X
Dudeștii-Vechi	X	X	X	X	X	X	X	X	X	X	X	67:33	X	100:0	X	X	X	X
Făget	X	100:0	X	100:0	100:0	X	X	X	X	X	X	X	X	35:65	X	X	35:65	X
Felnac	X	100:0	X	100:0	100:0	X	X	X	X	X	X	70:30	X	X	X	X	26:74	X
Haram	X	X	X	X	X	X	X	X	X	X	X	69:31	X	X	X	X	X	X
Ictar-Budinț	X	X	X	X	X	X	X	X	X	X	X	47:53	X	X	X	X	X	X
Jimbolia	X	X	X	X	X	X	X	X	X	X	X	X	X	100:0	X	X	100:0	X
Lipova	X	100:0	100:0	X	100:0	X	61:39	X	X	X	X	67:33	X	66:34	X	X	X	X
Liubcova	X	X	X	X	X	X	X	100:0	X	X	X	100:0	X	100:0	X	X	100:0	X
Mehadia	X	X	X	X	X	X	X	X	X	X	X	68:32	X	69:31	X	X	68:32	X
Novi-Becej	67:33	X	X	X	X	X	X	X	X	X	X	100:0	X	X	X	X	X	X
Orșova	X	X	X	X	X	X	X	X	X	X	X	80:20	X	83:17	X	X	82:18	X
Pancevo	X	X	X	X	X	X	X	X	X	79:21	X	56:44	X	54:46	X	X	45:55	X
Rudna	X	X	X	X	X	X	X	X	X	X	X	X	X	100:0	X	X	100:0	X
Sarad	X	X	X	X	X	X	X	X	X	X	X	X	X	100:0	X	X	X	68:32
Timișoara	X	100:0	X	100:0	100:0	X	59:41	X	X	X	X	63:37	X	70:30	68:32	64:36	X	X
Vârșet	X	100:0	X	100:0	100:0	X	100:0	X	X	X	68:32	X	X	66:34	X	X	70:30	X
Yenipalanka	X	X	X	X	X	X	X	X	X	X	X	100:0	X	100:0	X	X	100:0	X
Zdrenjanin	57:43	X	X	X	X	X	X	X	X	X	X	74:26	X	X	X	X	X	X

¹ No data

Tab. 28. Infantry-cavalry ratio mean between 1552–1650³⁶⁰.

Bocşa	46:54
Cenad	57:43
Ciacova	75:25
Coronini	78:22
Kovin	100:0
Daubadad	100:0
Denta	33:67
Drencova	100:0
Dudeştii-Vechi	67:33
Făget	27:73
Felnac	48:52
Haram	69:31
Ictar-Budinţ	47:53
Jimbolia	100:0
Lipova	65:35
Liubcova	100:0
Mehadia	68:32
Novi-Bečej	67:33
Orşova	82:18
Pančevo	67:33
Rudna	100:0
Sarad	32:68
Timișoara	65:35
Vârșet	68:32
Yenipalanka	100:0
Zrenjanin	65:35

List of Abbreviations

Table:

* = incomplete register

AP = fortress defenders

T = gunners

TEX = field gunners

C = cavalry

G = guards

B = producer of explosive materials

M = *martolos*

AZ = azaps

MŞ = craftsmen

I = Imam

P = pontonier

JS = janissaries

S = soldiers without established function

SP = paid soldiers

³⁶⁰ Resulted values represent the arithmetic mean of infantry-cavalry percentages from table 27 computed only for the years when the fortress registers listed cavalry units. For fortresses where cavalry units were not recorded in any registers, the value is 100% infantry.



Plate 2. Köfín fortress.



Plate 3. Semlik fortress.

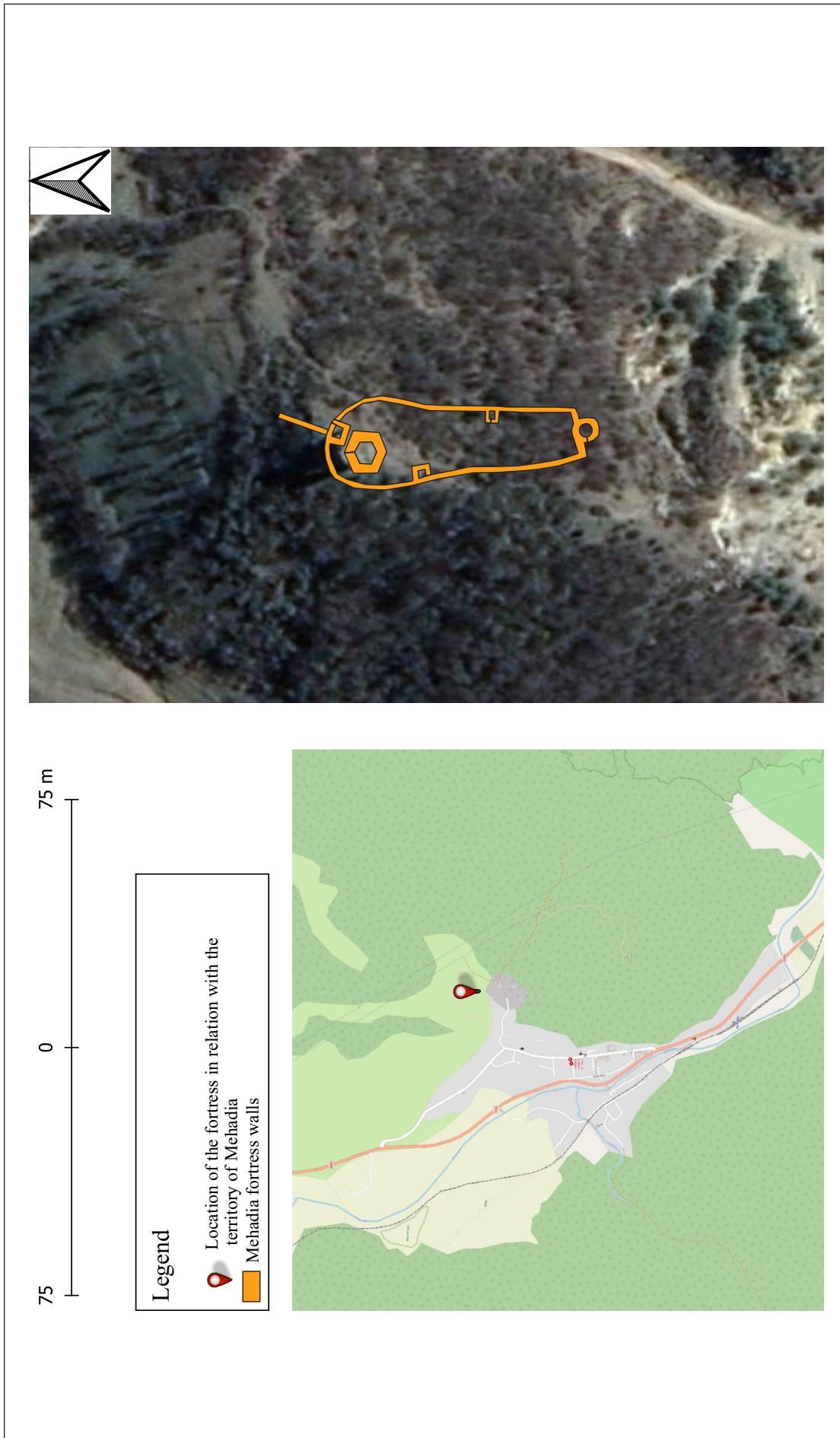


Plate 4. Mehadia fortress.



Plate 5. Moșdar fortified church.



Plate 6. Beşkelek fortress.

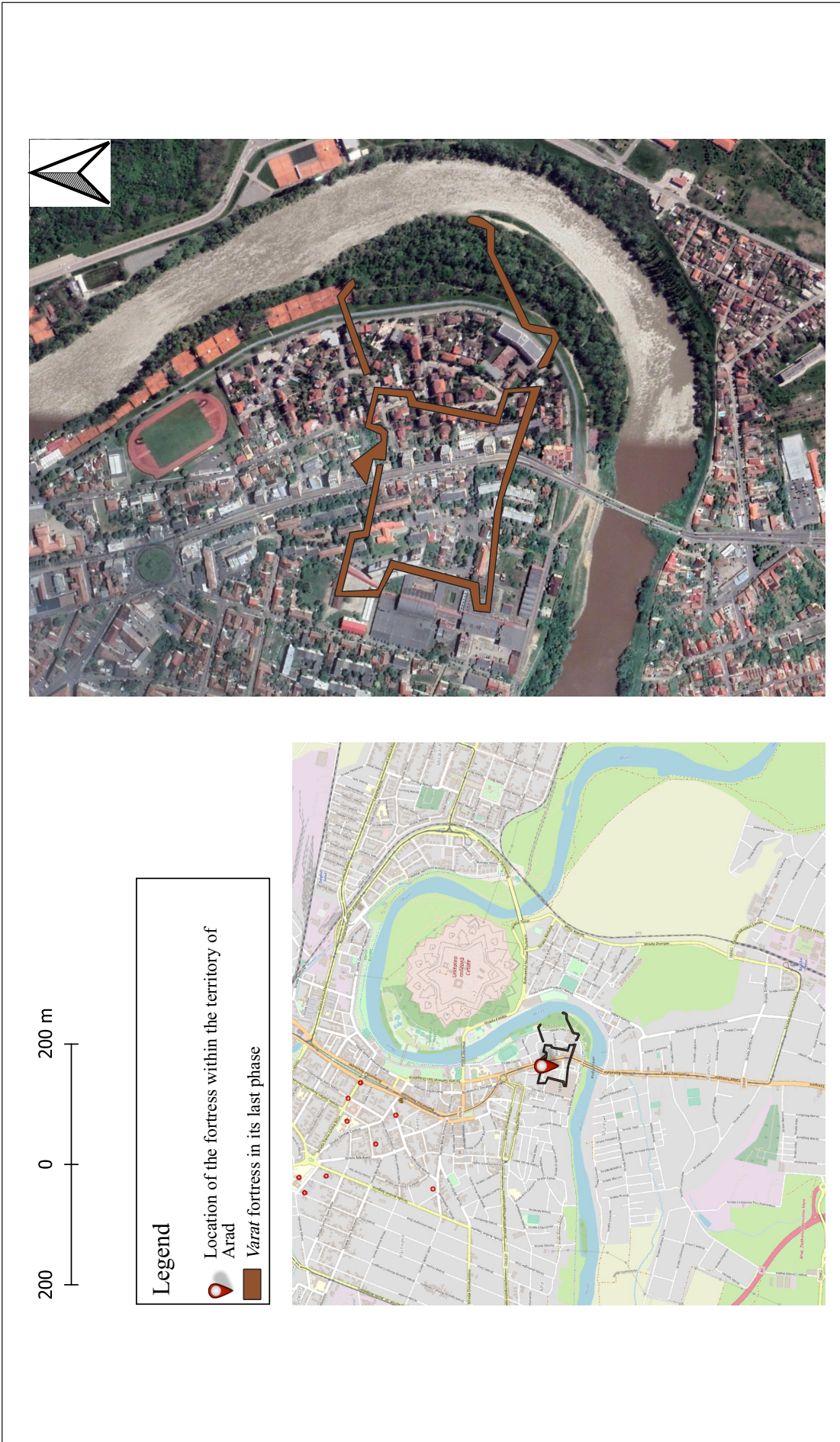


Plate 7. Varat fortress.



Plate 8. Pece fortress.

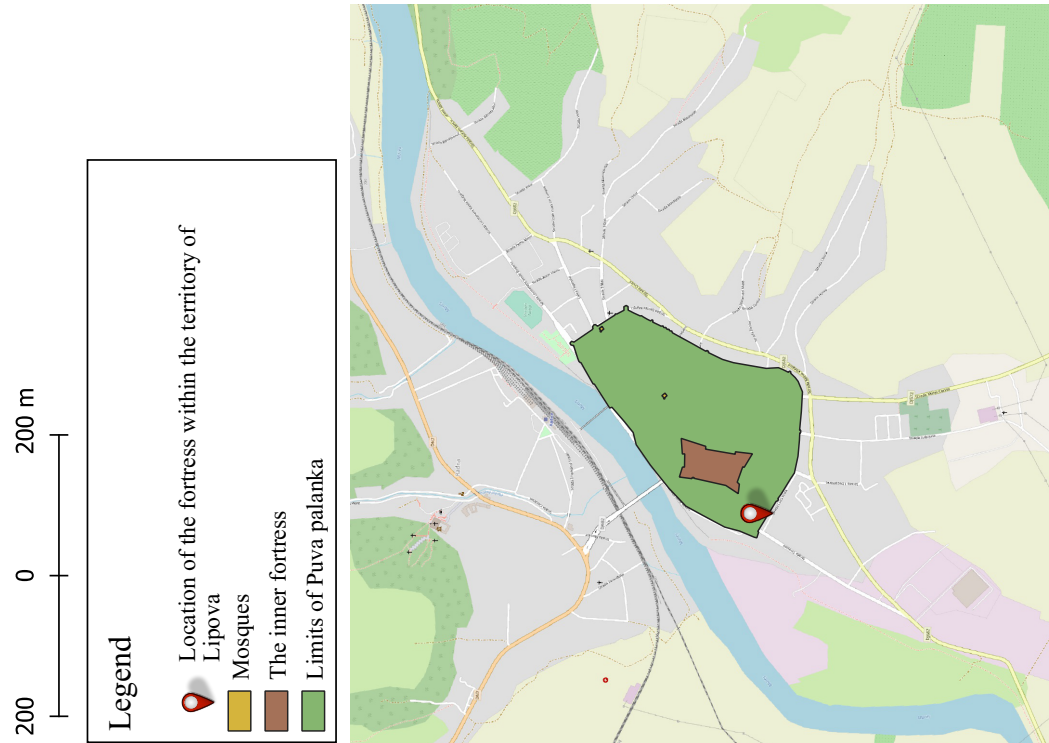
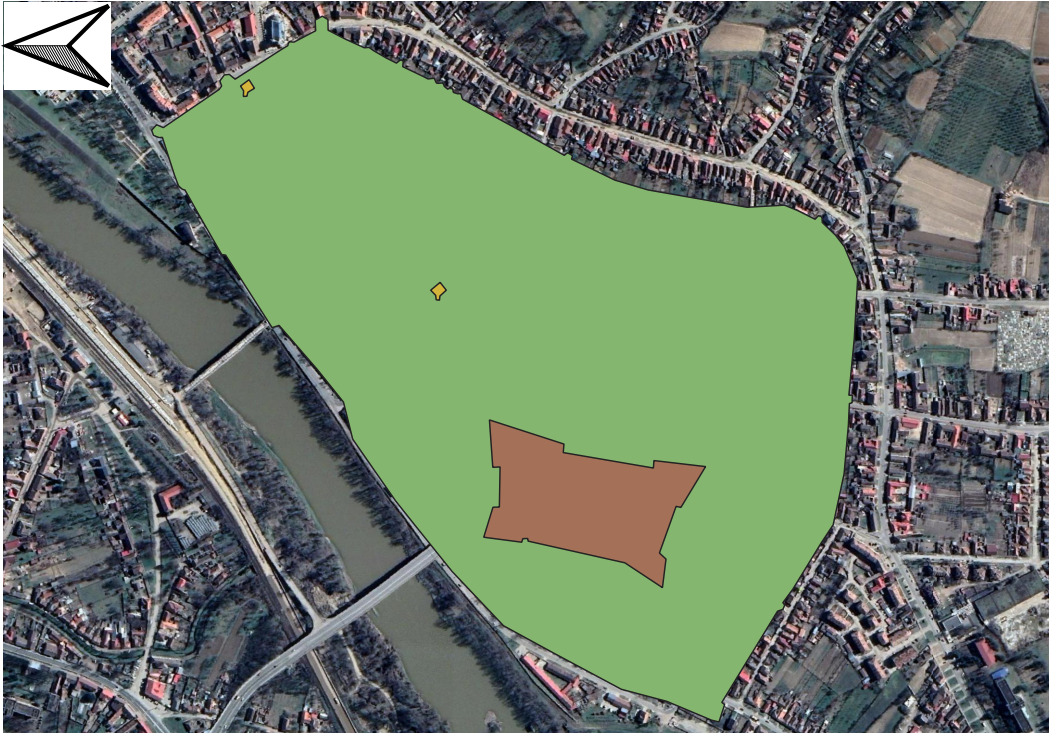


Plate 9. Puva fortress.

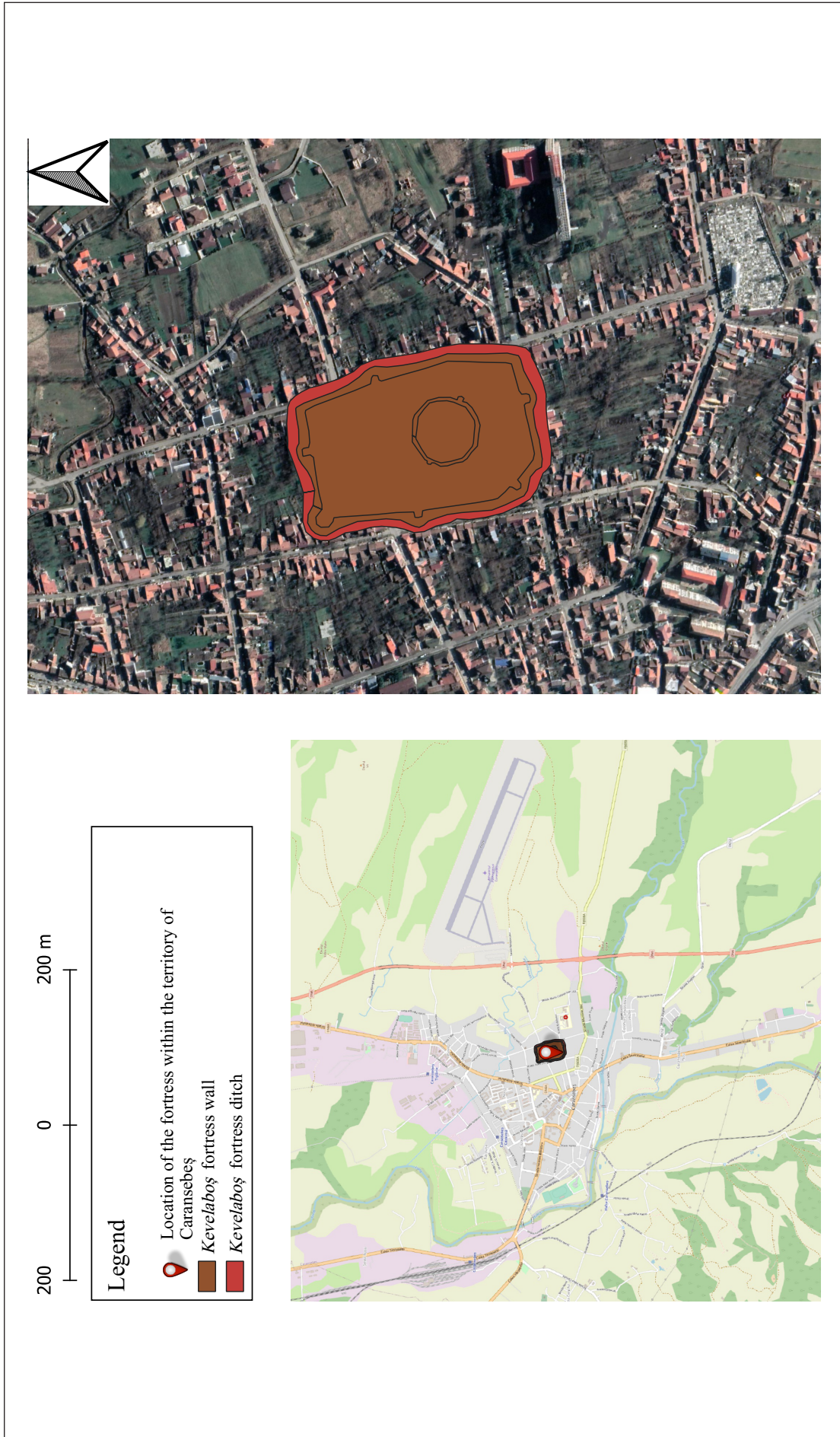


Plate 10. Kevelaboş fortress.

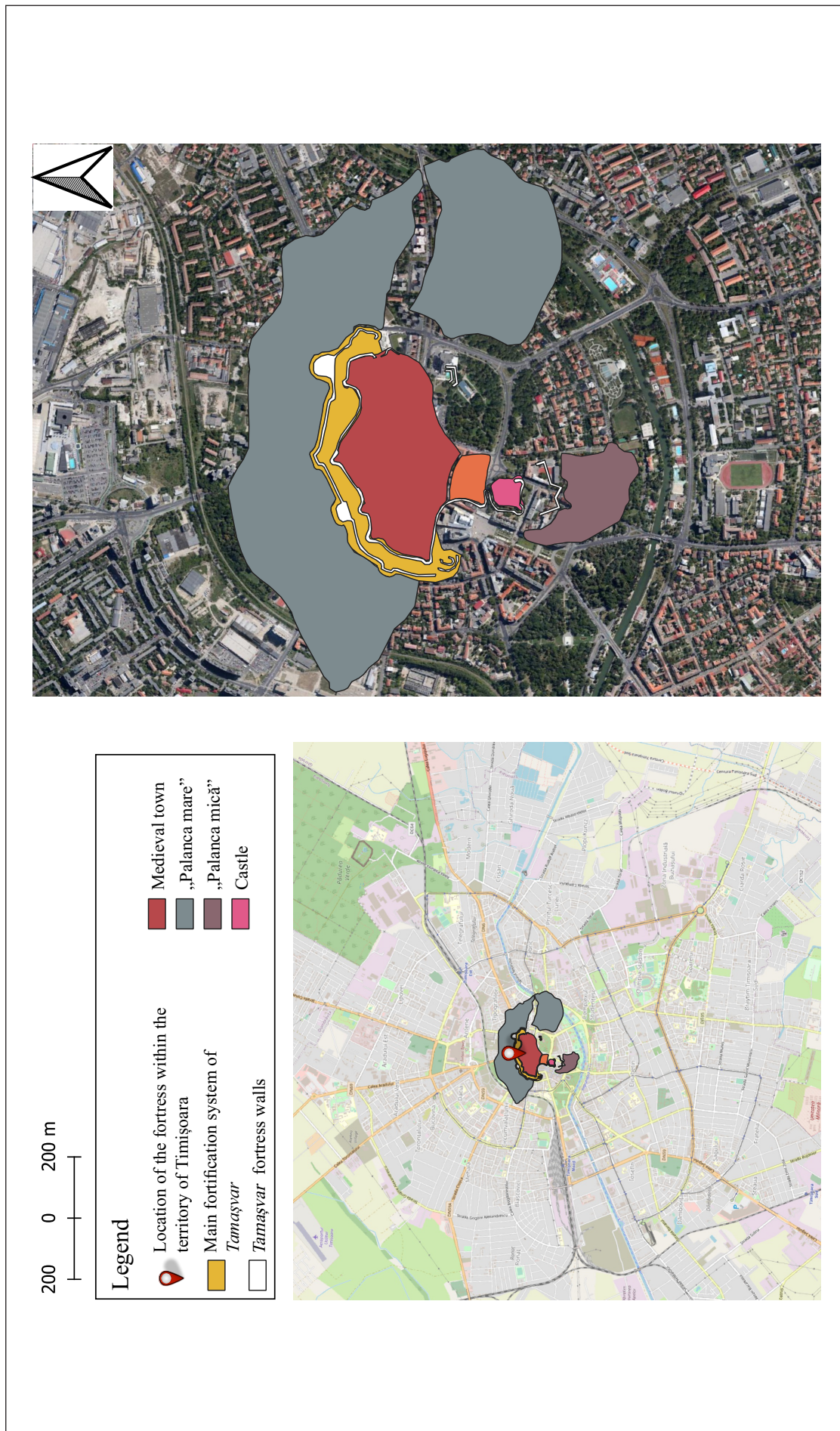
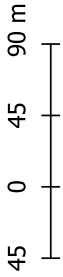


Plate 11. *Tamașvar* fortress.



Plate 12. Façat fortress.



Legend

- Location of the fortress within the territory of Çenad
- Çenar fortress walls

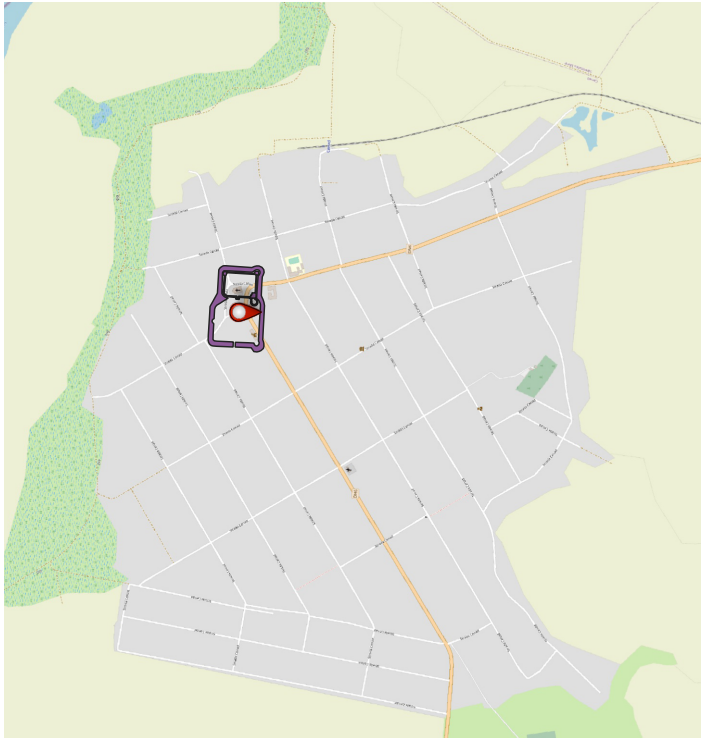


Plate 13. Çenar fortress.

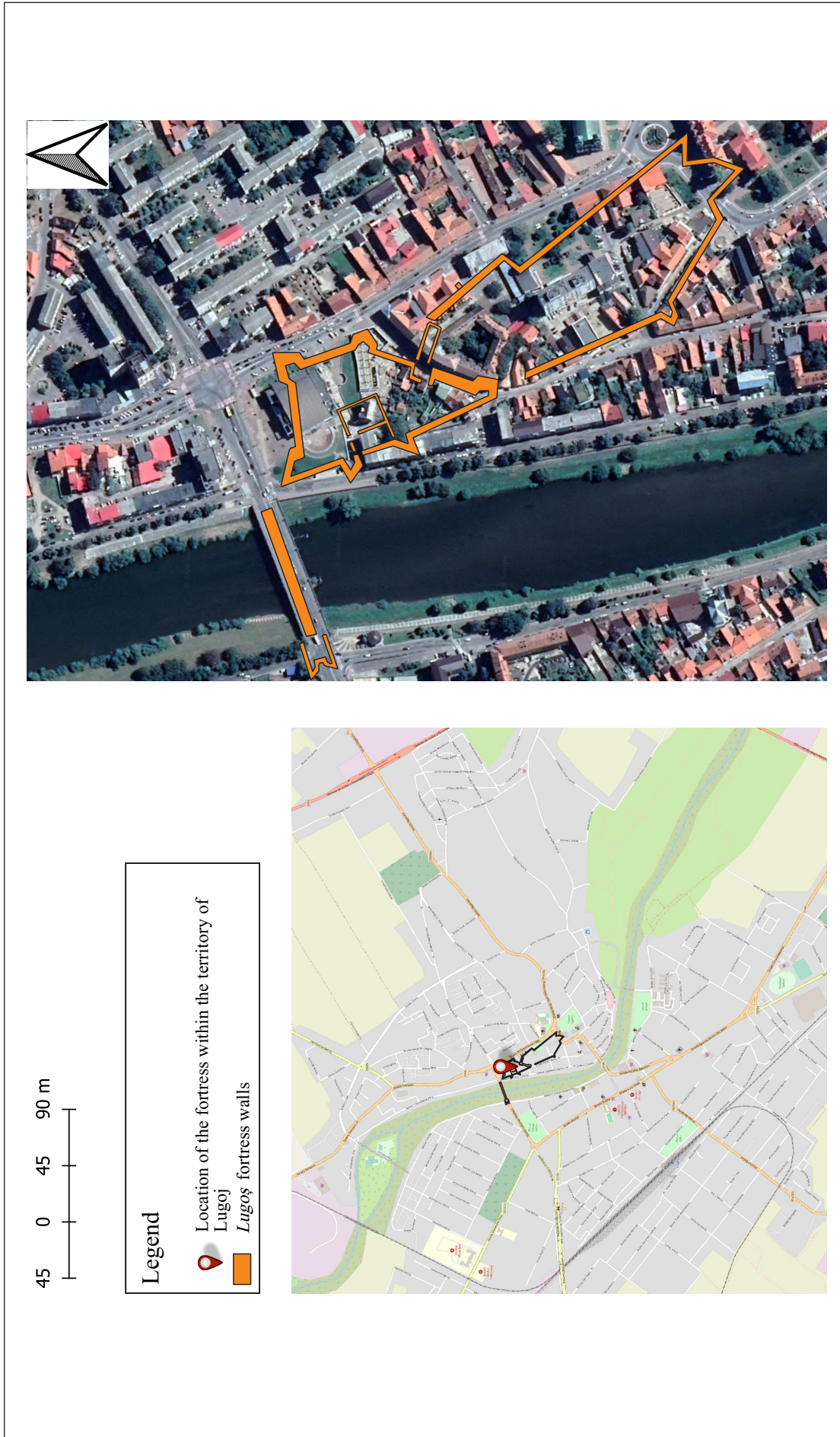


Plate 14. Lugos fortress.



Plate 15. Zidovar fortress.



Plate 16. Poŝa fortress.

Abbreviations

AB	Analele Banatului, I-IV 1928–1931; S.N. I 1981-, The Museum of Banat/The National Museum of Banat, Timișoara.
ACTA	Yearbook of the Székely Museum in Csík and the Székely National Museum, Miercurea Ciuc – Sepsiszentgyörgy.
ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest.
AÉ	Archaeologiai Értesítő, Budapest.
Acta Historica	Acta Universitatis Szegediensis (Szeged).
ArchHung	Archaeologia Hungarica.
ArhMed	Arheologia Medievală.
AM	Mitteilungen des Kaiserlich Deutschen Archaeologischen Instituts, Athenische Abteilung (Athenische Mitteilungen), Athen, (1876-).
AMM	Acta Moldaviae Meridionalis (Vaslui).
AMN	Acta Musei Napocensis, The National History Museum of Transylvania, Cluj – Napoca.
AMP	Acta Musei Porolisensis, County History and Art Museum of Zalău.
ArhMold	Arheologia Moldovei, Iași.
BCH	Bulletin de Correspondence Hellénique, Paris, 1 (1877-).
BerRGK	Berichte der Römisch-Germanischen Kommission. Roman-Germanic Commission. Frankfurt am Main.
EphNap	Ephemeris Napocensis, Cluj-Napoca.
CCA	Cronica Cercetărilor Arheologice din România, Ministry of Culture.
CCCA I	M. J. Vermaseren, Corpus cultus Cybelae Attidisque (CCCA), I. Asia Minor, Leiden, New York, København, Köln, 1987.
CIG	Corpus Inscriptionum Graecarum, I-IV, (ed. A. Boeckh), Berlin, 1828–1877.
CIL	Corpus Inscriptionum Latinarum, consilio et auctoritate Academiae litterarum regiae Borussicae editum. (1863-).
Dacia	Dacia. Recherches et découvertes archéologiques en Roumanie, S.V. I-XII; N.S. Revue d'archéologie et d'histoire ancienne, I. 1957 și urm., Vasile Pârvan Institute of Archaeology, Bucharest.
DAGR	Dictionnaire des Antiquités grecques et romaines, I-X, sous la direction de Ch. Daremberg et E. Saglio, Paris, 1877–1929.
DolgSzeged	Dolgozatok a Szegedi Josef Tudományegyetem Archaeologiai Interzetbol (I, 1925...XIX, 1943).
IGB V	Inscriptiones Graecae in Bulgaria repertae, (ed. Georgi Mihailov), vol. V: Supplementum, addenda et corrigenda. Sofia, 1997.
IGDOP	Inscriptions grecques dialectales d'Olbia du Pont, (ed. L. Dubois), Genève, 1996.
IGRR IV	Inscriptiones Graecae ad Res Romanas Pertinentes, IV (ed. G. Lafaye), Paris, 1927.
ISM I, II	Inscriptiones Scythiae Minoris – Inscriptiile din Scythia Minor, I: Histria și împrejurimile (ed. D. M. Pippidi), Bucharest, 1983; II: Tomis și teritoriul său, (ed. Iorgu Stoian), Bucharest, 1987.
LIMC	Lexicon Iconographicum Mythologiae Classicae, I–VIII + index vol., (eds. J. Ch. Balty, E. Berger, J. Boardman, Ph. Bruneau, F. Canciani, L. Kahil, V. Lambrinoudakis, E. Simon), Zürich, München, Düsseldorf, 1981–1999.
LSJ	Liddell H. G., Scott R., Jones H. S., A Greek-English Lexicon, with a revised supplement. Oxford, 1996.
MAA	Monumenta Avarorum Archaeologica.
OM	<i>Orbis Mediaevalis</i> .
PBF	Prähistorische Bronzefunde, München.

RA	Revue Archéologique, Paris (1844-).
RAC	Rivista di archeologia cristiana, Rome (1924-).
RevBistr	Revista Bistriței, Bistrița-Năsăud Museum Complex, Bistrița.
RH	Revue historique, Paris, (1876-).
RIG	Recueil d'inscriptions grecques, par Ch. Michel, Bruxelles, 1900.
Sargetia	Sargetia. Acta Musei Devensis, Deva.
SCIV(A)	Studii și Cercetări de Istorie Veche, tom 1–25, Bucharest, 1950–1974; începând din 1974 (tom 25): Studii și Cercetări de Istorie Veche și Arheologie, Bucharest.
SCN	Studii și Cercetări de Numismatică, Bucharest.
SEG	Supplementum epigraphicum graecum, Lugdunum Batavorum, Leiden, 1923–1971; Alphen aan den Rijn 1979–1980; Amsterdam, 1979–2005; Boston, 2006-.
StCl	Studii Clasice, Bucharest.
Syll ³	Sylloge inscriptionum Graecarum, (3rd edition), (ed. W. Dittenberger), 1915–1924.
Terra Sebus	Terra Sebus, Sebeș.
ThesCRA	Thesaurus Cultus et Rituum Antiquorum, I–V + index vol., (eds. J. Ch. Balty, J. Boardman, Ph. Bruneau, R. G. A. Buxton, G. Camporeale, F. Canciani, F. Graf, T. Hölscher, V. Lambrinoudakis, E. Simon), Basel, Los Angeles, (2004–2006).
UPA	Universitätsforschungen zur Prähistorischen Archäologie, Institut für Ur-und Frühgeschichte der Universität Kiel.
ZSA	Ziridava. Studia Archaeologica, Arad Museum, Cluj-Napoca.