

AUSTRO-HUNGARIAN FORTIFICATION IN BOSNIA-HERZEGOVINA AND MONTENEGRO. CULTURAL HERITAGE BETWEEN VALUE, TOURISTIC POTENTIAL AND EXTINCTION

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ABSTRACT

Just a few years after Bosnia and Herzegovina has been occupied in 1878 the Austro-Hungarian Empire started an ambitious construction programme to build an extensive fortification system. This region including the southern part of Dalmatia was characterized by increasing tensions between the different ethnic groups and traditional resistance against occupying state powers which ultimately lead to the outbreak of the First World War.

The omnipresence of state power was demonstrated by many military buildings – both in the urban context and the outermost periphery. In addition to the strategic positioning of the fortifications, ‘visibility’ is a deliberately placed calculation and the region became a ‘fortified area’. Using archaic, almost outdated forms in the early phase of construction the defensive purpose is clearly recognizable and underlined by the use of the local terminology ‘Kula’.

The purpose of the following study is to give both a complete overview about the fortification system and the state of preservation as both of them are essential for all further considerations. The construction effort within more than three decades is divided into three periods. These differ in construction manner as a reaction of the technical development, changes of its geopolitical strategic task and the influence of its planners. Specified typologies of fortifications are categorized and recorded for each construction phase. In the second part the development regarding the state of preservation of the fortifications is listed. A considerable loss of substance has been documented during the research which is even accelerating within the last years although a minor of the objects is protected by law. Overall the state of preservation differs from ‘well preserved’ to ‘former position is recognizable in the ground’. Furthermore a large quantity of fortifications disappeared within artificial lakes.

A determined low local level of information about these objects seems to be one of the factors for a slow extinction although the fortification system including its integral network of roads, paths, caserns, cisterns and magazines etc. could form a potential for economic development where fortifications could be the point of interest.

Keywords: Austria-Hungary, 19th/20th century fortification, loss of substance, military architecture, preservation

1 INTRODUCTION

Through legitimization by the Congress of Berlin in 1878 the Habsburg Monarchy occupied the later provinces Bosnia and Herzegovina and sent military forces to support the Ottoman Empire in the Sanjak Novi Pazar and Plevlje (Pljevlja). Regulated by a treaty signed in summer 1878 they remained officially territory of the Ottoman Empire. Bosnia and Herzegovina, among all ‘Crown Lands’ of Habsburg Monarchy, is the only one which was administered by both parts of the monarchy and stood under military administration. Although first concepts were elaborated to secure this last expansion of Austria-Hungary by fortifications nothing was done mainly by a lack of economic resources.

At that time only some fortifications already in existence from the Ottoman period were used. These can be divided into two general groups. Among the first fortified towns can be counted where the whole settlement or at least parts of it were protected by walls reinforced by bastions and gate towers. The old town of Sarajevo and the city walls of Trebinje and Zvornik are representative

examples. These fortifications have been built and strengthened mainly between the 16th and 19th centuries to secure the dominion of the Ottoman Empire. The way of fortifying the cities which was affected by the impact of fire weapons is rather comparable with walled towns in other parts of Europe at that time. To the city fortifications a number of citadels like those at Banja Luka, Bihac, Travnik, Jajce, Vranduk, Maglaj, Srebrenica and Fort Berbir (Gradiška) can be included.

The other group of fortifications which definitely had influence on the later development of Austro-Hungarian fortifications are the small, independent fortifications called Kula (Serbian: *Karaula*). These small tower-like objects with two or more levels (Fig. 1a) were erected between the 17th and 19th centuries. The main building material was local stone; only a few examples were made using wooden constructions. A Kula had different tasks and was built both as protection against the Ottomans and by the Ottomans themselves. Kula's could support the city walls in protecting the settlement against enemy attacks or a rebellion. Livno in the western part of Bosnia for example had a ring of twelve Kula's to protect the town and the Ottoman garrison located there. They had a round or square layout and an elevation of up to six levels. The bottom of the outside walls and the entrance could be defended by machicolations located on the roof level. Kula's on the other hand were erected to protect residential buildings. Important communication buildings like bridges (e.g. the old bridge of Mostar with two semicircular Kula's) or mountain passes were either protected by this type of fortifications. Remarkable is a system of all together 19 Kula's (Fig. 1b) between the Dalmatian-Herzegovinian border at Carina (near Dubrovnik) and Trebinje that protected this important road between the coast and the hinterland against possible assaults. Isolated Kula's like these along communication lines were often surrounded by crenelated walls and the entrance could be protected by an outer bailey (Fig. 1c).

When the Austro-Hungarian army conquered Bosnia and Herzegovina in 1878 most fortifications were found in a poor condition. Both the insurrection of 1875 that affected parts of the southern Herzegovina and finally the fights during the Occupation in summer and autumn 1878 destroyed many of the Kula's and damaged city walls. Besides the city fortifications of Trebinje, Sarajevo and Zvornik and most of the citadels only some of the Kula's between Dubrovnik and Trebinje were improved or reused by the Austro-Hungarian forces [1].

But how was the situation regarding the fortification system of the Habsburg Empire at the beginning of the 1880s? The focus of construction works was defined by the improvement of



Figure 1: Different designs of Kula's. (a) Kula (Vuka) Brankovića at Trebinje 14th century. (b) Kula along the road Dubrovnik-Trebinje 19th century. (c) Ottoman Kula XIX/Austrian guardhouse Hum at Trebinje 19th/20th century (Sources: (a) archive Pachauer, (b) ÖStA/KAW BS LIII N°121, (c) ÖStA/KAW ZSt KM Abt8 16-8 ex 1914, supplement.)

the defences along the southern frontier (Italy). To secure the approaches to Carinthia and to the city of Trient (Trento) a series of absolutely modern forts were under construction. Besides that the sea side defences of the main naval port – Pola (Pula) in Istria – were to be modernized by adding three armoured coastal forts. All mentioned were the first armoured fortifications that were built by the Austro-Hungarian Empire. On the northern frontier the fortress girdles of Krakau (Krakow, Poland) and Przemysl (Poland/Ukraine) should be extended by new artillery forts against a possible attack by the Russian Empire. That means that all available financial resources for building new fortifications were bound at least till 1884.

Apart from this situation the fortification topic to secure Bosnia, the Herzegovina and Dalmatia quickly got urgent and needed to be reconsidered at the end of 1881 as a rebellion broke out affecting the eastern part of the Herzegovina and southern Dalmatia. As a consequence a military commission under the general inspector of fortification engineers, Field Marshal Lieutenant Daniel baron Salis-Soglio, was sent in March 1882 from Vienna to the affected regions to define which points and in which way these should be secured by fortifications [2, pp. 134–151]. One of the results of the commission was that new types of fortifications and defendable buildings (barracks and casern complexes) had to be developed for a local purpose. The officer in charge of the fortification engineers at the military command in Zara (Zadar), Lieutenant-Colonel Karl Wahlberg, was ordered to design different typologies of fortification, among them a guardhouse (called Kula), a fort ('Kula with battery') and a defendable casern [3].

These principle designs were generally accepted and for the first time realized in the Krivošije area in southern Dalmatia [4, pp. 27–28]. The governor and commanding general in Dalmatia Field Marshal Lieutenant Stephan baron Jovanović defined in a memoir from 1882 the task of military presence (supported by fortification) in the occupied area as follows:

'To allow culture to develop at all, first of all strong garrisons have to be established in southern Herzegovina and in the district of Cattaro for at least several years (...) that the to be cultivated territory is in fact under for all residents full and clearly perceptible [military] force as only on the base of this redoubtable factor of power which has to be recognizable inside and outside the business of cultivating can be done step by step [5]. In his eyes only a higher level of culture stimulated by the Habsburg Empire would provide a lasting peace within this region.

In a post review Salis-Soglio (1908) stated in his memoirs regarding the erection of fortification in Bosnia and Herzegovina: 'Nothing had more impact on those belligerent cruel locals as we dared to build fortifications on top of many of the highest summits in spite of all difficulties in building them. The watch house on top of the "Gliva" near Trebinje is a remarkable monument for almost all of the Herzegovina as it can be seen from everywhere' [2, p. 136].

2 CONSTRUCTION OF A FORTIFIED REGION;

Besides the development of different fortification elements for the so-called occupied territory (Okkupationsgebiet) – that is Bosnia, Herzegovina, the Sanjak and parts of southern Dalmatia – the approval of an extraordinary budget for building fortifications by the Ministry of War in Vienna and authorized by highest resolution of Emperor Franz Josef I himself in 1882 marked the official beginning of a radical construction programme. Almost lasting for four decades the construction can be divided into different phases that vary in form, construction and amount of built objects. The whole lapse of time is divided into three separate periods that can be classified by the use of different constructions (designs) which are both a reaction on the technical development in general and caused by the changing strategic task of the fortification system. In the end Bosnia, the Herzegovina and southern Dalmatia were transformed into a fortified region (Fig. 2) comparable with the former Austrian Quadrilatero in northern Italy.



Figure 2: Detail of map from 1884 showing the southern part of the Habsburg monarchy including the existing and projected military network of fortresses, barrages and defensible caserns. (Source: ÖStA/KAW ZSt KM Präs 15-5/11 ex 1885, supplement 2, 1885.)

2.1 First period: 1882–1886

Within the first period the most intensive construction programme can be stated. Furthermore it is shaped by the use of Wahlberg's general designs with influence of Salis-Soglio. The main characteristic is the use of the so-called platform fort (Plattformwerk). The armament, mainly two 9 cm or 12 cm breech loader guns, is placed on a small raised platform that is giving the fortification both its name and characteristic form (Fig. 4a, 4b and 4c). In fact, these forts are guardhouses extended by these platforms (Fig. 3b) and in the first realized examples defined

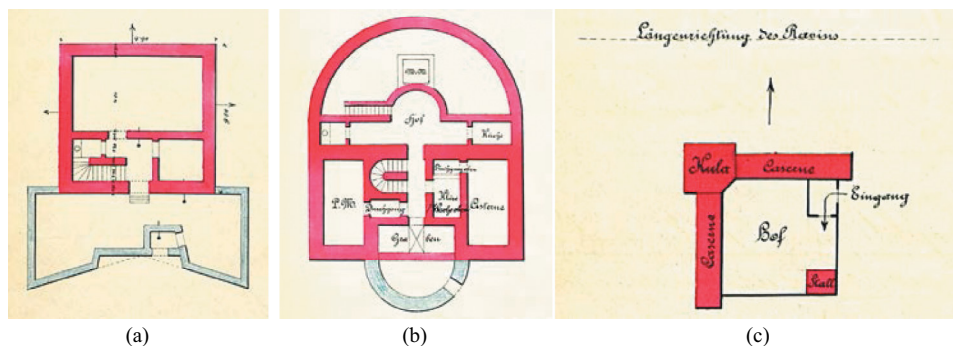


Figure 3: General design for fortifications in the occupied territory: (a) Kula-type guard-house. (b) Kula with battery = fort. (c) defendable barracks with a Kula as flanking element. (Source: ÖStA/KAW ZSt KM Abt8 10-19 ex 1882.)

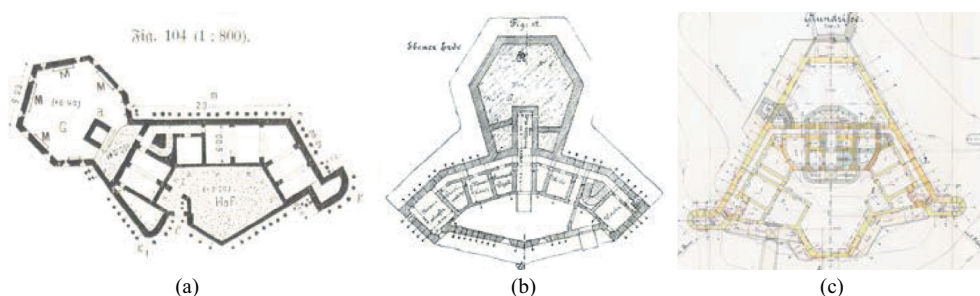


Figure 4: Different designs of platform forts. (Source: (a) Brunner, 1896, (b) Rieger, 1884, (c) ÖStA/KAW MBeh TMK Sekt II N° 391res. ex 1888.)

as Kula with battery [4, pp. 10–12]. Both the guardhouses and the forts show a wide variety of forms and designs. As a threat was expected only by infantry maximal supported by small calibre mountain guns, the constructions were not built in a very massive way (compared to the contemporary artillery forts). Another characteristic was the common use of tiled roof. In this period a whole system of fortifications and defendable caserns in the Krivošije was built, and the cities of Trebinje and Bileća were surrounded by girdles including forts and guardhouses each. In a similar way the east side of Mostar was protected, forming a bridgehead along the Neretva. The cities of Avtovac, Stolac, Ulog-Obrnja, Nevesinje and Kalinovik were converted into barriers – Kalinovik and Stolac even in the form of small girdle fortresses – consisting of guardhouses on strategic summits supported by semi-permanent open batteries and defendable caserns near the settlements.

2.2 Second period: 1887–1907

Within the second period the fortification rings around Trebinje and Bileća were finalized and the defences to secure the Krivošije and Mostar were strengthened. At Sarajevo works started in 1888 where the first fortifications to secure the eastern frontier of the capital were realized. Although this works can be seen as direct continuation a transition in the way of

construction can be found to compare with the years before. At Bileća and Trebinje we can see, influenced by Colonel Moritz von Brunner, the introduction of small artillery forts. Some existing guardhouses got converted into forts as open ramparts for artillery were added. More dramatic is the evolution in Mostar and Sarajevo. After a long discussion and planning phase fort IX in Mostar was finished in 1888 and can be seen as the first all-case-mated fortification in Bosnia and Herzegovina. De facto it is a type of a battery and shows astonishing similarities to the first armoured fortification built in Austria-Hungary. With fort number IV Pasin brdo (Fig. 4c) at Sarajevo we can find the first project of an armoured platform fort in Bosnia. Likewise being finished in 1888, the projected two armoured cupolas for a 15 cm mortar each have been installed not before ten years later. The main armament still was placed in open gun platforms. By the turn of 1900 the girdle around Sarajevo consisted of four such armoured forts. In the following years the construction activity continuously decreased. The fortress girdles were reinforced only by a small number of artillery forts and batteries. Around 1906 at Sarajevo and Kalinovik some guardhouses have been built. These differ from the early guardhouses built at Bileća and Trebinje mainly by the use of concrete and flat roofs which should provide protection against small calibre guns whereas the general design was kept.

To secure the narrow gauge railway lines in Bosnia, Herzegovina and Dalmatia small guardhouses were built mainly to protect bridges and tunnels in the difficult terrain. Most of these guardhouses were built along the line Gabela-Zelenika (twelve objects) and along the Bosnian east line (Ostbahn). In their general pattern they are designed similar to the guardhouses of the girdle fortresses. The main difference is the lack of courtyards and sometimes the flanking elements (caponiers) were left.

2.3 Third period: 1908–1914

Beginning in 1904, the third period's first suggestions stated the need for a transformation of the fortification system in this region. This got urgent, as the nearby principedom of Montenegro came in the possession of heavy siege armament in 1903 [6, pp. 50–52]. Both the general inspector of Fortification Engineers baron Leithner and later the army inspector for Bosnia, the Herzegovina and Dalmatia General Potiorek made proposals for a fortification system to secure the southern part of the Habsburg Monarchy. The 'skeletal' should be formed by a network of comprehensive armoured forts. The first concepts considered the reconstruction of platform forts into compact armoured forts equipped with machine guns and revolving turrets, but the idea was dropped soon. The design of the projected new forts was almost identical to those built along the Italian frontier since 1907. Using these types of fortification Sarajevo and Trebinje should be converted into small armoured girdle fortresses [6, pp 61–64]. At the beginning of the First World War only two forts – Dvrsnik in Krivošije and Srač (Fig. 5) at Trebinje – have been in an advanced phase of the construction progress, but have not been finished till 1918. Some other construction sites like Baljke at Bileća and Kravica at Trebinje remained 1914 in an early stage of construction.

Another change was the forced use of Noyau (core) fortifications to secure the caserns and storage facilities within the main fortresses. Whereas the Noyaus of Crkvice and Herceg Novi in southern Dalmatia remained projects, those of Trebinje and Mostar were finished till the outbreak of the First World War. These Noyau girdles consisted of a series of small armoured guardhouses (Fig. 6) heavily equipped with machine guns and searchlights both protected by cast steel shields.

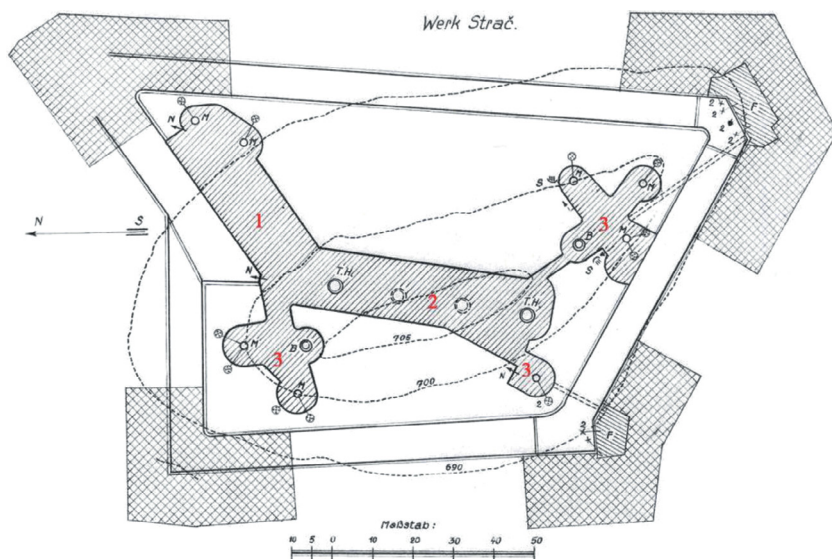


Figure 5: Sketch of the final designs of fort Srač after 1911. 1 – Barracks block. 2 – Howitzer battery. 3 – Machine gun positions for close defence. F – Caponiers. (Source: Pachauer, 2016.)



Figure 6: Guardhouse Bregovi at Trebinje as an example of a Noyau guardhouse. (Source: Pachauer, 2014.)

Table 1: Overview of all built fortifications. (Source: Pachauer, 2017).

Period	Typology			
	Fort	Battery	Guardhouse	Redoubt
1882–1886	22	4	29	10
1887–1907	17	3	29	–
1908–1914	2	2	26	12
TOTAL	41	9	84	22

Table 1 gives a summary of all built permanent fortifications in the mentioned area between 1882 and 1914 categorized in typologies including redoubts (strongholds). In total 41 forts of different constructions and designs, 9 batteries, 84 guardhouses and 22 redoubts were finished or under construction in 1914, which are 155 fortification objects in total.

3 STATE OF PRESERVATION

Only a small number of the fortifications got involved in combat during the First World War. In particular the forts II, III and IV east of Bileća were shelled by Montenegrin artillery (actually French and Russian pieces) in 1914 and 1915 but most damages have been repaired. The bigger part of the fortification got disarmed (artillery and machine guns) in the spring of 1916 as Montenegro and Serbia were defeated and the front line went far away from these fortifications. Finally in 1918 almost all objects lost their function and only a small number were used as military storage. The abandoned fortifications soon were cleared either by the military or by local people.

Although only a minor of the objects were damaged during the First World War some fortifications were locations of intense combat during the Second World War and therefore suffered damages. For many decades the decay just was a result of atmospheric conditions. Comparable to the situation during the Second World War many fortifications were used as shelters in the Yugoslav Wars. Especially fortifications around Mostar and Sarajevo suffered heavy damages between 1992 and 1995 and are still partly located in mined areas. Another thread which must be seen as the most lasting in the meaning of loss of substance developed within the last 15 years. Preserved fortifications are misused as stone carriers (e.g. fort VIII Petrinja at Trebinje or guardhouse Goli Vrh in the Krivošije) to get the valuable handcrafted natural stone blocks (Fig. 7b and 7c).

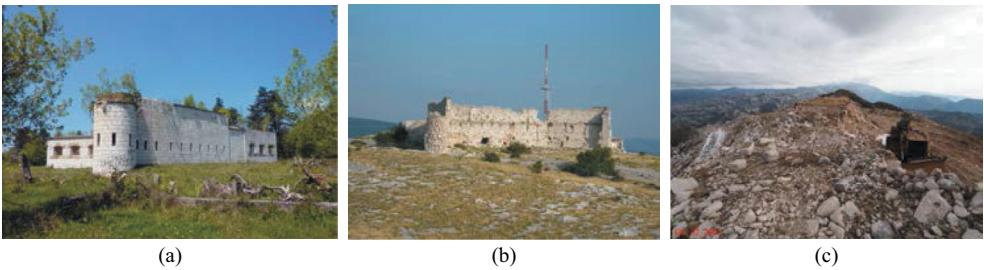


Figure 7: Different examples regarding the state of preservation: ‘good’ – ‘damaged’ – ‘destroyed’. (a) Fort IV Pasin brdo, Sarajevo (2011). (b) Fort 6, Mostar (2015). (c) Guardhouse Goli Vrh, Krivošije (2008).

Table 2: Classification of the state of preservation. (Source: Pachauer, 2017).

Typology	State of preservation			
	Good	Adopted	Damaged	Destroyed
Fort	19		15	7
Battery	3		4	2
Guardhouse	13	5	19	47
Redoubt	4		9	9

The focus of theft is definitely laid to the metal elements of fortifications. Beams and other construction elements made from steel are most eligible. Even rusty tin roof was removed to sell as scrap metal (e.g. fort IV Pasin brdo at Sarajevo). Most dramatic is the robber of cast-iron cupolas around 2014. Both at fort Grabovac (Montenegro) and fort II Vratca at Sarajevo an observation cupola has been removed. The second one was located on a site protected by law and listed as a national monument.

Another reason why many fortifications are destroyed or disappeared in the past was the building of hydroelectric power stations mostly along Trebišnjica, Neretva and Drina rivers. More than 20 objects, mainly guardhouses along railway lines and roads, are at the bottom of artificial lakes today. It seems that policy and the police are unable to prevent this loss of substance even if the objects are officially protected. Most of the locals do not show much interest in the former Habsburg fortifications. The prevention of the destruction of fort VIII Petrinja at Trebinje, which was mainly politically motivated, is an exception.

There are still some fortifications that are in a rather good state of preservation (Fig. 7a). Only a very small amount is adopted and used for different purposes (Table 2). Kula Gradonj at Sarajevo was reconstructed and is used as a museum, guardhouse 18 at Mostar is the atelier of an artist, guardhouse Dubrovnik gate at Trebinje is used as office of a speleologist club and former guardhouse Pogača in the same town is converted into an orthodox church. Important is the fact that from each period and from each type of fortification, (local) special types are rather well preserved. The focus should be given to protect and preserve at least these fortifications for the future as they are historic, architectural and, technically, cultural monuments. An augmented knowledge about these fortifications would be essential to increase the interest in them both from public authority and locals and could from the base to preserve them. In the best way an increased interest will reduce robber directly and on the other hand will make the fortifications more attractive for possible users. In the end giving the fortifications a new utilization will be the most effective way to preserve them.

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