



The Treskavica Mountain in Bosnia and Herzegovina: Living in a Sustainable Way

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Abstract

Treskavica is a karst plateau in Bosnia and Herzegovina, located between the Visocica, Bjelasnica, Jahorina and Lelija mountains. Along its southern slopes, near Kalinovik, it descends into Herzegovina. It is connected to Bjelasnica in the west by the elevation of Hojta. To the west is the mountain Visocica, which is separated from it by the river Ljuta. It is about 30 km from Sarajevo. It belongs to the chain of Dinaric mountains. It got its name from frequent minor earthquakes. Treskavica can be divided into two parts. The northern part is called Bosanska or Trnovska Treskavica, the southern part Hercegovacka, Humska or Kalinovacka. The highest peak of Treskavica is 2088 meters above sea level and is characterized by the fact that it is called by three different names: Paklijas, Djokin toranj (Djoko's Tower) and Mala Caba (Little Caba). The name Paklijas refers to the area a little south of the peak, which got its name because of the inaccessibility and harshness of the terrain. The name Djoko's Tower comes from the metal building that was built there as a shelter, and which is linked to an architect, a mountaineer, named 'Djoko', who gave the idea for the construction of that building. Today, only the metal door that can be seen at the top remains of that building. The name 'Mala Caba' ('Little Caba') is historical. It is the old name for the peak that the locals from the village at the foot of Treskavica have used since ancient times, and it is related to visiting the peaks on a certain day of the year for religious reasons. The peaks of Oblik (1876 meters above sea level) and Suve Lastva (2000 meters above sea level) are also noteworthy. In the rocks of Treskac, Zubov, Oblik, Cabenski and Nikolina rocks, a large number of alpinist directions have been climbed.

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1. Introduction

The author visited mountains in Bosnia and Herzegovina (Bjelasnica, Treskavica, Visocica, Vlasic, Vranica, Zvijezda) for rest and recreation. In doing so, he most often visited the Bjelasnica Mountain. Since at the beginning of the 21st century the topic of sustainable development became particularly relevant (in architecture and in all other disciplines), he participated in numerous international scientific conferences and symposia with his works related to Bosnia and Herzegovina ^[1,2,3,4,5,6,7,8,9,10,11,12,13]. He covered the topic of bioclimatic architecture in several of his books ^[14,15,16,17]. The Bjelasnica Mountain first inspired him because of the presence of water, both in nature itself and in people's lives. He covered the Bjelasnica Mountain, in the unity of the fundamental elements of an architecturally defined space (environment-man-boundaries-perspectives) in a separate book. Some other places in Bosnia and Herzegovina, for which the author of this work has a rich history, were the subject of works whose content was based on the same principles and with the same goal. The treatment of the Treskavica Mountain was arranged by the author according to the same methodology; at the same time, the work about Treskavica was written simultaneously with the works about the Vlasic and Vranica mountains. All these mountains were for the author an ideal basis for confirming his theory of architecturally defined space and, from the original book in which it was first presented, its further deepening.

The author created (2003) the study course „Bioclimatic Architecture“ at the Faculty of Architecture of the University of Sarajevo, through which he dealt with this topic using examples from around the world. He realized that mountains around the world are the 'mothers of life on Earth' since they are 'cloud catchers' which, then, generate water - rain and snow. This water partly accumulates in their physical structures, and partly washes down their slopes (streams and rivers), to create more or less flat surfaces - fertile fields - at their foothills. Accumulated water in the physical structures of the mountains, then, springs up on the surface of the mountains, and these places become attractive points and gathering places for people and other living beings. Water is one of the basic prerequisites of life. Huge areas are formed on the mountains where various plants grow and where many animals live. These are the places where man from the earliest times saw resources for his life, and ensured his existence by raising cattle. The life patterns of people in the mountains changed over time, but it was, is and will be a fact that the mountain is a generator of life. The Treskavica Mountain is a physically huge area (about 17 km x 10 km, surface area about 170 km²) that can be presented through different aspects: geographical, geopolitical, social-economic, social-cultural-anthropological... Following the theory of space (and Architecturally Defined Space), the Treskavica Mountain will be treated in this book as a system, i.e. as an Architecturally Defined Space (ADS) through the elaboration of its four basic elements: environment (natural and social environment), man, boundaries and perspectives. The simultaneous display of these elements will establish their mutual cause-and-effect relationship and nothing will be left out that is important for forming an image of this space. On the Treskavica Mountain, the hot water of the Neretva, Rakitnica and Ljuta rivers and several smaller streams are generated. If the Treskavica Mountain plateau could be imagined without its current settlements and roads (without everything that is the work of man), therefore, as a 'natural pattern', the researcher cannot escape the impression that it is a 'perfect substrate for life'. In this sense, every inhabited place is a small system with all the necessary natural resources for generating life: water, flat and gently sloping fertile land for growing vegetables, cereals, meadows and spacious pastures around the village and on the wide area of the Treskavica Mountain (Figure 1).



Source:

<https://www.youtube.com/watch?app=desktop&v=K05wmpUEP2Y>,
Accessed: November 6, 2024.

Fig 1: The Treskavica Mountain

In this sense, he visited the entire area of Bosnia and Herzegovina and collected rich material, which he

incorporated for the most part into his books and scientific works [1,2,3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17]. In this sense, the Author visited the entire area of Bosnia and Herzegovina and collected rich material. Bosnia and Herzegovina is an extremely complex area in terms of the natural and social environment and its population. The three most numerous ethnic groups (Bosniaks, Serbs and Croats) live here, and thanks to its rich history, numerous people of different origins: Jews, Germans, Poles, Czechs, Italians, Hungarians... The composition of the population changed over time, but they remained material and spiritual traces of their life in Bosnia and Herzegovina. The complexity of Bosnia and Herzegovina is also visible in its architecture. Hence, for elaborating on the theme of sustainability, the most suitable scientific methodology [1] was used, which is covered in his book: Hadrovic, A. (2007). *Defining Architectural Space on the Model of the Oriental Style CityHouse in Bosnia and Herzegovina, Serbia, Montenegro, Kosovo and Macedonia*, Booksurge, LLC, North Charleston, SC, USA.

2. Environment

By 'environment' we mean every possibility in the space in which man can realize his existence [1].

2.1 Natural environment

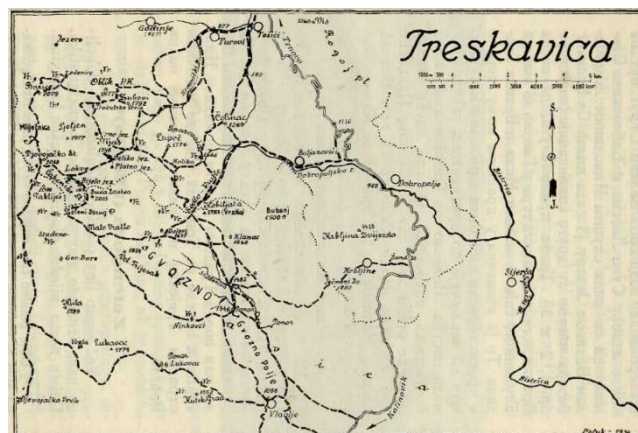
By 'natural environment' we mean all those features that nature gave, and on which man (mostly) did not exert his influence: geographical location, geomorphology, watercourses and reservoirs, plant and animal life, available soil, climate [1]. Treskavica is a karst plateau in Bosnia and Herzegovina, located between the Visocica, Bjelašnica, Jahorina and Lelija mountains. Along its southern slopes, near Kalinovik, it descends into Herzegovina. It is connected to Bjelasnica in the west by the elevation of Hojta. To the west is the Visocica Mountain, which is separated from it by the Ljuta river. It is about 30 km from Sarajevo. It belongs to the chain of Dinaric mountains. It got its name from frequent minor earthquakes. Treskavica can be divided into two parts. The northern part is called Bosanska or Trnovska Treskavica, the southern part Hercegovacka, Humska or Kalinovacka. The highest peak of Treskavica is 2088 meters above sea level and is characterized by the fact that it is called by three different names: Paklijas, Djokin toranj (Djoko's Tower) and Mala Caba (Little Caba). The name Paklijas refers to the area a little south of the peak, which got its name because of the inaccessibility and harshness of the terrain. The name Djoko's Tower comes from the metal building that was built there as a shelter, and which is linked to an architect, a mountaineer, named 'Djoko', who gave the idea for the construction of that building. Today, only the metal door that can be seen at the top remains of that building. The name 'Mala Caba' ('Little Caba') is historical. It is the old name for the peak that the locals from the village at the foot of Treskavica have used since ancient times, and it is related to visiting the peaks on a certain day of the year for religious reasons. The Oblik peaks (1876 meters above sea level) and Suve Lastva (2000 meters above sea level) are also noteworthy. In the rocks of Treskac, Zubov, Oblik, Cabenski and Nikolina rocks, he climbed a large number of alpinist directions [18]. The most convenient access to the mountain is from the Turovi village, four kilometers away from Trnovo. The road from the Turovi village is marked and it is safest to follow the path that leads to the mountain lodge and the Sustavac camp. The path from

Sustavac leads further towards Veliko Jezero, past the former mountain lodge „Josip Sigmund“ on Kozja Luka, and slowly becomes more difficult and narrow. It takes an hour and a half to walk to the Great Lake. The second approach is from the „Vrela“ mountain lodge and is in the area of Tusila, the Sinanovici village. According to its terrain characteristics, Treskavica is a spacious plateau, which, despite the lack of chain hairs, so characteristic of karst mountains, still maintained the main direction - stretching from the northwest to the southeast. During the construction of this mountain, tectonic forces made the northwestern regions higher than the southern and eastern ones, which gradually descend into the Zagorje plateau. On no other Bosnian mountain are the contrasts between tame vegetation and karst wilderness and bareness as sharp and interesting as on this mountain. The most lush greenery alternates constantly with sharp karst and dry bareness. Therefore, Treskavica is beautiful and interesting not only for mountaineers, but also for scientific workers in any field of natural science (Figure 2). It is bounded in the west by the valley of the Ljute stream, which separates it from Visočica, in the north by the Godinjski potok and the Dobropoljski river, and in the east by the Bistrica. Towards the south, it gradually and without sharp boundaries descends into the plain of Zagorje. The winding ridge that stretches from the saddle of Vratlo to the Čabenski Stijen divides this mountain into two parts differing in size and morphology: the northern, Turovska or Bosanska Treskavica, and the southern, Kalinovicka or Humnjacka Treskavica. Turovska Treskavica is higher in absolute height than Kalinovicka. On it are the highest peaks of this mountain (Barice 2079 m, Oblik 1877 m, Djevojacka Stijena 2058, Ljeljen 1977 m, Paklijes 2088 m). In terms of soil types, it is more diverse and richer in water than Kalinovicka Treskavica, so it is much more interesting for mountaineers. Kalinovicka Treskavica consists mainly of a plateau, the western part of which is enclosed by a high craggy ridge with the beautifully built dolomite Veliki Trijesak (1924 m), while the eastern part consists of the Krbljinski Krs, which dominates Krbljinska Zvijezda (1904 m). Treskavica is built of Verfen schists and reddish sandstones, and Lower Triassic limestones lie above them. On top of these are powerful rows of light-colored limestone layers, and finally dolomite limestones.



Fig 2: The Treskavica Mountain (access roads-trails)
<https://www.dinarskogorje.com/treskavica.html>, Accessed:
 October 29, 2024.

Treskavica Mountain can be accessed from different directions. Below is the description according to: Popovic, Jovo (1935). Through the mountains of Bosnia and Herzegovina, Mountaineering Associations in Sarajevo, Islamic Stock Printing House in Sarajevo, Sarajevo ^[19] (Figure 3).



Source: Popovic, Jovo (1935). Through the mountains of Bosnia and Herzegovina, Mountaineering Associations in Sarajevo, Islamic stock printing press in Sarajevo, Sarajevo, p. 54.

Fig 3: Map of the Treskavica Mountain at the beginning of the 20th century

From a geological point of view, the Treskavica range is part of the Dinaric Alps and is formed mainly of secondary and tertiary sedimentary rocks, mainly limestone and dolomite ^[19,20,21,22]. An unusual phenomenon for this craggy mountain is the wealth of springs, some of which lie under the very highest peaks (Prohin Smet under Baricema, Usljiva Vrela under Cabenske Stijene). In addition to a large number of small springs and streams, there are also two larger and 3 smaller lakes. The reason for this abundance of water is the geological structure. Directly below the limestone layers are deposits of older formations, which do not allow water to pass through. The Godinjski stream springs up in the northern foothills. Furthermore, in the area of Veliko Jezero (Great Lake), the Hrasnicki stream flows out from under the rock of Orlica. Both streams meet and form the Zeljeznica river. According to popular belief, the Hrasnicki stream originates from the Great Lake. When the snow melts and the lake overflows, the water from Kozija Poljana falls about 40 m deep into Hrasnicki stream. There is no waterfall in summer. In the northeast of Treskavica are the sources of the Vratnjska River below Veliko Vratlo. That river flows southeast towards Dobro Polje, and in its middle course is called the Dobropolj river. Later it merges with Jelecka Bistrica and gets the name Bistrica. It belongs to the Black Sea basin. The lakes (Veliko, Crno, Platno and Bijelo) are located below the Cabenski cirque, whose drainage valley is the Hrasnicki stream valley, which was the main drainage valley of the glacier even in the glacial period. The fifth small lake is located in the northwestern part of the Dujmovici village under Lednica. Among the springs on the plateau, the following should be mentioned: spring in Jablan Dolovi, Prohin Smet under Barice, Trokutsko under Oblik, Ilijaski spring, spring on the south side of the Great Lake, Konjsko spring under Suvo Lastva, Usljiva spring under Cabenske Stijene and Spasovacki spring in the Spasovaca pasture. On

the southern side of Vratlo there are: spring Studenac under Vratlo, spring in Dolovi, Zelena Strug, Jastrebovka under Ninkovci, Veliko Vrelo under Kutski grad, Cesma near Lukavac

and on Veliki Dol under Trijesko (on its southwestern side). Beneath Veliki Trejesak, the Studenica stream springs from the east, and sinks in a place called Ponor (Figures 4-8)^[19].



Source:

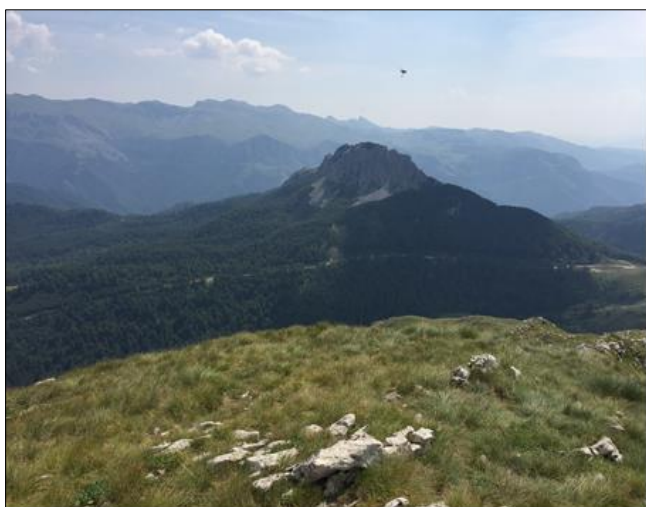
<https://bracobabic.com/2022/12/05/treskavica-kronologija-povišnih-dogadaja/#jp-carousel-16671>, Accessed: November 12, 2024.

Fig 4: The Treskavica Mountain



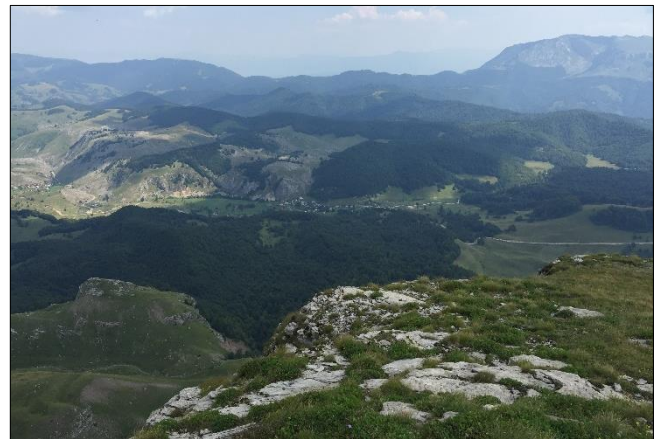
Source: <https://lh5.googleusercontent.com/p/AF1QipM-2E52LlohdTXTMCO0kkJM2aVC7Y9WT939D2wy=h720>
Accessed: October 29, 2024.

Fig 5: View of Treskavica from Bjelasnica



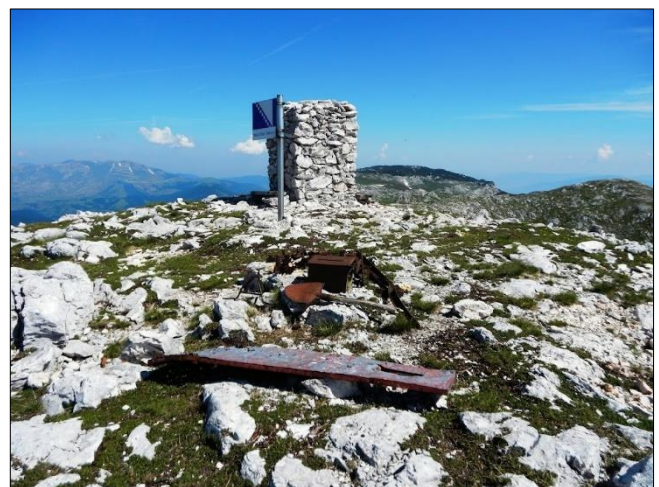
Source: Author (August 9, 2018)

Fig 6: View of Treskavica from Visocica Mountain



Source: Author (August 9, 2018)

Fig 7: View of Treskavica from Visocica (at the foot of which are the Pervizi and Sinanovici villages)



Source:

<https://lh5.googleusercontent.com/p/AF1QipOyYDLPzBP3efu2PJs5fysqIRGhUDWgxbBMvYcx=h720>
Accessed: October 29, 2024.

Fig 8: The highest peak of Treskavica (Mala Caba, Paklijas, Djoko's Tower)

Lednica or Ledenice cave in Treskavica has eternal ice. It is located at 1750 meters above sea level. at the bottom of a steep sinkhole hidden under a high rock that prevents the sun's rays from penetrating, which is why eternal ice forms. In the past, the residents of the surrounding villages - Dujmovici and Ledici cut that ice with axes, put it in straw

and brought it in cloth bags and sold it in bazaars, caterers, butchers, hospitals, and it was one of their significant sources of income. The easiest access to Lednica is from the Dujmovici village: Dujmovici - Pazariste - Kucare - Zdrjebanovo vrelo (Zdreban's spring) - Lednica, the path takes you through a dense beech forest (Figure 9).



Source: <https://www.facebook.com/photo/?fbid=170645944689840&set=pcb.170645998023168>, Accessed: October 30, 2024.

Fig 9: The Lednica Cave on Treskavica

According to legend, Treskavica has as many as 365 sources, among which are the sources of five rivers: Bistrica or Dobropoljska river (a tributary of the Drina river), Zeljeznica

(a tributary of the Bosna river), Ljuta and Rakitnica (tributaries of the Neretva), (Figures 10-14).



Source: <https://startbih.ba/clanak/putuj-u-bih-pecina-u-kojoj-se-rada-rijeka-zeljeznica/134127>, Accessed: October 29, 2024.

Source: Author (November 2, 2024)

Fig 10: Left: The source of the Zeljeznica river on Treskavica. Right: Zeljeznice river in the Godinja village below the Treskavice Mountain





Source: Author (November 2, 2024)

Fig 11: Kazani“ in the course of the Zeljeznica river in the Turovi village



Source: Author (November 2, 2024)

Fig 12: Zeljeznica river below the Turovi village



Source:
https://bs.wikipedia.org/wiki/Bistrica_%28Drina%29#/media/Datoteka:Foca_%C5%A0tovi%C4%87_west_river_bistrica_IMG_0761.JPG, Accessed: October 29, 2024.

Source:

<https://www.facebook.com/photo/?fbid=3821317594634456&set=pcb.3821343641298518>, Accessed: October 29, 2024.

Fig 13: Left: Bistrica river (Dobropoljska river). Right: Ljuta river



Source: <https://welcometokonjic.ba/rakitnica-rijeka/>, Accessed: October 29, 2024.

Fig 14: Rakitnica river

There are several lakes in the area of Treskavica that represent the most distinct traces of the ice age on this mountain: Veliko jezero (Great Lake, altitude 1550 meters above sea level, surface area 300 m x 150 m, depth 5 meters), Black Lake (altitude 1675 meters above sea level, surface area 150 m x 100 m, depth 3 meters), Bijelo jezero (White Lake, altitude 1697 meters, surface 140 m x 70 m, depth 0.5 meters), Platno jezero (Platno Lake, altitude 1580 meters above sea level, surface 80 m x 30 m, depth 2 meters), Small Lake (Figures 15-18).



Source:
<https://lh5.googleusercontent.com/p/AF1QipP8ca0UnnZwYeEjzTrJYfnjH0H5eucbYr4pGzQU=h720>, Accessed: October 29, 2024.

Fig 15: Veliko jezero (Great Lake) on Treskavica (geographical coordinates: 43°36'21.01"N, 18°22'32.10"E)



Source: <https://bracobabic.com/2022/12/05/treskavica-kronologija-povijesnih-dogadaja/#jp-carousel-16566>, Accessed: October 29, 2024.

Fig 16: Crno jezero (Black Lake) at Treskavica (geographical coordinates: 43°36'42.86"N, 18°22'11.95"E)



Source:
<https://lh5.googleusercontent.com/p/AF1QipN1t6uf2JU8hl1SxIYbXqPXbw03JQNLN4SKH-b9=h720>, Accessed: October 29, 2024.

Fig 17: Bijelo jezero (White lake) on Treskavica (geographic coordinates: 43°35'49.91"N, 18°21'42.92"E)



Source: <https://www.mountain-forecast.com/peaks/Treskavica/photos/25772>, Accessed: October 29, 2024.

Fig 18: Platno jezero (Platno Lake) on Treskavica (geographic coordinates: 43°36'10.91"N, 18°22'35.23"E)

In addition to the above, there are other lakes on Treskavica that are not of glacial origin, but of a seasonal nature, and some of them dry up in the summer: Zmijsko jezero (Snake Lake, 1630 meters above sea level), Trokunsko Lake (1220 meters above sea level), lake at Turovi Stan (1640 meters above sea level), lake on Spasovaca (1590 meters above sea level) and the lake on Gornja Bara (1600 meters above sea level). It is interesting to mention the artificial lake known as Simovica Bara (1395 meters above sea level). The lake is located near Gvozdno polje (Iron Field) and is located under the rugged cliffs of Mali and Veliki Treskac. This lake has a constant flow of water. The largest part of the lake's surface is under dense underwater vegetation (Figure 19).



Source:
<https://lh5.googleusercontent.com/p/AF1QipMgiLu1wpXxiEYDUonYL14VUe2BFuxgQVw726cw=h720>
 Accessed: October 29, 2024.

Fig 19: Gvozdno jezero (Iron Lake) on Treskavica (geographic coordinates: 43°34'21.48"N, 18°25'44.31"E, altitude 1391 m)

There are many waterfalls on Treskavica (Figures 20, 21, 22, 23). The Skok waterfall is located near the „Radovan Bjelica“ mountain lodge (Figure 20). It is about 40 m high, and its

characteristic is that it occurs in autumn and spring, while it dries up in the summer period. It is formed by the outflow of water from the Great Lake.



Source:

https://lh5.googleusercontent.com/p/AF1QipMOYqmP75qqnSbY3WbEtOh27sfLasx_ZyUkgWg=h720

Accessed: October 29, 2024.

Fig 20: Skok waterfall on Treskavica

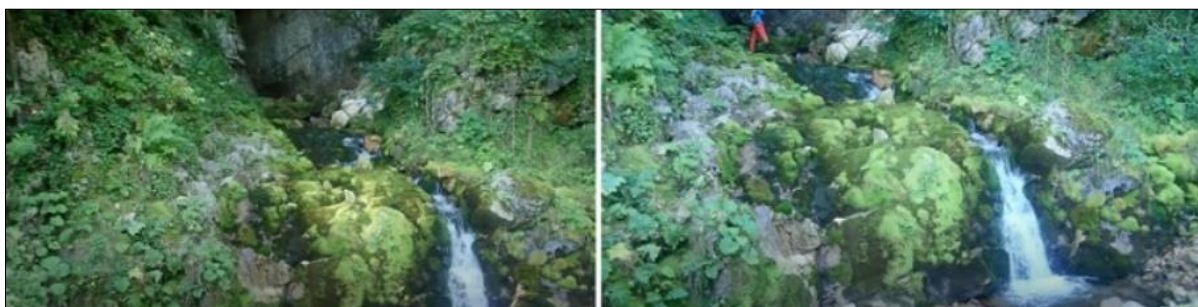
Near the Godinja village, on Duga njiva (A long field), there is a waterfall called Kace (Figure 21). There, the water, falling from a height, made a depression in the shape of a tub. There is a watermill right near the waterfall, which, if it were

working, would make all this even more attractive for visitors. Next to Kazan, which we wrote about earlier, this place is one of the most beautiful picnic spots in the vicinity of Trnovo.



Source: <https://e-trnovo.com/prirodni-fenomeni/>, Accessed: October 29, 2024.

Fig 21: Kace waterfall on Treskavica



Source: <https://www.youtube.com/watch?v=DtJm69tEnaY>, Accessed: October 29, 2024.

Fig 22: The source of the Bistrica river on Treskavica



Source: <https://www.youtube.com/watch?v=ykHeXvMXkIc>, Accessed: October 31, 2024.

Fig 23: Waterfall on Treskavica

The Sarajevo-Trnovo-Kalinovik-Ulog road leads through Treskavica, through the valley of Zeljeznica and Bistrica and over the Krbiljski karst. Rural settlements reach up to 1300 meters above sea level. Peasants from nearby Bosnian villages drove their cattle to Turovska Treskavica, and to Kalinovicka Treskavica cattle herders from Herzegovina^[18]. The climate in Treskavica is a true mountain climate. Above Treskavica, southern Mediterranean currents collide with northern currents coming from the continent. All this causes frequent weather changes so that in one day on Treskavica you can experience four seasons. In its highest parts, Treskavica is bare. There is a lot of forest and scrub in the lower parts. On no other Bosnian mountain are there such sharp and characteristic differences between the tame green vegetation (on the northern side) and the karst wilderness and bareness (on the southern slopes) as on Treskavica. Treskavica is known for its endemic species, the Bosnian lily (*Lilium bosniacum*), (Figure 24).



Source:

<https://www.facebook.com/OdKulinaBanaDoDanasnjihDana/photos/a.445201842185057/3176456135726267/?type=3>

Accessed: October 31, 2024.

Fig 24: Bosnian lily (*Lilium bosniacum*) in Treskavica

It is estimated that 2/3 of the flora of Bosnia and Herzegovina (about 3,000 taxa) exists in the area of the Trnovo Municipality, which are organized into about 200 ecological systems at the level of associations, 88 levels of vegetation associations and sub-associations, 50 vegetation orders, 27 systems of vegetation class levels. In terms of vegetation, this area belongs to the area with the highest degree of vegetation and ecological diversity. On the grassy areas that stretch along the rivers, then on the meadows and pastures, we find different types of medicinal plants. The most famous among

them are: colchicum autumnale, St. John's wort (*Hypericum perforatum*), horsetail (*Equisetum arvense*), mint (*Mentha piperita*), chamomile (*Matricaria chamomilla*), evening primrose (*Atropa belladonna*), lincura (*Genitiana lutea*), rabbit (*Achillea millefolium*), thyme (*Thymus serpyllum*) and others. Among the listed species, mint (*Mentha piperita*) and chamomile (*Matricaria chamomilla*) can be grown in plantations. Numerous endemic and relic plants attracted the attention of many foreign and domestic scientists and lovers of natural beauty. Of the large number from this group, we will list only a few: Bosnian mouse, Dinaric cornflower, Sendtner's shoot, mountain apple tree, Dinaric kandilka, narcissus-flowered woodwort, mountain buttercup, Bosnian turnip, mountain violet, two-flowered violet, forest lily, Bosnian lily, lily of the valley, Bosnian cajun and many others. Treskavica also abounds in medicinal herbs such as yarrow, thyme, crow's wort, St. John's wort, hawthorn flower, but also raspberries, blackberries, blueberries, strawberries, as well as edible mushrooms. In the foothills, there are forests of a subalpine Central European character, namely Bjelogorica. The first place is occupied by the beech, next to which the red maple (*Acer obtusatu*) should be mentioned. In the forests, there is a large number of low forest flora, of which we mention: sedge (*Aconitum toxicum*), breberina (*Anemone nemorosa*), bramble (*Chrysanthemum macrophyllum*) and peony (*Planthatera bifolia*). On the rather lush mountain harbors there are many flowers, of which we mention: apple tree (*Trgollius europaeus*) and hellebore (*Veratrum album*). In the places where cattle are constantly present, there is sedge grass (*Rumex alpinus*). At the upper border of the forest, it forms long and wide belts of juniper (*Pinus montana*) and with it skunk, bearberry, bilberry, bilberry, and at the highest altitudes, sedge (*Dryas octopetala*) is close to the ground. Berberis vulgaris, which we do not find here in the plains, grows on this mountain at high altitudes. A beautiful and rare orchid (*Orchis bosniaca*) grows on the moist soil near the hot spring and around the lake. Gentian (*Gentiana dinarica*) is unusually widespread in ports. Bellflowers (*Soldanella alpina*), then Viola Zoysii^[19] grow near the snowdrops. Depending on the altitude of the geological substrate and soil types, the following climatogenic communities have developed in the area of Trnovo Municipality:

- forests of cypress oak and common hornbeam,
- cypress mountain forests,
- beech forests of the mountain belt,
- beech and fir forests,
- subalpine forests,

▪ juniper curve.

In the territory of the Trnovo Municipality, three zones can be distinguished: deciduous, coniferous and grassy. Deciduous trees reach up to 1300 m above sea level, while conifers can be seen up to 1600 m (Figure 25). This is the upper limit of the tall forest, which with increasing height turns into juniper or is largely replaced by a grass floor. The highest mountain ridges are covered with grass or are mostly bare karst rocks. Therefore, the height of the forest belts is determined by the geological composition, relief and climate. In addition to production benefits (trees, medicinal plants, edible and aromatic plants, animals, mushrooms), these forests also have sociological significance (scientific, educational, spiritual, historical, cultural, touristic, health,

recreational and aesthetic values). However, the greatest values of forests are indirect, which are the result of their ecological functions (they affect the global cycle and accumulation of carbon in nature, thus mitigating the greenhouse effect and climatic extremes; they protect the soil from leaching and erosion; they maintain biodiversity, they are a reservoir of genetic information and a refuge for rare protected organisms; they protect watercourses and their living world, they produce oxygen, for example). A particularly important ecological function of forests is in the generation and protection of sources of drinking water (over 60% of the planet's fresh water is generated by forests), and there are a large number of sources of drinking water in these areas.



Source: <https://www.youtube.com/watch?v=DtJm69tEnaY>, Accessed: October 31, 2024.

Source: <https://www.youtube.com/watch?v=ykHeXvMXKlc>, Accessed: October 31, 2024.

Source: <https://balkans.aljazeera.net/blogs/2022/11/11/preporuka-za-planinarski-vikend-treskavica-planina-kojom-caruju-jezera>, Accessed: October 31, 2024.

Fig 25: Forests on Treskavica

The entire area of the Trnovo Municipality has always been known for numerous species of animals. It was especially attractive and rich in larger (hunting) fauna, as mentioned by numerous travel writers, songs, motifs with the wealth of

bears, wolves, wild boars, chamois, roe deer, grouse, as well as the wealth of smaller game: fox, hare, fox, partridge, snipe, and wild waterfowl during autumn and spring flight and stay. There is also a very rich fauna of amphibians, reptiles, birds,

insects and other forms of life. The territory of the Trnovo Municipality represents an ideal habitat for numerous species of small and large game. It consists of dozens of mammals, about 70 species of birds from 28 families, several species of reptiles and amphibians, 130 species of butterflies from 32 families, and many other lesser-known organisms. It should be noted that this area is known for the presence of game chamois, mainly on the massifs of the Treskavica mountain, so that the Trnovo Municipality, in this respect, is among the rare ones in Bosnia and Herzegovina and beyond. In addition, almost the entire area of the municipality is a hunting ground for roe deer, bear, rabbit, wolf, fox, as well as some other game species. Even feathered game is not so unrepresented in these areas, of which perhaps the most interesting thing to mention is the significant presence of wild duck. There are grouse on Rogoj. All tributaries of Zeljeznica and Bistrica are rich in beautiful brown trout. On the entire Treskavica, starting from 1400 meters above sea level. upwards, there are ridovki (mountain sardines) while there are no vipers. In the past, herds of chamois (*Rupicapra rupicapra*) were an inevitable sight on Treskavica. Today, there are fewer and fewer of them (Figure 26). All of the above indicates that the area of the Trnovo Municipality is an ideal natural environment for the development of sport hunting, but also for the development of the hunting industry as one of the segments of the entire economy of the municipality.



Source: <https://www.lovac.info/lov-divljac-hrvatska/zivotinje-priroda/6051-divokoza-rupicapra-rupicapra-l-eng-chamois.html>
Accessed: October 29, 2024.

Fig 26: Chamois (*Rupicapra rupicapra*)

2.2 Social environment

By 'social environment' we mean everything that man has created and that separates him from the world of other living beings ^[1]. It includes both physical structures (various material, more or less ordered products of their activities) and the immaterial world that we know with the intellect (science, philosophy, religion, law, morality) through an ordered

system of abstract symbols (letters, signs) ^[1]. The Treskavica Mountain is the border zone between the forested part of Bosnia and rugged Herzegovina, that is, between Bosnia and Hum. The southwestern part of the mountain has long been visited by herders from the Stolac and Ljubinje villages, known even today as Humnjaci. In Gvozdno, as a relatively low depression, in addition to animal husbandry, mountain agriculture was well represented. Although this region has not been sufficiently examined archeologically, it can be safely said that it was inhabited in prehistoric times. Gradac in Gvozdno near Kalinovik is a prehistoric fort where archaeological material from the Bronze and Iron Ages was found by reconnaissance in 1953 (Figure 27). In several places, sites from the ancient period were found.



Source:

<https://lh5.googleusercontent.com/p/AF1QipO6TmrJyuSZz7lJL24Dn2swKd1kSeu6gxW1EawG=h720>, Accessed: October 29, 2024.

Fig 27: Gradac in Gvozdno near Kalinovik

The medieval Zagorje parish, to which Gvozdno polje also belonged, encompassed the area between the upper reaches of the Neretva and Drina. The parish was mentioned for the first time around 1322 in the charter of the Bosnian ban Stjepan II Kotromanic (1292-1353), in which he gave Prince Vukoslav the parishes of Banica and Vrbanja. Veletin and Obalj are mentioned as fortified towns in Zagorje in the charters of the Aragonese-Naples king Alfonso V (1396-1458) from 1444 and 1445. In addition to these, there are remains of two more medieval towns in the Kalinovica area. One is near the Ljusici settlement, and the other is near the Bojici village. Numerous necropolises with stećci tell about the settlement of this region in the Middle Ages. Among them are a large number of decorated stećaks, and several of them have original motifs and inscriptions. The stećci on Treskavica Mountain and those from the Kalinovik vicinity can be dated to the 14th and 15th centuries (Figures 28, 29).



Source: https://lh5.googleusercontent.com/p/AF1QipPkhQZGL_HuenShoeszAC-xm9fq_J5GvW5ishI4=h720, Accessed: October 29, 2024.

Fig 28: Necropolis of stecak near Gvozno (Kalinovik)



Source: <https://www.youtube.com/watch?v=I9OPEmJ5t2E>, Accessed: October 31, 2024.

Fig 29: Necropolis of stecak on Treskavica

The Ottoman defter/census from 1468, as well as all subsequent censuses up to the end of the 15th century in the Sarajevo area, recorded five squares, in which Trnovo was recorded as a village with 200 houses. Trnovo as the city we know today, as well as the municipality, began to develop with the arrival of the Ottomans in these areas, which is

confirmed by the Islamic religious buildings, especially the city mosque, which was built in 1565. Necropolises with 'nisans' from the era of the Ottoman administration in Bosnia and Herzegovina have been preserved to this day on the Treskavica mountain area (Figures 30, 31).





Source: Author (November 2, 2024)

Fig 30: Old cemeteries in the Turovi village below the Treskavica Mountain



Source: Author (November 2, 2024)

Fig 31: Rural cemetery in the Godinja village below Treskavica with old 'nisans' from the Ottoman era and new niches

The development of the city continued with the arrival of the Austro-Hungarian Monarchy, when the city expanded significantly. It is home to the Kotor outpost, the Serbian Orthodox parish with the old church of St. Great Martyr Georgi built in 1886, a police station, a national elementary school that was founded in 1889, then a telegraph, an overpass and a barracks. During the Kingdom of SHS (and the Kingdom of Yugoslavia), neither the city nor the municipality developed much. The Austro-Hungarian fortress Gradina represents an extremely important cultural and historical heritage of the municipality of Kalinovik (geographical coordinates: 43°30'16.49"N, 18°27'4.94"E, altitude 1170 m). It was built during the Austro-Hungarian rule in the 19th century (Figure 32). The fortress was significantly damaged during the Second World War. Among the residents of Kalinovac, there is a story that Adolf Hitler earned his first rank of corporal in this fortress. Scenes for the film „Diversanti“ (1967, directed by Hajrudin Krvavac) and frames for the film „Bitka na Sutjeski“/“Battle on Sutjeska“ (1973, directed by Stipe Delic) were filmed at the fortress.



Source:

<https://took.ba/unesco/#:~:text=Nekropola%20ste%C4%87aka%20Gvozno,naglo%20uzdi%C5%BEu%20%C5%A1umoviti%20dijelovi%20planine.,>
Accessed: November 4, 2024.

Fig 32: Gradina fortress near Kalinovik

During the SFRY, the city expanded significantly, when residential, cultural and business facilities were built, along with the rapid industrialization of the entire region. The number of inhabitants in Trnovo was visibly increasing: in 1895, Trnovo had 5,422 inhabitants, in 1910, 6,091, until 1981, when according to the census there were 9,550 inhabitants, and according to the last official census from 1991, 6,996 inhabitants (Bosniaks – 4,886, Serbs – 2093 and Croats – 17) from which the origin is visible declining trend due to the rapid industrialization of the Sarajevo region, so the population moved for permanent employment. After the signing of the Dayton Peace Agreement, the Trnovo Municipality was divided into two parts: Trnovo Municipality FBiH and Trnovo Municipality RS. Both mentioned municipalities were part of the single municipality of Bosnia and Herzegovina until 1992. There are no permanent settlements on the Treskavica Mountain itself. At its foot are larger settlements (cities) - Kalinovik and Trnovo, and several villages: in the north are Turovi, Godinja and Tesici, in the east are Boljanovici, Dobro Polje, Sijerca, in the southeast Kebljina, in the south Vlaholje, and in the west Tusila (Pervizi and Sinanovici villages), Sabici and

Rakitnica. In some of the mentioned settlements, the majority population is Bosniaks (Turovi, Godinja, Sijerca, Tusila (Pervizi and Sinanovici villages), Sabici and Rakitnica), (Figures 30, 31) Serbs in some (Kalinovik, Tesici, Kobljine, Vlaholje), and in others Bosniaks and Serbs are mixed (Trnovo). For the majority of Bosniaks, the religion is Islam, and for the Serbs, Christianity-Orthodoxy.

Each of the nations, both Bosniaks and Serbs, lives and preserves its own tradition, largely based on its religion. The most obvious way they show their ethnic and religious affiliation are religious buildings - mosques and churches (Figures 33-38, 40, 41, 42). The mosque in Trnovo was built in 1565, and its wakif is Muslihuddin (geographic coordinates: 43°39'48.96"N, 18°26'44.13"E, altitude 821 m). It consisted of a mosque area with a gallery of a covered porch with a wooden minaret. In the past period, it was renovated several times, the porch was walled up, the wooden minaret was demolished and a new one made of stone was built. The harem of the mosque was surrounded by a stone wall with an entrance gate, and on the outside of the wall is a stone public fountain. During the 1992-1995 war, the mosque was completely destroyed. The reconstruction of the ruins began in 2003 thanks to donations in the form of money, materials and voluntary work from the citizens of Trnovo, people of good will and various institutions (Figure 33).



Source: Author (July 26, 2011)

Fig 33: Mosque in Trnovo

The mosque in the village of Rakitnica (geographic coordinates: 43°39'26.10"N, 18°16'24.00"E, altitude 1166 m) corresponds to the well-known Bosnian mahal mosques, whose physical body is no bigger than the houses in the mahal. It was built in 2008 according to the project of architect Ahmet Hadrovic (the author of this work). The mosque in the Rakitnici village has a pitched roof and a minaret (although built of steel pipes) which, in its construction, resembles the wooden minarets of mahal mosques. The mosque was designed and built for the needs of the residents of Rakitnica, a small village on the border of

the vast plateau of the Bjelasnica Mountain and the foot of the Treskavica Mountain - on the very right bank of the Rakitnica river (Figure 34). Until 1992, Rakitnica, like the entire Bjelasnica plateau, did not have a high-quality traffic connection with any larger settlement in its geographical surroundings. Partly during the 1992-1995 war., mainly after 1995, all the villages on the Bjelasnica plateau got high-quality asphalted roads that connect them with the traffic network of Bosnia and Herzegovina via the Olympic centers of Bjelasnica and Igman.



Source: Vladimir Obradovic (drone photo: July 29, 2017)

Fig 34: Mosque in the Rakitnici village (Architect: Ahmet Hadrovic)

The old mosque in the Tusila village (Pervizi hamlet), (geographical coordinates: 43°37'37.74"N, 18°15'14.31"E, altitude 1205 m) was burned during the 1992-1995 war, so a new one was built (1997) (Figure 35).



Source: Author (February 1, 2020)

Fig 35: Mosque in Pervizi



Source: Author (November 2, 2024)

Fig 36: Mosque in the Godinja village below Treskavica

The mosque in the Dujmovici village, at the foot of the northern slopes of the Treskavica Mountain, was built in 1968. After it was burned in the 1992-1995 war, it was rebuilt in 2000 (Figure 37).



Source: Author (November 2, 2024)

Fig 37: Mosque in the Dujmovici village



Source: Author (November 2, 2024)

Fig 38: The village public fountain (now ablutions in front of the mosque) in front of the mosque in the Dujmovici village



Source: Author (November 2, 2024)

Fig 39: Masjid in the Turovi village

The Church of the Holy Apostles Peter and Paul in Kalinovik (geographical coordinates: 43°30'08.18"N, 18°26'42.83"E, altitude 1073 m) belongs to the Metropolitanate of Dabrobosan, the Archdiocese of Foca and is the seat of the

parish in Kalinovik. The church was built in 1888 on the site of a small chapel (Figure 40).



Source: <https://took.ba/vjerski/>, Accessed: November 1, 2024.

Fig 40: The Church of the Holy Apostles Peter and Paul in Kalinovik

The church in Trnovo is dedicated to St. Great Martyr George (geographical coordinates: 43°39'54.83"N, 18°26'48.35"E, altitude 820 m). The church was built in 1886, as a sign of redemption to the Serbian people from the Austro-Hungarian authorities for the death of four young men innocently accused of murdering the Culin captain. The church was demolished and rebuilt in 1920, 1945, 1976. In 1999, the church was consecrated and opened (Figure 41).



Source: <https://www.princip.news/vijesti/istorija-crkve-u-trnovu>, Accessed: November 1, 2024.

Source: https://lh5.googleusercontent.com/p/AF1QipM9n4eDWiN1fDd6r0QSf_MrhSEDVX80BjTWN06O=w720-h720-pd Accessed: November 1, 2024.

Fig 41: The Church of St. of the great martyr Georgi in Trnovo



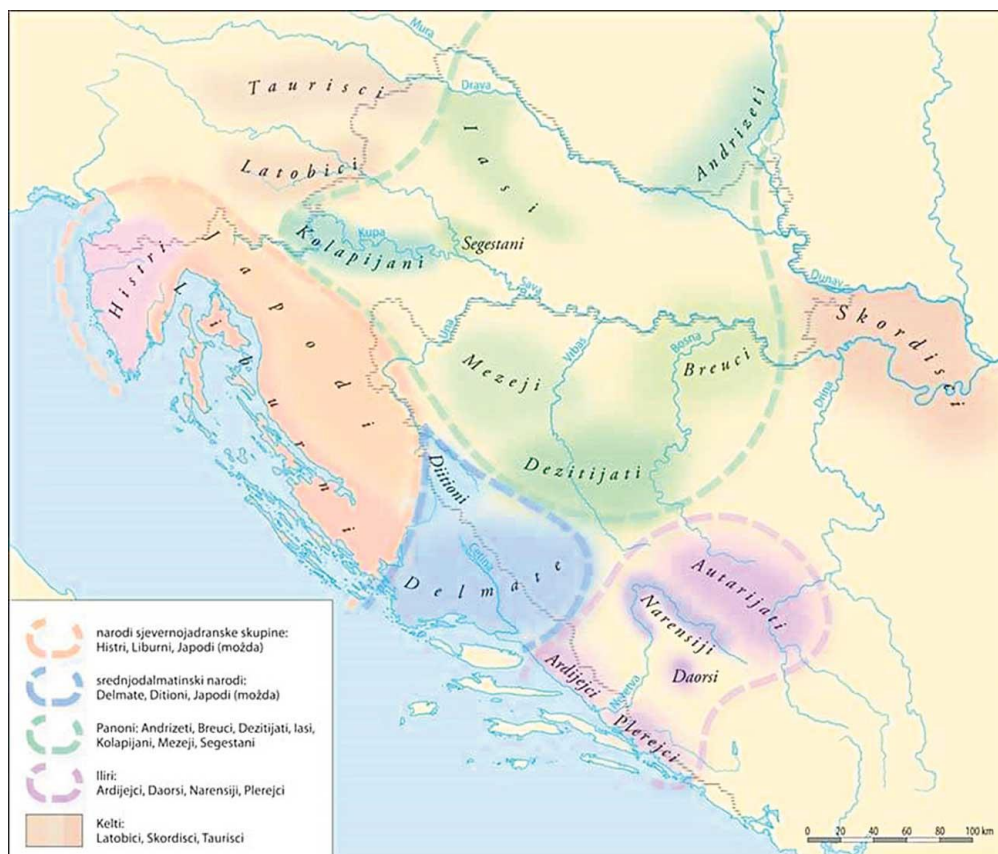
Source: <https://www.youtube.com/watch?app=desktop&v=zvJVCbfkHc>, Accessed: November 1, 2024.

Fig 42: Church in the Vlaholje village near Kalinovik

3. Man

Space acquires meaning only if it stands in some relation to man. This relationship ranges from the relationships of the already known dimensions of space, through those that can be sensed, to those that are currently beyond the reach of human imagination. In other words, man is a being on the way, a being who continuously learns, a being of open possibilities. The term 'man' is a huge question, the essence of which he himself tries to decipher within his own limits, within the limits of the Earth and the limits of the Universe^[1]. The entire area of the Treskavica spoil has not been

archaeologically examined. However, there is the site and physical structure Gradac in Gvozdno near Kalinovik, which is a prehistoric structure, on which archeological material from the Bronze and Iron Ages was found by the method of reconnaissance in 1953 (Figure 43). In several places, sites from the ancient period were found. According to the picture, the area of Mount Treskavice was inhabited by the Illyrian tribe Autarijati, about whom, in general, there is more historical information. The autariats are a typical example of the people - 'highlanders' who have preserved all the characteristics of the highlanders' mentality, which is evident from their adherence to old beliefs. Proof of this is the funeral customs of burning the dead in tumuli, customs that remained unchanged until the end of the Glasinac culture. Archaeological findings indicate that the Autariats respected the cult of ancestors and the cult of the sun god in their religious customs. The economy of the Autariat was based on cattle breeding, metalworking, handicrafts and trade. This Illyrian tribe expressed a considerable demand for the goods produced by the Greeks and Italics and this was the reason for the highly developed trade they had with Greek and Italic merchants in the 7th and 6th centuries BC.



Source: <https://nasarijec.ba/bosnom-kroz-vijekove-iliri-na-tlu-bosne-i-hercegovine/>, Accessed: November 4, 2024.

Fig 43: Illyrian tribes on the territory of today's Bosnia and Herzegovina

In the Middle Ages, part of the Treskavice mountain area, around Kalinovik, including Gvozdno polje, belonged to Zagorje parish. On the territory of this parish there are

Viseva, Veletin, Obalj, Ulog and two unknown towns near the Ljusici and Bojici villages. Zagorje is mentioned in several forms (de Sagoria; de Sagorie; de Ixagoria; in

Xagorie). Visevo is in the original area of the Neretva river (in loco dicto Visevi, 1422). Veletin with its suburb Podveletin (subtus castrum Vellentini, 1442) is located in the area of the Bjelimici. The territory of this parish was held by the Sanković family during the 14th century. After 1404, their position was taken over by the Reapers. The parish of Zagorje was first mentioned around 1322 in the charter of the Bosnian ban Stjepan II Kotromanic (1292-1353), in which he presented the parishes of Banica and Vrbanja to Duke Vukoslav. Veletin and Obalj are mentioned as fortified towns in Zagorje in the charters of the Aragonese-Naples king Alfonso V (1396-1458) from 1444 and 1445. In addition to these, there are remains of two more medieval towns in the Kalinovica area. One is near the settlement of Ljusici, and the other is near the Bojici village. Numerous necropolises with stećci tell about the settlement of this region in the Middle Ages. Among them are a large number of decorated stećaks, and several of them have original motifs and inscriptions. The stećci on the Treskavica Mountain and those from the vicinity of Kalinovik can be dated to the 14th and 15th centuries (Figures 44, 45).

The name of the Vlaholje village refers to the Vlach people, who were primarily engaged in animal husbandry. A common assumption is that their presence in the Balkans can generally be linked to the Roman Empire. They are characterized by autarchy, the retention of pagan beliefs and customs to this day, as well as the practice of certain magical rituals. They are economically focused on animal husbandry. The Vlachs supplied and followed the Ottoman army, and as a type of nomad, they were always on the move with their cattle. The Ottomans gave them a share of the booty and placed them on the borders of their conquests as guards and border guards on the estates where the natives were killed or fled during the war campaigns. The Ottoman defter/census from 1468, as well as all subsequent censuses up to the end of the 15th century in the Sarajevo area, record five squares, in which Trnovo is listed as a village with 200 houses. Trnovo as the city we know today, as well as the municipality, began to develop with the arrival of the Ottomans in these areas, which is confirmed by the Islamic religious buildings, especially the city mosque, which was built in 1565..



Source: Author (November 2, 2024)

Fig 44: A grave from the Ottoman period in the Turovi village at the foot of the Treskavice Mountain



Source: Author (November 2, 2024)

Fig 45: 'Nisani' on the grave of Hasan Kucuk Sova in the Turovi village at the foot of the Treskavica Mountain

During the 1992-1995 war, residents from all the villages on the slopes of Treskavica were expelled, and the villages were burned. This fact sounds traumatic. However, it is amazing that in a fairly short period of time all the villages were rebuilt. The displaced population during the war and new generations in new environments (Sarajevo, Hrasnica, Konjic) acquired a 'new cultural layer', primarily through education. In all villages today there are dozens of highly educated young people in all disciplines (medicine, law, economics, construction...), and some of them have succeeded in high social positions (university professors, for example). In the village of Turovi, for example, today there are over fifty highly educated people ^[23] (Figure 46). From a new perspective, these educated people can better see the potential and values of their regions and the spoils of Treskavica and put them to the function of a better life, today and in the future.



Source: <https://www.youtube.com/watch?v=cD7h9DMd25Y>, Accessed: November 4, 2024.

Source: https://www.youtube.com/watch?v=dvBI-s1k_B8, Accessed: November 4, 2024.

Fig 46: Left: Mr. Zaim Omerovic from the Turovi village gives an interview. Right: A woman from the Turovi village gives an interview

4. Boundaries

'Boundaries' are those places in the environment where the situations encountered are controlled according to very specific human needs. Conditions are all those discovered and undiscovered phenomena in space that have a stimulating or degrading effect on humans. Borders, therefore, have the task of enabling the selection of influences. In the architectural sense, they enclose, but also include a person in

the conditions of a certain environment ^[1]. The abundance of water (springs, watercourses and lakes) and pastures attracted people from the villages at the foot of the Treskavica mountain to 'drive out' their cattle for summer grazing. There, in suitable places (with a water source and pasture), they built huts/katuns and arranged cattle pens. We can judge the appearance of these katuns on the basis of rare photographs and their remains preserved to this day (Figures 47, 48, 49).



Source:

<https://www.facebook.com/photo/?fbid=10151426493821098&set=a.10151426301271098>, Accessed: October 31, 2024.

Fig 47: Smajo Isaković's hut/katun in the Klanac village on the Treskavica Mountain (Photo: Jovan Popovic)





Source: <https://www.youtube.com/watch?v=I9OPEmJ5t2E>, Accessed: October 31, 2024.

Fig 48: Pastures on Treskavica (current state)



Source: <https://www.youtube.com/watch?v=I9OPEmJ5t2E>, Accessed: October 31, 2024.

Fig 49: Remains of the katon on Treskavica (present state)

Earlier, in the southern part of Treskavica, there were seasonal settlements of Humnjak (Herzegovina) herders from the Ljubinja and Stolac regions: Klanac, Dolovi, Ninkovci, Bujanj and Jecmeni Do. On the southwest side of Veliko Trijesko, there are the villages: Lukavac and Donje and Gornje Bare. Their apartments were built of stone drywall. In the northern part of Treskavica (in Turovska Treskavica) there are pastures of the inhabitants of the villages below Treskavica: Turovi, Godinja, Trebecaj, Bistročaj and Tosici [19]. The largest settlements (small towns) on the edge of Treskavica Mountain are Kalinovik in the south and Trnovi in the northeast. At the very foot of the northern slopes of the mountain are the Turovi, Godinja, Tosici and Dujmovici villages, in the northwest the Rakitnica and Tusila villages (with the Pervizi and Sinanovici hamlets), in the west the Ljuta village (Figure 59), and in the south the Bozanovici and Vlaholje villages, in the east the Gvozno village and Krbaljine. The Turovi village, inhabited by Bosniaks, is located at the foot of the Treskavica Mountain (geographic coordinates:

43°38'34.68"N, 18°25'22.81"E, altitude 905 meters). According to the 2013 census, 148 inhabitants live in the village [24], and according to the 1981 census, there were 318 inhabitants [25]. The village was burned down during the 1992-1995 war, but was largely rebuilt after the war. The traditional occupation of the people of this village was animal husbandry and agriculture. Livestock was raised on the Treskavica Mountain, and farming was practiced on the fertile fields along the right bank of the Zeljeznica river. Until the 1992-1995 war, a large number of radon-capable people worked in Trnov's industry (Pilana, Cilimara and Famos), but also in Sarajevo, with a very large livestock fund of over 500 head of large cattle (cows) and 2000 head of small cattle (sheep). The main road to the Treskavica Mountain leads right through this village. Dramas and documentaries were filmed in the village. The infrastructure of the village was very developed, electricity, water from two directions, an asphalt road, there was a grocery store, and the telephone network was separated compared to many other

settlements in the immediate vicinity of Sarajevo. Every household had a tractor with attachments that greatly facilitated daily agricultural work. Today it is a returnee village in the municipality of Trnovo, with very little infrastructure investment. In the post-war period, houses were renovated thanks to donor funds, sewerage network and street lighting were installed. Today, many people in the Trnovo village are engaged in farming and raising cattle (except for the large herds that graze on the Treskavica mountain), while most of them are employed in Sarajevo. In the immediate vicinity of Turovi, there are Kazani, a natural phenomenon, a rock through which the Zeljeznica river used to build stone cauldrons and, flowing from cauldron to cauldron, created a bed for itself (Figure 50). The age of the village and life in it is evidenced by the old cemeteries in which niches are specific to the Ottoman period, the era of El Fatih's (1432-1481) conquest of Bosnia and Herzegovina (Figure 51).



Source: Author (November 2, 2024)

Fig 50: The Turovi village below the Treskavica Mountain



Source: Author (November 2, 2024)

Fig 51: Old and new cemetery of the cemetery in the Turovi village under the Treskavica Mountain

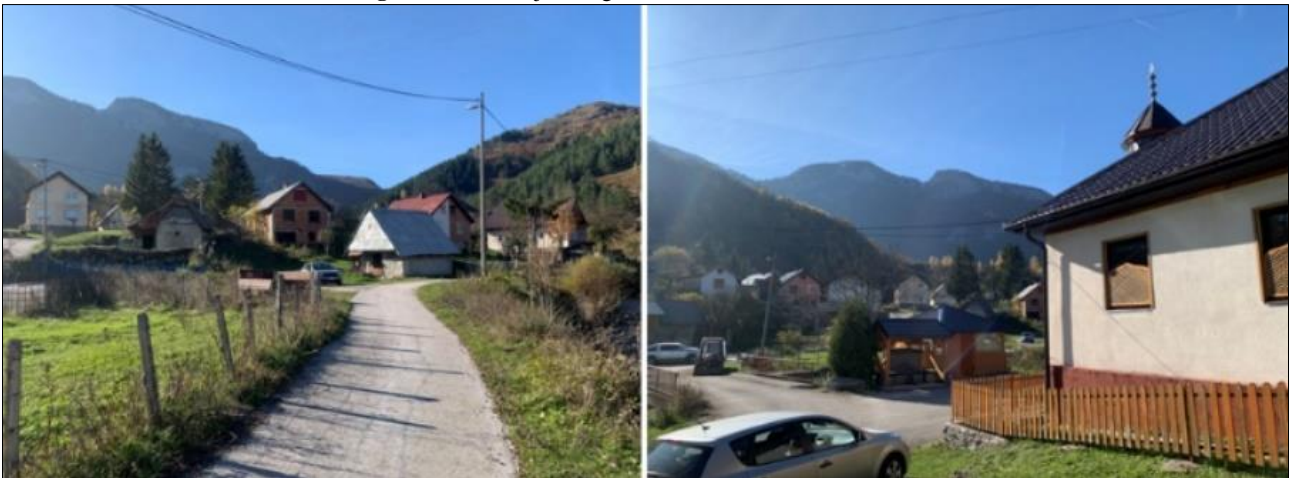
The Godinja village today has 44 permanent residents ^[24], while in 1981 there were 99. The village developed at the foot of the Treskavica Mountain, along the Zeljeznica river (geographic coordinates: 43°38'55.19"N, 18°23'42.92"E, altitude 933 meters). The traditional occupation of the people of this village was cattle breeding (on the Treskavica Mountain) and farming in the harbors around the Zeljeznica river. The village's age is evidenced by the large village cemetery, where niches dating back to the Ottoman era are preserved in this area. Today, people in this village are engaged in agriculture and animal husbandry, and the majority of able-bodied people work in Sarajevo. Some of them graduated from various colleges. There are individuals who are professors at the University of Sarajevo. In the village there is a well-organized property with beekeeping, "Bosnian House of Beekeeping" (Figures 52,53,54).





Source: Author (November 2, 2024)

Fig 52: The Godinja village below the Treskavica Mountain



Source: Author (November 2, 2024)

Fig 53: Renovated houses and barns in the Godinja village below Treskavica Mountain



Source: Author (November 2, 2024)

Fig 54: Private estate „Bosnian House of Beekeeping“ in the Godinja village

The Dujmovici village was developed at the foot of the Treskavica mountain (geographical coordinates: 43°39'25.25"N, 18°21'20.43"E, altitude 949 meters). Bosniaks live in it, and it has 116 inhabitants ^[24] (Figures 55-

58). It belongs to the Municipality of Trnovo (FB&H). According to the 1981 census, 224 inhabitants lived in Dujmovici. The inhabitants of the village were traditionally mostly engaged in animal husbandry (on the Treskavica

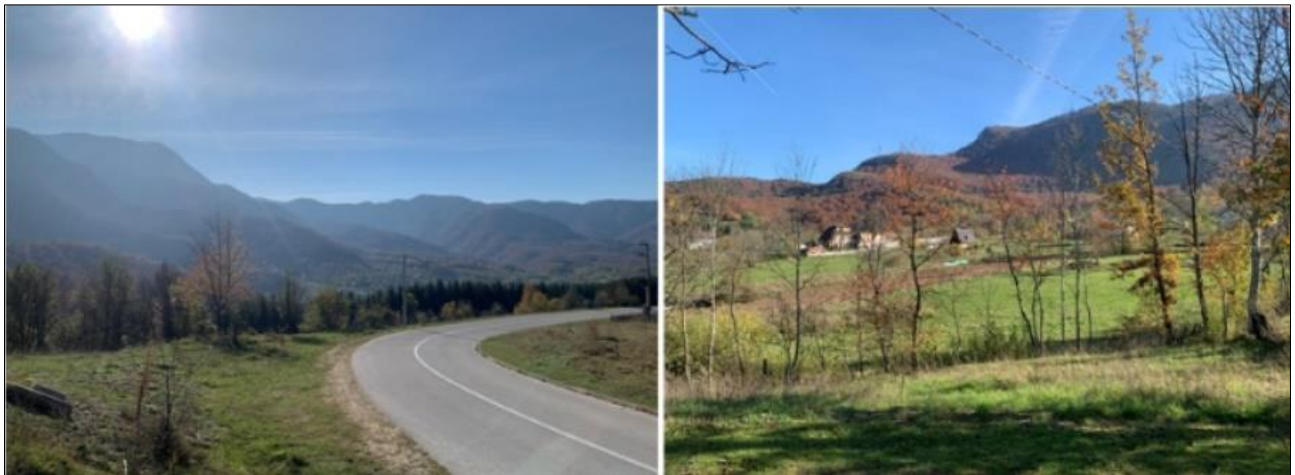
Mountain) and agriculture. During the 1992-1995 war, the village was burned down, but it was quickly rebuilt after the war. Today, a few individuals are engaged in farming and

raising sheep and cattle there (without cattle ranching on the Treskavica Mountain), and most of them work and live in Sarajevo.



Source: Author (November 2, 2024)

Fig 55: The Dujmovici village at the foot of the northern slopes of the Treskavica Mountain (in the foreground is the Dejcici village)



Source: Author (November 2, 2024)

Fig 56: The Dujmovici village at the foot of the northern slopes of the Treskavica Mountain



Source: Author (November 2, 2024)

Fig 57: The second village public fountain in the Dujmovici village



Source: Author (November 2, 2024)

Fig 58: Monument to the Martyrs and the soldiers of the B&H Army near the Dujmovici village



Source: <https://lh5.googleusercontent.com/p/AF1QipP703z9zOdj9pZr-SOtbxpyVL05QL-d2jc-PjHX=h720>, Accessed: October 31, 2024.

Fig 59: The Ljuta village on the Ljuta river between the Treskavice and the Visocica mountains (geographic coordinates: 43°34'52.97"N, 18°18'27.90"E, altitude 925 meters)

The Vlaholje village was developed on the southern slopes of

the Treskavice mountain, about five kilometers northwest of Kalinovik (geographic coordinates: 43°31'35.59"N, 18°26'23.19"E, altitude 1149 meters). With its physical structure, the village clearly reflects the natural and social environment. Individual households (house, stables and auxiliary buildings) are separated and surrounded by the estate (handy garden and fields), while the spacious pastures above the village, on the southern slopes of Treskavica, are the common property of the village. The central village cemetery and the local church are common social facilities. Earlier, the main occupation of the people was extensive cattle breeding on the pastures of the Treskavica mountain and agriculture. As the village is located on the famous hiking route Via Dinarica BH-W-10, a stage that goes from Ljuta, around Treskavica, to Kalinovik, that is, the village of Jelašac, therefore, where a lot of people pass, the village has also become a tourist destination.

The rural household "Simovica kuca" (owner Dusko Lalovic) offers accommodation for about 10 guests and provides services for overnight stays, food (homemade bread, milk, cheeses, meat, fruit and vegetables) and organization of excursions (Figure 60).





Source: <https://www.youtube.com/watch?app=desktop&v=zvJVCBcfkHc>, Accessed: November 2, 2024.

Source: <https://www.youtube.com/watch?v=GnCTliT20cU>, Accessed: November 2, 2024.

Fig 60: The Vlaholje village near Kalinovik

The Trebecaj village is located in the Trnovo Municipality (FB&H), where Bosniaks live (geographical coordinates: 43°40'19.29"N, 18°24'19.61"E, altitude 895 meters). According to the 2013 census ^[24], 76 inhabitants live there,

which is much less than according to the 1981 census (205 inhabitants). Although it is a mountain village, its physical structure is compact, while the estates are distributed around the village (Figures 61, 62).



Source: Google Earth, Accessed: November 3, 2024.

Fig 61: The Trebecaj village

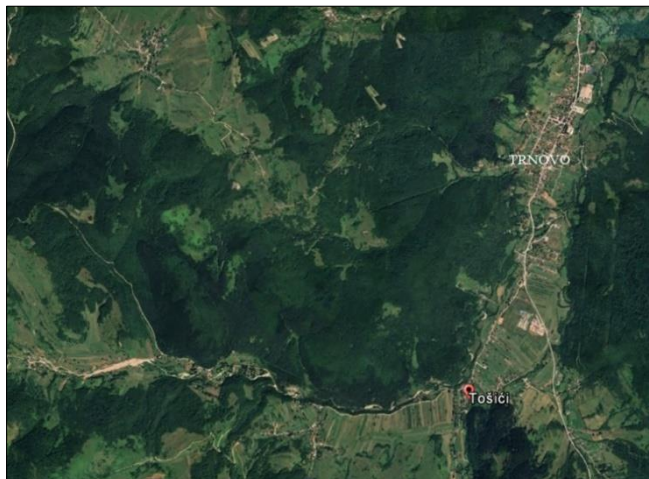


Source: <https://www.booking.com/hotel/ba/trebecaj-gardens.hr.html?activeTab=photosGallery>, Accessed: November 3, 2024.

Fig 62: One new house in the Trebecaj village

The Tosici village is located about 2.5 km south of the center of Trnovo (geographical coordinates: 43°38'46.91"N, 18°26'16.65"E, altitude 861 meters). The village is mainly inhabited by Serbs. According to the 2013 census, 268

inhabitants live in the village ^[24], which is significantly less than the number of inhabitants (345) according to the 1981 census (Figure 63).



Source: Google Earth, Accessed: November 3, 2024.

Fig 63: The Tosici village near Trnovo

With the exception of Kalinovicka Treskavica, there are no permanent settlements on the Treskavica mountain itself. The Krbaljine village (geographic coordinates: 43°34'14.79"N, 18°29'33.63"E, altitude 1230 meters) lies on the eastern edge above the rocks of Bistrica (Figure 64).



Source:
https://lh5.googleusercontent.com/p/AF1QipPTQwWBqlgcS5ZR9_cqh3qlGHWk77gGbevCYsMI=h720
 Accessed: October 31, 2024.

Fig 64: The Krbaljine village on the eastern slopes of the Treskavica Mountain

The Bozanovici village is located on the southern slopes of the Treskavica Mountain, about 2.5 km northwest of Kalinovik (geographic coordinates: 43°30'34.85"N, 18°25'15.32"E, altitude 1093 meters). The village is inhabited

by Serbs (66, according to the 1991 census). According to its physical structure, the village is relatively compact with fields and meadows on the south side and pastures on the Treskavica Mountain (Figure 65).



Source: <https://www.klix.ba/vijesti/bih/bozanovici-kod-kalinovika-rodno-mjesto-haskog-optuzenika-ratko-mladic-je-volio-dolaziti-u-selo/160414031>, Accessed: October 31, 2024.

Fig 65: The Bozanovici village near Kalinovik

5. Conclusion (Perspectives)

By the term 'Perspectives' in the framework of the theory of architecturally defined space (ADS), we mean „that dynamic relationship that connects now - future, existing - possible, achieved – desired“^[1]. The emergence of a settlement (hamlet, village) or architectural-engineering structure is never accidental, but is the result of synergy between the natural and social environment-maⁿ^[1]. The Treskavica Mountain and the people who live in the settlements at its foot live in a symbiosis that goes back from prehistoric times to the present day. This is evidenced by the archaeological remains of physical structures and the remains of objects used by people (Gradac in Gvozdno near Kalinovik). Abundance of water (springs and glacial lakes) and spacious meadows have always been prerequisites for grazing sheep and cattle in the summer period. The rich resources of the Treskavica Mountain even today, but not to the extent it was from the Middle Ages until the war in Bosnia and Herzegovina (1992-1995), attract herders to do their traditional work there. The new generations are increasingly oriented towards the city, primarily Sarajevo, where they go to school and continue to live there. And people with such a commitment to life return to their villages, where they have renovated their family houses (which were destroyed in the last war), but also build new ones, where they engage in various jobs, more recreationally than professionally (house, owner Velić Ismet), (Figure 66).



Source: Author (October 23, 2021)

Fig 66: The house of the Ismet Velic family in the Rakitnici village at the foot of Treskavica and Bjelasnica (Architect: Ahmet Hadrovic), (geographical coordinates: 43°39'29.68"N, 18°16'42.35"E, altitude 1179 meters)

However, there are also people engaged in cattle breeding and agriculture (Figures 67, 68).



Source: Author (February 1, 2020)

Fig 67: Renovated and wealthy household in the Pervizi village (near the Tusilacki stream), (geographical coordinates: 43°37'36.80"N, 18°15'21.04"E, altitude 1193 meters)



Source: Author (February 1, 2020)

Fig 68: Renovated and wealthy household in the Sinanovići village (geographical coordinates: 43°36'46.93"N, 18°15'46.01"E, altitude 1267 meters)

In the Urban Plan of the urban area of Trnovo for the period from 2016 to 2036 (draft), among other things, guidelines for the development of the economy for the area of the Trnovo

Municipality (Federation of Bosnia and Herzegovina) are given^[26]:

- Creation of zones where the nuclei of promising economic activities necessary for the development of Trnovo would be developed,
- Production of organic food and organized purchase of plant products according to standards,
- Creation of conditions for attracting sectoral targeted investments (possibility of controlled economic development),
- Structuring into smaller functional production capacities (incubators, technology parks, etc.),
- Investments in sophisticated technologies,
- Investments in the development of technologies, which do not „eat up space“ - openness to the development of new branches of the economy that will become new generators of development and financial flows,
- Education and training of human resources and application of new technologies,
- Introduction of international quality standards for accommodation and services (e.g. in the categorization of hotel, hostel and catering establishments, ecological standards, monitoring of contemporary trends in types of tourist offer),

- Special purpose areas - new areas that cannot be used at the moment due to undefined ownership, and represent areas that should be counted on for this or the post-plan period.

The Trnovo Municipality (Federation of Bosnia and Herzegovina) adopted the „Sustainable Development Strategy of the Municipality of Trnovo for the period 2023-2027“^[27], which comprehensively presents the life of people in the natural and built environment in the indicated period: Situational analysis, Economic and rural development, Social development (population, education and quality of life), Environment and infrastructure, Strategic focuses, Vision and strategic goals, Compliance with other strategic documents, Indicative financial framework, Implementation, monitoring and evaluation, APPENDIX 1: Summary overview of the strategic document, APPENDIX 2: Detailed overview of measures. As new paved roads were built (from Sarajevo via Bjelašnica to the foothills of Treskavica and Visocica), tourism revived in this area, and people (those with roots there, as well as businessmen in general) began to build hospitality facilities - restaurants and lodgings - where they serve traditional food, mostly from raw materials produced in the area of the Treskavica, Visocica and Bjelasnica mountains (Figures 69, 70).

Source: Author (February 1, 2020)

Fig 69: Restaurant with apartments in the Tusila village (geographic coordinates: 43°37'16.11"N, 18°15'14.37"E, altitude 1220 meters)



Source: author (February 1, 2020)

Fig 70: Restoran „Tiha luka“ sa apartmanima u selu Rakitnica (geografske koordinate: 43°25.86"N, 18°16'10.11"E, nadmorska visina 1160 metara)



Mountaineering on the Treskavica Mountain has a long tradition, from the end of the 19th and the beginning of the 20th century. Over time, the construction of mountain lodges began there (Figures 71-76), for mountaineers and other visitors. The mountain lodge „Josip Sugmund“ in Kozja Luka, Treskavica, was built in 1951, extended in 1957 and completely demolished at the beginning of the aggression against Bosnia and Herzegovina (1992). This home is named after the pre-war mountaineer Josip Sigmund (1912-1943). Its restoration is planned (Figure 71). In 1935, „Guide to the Mountains of Bosnia and Herzegovina“ was published for the first time in our language. The author of the guide is Ing. Jovo Popovic – curator of the National Museum in Sarajevo. The publishers of the guides are mountaineering societies from Sarajevo.



Source: <https://www.facebook.com/photo/?fbid=10159346190749737&set=pcb.10159346191094737>, Accessed: October 30, 2024.

Source: <https://www.facebook.com/photo/?fbid=4672143949473498&set=gm.1374695922945956>, Accessed: October 30, 2024.

Fig 71: Mountain lodge „Josip Sugmund“ on Kozja Luka, Treskavica (geographic coordinates: 43°36'26.08"N, 18°23'12.43"E, altitude 1503 meters)



Source: Author (February 1, 2020)

Fig 72: Mountain house in the Sinanovici village (geographical coordinates: 43°36'47.11"N, 18°15'47.97"E, altitude 1273 meters)

The mountain house "Sustavac" is located on the Treskavica mountain, right next to Hrasnički potok, on a gentle glade at

the foot of Veliko kožlen, halfway from Trnov to Veliko jezero, or on Prva voda, as the people of Trnov call this locality (geographical coordinates: 43°37'24.49"N, 18°24'38.68"E, altitude 1147 meters). The word 'susto' in the popular translation means - 'tired'. The location of Sustavac is the first place to rest when a mountaineer from Turovo or Rajski Dol goes towards Treskavica. Mountaineers named the mountain house Sustavac after that locality back in 1950, when construction began. It is interesting that in the 1960s, the mountain house was moved from the location of Sustavac to the place "Prva Voda" ("First Water"), where it is still located today. Currently, the hiking eco-excursion resort "Sustavac" Treskavica can accommodate 40 hikers and other visitors in the hiking house and bungalows. The picnic area is lit by its own generator, and drinking water is supplied from a spring in the immediate vicinity of the house. And the water from the Hrasnički potok, which flows through the picnic area, is good for drinking as well as for other needs of visitors. Sustavac is, of course, along with the Treskavica Mountain, one of the most visited picnic spots in Bosnia and Herzegovina (Figure 73).



Source: <https://trail.viadinarica.com/bs/hut/planinarski-dom-sustavac/14954651/#dmlb=1>, Accessed: October 30, 2024.

Source: <https://www.facebook.com/photo.php?fbid=605782352784582&id=553958064633678&set=a.570178826344935>
Accessed: October 30, 2024.

Fig 73: Mountain house „Sustavac“ is located on the mountain Treskavica

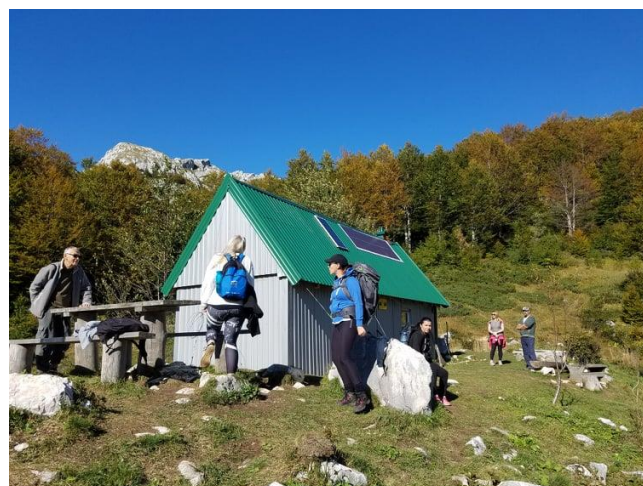


Source: Author (February 1, 2020)

Fig 74: Mountain lodge "Vrela" in Tusila (geographical coordinates: 43°37'17.98"N, 18°15'18.29"E, altitude 1214 meters)

The „Treskavicka jezera“ mountain house is located on a viewpoint that overlooks the largest lake in Treskavica - Veliko jezero (geographical coordinates: 43°36'25.41"N,

18°22'26.68"E, altitude 1573 meters). The house is equipped with a complete inventory and is always ready to receive mountaineers. The capacity of the house is 16 places (Figure 75).



Source: <https://trail.viadinarica.com/bs/hut/planinska-kuca-treskavicka-jezera/61083886/#caml=8hk,31e4yj,77moga,0,0&dmlb=1>
Accessed: October 30, 2024.

Fig 75: The „Treskavicka jezera“ Mountain house on Treskavica

The mountain lodge „Radovan Bjelica“ in Treskavica (on the territory of the RS entity) is located on the main trail and is an ideal starting point for all peaks and important and attractive parts of the Treskavica mountain. The home can be reached from Trnovo, the village of Turovi on a macadam road in an hour at a moderate pace (geographical coordinates: 43°37'04.80"N, 18°23'52.69"E, altitude 1270 meters). The home has a bathroom (men's, women's toilet and shower cabin) and a kitchen with all the necessary equipment. On the ground floor there is a living room with a capacity of 35-40 seats. On the first floor there are 4 rooms with a total of 15 beds, and in the attic there are palaces that can accommodate 10-15 people. It is also possible to stay and sleep in an auxiliary facility. There is a camping area around the house. The highest peak can be reached in 4 hours, and the Great and Black Lakes are about an hour's walk away (Figure 76).



Source: <https://bosniaoutdoor.com/en/tour/jednodnevni-izlet-na-treskavicu/#&gid=1&pid=9>, Accessed: November 6, 2024.

Fig 76: Radovan Bjelica“ Mountain lodge on Treskavica

Treskavica is a huge natural resource that was, is and will be the source of life for the people who live on it and at its foot. The forms of symbiosis of mountain and man will change, in accordance with time and the social environment.

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