

# BELIANSKA CAVE

Dear Ladies and Gentlemen,

I would like to welcome you in the name of Slovak caves administration to the national natural monument Belianska cave.

Belianska cave is the highest located cave in Slovakia with its entrance lying at an altitude of 890 meters. The cave entrance area was already known by the gold diggers in the first half of the 18<sup>th</sup> century. This is indicated by the signatures of their names on the cave walls. The cave was discovered on 22 July 1881 by mountain guides Johan Britz and Julius Husz. First measurements of the cave began in the same year. In 1882 the cave was open to the public and electrically lit in 1896.

Belianska cave is formed from Mesozoic Middle Triassic dark grey Gutenstein limestone. The formation was determined by interbed surfaces of limestone, and less by tectonic faults. Alongside the limestone, waters were flowing in and penetrated inside. The primary caverns were entirely filled up with water. The cavities were created due to the chemical solubility of limestone, but also due to the pressure of the flowing waters. Dominant features in this cave are cupola forms.

The main underground spaces were formed already before the main Quaternary glaciations of the Tatra Mountains. The formation was possibly influenced by aggressive waters penetrating from the top, and mixing together with waters in the deeper levels. During this time the original larger plateau of the Kobylí hill above the cave was being dissected with initial deepening of the Biela Valley. During these processes the cave was almost fully filled with fine sediments. They were later washed out.

In connection with Tertiary deepening of the Biela Valley groundwater levels were dropping. We can see this gradual water level dropping in the form of small notches on the cave wall. However, some parts of the cave may have been flooded in due course, as a result of the filling of the lower level drainage channels with sediments. The formed underground spaces were only partially remodeled by waters flowing into the cave at the time of Ice Age retreats. The seepage waters are at present concentrated in the lowest parts of the cave, where they form occasional streams. These streams are most probably joining the riverbed of Biela below the cave.

The last official length of the cave is 4200 meters. The show path is 1370 meters in length with a vertical range of 112 meters, with 866 steps. Average air temperature throughout the year varies between 5 and 6.3 °C, water temperature is 5.2 °C. The relative humidity is more than 90 percent. This tour lasts around 70 minutes.

Before we continue with our cave tour, we will have to inform you, and stress, that the cave is protected by the law with the highest level of protection. It is strictly prohibited to eat, drink, smoke or in any other way pollute the underground spaces, also to touch any electrical installations or to step out of the marked show path and to touch or in any other way damage the karst decorations.

We wish you a wonderful and enjoyable tour, and would like to thank you for your cooperation.

## 1 ENTRANCE HALL

The passage we just entered is called The Mighty Entrance Hall. It is accessible by a partially dug passage. Halfway through the passage, on your right hand side you can see part of the discovery chimney where the explorers entered the cave. On the cave ceiling and walls you can see bowl like excavations due to the water being under pressure. Above on the right hand side of the path there is a small karst lake called The White Well. Higher above there is The Green Lake and opposite, on the left hand side of the path there is an abyss 26 meters in depth - The Devil's Throat. By the stairs we will get to the next part of the cave called The Deserted Hall which has a central outstanding feature – conical stalagmite 160 cm in height known as The Tramp.

The tour will continue in the High Dome.

## 2 HIGH DOME

We are now in the High Dome which is 20 meters high. The cave decoration is created from the water penetrating through the cave roof containing excessive amounts of soluble calcium carbonate. The dripstones hanging from the cave ceiling with little tubes inside them are called **stalactites**, ones growing from the cave floor are called **stalagmites**. They are created by precipitation of calcite from water drops. When the stalagmite and stalactite are connected a **column** is formed. In some places a soft calcite coating is formed on the cave walls called moonmilk, precipitated directly from cave atmosphere. The atmosphere is filled with very small water drops with a high percentage of calcite (aerosol). The aerosol has beneficial effects on respiratory organs. This is used in the speleotherapy - health treatment in caves.

On the wall in front of us, a clean white sinter form stands out, resembling a silhouette of famous Levocska white lady. Under the leaning wall there is The Yellow Lake. We will now continue into The Long Dome where we will see smaller stalagmites. On your left near the path you can see stalagmite – The Stone Mushroom. Above it on the right hand side you can look at cascade decoration named the Crocodile Skin, and opposite is The Heart Lake. Above the Heart Lake we can see conical stalagmite – The Stone Vase with a small lake on top. On your right hand side you can notice another group of stalagmites called the Dwarf Grove.

We will continue to The Palm Tree Hall.

## 3 PALM TREE HALL

The cave is protected by law because of the karst decorations and the animals. Some of the animals are totally adapted to life in the wet, cold and dark underground environment. They are very vulnerable and rare. In the Belianska cave lives one small water crustacean, but there are also some other invertebrates. Some 30 bat species are living in Slovakia and in the winter season there were as many as 7 bat species found in the Belianska cave. Dominating is the Greater mouse-eared bat. The occurrence of other species such as Whiskered bat and Brandt's bat, Geoffroy's bat is less frequent. All bat species are very useful and under threat of extinction. They feed on insects. They all deserve our care and protection.

The area we just entered is called The Palm Tree Hall with the Mirror Lake in the center. To your right we can see a stalagmite group called the Cactus Grove.

From here we will proceed through a partially dug Corridor of Suffering to the Outlaw Chamber where we will stop again.

## 4 OUTLAW CHAMBER

It was named after a sinter column, which is above the stairs, as it resembles sitting down Janosik. He was a Slovak national hero from the 18<sup>th</sup> century. He was Slovak "Robin Hood". In the background we can see The Treasure-house, with The Golden Lake. On the lake bottom we can see a sinter outgrowth in the shape of a cauliflower called pisolites. In the front of the lake the stalactite is still growing, called the Tongue of the Mother-in-law. Now we will go up by 52 steps and reach the highest level of the cave shown to the public which is 1002 meters a.s.l. From that point we will descend through a beautifully and richly decorated dome called the Kaltstein Dome leading to the Dome of Great Waterfalls.

## 5 DOME OF GREAT WATERFALLS

We came to the Dome of the Great Waterfall through a dug out connection passage. The waterfall is 56 meters in length and ends in the form of the organ pipes. We will now continue through the most beautiful part of the cave, the Gallery. It is characteristic for very rich sinter decoration.

From the Gallery we will descend to the Quiet Hall which was filled with lake water a long time ago. Later we will get to the Music Hall. You can see the hall below you.

## 6 MUSIC HALL

Now we are standing in the Music Hall. It was named after the sound of the drops falling on the lake surface and cave floor. Right behind the lake we can see a curtain-like flowstone decoration which is as white as snow but in some places grey or yellow. This hall was used for organizing musical concerts of reproduced classical music because of its superb acoustics.

From the Music Hall we will be descending through the Pipe Dome and the White Dome with the dominant feature of the biggest column in the cave - the White Column.

Through the artificial passage we will come to The Hall of Ruins. The original dripstone decoration was ruined as a result of a partial cave ceiling collapse. Through the Gingerbread House and the ZOO we will then make our way back to the Entrance Hall where the tour started.

The visit of Belianska Cave showed you the values hidden inside Slovakian caves. For this reason they are all protected by the law as natural monuments and some of the most valuable, as national natural monuments. More than 8,000 caves are known in Slovakia. Each one has an individual character and so we recommend you to go and visit other Slovak show caves. The closest to Belianska cave is the Važecká Cave (approximately 50 min. by car), where you can learn more about the life of the cave bears.

Thank you for your attention and visit. We hope you enjoyed your tour and we wish you all the best on your journey discovering the beauty of the Slovakian nature.

