



POVIJEST ISTRAŽIVANJA

Pruva istraživanja Špilje započeli su hrvatski speleolozi 1986. godine. Ta sustavna istraživanja provodili su članovi Speleološkog odjeljka PDS Velebit koji su i kompletirali načrt Špilje do današnjih izmjena i dopuna, a razna stručna i znanstvena istraživanja uz njih provede i članovi brojnih drugih speleoloških udruga.



JESTE LI ZNALI?

Stvaranje sigurnih i sigasnih oblika ujutnjem se odvija u znin značaj razine vode ili u razini zraka, a rezultat su sigane nastale u frentskim ujutnjima odnosno u ujutnjima kada su sljubiški kanali bili u potpunosti potopljeni vodom. Te su signe ujetnici, a otkriveni su te razinstvene istražene i opisane upravo u ovom području. Pojava frentskih ili obložnih siga izuzetno je rijeka. A njen znak je u tome što one sadrže brojne informacije o starosti, klimatskim i hidrološkim ujutnjima u vrijeme nastanka.

#### HISTORY OF RESEARCH

The first research of the Cave in the Tounji quarry was conducted by Croatian speleologists in 1986. The systematic research was performed by the members of the speleological section of PDS Velebit who completed the cave's layout to include the present changes. Many other speleological associations also conduct various scientific research.



DID YOU KNOW?

Speleothems are mostly formed in the zone above or on the level of water, with the exception of speleothems formed in phreatic conditions, when the cave passage were completely submerged. These speleothems are world phenomena, and they were discovered and scientifically described in this particular area.

Phreatic speleothems are extremely rare, but extremely important since they offer a lot of information about the age, climate and hydrologic conditions of the period they were formed in.

GEOMORFOLOŠKE I HIDROGEOLoŠKE ZNAČAJKE

Špilja u kamenolomu Touj smještena je u području brda Krepel, nedaleko od centra Touja. Ulaz u Špilju slijedi se unutar oblikovane polje. Među spiljom kanala i podzemnim dvoranama dominiraju frektički kanali, nastali u uvjetima potpune ispunjenosti vodom. Prema morfološkoj klasifikaciji, ovaj speleološki objekt je skupina razgranatog i stjeničnog objekta, a hidrološki je aktivna Špilja, dakle po funkciji prototip speleološki objekt. Mjehurić je voda akumulirana u manjim i većim jezercima. U genetičkom i funkcionalnom smislu Špilja u kamenolomu vezana je za Špilju Toungjiju, a u značaju za speleološki objekti u ponornoj zoni Zaporišje. Mrežnica (Ipor: Ambatar i Jana Mandelšaj) Sa svijet: 84877.



## GEOMORPHOLOGIC AND HYDROGEOLOGICAL FEATURES

The Cave in the Tounj quarry is situated in the area of the Kraljev Hill near the centre of Tounj. The entrance to the Cave is located within the exploited area. Phreatic canals, which were formed when the cave was completely filled with water, dominate in a network of canals and underground halls. According to morphological classification, this speleological formation has a branched, multi-level structure. In terms of hydrology, this is an active cave, meaning it is a flow speleological formation according to its function. In some places in the cave the water is accumulated as large and smaller lakes. In terms of genetics and function, the Cave in Tounj quarry is connected to the Tounjica Cave and speleological formations in the chasm zone of Zagorska Mrežnica Ambracian and Mandeljački plit. With 8 487 m in length, the Cave in the Tounj quarry is the fifth longest cave on the list of Croatian speleological formations.

# ŠPILJA U KAMENOLOMU TOUNJ THE CAVE IN THE TOUNJ QUARRY



**HRVATSKE SICE – PODZEMNA RAŠTINA OD SVIJEĆE VRIJEDNOSTI**

Sigurna i sigasti oblici važno su objeće spjive u kamenolomu tunu! Klasični oblici siromašni su stalagnitima, stalaktitima, zašljaju i zakasću halaze te su uveć mještaji u spjivi. Osim njih, zajedno je i pojata spiljskih bista i lokaliteti koji su riječi u ovom području. Unutar spilja nađeni su i znanstveno vrijedni riječi jedinstvenosti, korezijski i erzajski oblici zbog čega je spilja izuzetno vrijedan geomorfološki i speleomološki lokalitet. Postoje su zanimljive fasete, muljine i doline, vremenske formacije, "luka" i "hribarice" i fraktoze te neznačajne stope, indirektne u svjetlu.

DURIASTIC SPLELOTHEMS – GLOBALLY IMPORTANT SUBTERRANEAN HERITAGE

**PIRINE, SPELEOHEMMS – GEODESICALLY IMPORTANT SUSTAINABLE HERITAGE**

Speleothem formations represent important features of the Cave in the Toujai quarry. Classic type speleothems, such as stalactites, stalagmites, curtains and cascades can be found in several places within the cave. Besides these speleothems, even rarer cave pearls and helictites were found in the cave. Scientifically processed and extremely rare sedimentary, corrosive and erosive formations were also found in the cave, which makes this cave an extremely valuable geomorphologic and speleomorphological site. Stalops, mud and clay vermiculations (leopard skin or hieroglyphic) as well as phreatic speleothems are especially interesting.



OPĆINA TOUNJ  
[www.tounj.hr](http://www.tounj.hr)  
TOUNJ MUNICIPALITY



KARLOVACKA ŽUPANIJA  
www.kz.hr  
COUNTY OF KARLOVAC



WNA USTANOWA «NATURA VIVA»  
karlowe-natura.pl



# TOUNJSKE ŠPILJE

## POUČNA STAZA TOUNJČICA

### CAVES OF TOUNJ TOUNJČICA