

CONTRIBUTION TO THE KNOWLEDGE ABOUT SPELEOLOGY IN CROATIA

PRISPEVEK K POZNAVANJU SPELEOLOGIJE NA HRVAŠKEM

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Izvleček

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Mladen Garašić: Prispevek k poznavanju speleologije na Hrvaškem

V prispevku so podatki o speleologih od 1584 dalje ter o speleoloških društvih od 1892, ko je bil ustanovljen "Odbor za uredenje Baračevih spilja". Od tedaj je na Hrvaškem delovalo okoli 50 društev. Ta so nastajala, delovala in iz različnih vzrokov prenehala z delom. Do danes se je okoli 1000 ljudi resno ukvarjalo s speleologijo, kar ni veliko v primerjavi z deželami, ki imajo podoben delež krasa. Toda rezultati speleoloških raziskav (število raziskanih jam, objave, vpetost v mednarodno speleologijo) so pomembni ne le v regionalnem, ampak tudi v širšem merilu.

Gljučne besede: zgodovina speleologije, speleološka organizacija, Hrvaška.

Abstract

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Basic data about speleologists from 1584 are presented, as well as speleological societies since 1892, when Committee for arrangement of Baračeva špilja (Odbor za uredenje Baračevih špilja) near Rakovica was founded. Since then about 50 societies were founded in Croatia. When established, they were active for some time, and many of them stopped the activities for various reasons. Until now data, serious speleological researches were done by thousand people, and it is not much comparing to other countries with such percent of karst. But outcomes of speleological resources (number of researched objects, published papers, presence in speleological world, etc.), are remarkable, not just in regional, but in wide contexts.

Key words: history of speleology, speleological organization, Croatia.

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1. INTRODUCTION

Speleological activity in Croatia started with the first human penetration underground, where shelters or dwelling places were found. Such examples of speleo people remains or paleolithic artifacts exist in the Croatian karst in several places (eg. Vindija Cave in Hrvatsko Zagorje, Hušnjakovo Cave near Krapina, Šandalja Cave near Pula in Istria, Cerovačke Caves in Lika, Bezdanjača pod Vatinovcem Cave in Lika, Veternica Cave near Zagreb, Gromačka Vlaka Cave near Dubrovnik etc.)

2. THE FIRST SCIENTIFIC WORK IN CAVES

The earliest penetrations were due to the needs of man, not his curiosity. In the 16th century started the period of first researches and expeditions. A Croat from Dubrovnik, Nikola Gučetić had in 1584 recorded his observations on meteorological measurements in caves near Dubrovnik and Cavtat. That year is accepted as the beginning of scientific publishing on Croatian caves. Later on researches were made in some caves known in that time (eg. Marin Getaldić made some optical experiments in Betina Cave near Dubrovnik) and some researchers took part in investigating deeper parts of caves or discovering completely unknown ones (in 17th cent J.V. Valvasor described some caves in Trsat, Mt. Učka and Dalmatia), Ivan Lovrić together with Alberto Fortis in 1774 and 1776 explored Gospodska Cave on the Cetina river.

3. THE FIRST SPELEOLOGICAL ORGANIZATIONS

The first society that dealt with cave exploring in Croatia was **Odbor za uređenje Baračeve Špilje** (Committee for Arrangement of Barač Caves) that was founded on **12th of August 1892** near Rakovica in region of the Plitvice lakes. That is considered as the first speleological organization in Croatia and is among the first in the world (after Vienna, Trieste and Postojna).

D. Gorjanović Kramberger and J. Poljak on **31st July 1910** had established a **Committee for Cave Researches (Odbor za istraživanje špilja)** under the Geological Council for the Kingdom of Croatia and Slavonija in Zagreb. That is regarded as the first Croatian scientific society dealing with underground karst phenomena.

4. SPELEOLOGICAL SOCIETY ACTIVITY

During more than hundred years many speleological societies existed in Croatia. Some of them left significant evidences of their activities; others had short existence but were important historic ally.

In tradition of the **Committee for arrangement of Barač Caves (1892-1896)**,

and a legitimate successor of the Committee for Cave Researches is the **Croatian Speleological Association (Hrvatsko speleološko društvo)**, established on 2nd April 1954 in Zagreb, and which is republic speleological association and a regular member of UIS (Union Internationale de Speleologie) (Fig. 1).

Here is list of all the speleological organizations which were founded in Croatia before the Second World War (see Fig. 2 for locations):

“**Liburnija**” in Zadar (1900-1915); **Spiljarski odio** in Velika realka (gymnasium) in Split (1912-1915); “**Runolist**” in Lokve (1923-1935); “**Mosor**” in Split (1926-1935; 1950; 1956-1996); “**Runolist**” in Zagreb (1927-1929); “**Orjen**” in Dubrovnik (1933; 1950; 1986-1989; 1996); “**Prijatelj prirode**” in Zagreb (1936-1940); “**Špiljar**” on Knežija in Zagreb (1941-1944).

After the Second World War there were founded these speleological societies:

“**Zagreb-matica**” in Zagreb (1949-1988); “**Željezničar**” in Zagreb (1950-1996); “**Rudar**” in Raša (1950-1952); “**Platak**” in Rijeka (1950; 1962-1985); “**Javor**” in Zagreb (1951; 1955-1959); “**Velebit**” in Zagreb (1954-1956; 1960-1996); “**Mosor**” in Dugo Polje (1955-1959), “**Speleološka sekcija Hrvatskog geografskog društva**” in Zagreb (1956-1963; 1991-1996); “**Komisija za speleologiju HPS**” in Zagreb (1956-1996); “**Vladimir Nazor**” in Split (1957), “**Dubovac**” in Karlovac (1957-1963; 1966-1996); “**Mosor**” in Klis (1959/1960); “**Zanatlija**” in Zagreb (1960-1963); “**Paklenica**” in Zadar (1967-1990); “**Velebit**” on the Island of Hvar (1968); “**Speleološki odred izviđača**” in Zagreb (1969); “**Split**” in Split (1970-1978); “**Umberto Girometta / Špiljar**” in Split (1971-1979; 1983-1996); “**Dubovac**” in Vojnić (1970); “**Otočani**” in Novalja, Island of Pag (1974-1990); “**Istra**” in Pazin (1975-1996); “**Japetić**” in Samobor (1975-1996); “**Proteus**” in Poreč (1977-1996); “**OKI**” in Zagreb (1977-1982); “**Biokovo**” in Makarska (1977-1996); “**Sutjeska**” in Zagreb (1978-1986); “**Speleološki odred izviđača**” in Karlovac (1978); “**Ursus Spelaeus**” in Zagreb (1978-1989); “**Svilaja**” in Sinj (1978-1985); “**Vis**” in the Island of Vis (1979-1980); “**Društvo za istraživanja i snimanja krških fenomena- DISKF**” in Zagreb (1980-1996); “**Myotis Myotis**” in Karlovac (1984-1985); “**Pauk**” in Fužine (1986-1996); “**Rovinj**” in Rovinj (1986-1988), “**Buje**” in Buje (1987-1996) “**Kamenar**” in Šibenik (1988-1996); “**Sv. Mihovil**” in Šibenik (1996); “**Jamar**” in Han (1996); “**Karlovac**” in Karlovac (1996).



Fig. 1.- The sign of the Croatian Speleological Association (Hrvatsko speleološko društvo). The first speleological organization in Croatia was founded in year 1892 in Rakovica, near Plitvice lakes.

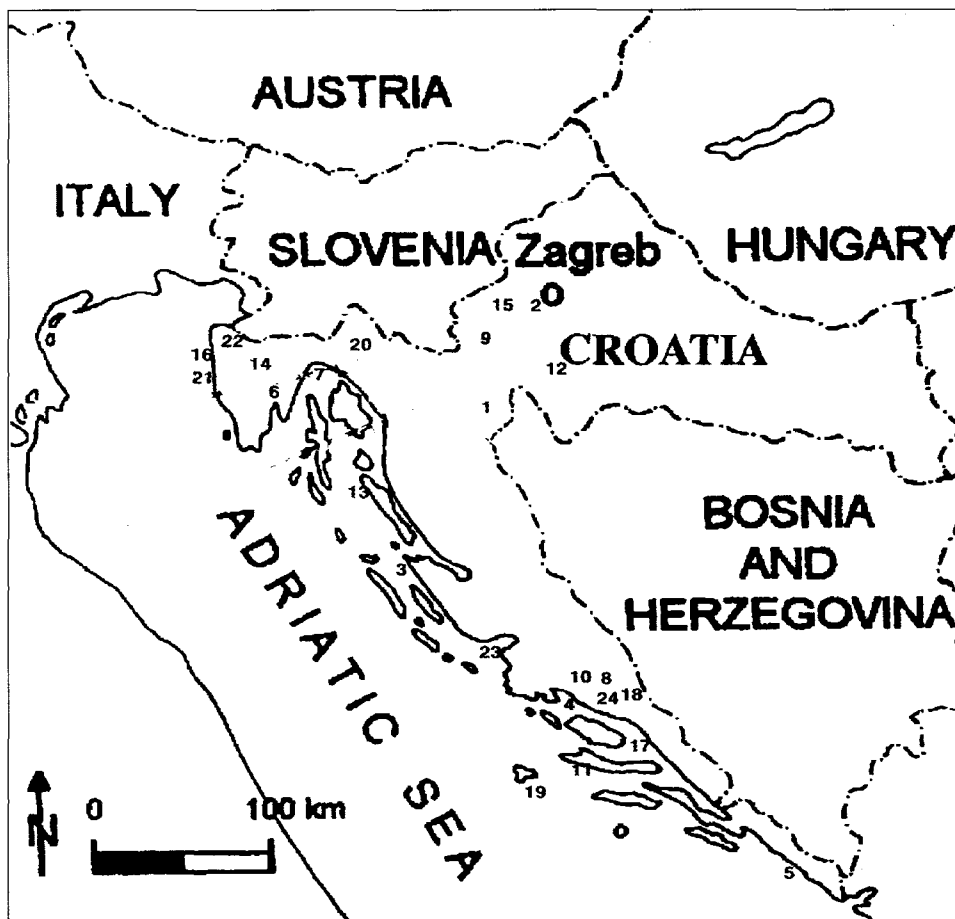


Fig. 2.- Positions of the towns in which were founded speleological organizations in Croatia (1892-1996):

LEGEND: 1- Rakovica; 2- Zagreb; 3- Zadar; 4- Split; 5- Dubrovnik; 6- Raša; 7- Rijeka; 8- Dugo Polje; 9- Karlovac; 10- Klis; 11- Hvar; 12- Vojnić; 13- Novalja; 14- Pazin; 15- Samobor; 16- Poreč; 17- Makarska; 18- Sinj; 19- Vis; 20- Fužine; 21- Rovinj; 22- Buje; 23- Šibenik; 24- Han; 25- Lokve.

Mostly they are situated in regions of Istria, Dalmatia, Gorski kotar and Zagreb region. No one is located in Lika karst region.

It is evident that in Croatia a relatively small number of societies (fifty) existed, but they explored more than 8000 speleological objects in the last hundred years. That is an impressive number considering the number of active speleologists and the area of Croatia.

5. INDIVIDUALS IMPORTANT FOR CROATIAN SPELEOLOGY

Significant contributions for Croatian speleology and karst researches were made also by many individuals (D. Hirc, R. Bujas, U. Girometa, M. Margetić, I. Krajač, F. Baučić, V. Redenšek, V. Horvat, G. Novak, J. Roglič, V. Blašković, S. Smolec, M. Malez and many others).

Altogether there have been over 1300 researchers in Croatian speleology in more than a hundred years, and today there are about 350 active speleologists.

6. CONCLUSION

More than 8000 speleological objects (caves and pits) are known in Croatia today, which is a great number related to the dimensions of karst area and the number of active speleologists. There are 15 tourist caves in Croatia. Speleologists are associated in 23 speleological societies that are active in Croatian territory.

Important are discoveries of endemic underground animals - *Proteus anguinus* in 26 Croatian caves and pits, and unidentified underground species in two pits deeper than 1000 m.

The deepest pit of the Croatian karst is Lukina jama on Velebit, 1392 m deep, and the longest cave system is Đula - Medvedica Cave System near Ogulin, 16,5 km long.

Croatian speleologists are respected in the world and have organized or participated at many international expeditions. Croatia is a member of UIS, International Union of Speleology, which has 60 members. Croatian karst is so-called locus typicus for all karst regions - it is considered as a classic example of karst in the world, where first scientific theories on speleogenesis and karst groundwater flow were born.

There will be more contributions to the history of speleological researches in Croatia due to the work of speleologists from Austria, Hungary, Italy, Slovenia, Czech Republic, Slovakia, France and Germany. ALCADI meetings will play a significant role because more data resources about Croatian speleological karst researches will become available.

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Povzetek

V prispevku so podani osnovni podatki o delovanju bolj znanih "speleistov" ali speleologov od leta 1584 dalje, kot tudi o speleoloških društvih na Hrvaškem od 1892. leta, ko je bil ustanovljen "Odbor za uredenje Baračevih spilja", pri Rakovici, kot četrto speleološko društvo na svetu. Od tedaj dalje je bilo na Hrvaškem osnovanih okoli 50 speleoloških društev, ki so se vsaka na svoj način ukvarjala s speleološkimi raziskavami. Ta društva so nastajala, delovala in mnoga so iz najrazličnejših vzrokov tudi prenehala z delom. Po razpoložljivih podatkih vemo, da se je do danes nekaj več kot 1000 ljudi resno ukvarjalo s speleologijo, kar je majhno število v primerjavi z drugimi kraškimi področji in glede na delež krasa na Hrvaškem. Vendar so rezultati speleoloških raziskav (število znanih oziroma raziskanih speleoloških objektov, objavljena dela, vpetost v mednarodno speleologijo, itd.) pomembni, lahko bi celo rekli občudovanja vredni in to ne le v regionalnem, ampak tudi v širšem smislu.