August 1988

Speleo Spiel

Southern Tasmanian Caverneers

SPELEO SPIEL NO 240
AUGUST 1988

NEWSLETTER OF THE TASMANIAN CAVERNEERING CLUB

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****

Dear Stephen

I am not sure, whether you have obtained my letter. I would like to write a contribution about the course and results of our explorations on Mt Anne area for your bulletin Speleo-Spiel. But I do not know what maximum length is possible. In the same time Ross has asked for contribution to SSS-Newsletter. I am sending him rather a summary of the results and I would like to write more about Kananda and the course of our exploration to your bulletin.

At present there is a lot of snow in our Krkeneše mountain. The entrances of our caves are under 2.5-3 m layer of snow.

Please, write me all instructions to my contribution for your bulletin and I hope that you and Stuart will prepare the journey to the congress in Hungary and your visit to Czecheslovakia.

Many greetings for Stuart and other friends of yours.

Good caving

Radko Tasler

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EDITORIAL

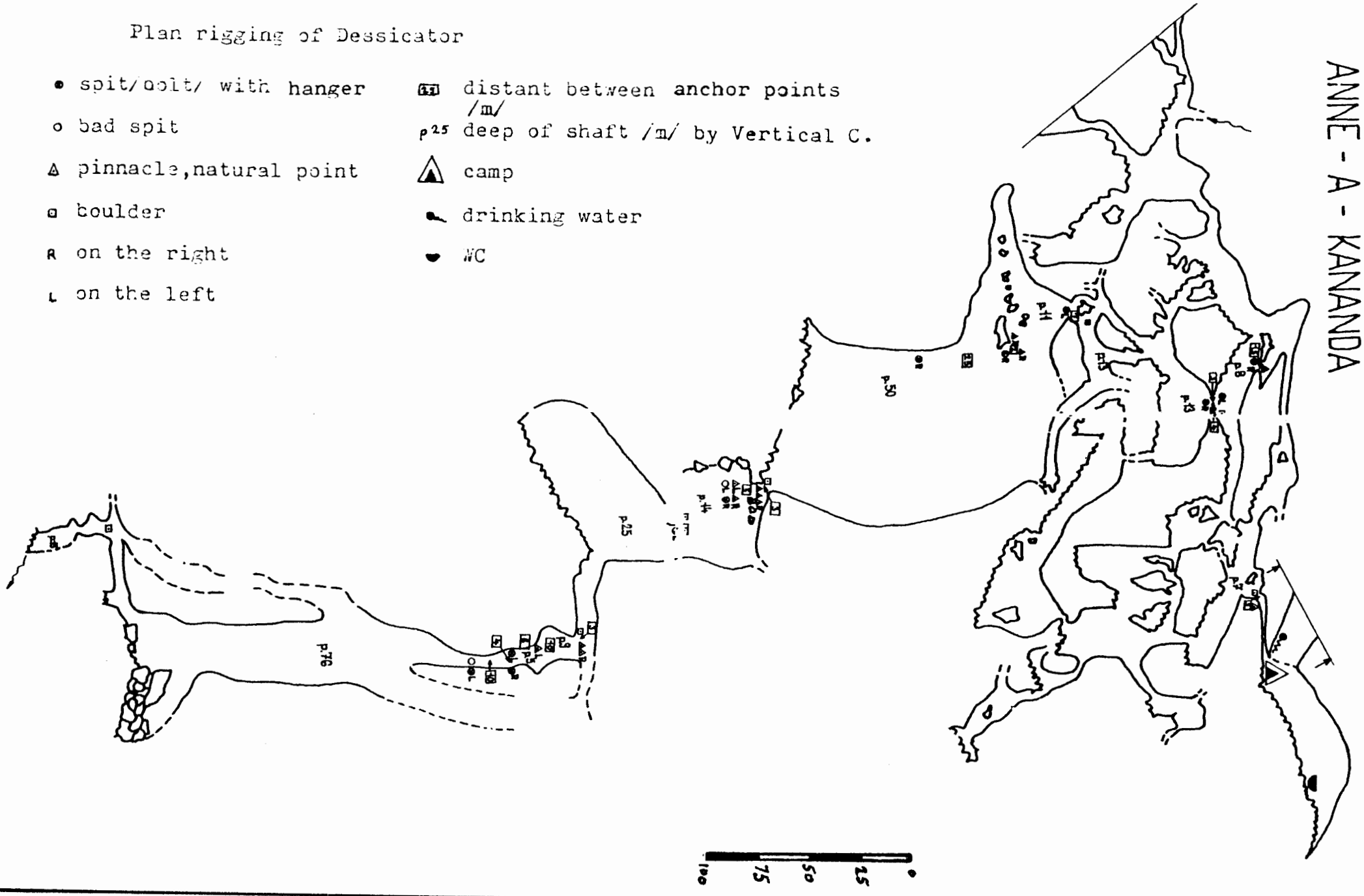
Help! ..... the editor's in-tray is piled high with heaps of caving articles; enough to fill the pages of SPELEO SPIEL for the rest of the year. This is not a bad position for any club to be in, but there still remains the laborious task of typing the things in. Sue and Trevor Wailes have combined to very generously compile this issue, alleviating the burden on the usual editing persons. A charitable act that deserves many thanks, particularly to Sue.

Many of the articles we receive are on the lengthy side. Sufficiently large to occupy an entire issue in their own right. A policy to do just this has been adopted, rather than to break articles up into serial form over several issues. More regular

Continued

Plan rigging of Dessicator

- spit/bolt/ with hanger
- bad spit
- pinnacle, natural point
- boulder
- R on the right
- L on the left
- distant between anchor points /m/
- p^{25} deep of shaft /m/ by Vertical C.
- camp
- drinking water
- WC



Continued

type SPIELS; including up-to-date gossip and concise trip reports will still be forthcoming. It is likely that this fine rag will become "fatter" in future to accommodate everything, but then all the more armchair reading, eh?

This issue documents the trials and tribulations of a Czech caving expedition to the North-East Ridge of Mount Anne, undertaken earlier last year. Their explorations make interesting reading, both from a sport caver's and geomorphologist's perspective. The English text provided by leader Radko Tasler was tampered with slightly to help make sense of some items, however, it was left intact as far as possible to preserve some original character.

It is interesting from the ethics point of view, that the Czechs largely stayed away from those caves considered to have been visited previously. Preferring instead to only involve themselves with original explorations on the more remote parts of the ridge. This is certainly an object lesson for Australian cavers and is likely an outgrowth of the population pressure on their native karst, combined possibly with olde-world politeness as well. Whatever, it is refreshing!

One of the cavers opted not to return home after the expedition, eventually resettling in Canada (must have been Stuart's home cooking!). Between them, they had more academic qualifications than Trev's had lost karabiners! To all the visitors from Speleoclub Alberice, particularly Radko, warmest thanks from TCC and best wishes for the future.

NICK HUME

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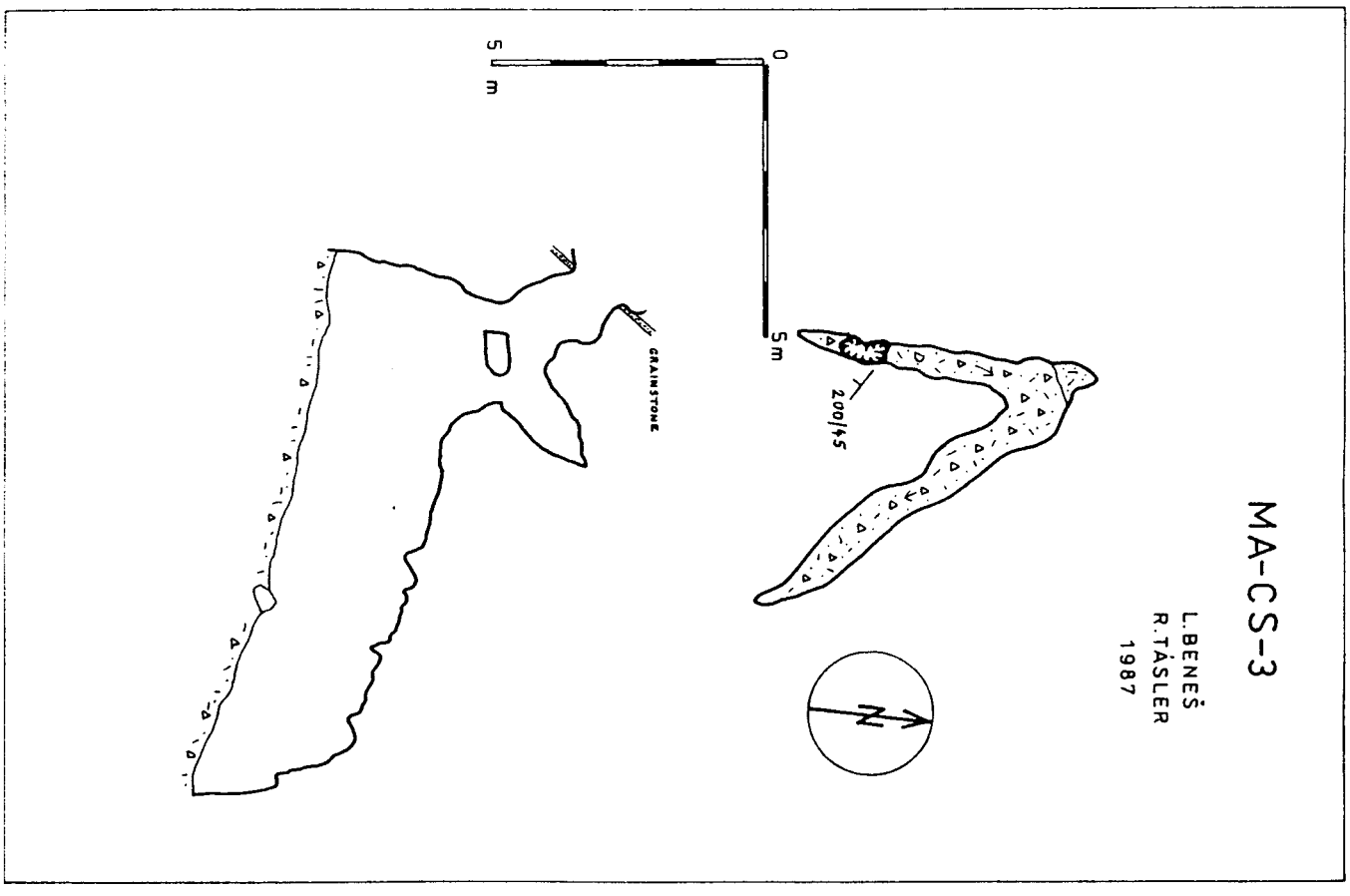
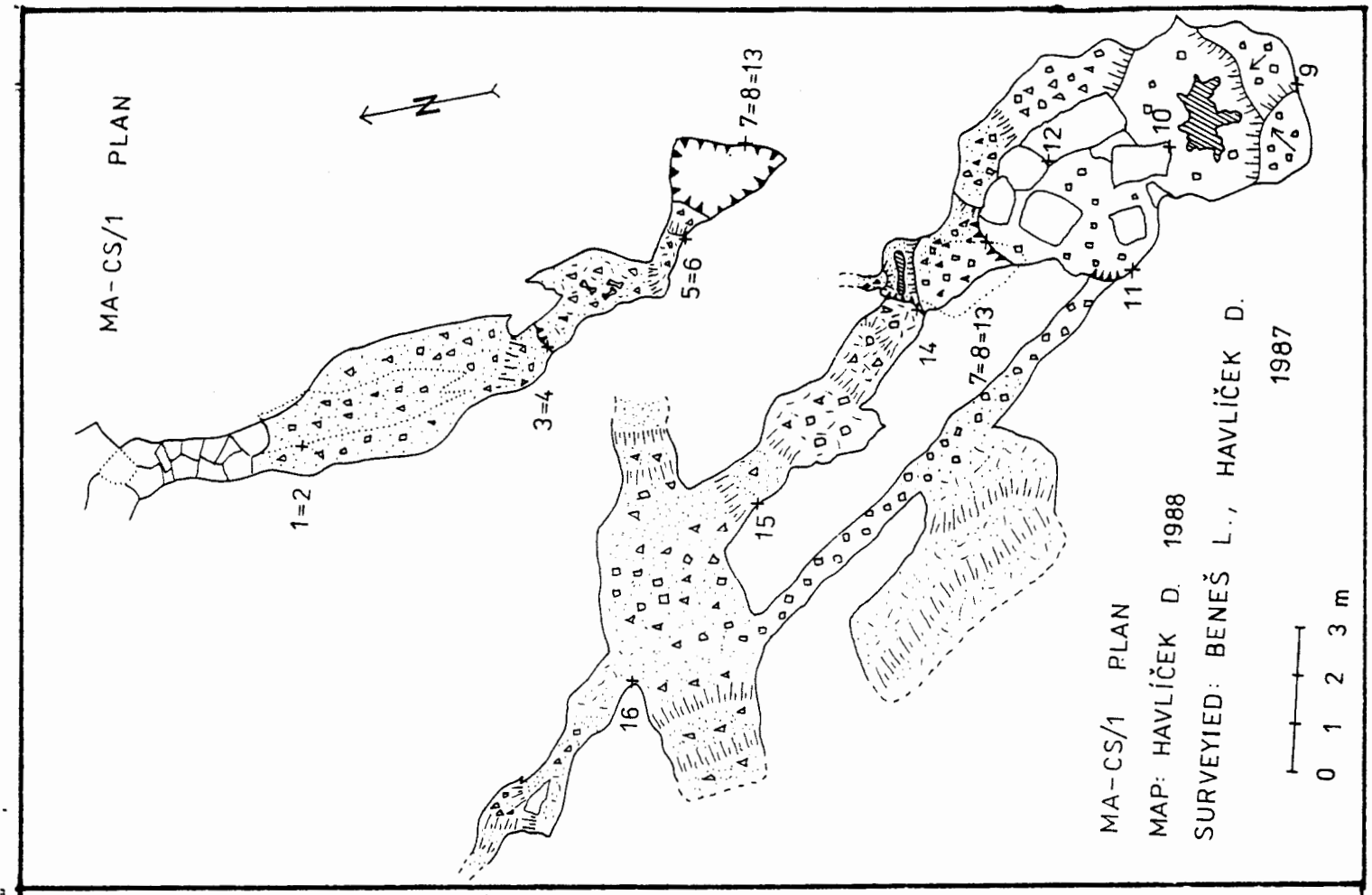
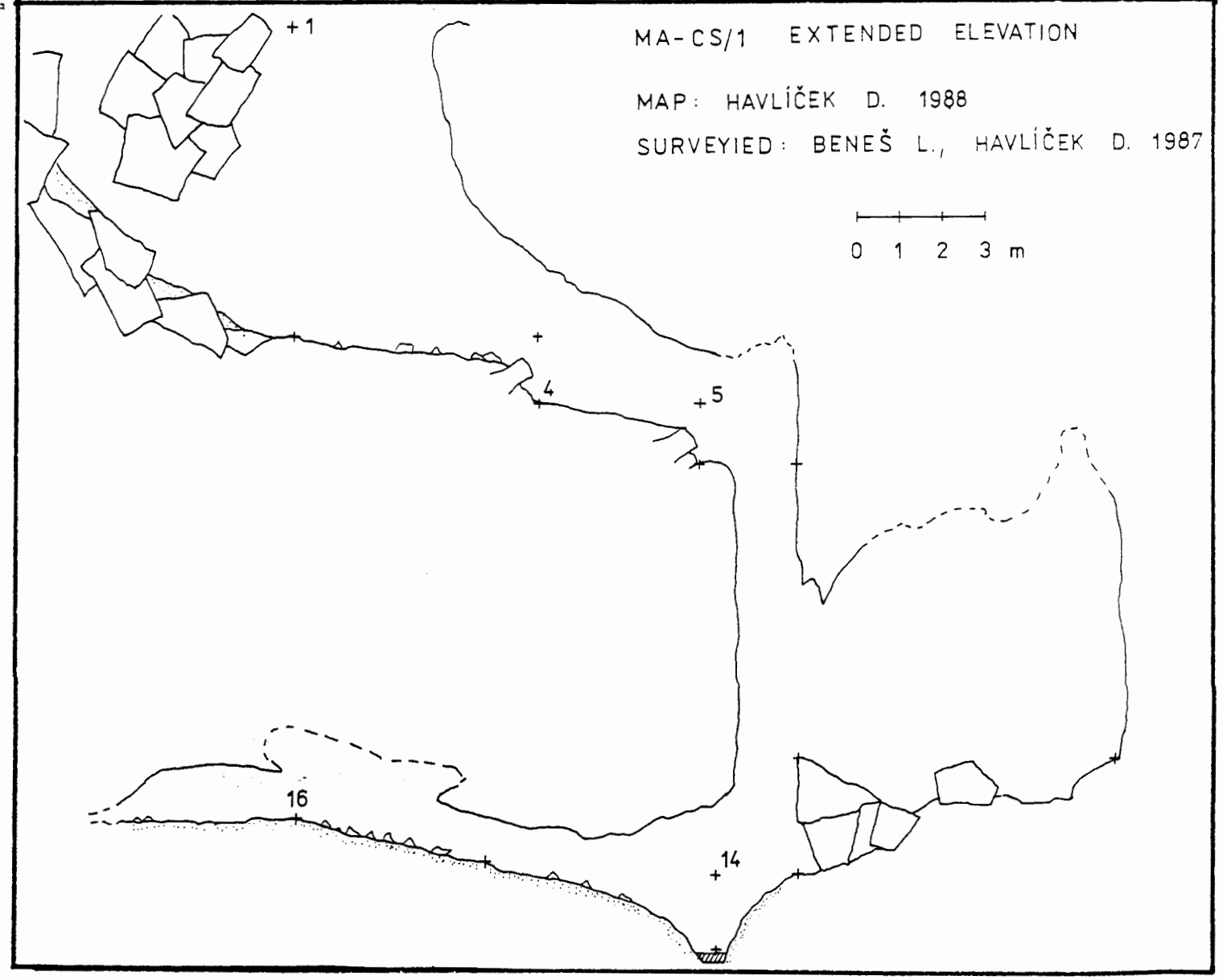



MA-CS/1 PLAN
N
1=2
3=4
5=6
7=8=13
9
10
11
12
14
15
16
MA-CS/1 PLAN
MAP: HAVLÍČEK D. 1988
SURVEYIED: BENEŠ L., HAVLÍČEK D. 1987
0 1 2 3 m


MA-CS/1 EXTENDED ELEVATION
MAP: HAVLÍČEK D. 1988
SURVEYIED: BENEŠ L., HAVLÍČEK D. 1987
0 1 2 3 m
+1
4
+5
16
14

CZECHS ON MOUNT ANNE

The expedition of seven Czech speleologists to the area of Mount Anne was organised by the Speleoclub Albeřice (Czech Speleological Society) as part of a longer stay in Australia and Tasmania. The expedition was held on 3-31 March 1987.

After arriving in Sydney we had to wait nearly 3 weeks for our equipment to arrive owing to a port strike. In Hobart, our expedition was heartily welcomed by Steve Bunton and Stuart Nicholas. During our short stay in Hobart we obtained information about the area of interest and we completed our supply.

We were surprised by several features at Mount Anne at the very beginning of our stay here. In the first place, we have to mention button-grass moorland. We do not know of such landscape in Czechoslovakia. And secondly, the weather.

From literature and correspondence we knew that the weather in the Mount Anne area is not good, but we were surpirsed by a snow storm which destroyed our camp the third day of our stay on the ridge. All our equipment, food and other materials were transported during three ascents to the ridge. During this time, a small quarry near the road was flooded together with our deposited food supply.

ANNE-A-KANANDA

After such surprises we decided to move our camp into the entrance room of Anne-a-Kananda where we located four tents. For the first trip we wanted to descend Anne-a-Kananda and get to know it. The whole descent was more complicated than expected. At the beginning, the descent to Dessicator Branch was planned, but we could not find spits (bolts) or the present ones were not suitable for climbing. Therefore, we added numerous spits because we rig caves very carefully (see the plan rigging of the Kananda). A lot of surprise waited for us on the bottom of P 76. We did not find an original Rocky Mt Way to the bottom of the Dessicator Branch, but we discovered a route.

The way through is a narrow meander and a short shaft which is much easier and shorter than the descent through the Rocky Mt Way. Undisturbed soft pisoids (?) indicated that this way is entirely new and we were the first speleologists in these parts. We had no mapping equipment with us, therefore this way is indicated on the plan only roughly.

NORTH PLATEAU

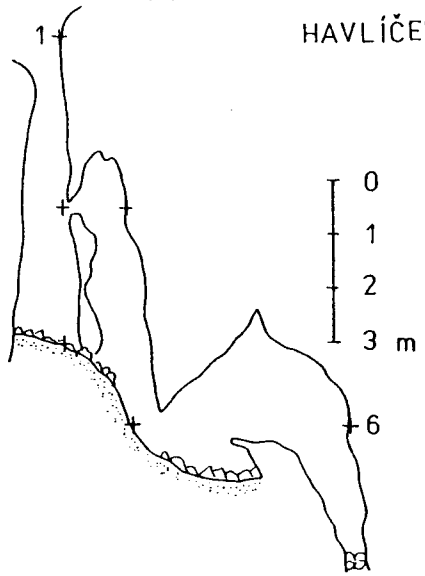
The main task of the expedition was the exploration on the northern part of the Mount Anne ridge. Two months before our expedition, the Sydney Speleologists had carried out their investigations here, but it was nearly impossible to state the extent of their explorations. Primarily, we found out the position of caves and directions of cut trails. In "our" region, there was only one marked cave MA 29 with a high entrance. No information has been found about this cave. No trace of previous investigations were found in the area to the north and north-east of this cave. This area was investigated in detail and was named "North Plateau". We also cut a trail up to the margin of the plateau.

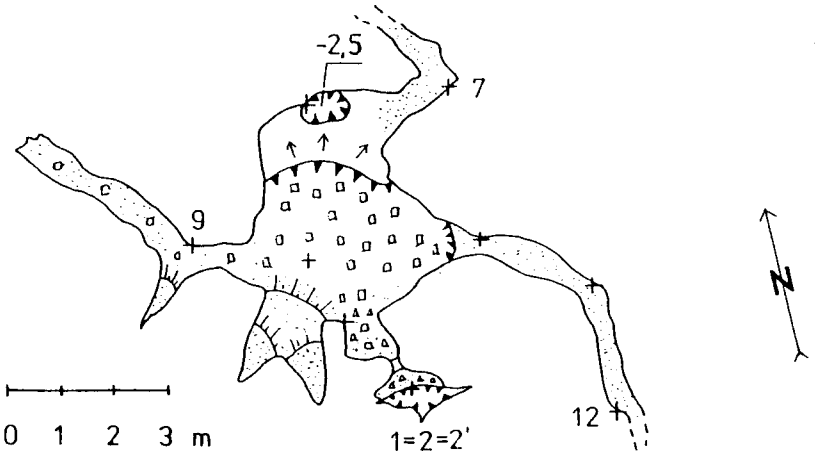
The North Plateau is built of calcitic dolomite of unknown age

MA - CS/6 EXTENDED ELEVATION

MAP: HAVLÍČEK D. 1988

SURVEYIED: BENEŠ L.,
HAVLÍČEK D. 1987





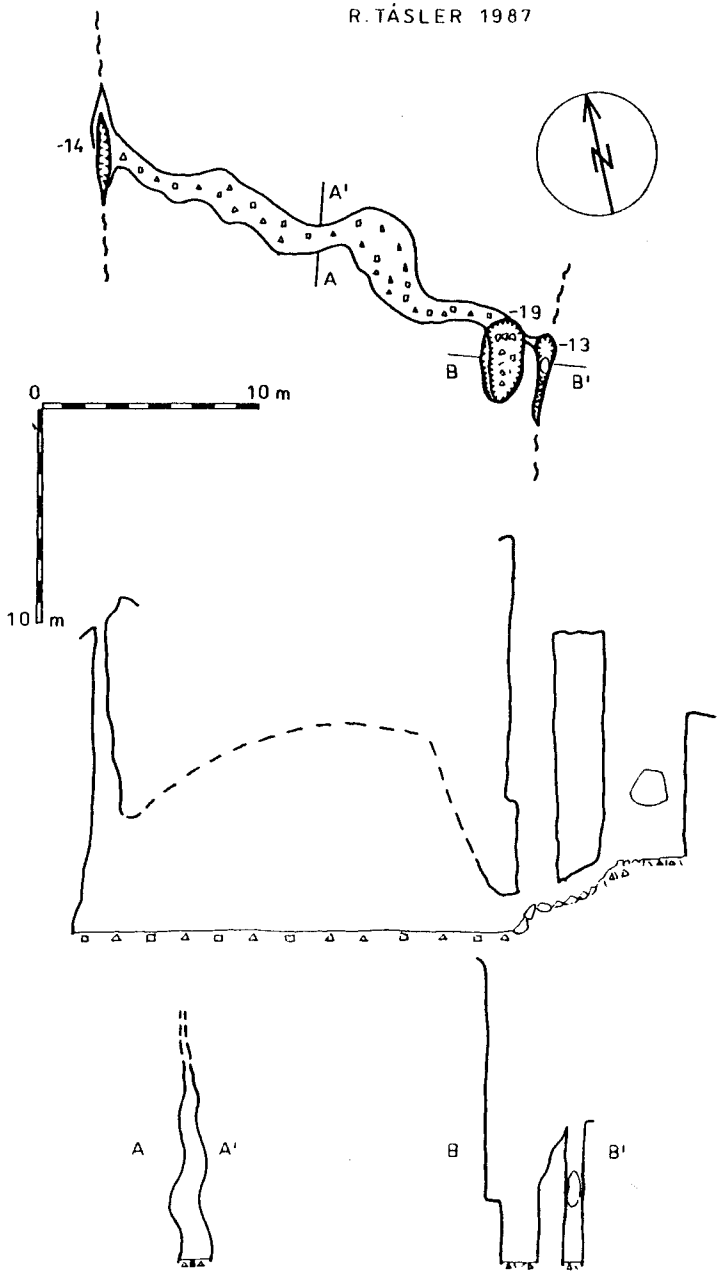
MA - CS/6 PLAN

MAP: HAVLÍČEK D. 1988

SURVEYIED: BENEŠ L., HAVLÍČEK D. 1988

MA-CS-5

R. TÁSLER 1987



(Eocambrian to Cambrian). Dolomite contains intercalations of so alled grainstones, up to several decimetres thick. Also some belts of quartzites are present in dolomite as concordant bodies (see the sketch of the North Plateau). The structure is monoclinal 200/45.

We discovered numerous caves. Only the large or interesting ones have been mapped owing to the time problems. Caves were marked by MA-CS and by the serial number. Caves were mapped by the geological compass and the topofile. The geographic north (TN) and the magnetic north (MN) is indicated in the plans. In the field, the cave entrances are marked by yellow streamer and by inscription on the wall.

The cave MA-29 occurs in the bottom of a large sinkhole, which is visible on the North Plateau even from far distant places. Two other sinkholes occur at the north and the east. They are divided by a small rocky ridge. The axis of investigated region is formed by the small plateau elongated in the SE-NW direction; it is built by quartzite belt. These areas are poorly vegetated, there are only rare shrubs and the forest occurs only on sinkhole bottoms. Farther to the southeast, there is a really extensive and shallow sinkhole. It is linked up to depressions making steps to the east down to the valley. This region is forested.

MA-CS-1

The cave MA-CS-1 is situated close to the cave MA-29. It occurs at the edge of a large sinkhole and its entrance is developed on a distinct vertical fault with direction of 160°. The cave begins with steeply descending passage, 12 m long, which follows into 10 m deep shaft of irregular section. There is intensive water rain. Numerous ceiling pockets, embryonal channels and other forms of mixing corrosion were discovered in side galleries. They were formed probably in the infiltration zone. They are occuring only in this cave. The cave depth is -21 m and the total length is 90 m.

MA-CS-2

The cave MA-CS-2 occurs close below the eastern edge of the North Plateau. The entrance shaft has a circular section with a diameter of 3 m. It is 12 m deep and is developed on fault plane 220/80, which runs down to the cave. The shaft is followed by a 7 m deep step and then by scree slope. The bottom is formed by a 2 m deep shaft with small water spring. In the northern direction, the cave ascends below the cave MA-CS-4. The total cave depth is -25.5 m and length is 60 m.

MA-CS-4

The cave MA-CS-4 is built by 5.5 m deep entrance shaft and horizontal passage. The cave communicates with the MA-CS-2 by air motion. The cave depth is -8 m and length is up to 25 m.

MA-CS-3

The small fissure cave MA-CS-3 is located in southeastern slope of the North Plateau. The narrow entrance occurs closely below grainstone intercalation. The cave is 8 m deep and 12 m long.

MA-CS-5

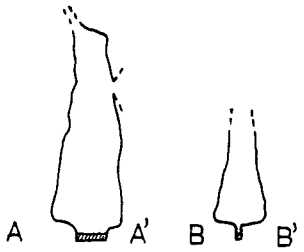
The cave MA-CS-5 lies on a distinct rocky ridge elongated in the NW direction. It has three entrances. Two are represented by circular shafts; the third one is a fissure shaft. The cave is formed by

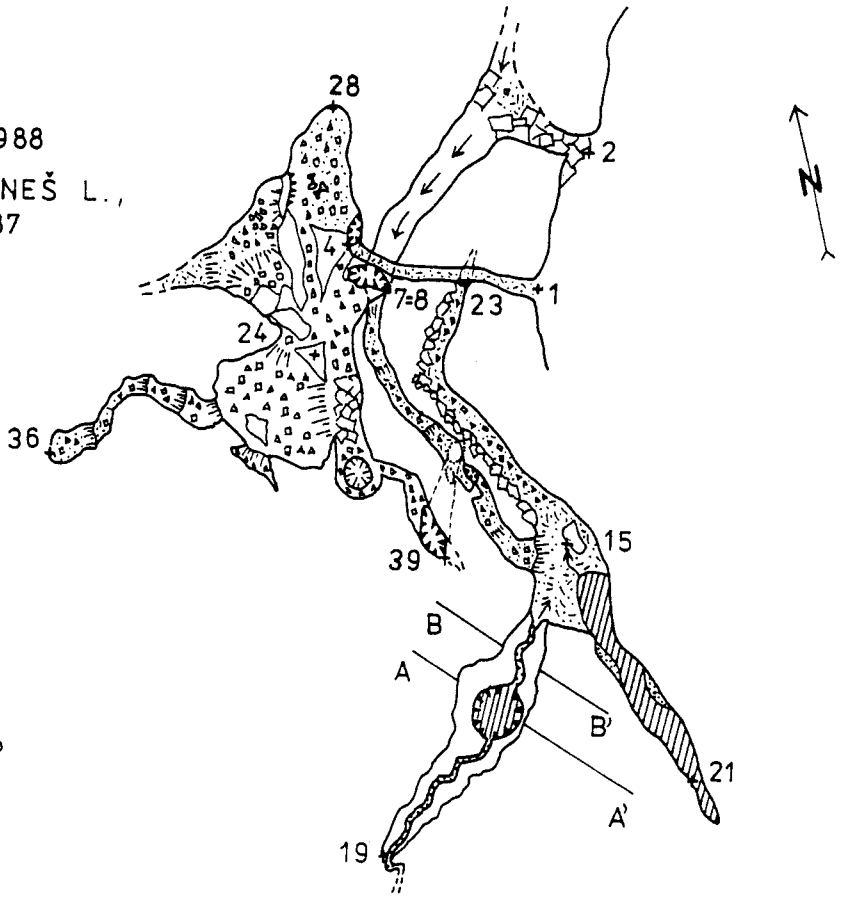
MA - CS/8 , PŮDORYS

Kreslil : HAVLÍČEK D. 1988

Měřil: HAVLÍČEK D. , BENEŠ L., LOSKOT P. 1987

0 5 10 m



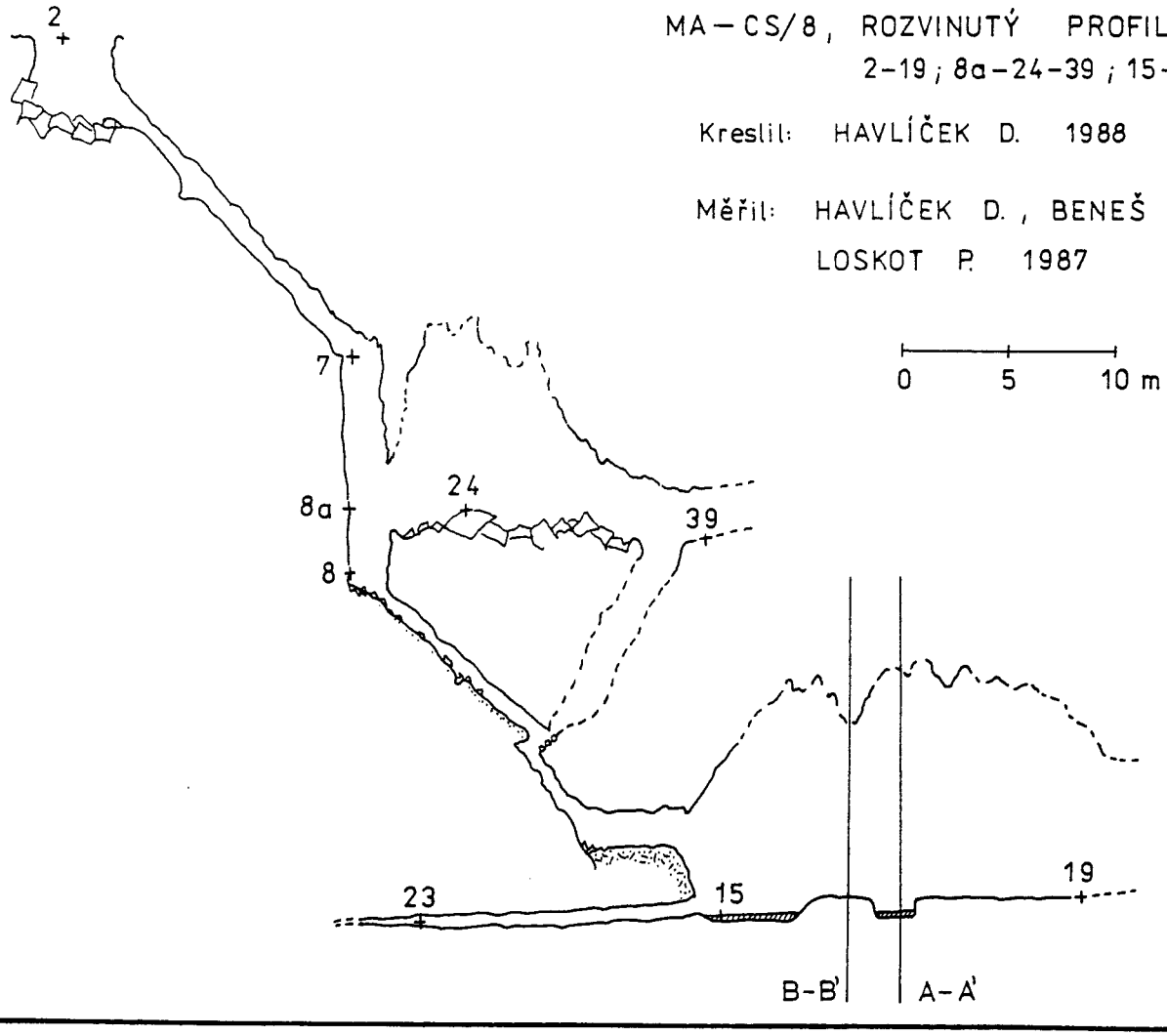


MA – CS/8 , ROZVINUTÝ PROFIL
2–19 ; 8a–24–39 ; 15–23

Kreslil: HAVLÍČEK D. 1988

Měřil: HAVLÍČEK D. , BENEŠ L., LOSKOT P. 1987

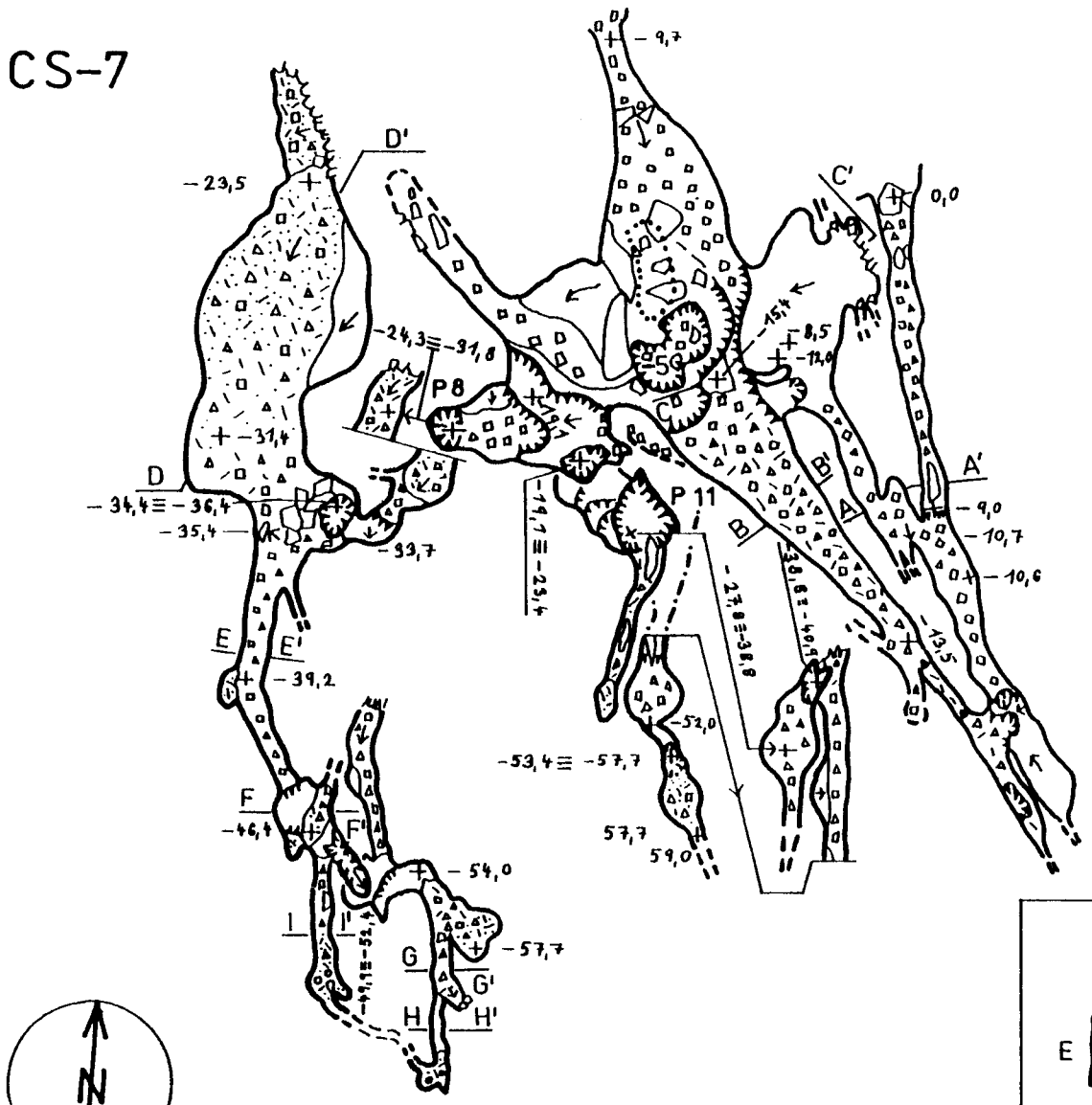
0 5 10 m

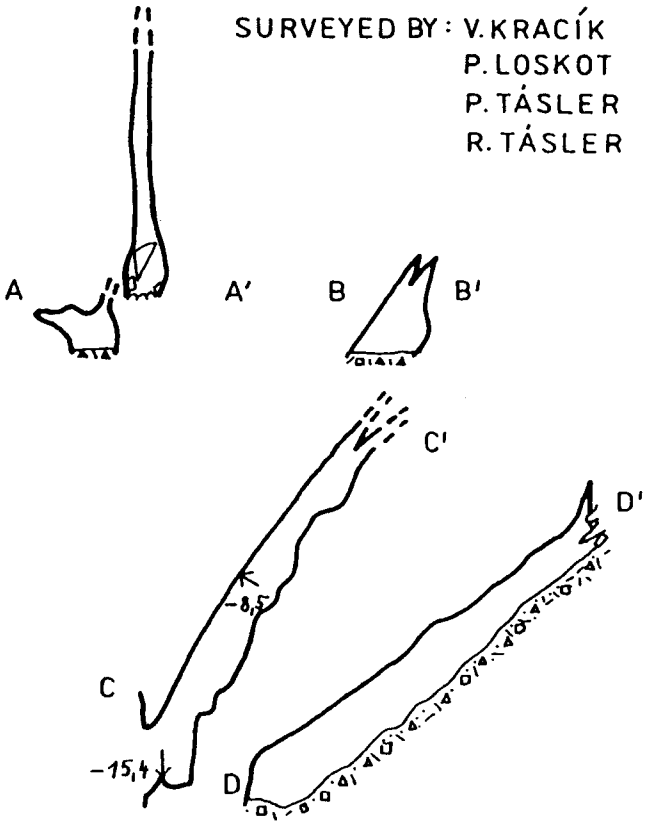


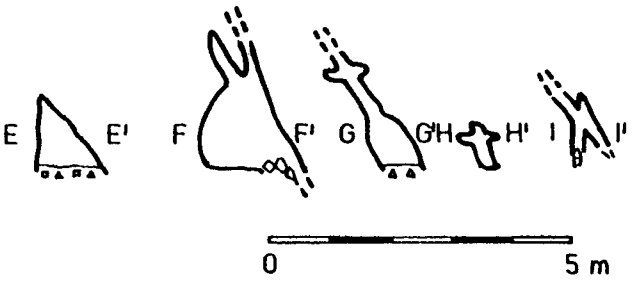
MA-CS-7

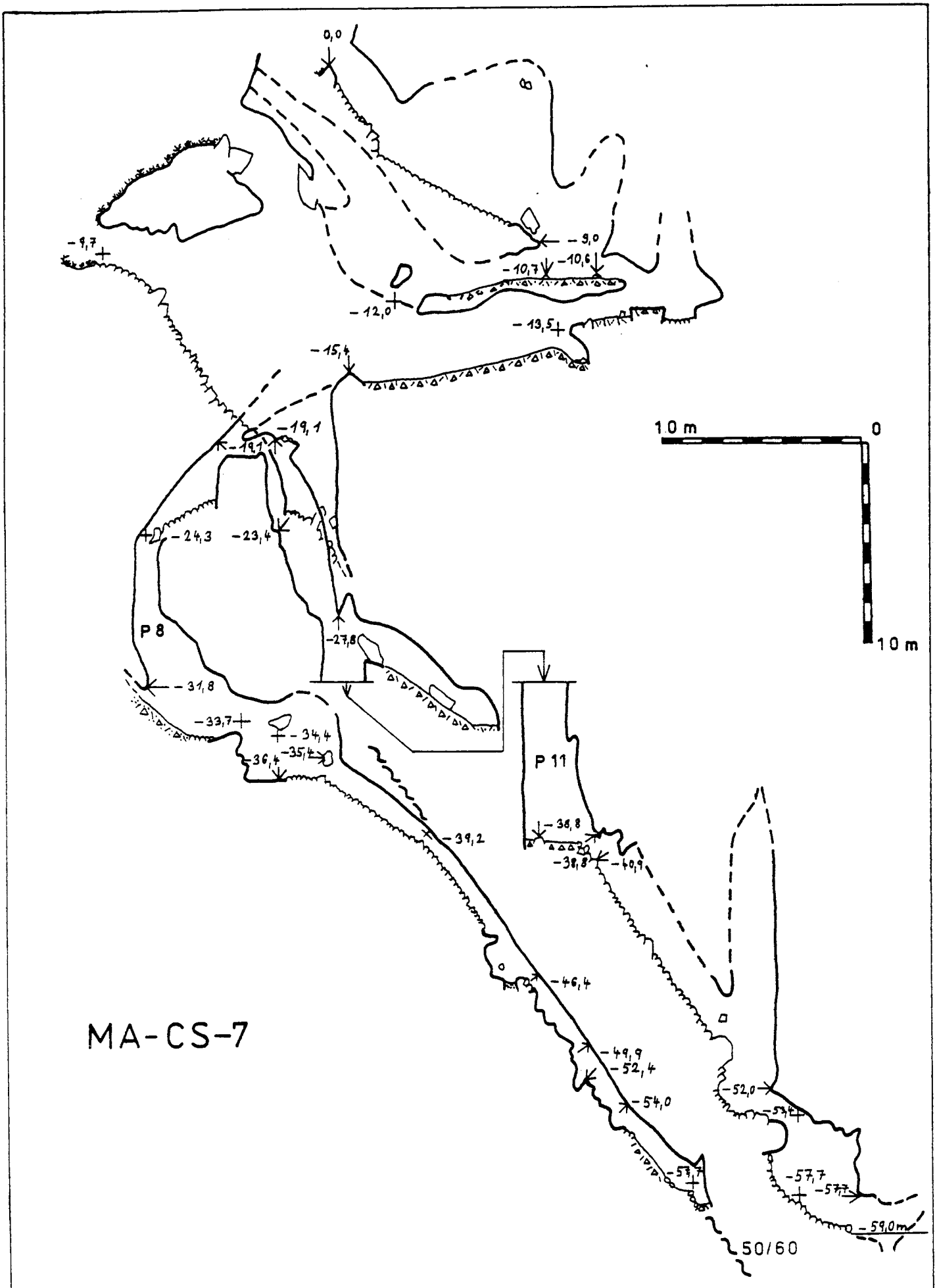
PLAN: R. TÁSLER 1987

SURVEYED BY: V. KRACÍK
P. LOSKOT
P. TÁSLER
R. TÁSLER





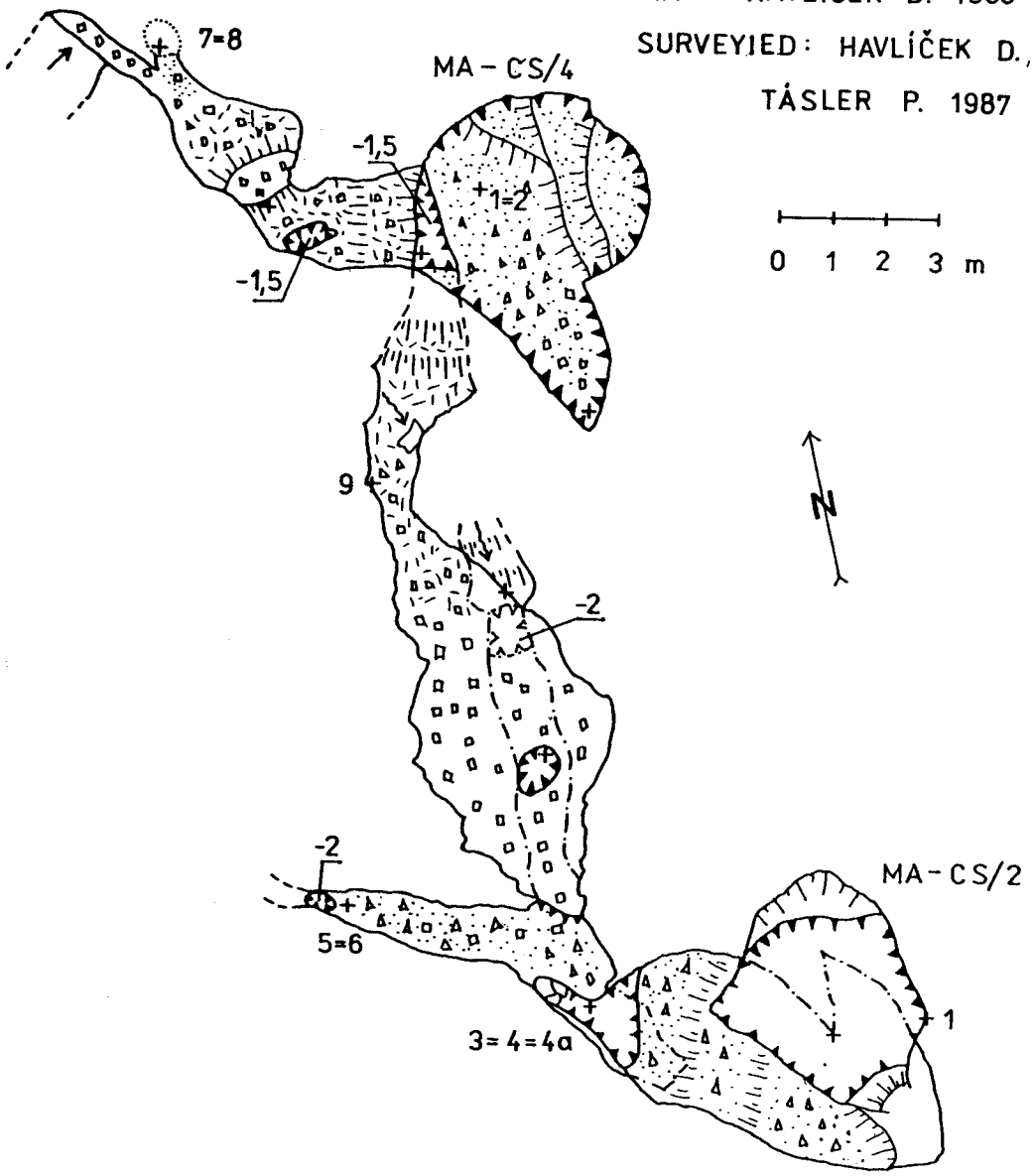



0,0
-9,7
-9,0
-10,7
-10,6
-12,0
-13,5
-15,4
-19,1
-19,1
-24,3
-23,4
P 8
-27,8
-31,8
-33,7
-34,4
-36,4
-35,4
P 11
-39,2
-38,8
-40,9
-46,4
-49,9
-52,4
-54,0
-52,0
-57,7
-57,7
-59,0m
50/60
1.0 m
0
10 m
MA-CS-7

MA-CS/4 AND MA-CS/2 , PLAN

MAP: HAVLÍČEK D. 1988

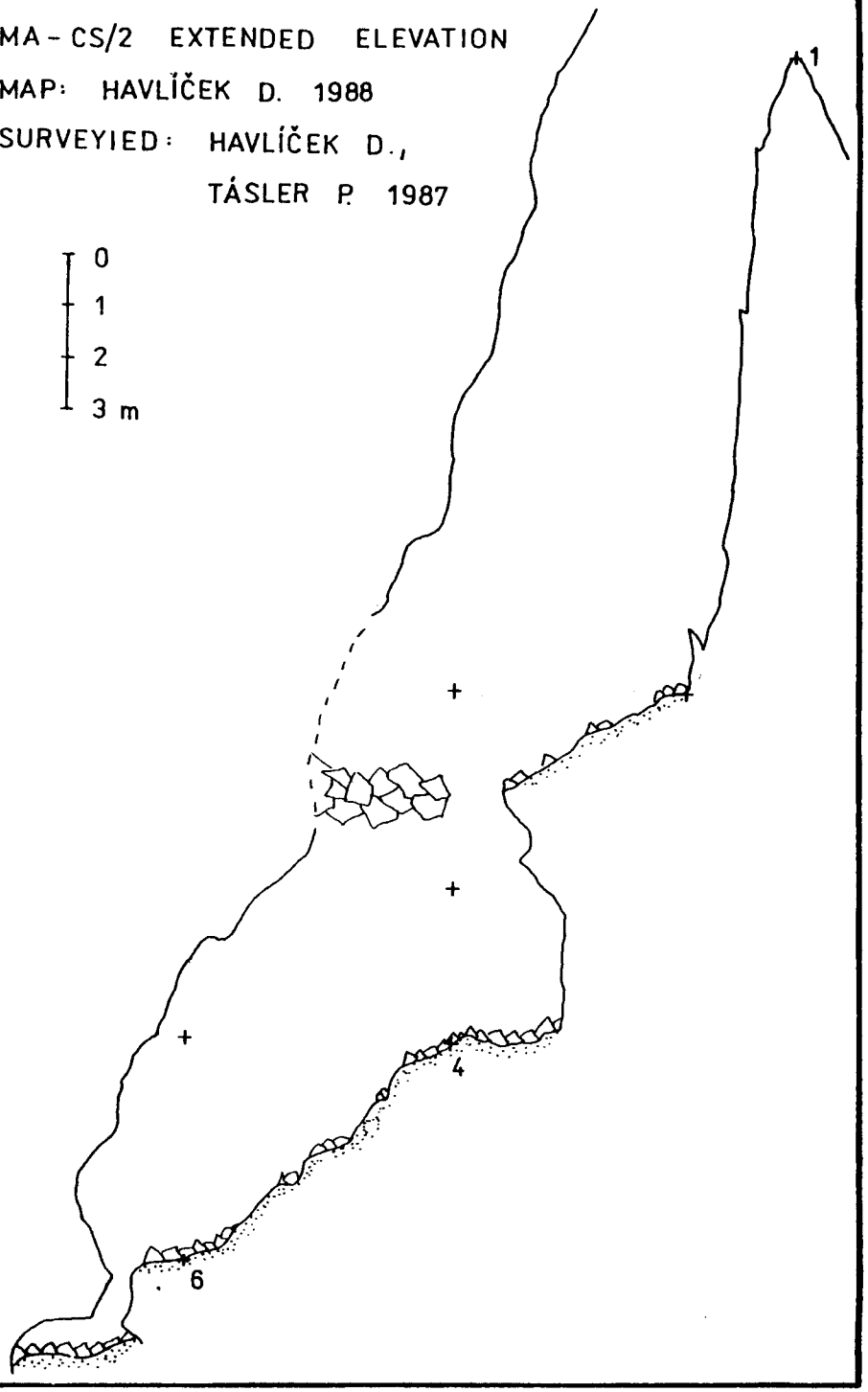
SURVEYIED: HAVLÍČEK D.,
TÁSLER P. 1987



MA-CS/2 EXTENDED ELEVATION

MAP: HAVLÍČEK D. 1988

SURVEYIED: HAVLÍČEK D.,
TÁSLER P. 1987



simple fossil canyon with abundant scree at the bottom. The cave depth is -19m, measured from the highest entrance, and the length of passage reaches 40 m. Pinnacles (sharp karren) are poorly developed in the surrounding cave.

MA-CS-6

TheMA-CS-6 has a narrow entrance opened in the depression to the north of the quartzite belt. The entrance shaft, 5 m deep, is connected with the dome by a narrow window. Several short passages branch off the dome. The section of one passage resembles fossil eroded channel. Weathered speleothems (crusts and decoration) occur in the cave. The cave depth is -10 m and the total length is up to 35 m.

MA-CS-7

The caveMA-CS-7is the first large discovery. It has three entrances situated one below the other in the wall of the large sinkhole. The upper part of the cave consists of indistinctly developed three levels formed along parallel faults 230/60. The upper entrances are connected with the dome by 5 m deep shaft and fissure passage. We tried to excavate the shaft, but we entered only a narrow fissure full of rocks. Above the shaft, we penetrated a small window and entered the lower and more extensive part of the cave.

The lower part of the cave is built of two branches. The eastern one descends by rocky steps and shaft P 11 into narrow fissure passage. Through a narrow passage we entered the small hall which follows by narrow fissure with draught.

The western branch we discovered with difficulty. It was necessary to excavate numerous fallen blocks in the shaft. One block remained in place in a very unstable position. Below this P 8 shaft, a small chamber occurs. It is connected to an extensive dome and is filled with a cone composed of earth and clay with some scree. The northern, highest part of the dome is close below the bottom of the sinkhole on the surface. Further in the cave descends steeply. This part is developed on fault 50/60. There are low passages with rocky steps, scree and clay in which it terminates.

Unique "speleothems" have been discovered in the western branch. The first type represents calcite veins, 1-2 mm thick, translucent weathered out from the wall for 10 to 20 cm. The second type is formed by tiny calcite crystals (below 0.5 mm). Agreggates blanket the dolomite and its sandy residuum.

The depth of the caveMA-CS-7 is -59 m (measured from the upper entrance) and the length is 230 m.

MA-CS-8

The cave MA-CS-8 is important from a speleomorphologic point. Its entrance is situated below a low overhanging wall in the slope of the depression to the north of the quartzite belt. A shallow shaft leads to the middle level where there is situated a branching hall. It was formed probably by coalescence of several parallel shafts, whose walls collapsed. The bottom is covered by large blocks. The lower cave level consists of low passage with ceiling pendants passing into high canyon-like passage with narrow meander and a large pothole. The meander was flooded by a huge pool. The water inflow was active also from SSE, from the loamy siphon (see the

plan). The water disappeared in sediments. Toward the NW, the passage continues, but is filled by sediments nearly up to its ceiling. The morphology of the lower cave level indicates that passages originated in shallow phreatic or a transitional zone with slowly flowing water. The passage was filled by sediments, which are gradually exhumed in the present time. The shallow meander also indicates the rejuvenation of erosional dynamics.

Calcite veins weathered out from the dolomite similar to those in the MA-CS-7 cave, have been discovered. Common are drop-made pinnacles, up to 5 cm high; they are sharp or contain a small stone at their summit. The depth of the cave is -43 m, and the total length is 180 m.

MA-CS-9

The cave MA-CS-9 is the only cave remnant preserved at the western margin of the investigated area. Flat ceilings and fossil channel are preserved in the cave. In front of the cave, a shaft, 16 m deep with extensive entrance, is developed.

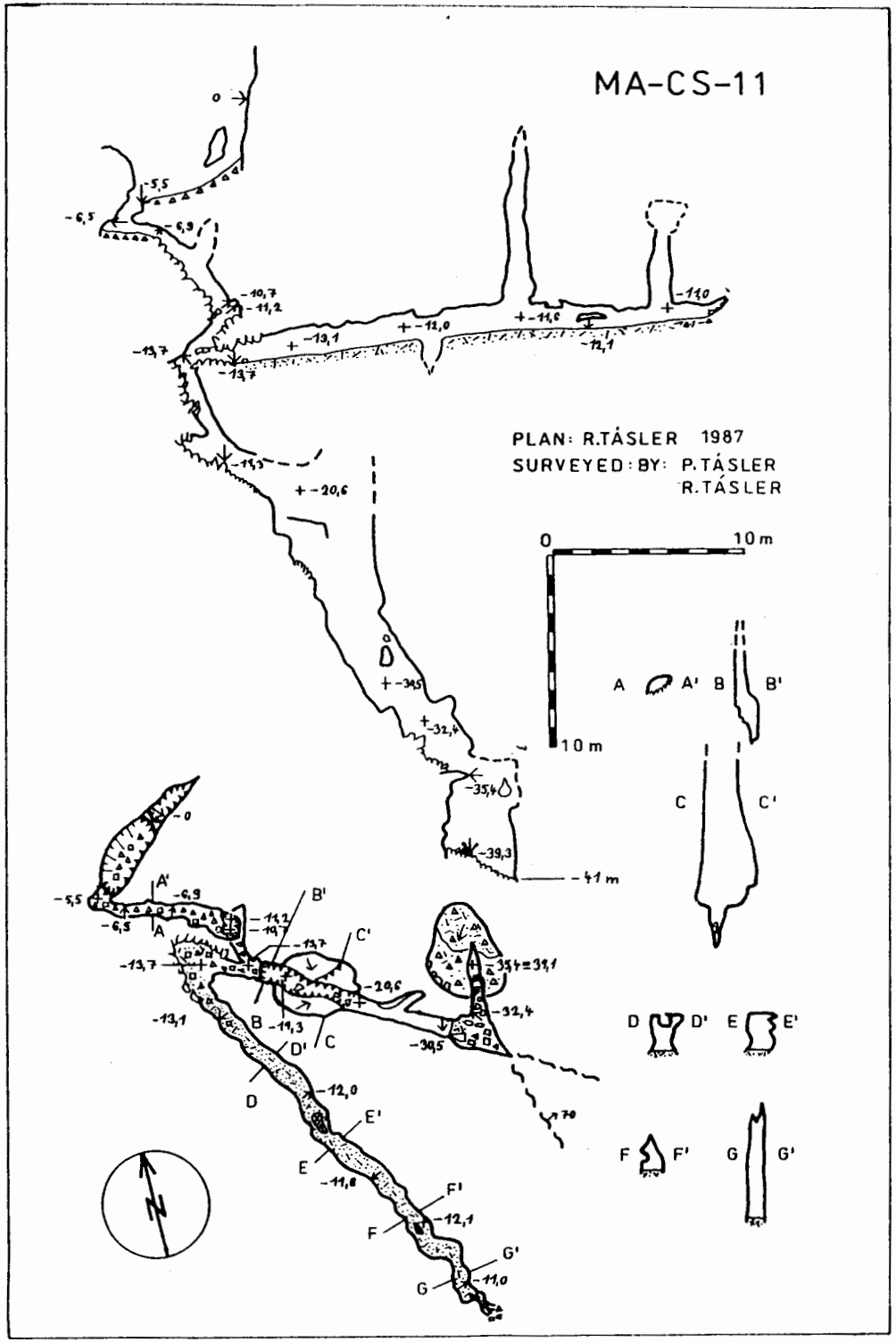
MA-CS-11

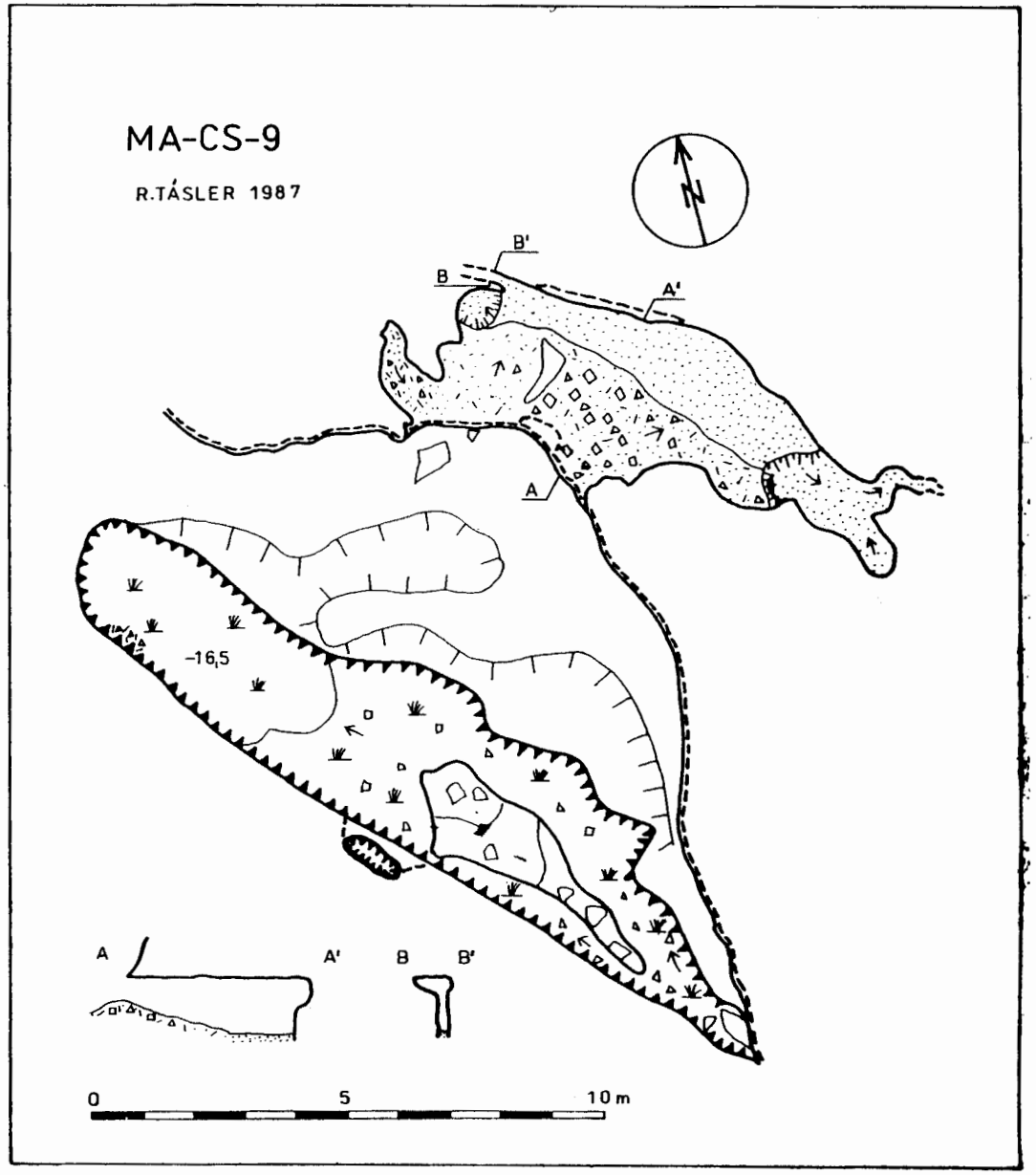
The cave MA-CS-11 is the only alpine-type cave in the region. Its entrance is situated at the steep eastern limits of the North Plateau. Scree and blocks had to be excavated from the entrance which led into steep and high canyon and finally through a small hall into the dome with scree. The canyon is characterised by heavy rain; during winter months the canyon is probably flooded. At the beginning of the canyon it is possible to pass among blocks into the fossil horizontal passage. The bottom is built by sandy to silty clay in which two sinkholes are developed. The end of the passage is filled with dolomote scree. The whole cave is -39m deep and 90 m long.

MA-CS-10,12 Goggled Eyes Cave

MA-CS-10,12 Goggled Eyes Cave is our best discovery made at the end of our expedition. Its exploration was relatively quick therefore there is a possibility to enter the unknown parts. At first we discovered the entrance MA-CS-10 below the rock in the northern depression. At a depth of 20 m we excavated fill consisting of clay and stones. The draught was always a good guide. The second entrance, MA-CS-12, is situated in the forest approximately 120 m to the north of MA-CS-10. This entrance was discovered independently of the first one. The mutual interconnection was made during exploration and mapping. The descent into Goggled Eyes Cave is the more suitable entrance MA-CS-12. It is wide, more comfortable and without the danger of sediment collapse.

The upper part (MA-CS-10) is developed along a distinct fault filled with scree and clay. The original karst corrosion forms are preserved only locally. The fault is probably the same, along which the entrance MA-CS-12 developed. This situation cannot be distinctly identified in the plan owing to the fault dip to NE and to different altitudes of entrance parts of the cave. A cave "level" with several chimneys is developed at a depth of -40m. The north-western branch of the "level" is strongly tectonically disturbed and the karst forms are present only in the small dome (section B-B' of the plan). In this place, several blocks were excavated and the main dome of the cave was entered again. The south-eastern branch of the "level" is represented by a dashed line on the plan, because we had no time to map this area precisely. A narrow meander continues from the tectonic passage into the main dome.


MA-CS-11
PLAN: R.TÁSLER 1987
SURVEYED: BY: P.TÁSLER
R.TÁSLER
0
10 m
10 m
41 m
A
A'
B
B'
C
C'
D
D'
E
E'
F
F'
G
G'
-5,5
-6,5
-6,9
-10,7
-11,2
-13,7
-13,1
-12,0
-11,6
-11,0
-12,1
-20,6
-34,5
-32,4
-35,4
-39,3
-11,3
-30,5
-35,4=39,1
-12,0
-11,8
-12,1
-11,0


MA-CS-9
R.TÁSLER 1987
A
A'
B
B'
-16,5
0
5
10 m

A descend leads into the central part of the cave and on into a really extensive dome with branching passages. A large scree cone partly fills the dome. The bottom is covered by large dolomite blocks and accumulations of silty clay, sand, scree and poorly-sorted gravel of unknown thickness. In some places, the thickness of sediment reaches over 3 m. Channels, up to 1 m deep, are cut down in sediments. The eroded material is brought by water into lower, unknown, parts of the cave, for example, in the eastern-most part of the dome. The section E-E' (see the plan) indicates the presence of erosional channels in clay with some scree and mixture along the dome walls. In such places, drop-made pinnacles 5-10 mm high, are present.

A high passage with steps interconnects the dome with the entrance. MA-CS-12 in the north-western direction. Its bottom is covered by large dolomite blocks and accumulation of sandy clays. The dome and the high passage are characterised by collapse of large ceiling blocks. The original karst forms are therefore entirely damaged.

A low and branching passage leads from the dome to the south-west. In numerous places original karst forms are preserved. Some ceiling forms indicate the origin in shallow phreatic zone (see section F-F' and G-G'). The passage bottom is covered by similar sediment as in other parts of the cave. Shallow channels are developed in them; some of the channels are flooded by water which disappears in the SE direction. In one place, the remnants of probably older sediments are preserved.

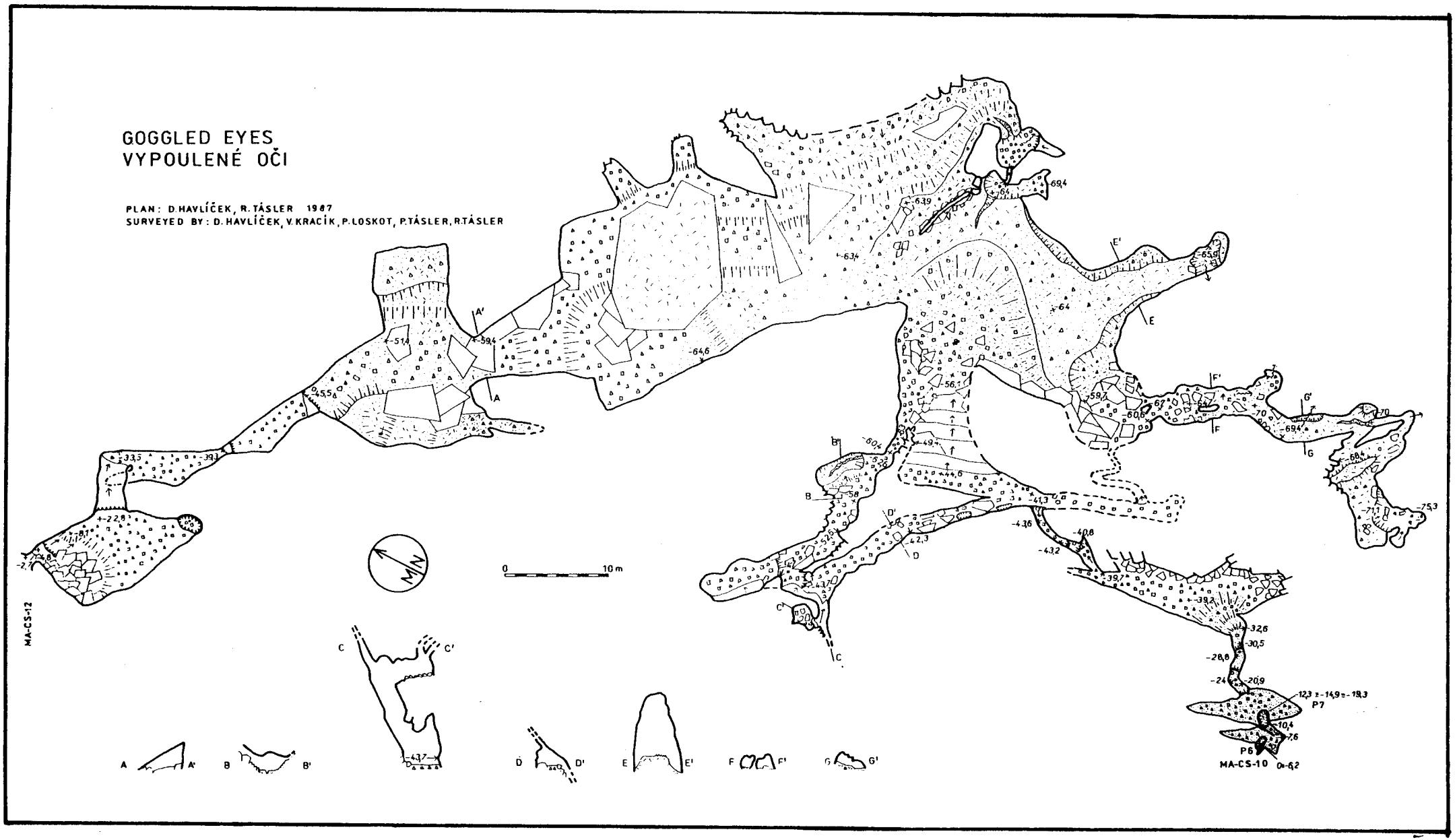
Mt Anne North-East Ridge Geomorphology

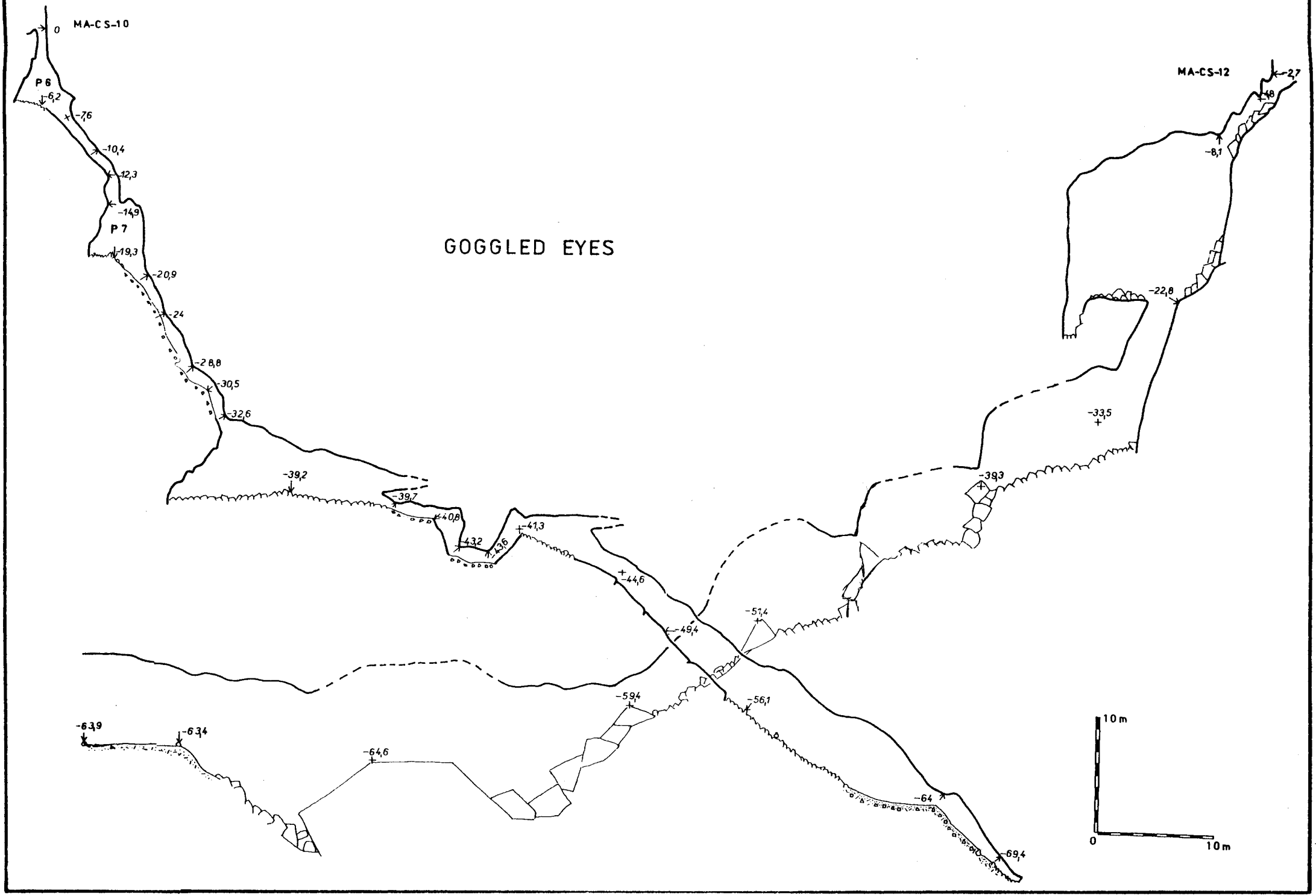
The majority of caves are developed along faults with direction of 130° to 215° (notice the geographic direction, not magnetic) with steep dips of 60° to 90° NE and SW. Although the number of measurements of tectonic features is relatively low, there is a good agreement of measured lines with the fault 140/85 NE on the geological map 1:50-000 (it is located to the N of our region). These directions have not been detected on air photographs. Very interesting is an agreement of directions of karstified faults and the dolomite/Proterozoic contact, which is distinct in the morphology of the region. To the south of the studied region, there are faults with direction of approx 60°. Such faults are karstified only rarely in the area of the North Plateau.

The caves and probably also the whole karst region are the result of a complex evolution. In some caves there are several distinguishable evolution phases which cannot be ordered in time context. Moreso, the evolution of individual caves has been influenced by thick quartzite belts.

The oldest preserved evolution phase is represented by horizontal to sub-horizontal passages, often with preserved inverse ceiling forms and pendants. The passages originated in shallow phreatic or transitional zone with water circulation of different velocities and amounts. To correlate passages in individual caves is difficult. They probably originated in different time periods, but they can be vertically displaced by tectonics.

The passages later passed as active into the vadose zone. In this time period the water yield increased and started the development


GOGGLED EYES
VYPOULENÉ OČI
PLAN: D.HAVLÍČEK, R.TÁSLER 1987
SURVEYED BY: D. HAVLÍČEK, V.KRACÍK, P.LOSKOT, P.TÁSLER, R.TÁSLER
MA-CS-12
MA-CS-10
P7
P6
0
10 m
M/N


GOGGLED EYES
MA-CS-10
0
P 6
-6,2
-7,6
-10,4
-12,3
-14,9
P 7
-19,3
-20,9
-24
-28,8
-30,5
-32,6
-39,2
-39,7
-40,8
-43,2
-43,6
-41,3
-44,6
-49,4
-51,4
-59,4
-56,1
-63,9
-63,4
-64,6
-64
-69,4
MA-CS-12
-2,7
-8
-8,7
-22,8
-33,5
-39,3
10 m
0
10 m

of vertical karst circulation. The sediments (sands and gravels) were accumulated in passages (both allochthonous and authochthonous deposits).

The development of caves ended after the origin of relatively extensive shafts and gradual filling by sediments.

The main uplift of the whole area and the Pleistocene glacial erosion caused the exhumation of the karst. The dynamics of excavation and of origin of karst cavities renewed. This relatively young phase has been active up to the present time which is proved by hanging sediment remnants in some caves. There occurs fresh collapses and erosional channels, sediments are recently periodically replaced into lower and unknown cave positions. The canyon in MA-CS-11 belongs to young forms of vertical circulation.

The tectonic breakage and the collapse of ceiling beds cannot be precisely dated. This process was probably active before the karst exhumation and during Pleistocene. Recent block collapse has not been detected.

The end of our exploration on Mt Anne was caused by objective circumstances (a lack of food and other programmes in Tasmania and Australia). In one day we struck camp, packed equipment and rubbish, and descended from the Plateau with all material. During retrieval of ropes from the mouth of Anne-a-Kananda to camp, the weather again changed into a snow storm with frost. In several minutes all was covered by 20 cm of snow. The valley was bathed in sunshine and we sadly looked on the snow-capped Mount Anne, in an area in which a lot of new discoveries are still waiting speleologists.

We are grateful to R Ellis (SSS) for an arrangement of formalities, and to Stuart Nicholas and Steve Bunton for a kind welcome in Hobart and for their help.

RADKO TASLER

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TCC ANNUAL CLUB DINNER

at the

GOOD WOMAN INN

on

FRIDAY 30 SEPTEMBER AT 7.00 PM

Ring Trevor Wailes on 344862 to reserve a seat

MOUNT ANNE — NORTH EAST RIDGE

"NORTH PLATO" - sketch plan