Expo ’99

Cambridge University Caving Club

July—August 1999

In the summer of 1999, Cambridge University Caving Club (“CUCC”) held its 23rd annual expedition to the Loser Plateau in Austria.

There were twenty-five expedition members, making it one of the larger Expos in recent years. The expedition lasted for five weeks.

Background

For the last eleven years CUCC has been exploring the cave system known as Kaninchenhöhle.

To the south of Kaninchenhöhle lies the major Schwarzmooskogelhöhlensystem, consisting of Eishöhle, Stellerweghöhle, Schnellzughöhle, Lärchenschacht, Schwabenschacht and Schnellzughöhle as well as a few other entrances. Parts of this were explored as long ago as 1938, but the major central part of the cave, Stellerweghöhle, was explored by CUCC in 1980–85, to a depth of 973m and a length of some 7km. Other parts of the cave have been explored by both French and German groups, and the total length of this cave system is around 20km. After the CUCC 1998 expedition, the gap between these two systems was about 130m, in passages at much the same level.

Linking the two systems would involve not only exciting new exploration, but also a great deal of tie-up surveying to establish definitive figures for the length and depth of the combined system. Current survey information suggests that the complete system would be over 42km long and over 1050m deep, ranking the system as one of the world’s major cave systems—approximately 50th in both the world’s longest *and* deepest caves lists.

Aims of the Expedition

The closest point between Kaninchenhöhle and the Schwarzmooskogelhöhlensystem was determined to be at the bottom of the deep Steinschlagschact entrance to the Kaninchenhöhle system. This was explored previously in the 80s by CUCC and again in 1997, when it was connected to the rest of Kaninchenhöhle.

A major aim of the 1999 expedition was thus to attempt to link Steinschlagschact to the Schwarzmooskogelhöhlensystem. The aim was to connect with the part of the Schwarzmooskogelhöhlensystem known as Eishöhle, which, being the northernmost part of the Schwarzmooskogelhöhlensystem, is the closest point to Kaninchenhöhle.

Additionally there were well over 200 ways on in the rest of the Kaninchenhöhle system, and expedition members were keen to investigate certain of them with the aim of further extending the system.

In keeping with CUCC's high standards of documentation and surveying, it was as usual an object of the expedition to document and survey every new cave passage found.

Surface work forms an important part of every CUCC expedition—more so than in the early years—and an aim of each Expo is to prospect for and document new caves on the plateau, in addition to tidying up any work left over from previous expeditions. This includes surveying to and fixing the locations of cave entrances.

The Expedition

As has been usual for previous years, Base Camp was situated at the campsite at Gasthof Staud'n'wirt, Bad Aussee, where the members were made very welcome by Karin Wilpernig and family.

The caving area is situated on the Loser plateau at an altitude of 1600m, some 800m higher than Base Camp. A toll road ascends the mountainside to a restaurant and car park at the top. From here it is approximately a 45-minute walk to Top Camp on the plateau, more if one has hundreds of metres of rope and other caving gear on one's back!

The first expedition members arrived on or shortly after the 10th July 1999. The log-book recalls "...we did manage to get lost in Brussels and inadvertantly explore their tunnel network (time underground 20 minutes) ..."! Things looked up for this group when Base Camp was finally reached, arriving at 3pm (having set off from Cambridge at 5pm the previous afternoon) and promptly "imbibing too much Gösser[1] ...".

Several carries of equipment and supplies were made up to Top Camp and the first caving was done shortly afterwards, with an introductory tour around a section of Kaninchenhöhle known as Triassic Park for some of the cavers new to Expo.

On the 18th July a two-man team set off with 330m of rope to rig down Steinschlagschact. This prepared for exploratory trips to the bottom to probe for ways on towards Eishöhle.

Discoveries in Steinschlagschact

One of the expedition members had been waxing lyrical in Cambridge about an aven[2] at the bottom of Steinschlagschact, which was suspected to be a way on towards Eishöhle.

However, it turned out in Austria that the aven was not quite as remembered in Cambridge! The team of two cavers decided to attempt to view the aven from above and whilst partway down Steinschlagschact spotted a small passage disappearing off into the wall, not noted previously!

The hole in the wall was inspected more closely and turned out to lead to a short pitch and a chamber. This led to a continuing rift and another pair of pitches. There was insufficient gear available to descend the second, described as a hole "into a *very* rainy chamber with a *big* echo...".

The new passage was surveyed and the group returned to Top Camp, not knowing that the find was to prove one of the most significant of Expo '99...

[1] A lager beer found in Austria and much enjoyed by Expo cavers!

[2] A vertical shaft come across from the bottom

Further exploration

The new passage was named Oatso, after the oats eaten at Top Camp and a play on words "Oh so simple!" (The area of cave concerned had been looked at before and deemed to have no way on!).

Two days after the initial discovery was made a larger team returned to continue the exploration. A huge passage was discovered—"Overshoot"—heading directly SW for 250m, thus surprising everyone by going straight past Eishöhle. On examining the survey data it became clear that this section was almost directly in line with the main streamway in Stellerweghöhle several hundred metres away!

Some idea of the size of the passage might be gleaned from the logbook entry from this day:

> . . . It is *huge*! with 3 big holes in floor and 4 other pitches. Far end is enormous jumble of boulders where lots of cavers wandered about in the interstices peering out over big holes at each other and shouting "Where am I?!" a lot . . .

Much further exploration continued over the next weeks. "Windy Bottom", "Steady Aim", "CarpetWorld" and many other passages were discovered, in addition to the discovery of a sump[3] named "Totality" (Expo was directly in the path of the solar eclipse in August 1999).

After the initial horizontal section the passage trended steeply downwards to –450m depth and also swung towards the NE, making a direct connection to the Stellerweghöhle streamway less likely from the Kaninchenhöhle end.

This general part of the cave was named "Chile". In total about 4km of new passage was discovered, leaving Kaninchenhöhle about 500m distant from the Stellerweghöhle streamway. A major achievement.

However, the connection with Eishöhle was to remain elusive. Just 75m away!

Steinbrückenhöhle

A "surface stroll" by three cavers on the 25th July discovered "a very large horizontal entrance by a prominent rock bridge". There were actually two entrances discovered and the cave was named Steinbrückenhöhle after the rock bridge.

The next day saw two of the discoverers return to start descending the new cave. A significant amount new passage was discovered—spirits were high when the cavers returned! The log book records:

> STEINBRÜCKENHÖHLE GOES!
> NEW CAVE!!
> 70m deep
> 260m surveyed
> 12 QMs[4]
> still going . . .
>
> Proper write up soon. x x x dunks

[3] A flooded passage blocking the way on.
[4] Question marks (open ways on)

In successive trips the cave was explored to a depth of 226m and a length of 1350m, making it a very significant find. Additionally there are now many open ways on needing further exploration.

The cave occupies an important position as it is not inconceivable that it might connect into the north-western extremeties of the Kaninchenhöhle system.

This connection, even though it is not known to be achievable for sure, is worth striving for on future expeditions, as such a connection would render the Far North regions of Kaninchenhöhle far more accessible than at the present time. No doubt future expeditions will shed more light on the subject.

Eishöhle

Following the lack of any connection to Eishöhle discovered from Steinschlagschact, it was decided to try to attack the problem from the other direction.

The entrances of Eishöhle are more difficult to reach than the main Kaninchenhöhle entrances, being a considerable distance from Top Camp along a non-obvious route. Thankfully knowledge from previous years helped with route-finding.

The large amounts of ice and snow in the cave also require unusual (to British cavers) equipment and techniques—such as caving in crampons!

The entrance having been found, a team descended into the cave, down the huge snow and ice slope into Schneevulkanhalle, the largest ice-bearing chamber in Western Europe. Photographs were taken and several leads explored.

Finding a possible way on in the right general direction proved easy but each pitch was choked and the explorers ended up climbing up 60m before descending 60m again—a lot of difficult caving to get only somewhat closer to the goal. It is still going though... Another team resurveyed the route into the original (1938) part of Eishöhle, connecting the last major missing section of survey data and finding some more possible leads.

The trips into the cave were successful, especially in increasing CUCC's knowledge of the cave. A priority next year will be to resurvey the areas we know of where data is lost or innacurate.

Further research since the expedition returned to England by Thilo Müller to track down old survey data and surveys from the 1980s has also been very valuable.

Eishöhle certainly deserves further investigation and this is an important aim of the 2000 expedition.

More in Kaninchenhöhle

Additional discoveries were made this year in the "main" part of Kaninchenhöhle reached from the horizontal entrances known as 161d and 161e.

Teams visited the Iceland area of Kaninchenhöhle via the remote 161e entrance, $1\frac{1}{2}$ hours' walk from Top Camp. Some known pitches were descended and other passages explored, but unfortunately there were no major finds.

A couple of trips were made into an area known as Regurgitation, an interesting corner of Kaninchenhöhle, where a known rift was extended down to a continuing stream passage and an undescended pitch. A lack of time prevented any further investigation this year.

Finally a large rift pitch was discovered near a chamber known as the Hall of the Mounting Choss, but this was not descended on the expedition.

Surface Work and Other Caves

A significant amount of surface work was carried out over the duration of the expedition. Several surface surveys were conducted and follow-up work was needed on a few previous surveys. Some time was spent searching for alternative entrances to the Steinschlagschact shaft series above the present one (to try to increase the depth of the cave). This had mixed success in that three more entrances were discovered, but the total depth has only been increased by about five metres!

Several old caves were tagged, surveyed-to, surveyed inside and described.

Some experimental work was carried out using a combination of GPS and portable computer to locate caves on the plateau, but it was discovered that this needs further development before it will be useable.

A new cave "Nordalpenhöhle" was discovered and explored not far from the Steinschlagschact entrance, but unfortunately this proved to end in a pitch with no way on at the bottom. Another cave nearby, "147", was re-surveyed and re-documented, and a couple of other known shafts on the plateau noted in previous years were descended and documented.

Finally, in a new development, mobile phones replaced radios to provide more reliable communication between Top Camp and Base Camp.

Follow-Up Work

The usual follow-up work in Cambridge and elsewhere is continuing even as you read this report. Survey data is processed on computer using the *Survex* software written by CUCC members. Surveys have to be drawn up and passage descriptions written.

The CUCC Expo documentation archive, maintained as a Web site, is currently being updated with the finds from Expo '99. This comprehensive cross-referenced resource provides an excellent knowledge base of information for future expeditions.

The archive can be viewed on the Web at the following address:

`http://www.chaos.org.uk/cucc/expo/index.htm`

Concluding Remarks

Expo '99 was a great success, with over 4km of extensions to Kaninchenhöhle and the discovery of a new and significant cave, Steinbrückenhöhle. The extensions below Steinschlagschact are of special importance and have significantly increased the chances of connecting the two caves in a future expedition—quite possibly in 2000.

Expo 2000

Planning for the expedition in 2000 to the same area is already underway. It is hoped that the newly-gained proximity to Eishöhle will be able to be exploited to find the elusive connection! In addition, Eishöhle will be probed further in an attempt to connect the caves from the other direction.

In addition it is intended to continue exploring the Chile area of Steinschlagschact and hopefully extend it towards Stellerweghöhle.

The new cave Steinbrückenhöhle will be further explored with a specific aim of pushing towards the north-western extremeties of Kaninchenhöhle. It looks likely that this will play a large part in the 2000 expedition.

Finally, the usual surface work will be undertaken to further increase the Club's knowledge of the plateau.

Any enquiries about Expo 2000 should be directed to the Expedition Leader, Mark Shinwell (contact details at end of this report).

Thanks

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- **GP Batteries (UK) Ltd.** for twenty nickel metal hydride batteries, used for powering drills for placing rigging bolts underground.
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Finally the expedition members must be thanked for their individual parts in making Expo '99 a highly successful expedition.

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