

# Hidden Cave Cities and River Systems: Houaphanh, Laos 2007

This year the Northern Laos – European Cave Project explored showcaves, caves used as wartime shelters, and wild caves. Liz Prices reports.

January 2007 saw another successful expedition by the Northern Laos – European Cave Project. Over 15km of cave passage was mapped in three main areas.

Since 2000 German, Dutch, and British cavers have visited the karst of northern Laos in a continuing series of expeditions. By 2005, 24km of cave passage had been mapped in the provinces of Luang Prabang and Luang Nam Tha. The 2006 expedition, based at Vieng Phouka in Luang Nam Tha province surveyed 20 caves with a total of about 5km of passage.

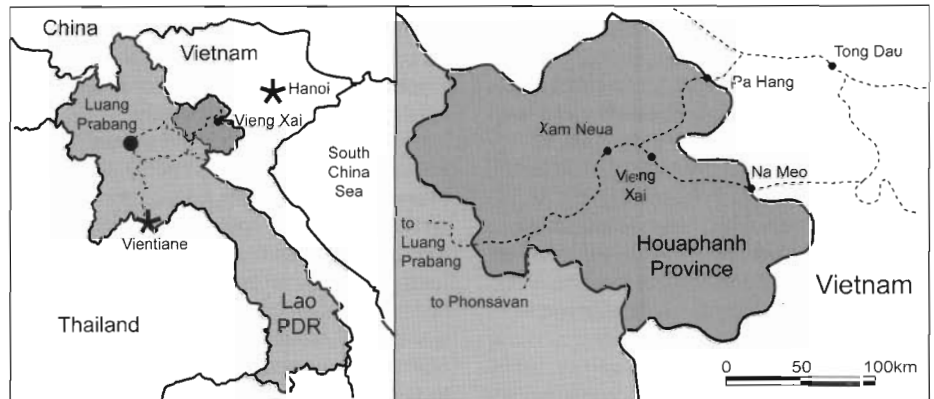
The 2007 expedition primarily targeted several new caving areas in the Houaphanh province in north-east Laos. The area of Vieng Xai was chosen as extensive cave systems across the border in Vietnam had been reported by Belgian and British expeditions. Others areas included Vieng Thong, as well as a return visit to Phou Khoun in Luang Prabang province. The 15km was comprised of 10km in Vieng Xai, 2.3km in Vieng Thong, 2km in Phou Khoun, and 454m in Xieng Khouang.

## Phou Khoun

The seven members of the expedition met in the World Heritage



Above: Air filter in Tham Khamtay's Emergency Room. Photo: Wolfgang Zillig. Above right: Caving with armed guards in Phou Khoun. Photo: Liz Price.



town of Luang Prabang. On 4 January the team plus a mountain of luggage piled into a Toyota van, along with English speaking guide Ju, and the driver. A 2.5 hour drive took us to Phou Khoun, a town at the junction of Route 7 (to Phonsavan) and Route 13 (Vientiane). Base camp was established in two small hotels and within an hour or so of arriving, we were on our

way to the first cave.

In all the areas we went to in Laos, before we could actually go caving, we had to seek permission from the authorities. Much of the paperwork had been done

in advance of the expedition, but upon arrival, we still had to OK it with the local district office, or the tourism department, police, etc. In all cases we were welcomed and had no problems obtaining access to the caves. Even with official permission, we always had to visit the headman in each village and obtain local guides (who were there to guide us and keep an eye on us!).

Over the next three days, we explored and surveyed three caves near Phou Khoun, accompanied by various officials and a policeman with a rifle. The longest cave was Tham Dout with a surveyed length of 1,128m. The cave is on three levels with dry upper passages and an active stream on the lower level. The other two caves are Tham Muay (Bear Cave) (138m) and Tham Deu (726m). The Tham Deu–Tham Dout system consists of two river caves which we were unable to connect. Tham Deu is a pretty cave

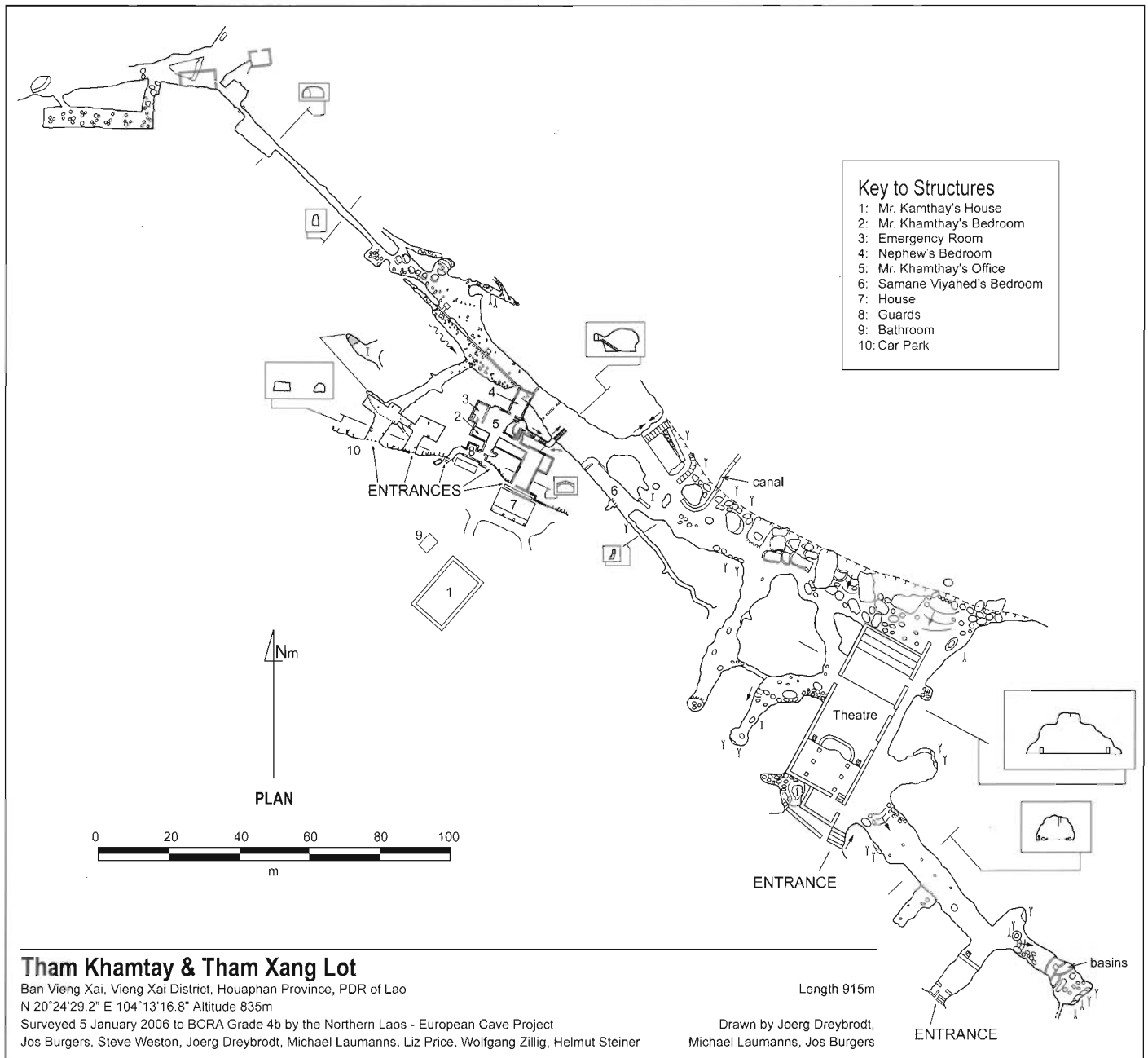
– basically one passage with various holes in the floor. We found leeches inside the cave on the walls and stal, which was quite exciting as cave leeches are not well documented, and in fact it was the first time I had ever seen leeches underground. As the 2005 expedition had already visited other caves in this area, there was no need to stay longer this year.

## Phonsavan and Buddha Cave

From Phou Khoun we took Route 7 to Phonsavan. The road is hilly and winding the whole way from Luang Prabang, and we rarely saw a long straight stretch of road. On the way we saw a sign to 'Buddha Cave' so decided to investigate as it was only 3km off the road at Ban Nong Tong in Xieng Khouang province. We paid our 10,000kip entrance fee and set off to explore these tourist caves. The lady caretaker was rather anxious when some of the team started surveying and kept a close watch on the Buddha and shrines to ensure nothing was stolen. Buddha Cave or Tham Pha, is 226m long. It was used as a hospital and there is an operating table in one chamber.

Outside the cave steps lead up to Tham Sang Ya, Pharmacy Cave. Before the main cave is a rock shelter and the floor is littered with hundreds of ampoules. The main cave is basically a single large chamber and is 228m long. We looked at another cave up on the hill which could be Stupa Cave or Tham Nam, a viewpoint looked down into the large chamber. Some old mortar shells were seen at the side of the cliff.

Next we moved to Phonsavan where as tourists we visited the famous archaeological site of the Plain of Jars. We also managed to go caving in Grotte Crematoire, which is just a chamber with a couple of open holes in the roof. The cave may have been used as a crematorium in the past. The area is surrounded by bomb



Left: As yet unidentified leech in Tham Deu, Phoun Khoun. Photo: Liz Price. Centre: The noseleaves of an insect-eating bat in Tham Thia Tong, Vieng Tong. Right: A long-legged centipede in Tham Pha (Buddha Cave). Thereuopoda spp. is seen throughout south-east Asia. Photos: Liz Price.

craters and the de-mining teams are still removing the UXO (unexploded ordnance) left over from the American war.

## Vieng Xai

The next day a six hour drive took us to Xam Neua, the provincial capital of Houaphanh. We checked into a hotel which was ideal for a caving expedition – it boasted a log fire lit in half an oil drum, which was essential with the low (10°C)

evening temperatures. The only negative aspect was the town's electricity supply which was insufficient to power the shower water heaters. A team from a Chinese minerals department was also staying in the hotel. We looked at their geology maps but they told us the key to the maps was inaccurate!

The Laos government has only recently made the karst areas in Houaphanh accessible to foreigners. We already had

approval from the National Tourism Authority (NTA) to explore caves in Vieng Xai area, so a visit to their office smoothed the way for the next few days. We were also in contact with SNV (Netherlands Development Organization) which works closely with the NTA. One of the objectives in this area was to survey the Pathet Lao caves in Vieng Xai, 25km to the east of Xam Neua, and 40km from the border with Vietnam.

### Hidden City

Vieng Xai is the location of the 'hidden city', a network of caves used by the Pathet Lao (the Lao revolutionary movement) during a secret war in the 1960s. As the US tried to halt what it saw as the expansion of communism after World War 2, by destroying the Lao revolutionaries, Laos became caught up in this secret war. The US embarked on a devastating aerial bombing campaign that would last for nine years (1964-1973). More than two million tonnes of ordnance were dropped on Laos over this period.

To escape from this onslaught, approximately 23,000 people took to Vieng Xai's natural caves and they constructed the 'hidden city' for the leaders. They lived in the caves from 1964-1973. Natural caves were enlarged, tunnels developed and internal ceilings inserted. Air-tight rooms with air filtering equipment were constructed, to use in the event of a gas attack. Blast walls over 1.5m thick were built to shield cave entrances from rockets and guided missiles. Inside the caves are the bedrooms, offices, meeting rooms, even toilets and kitchens. One cave has a large theatre with stage, and another was converted into a hospital.

Today there are about six caves to visit, and we surveyed them with approval from the Office of Vieng Xai Memorial Sites Committee. The caves are being promoted as a tourist attraction where people can learn about the birthplace of modern Lao PDR.

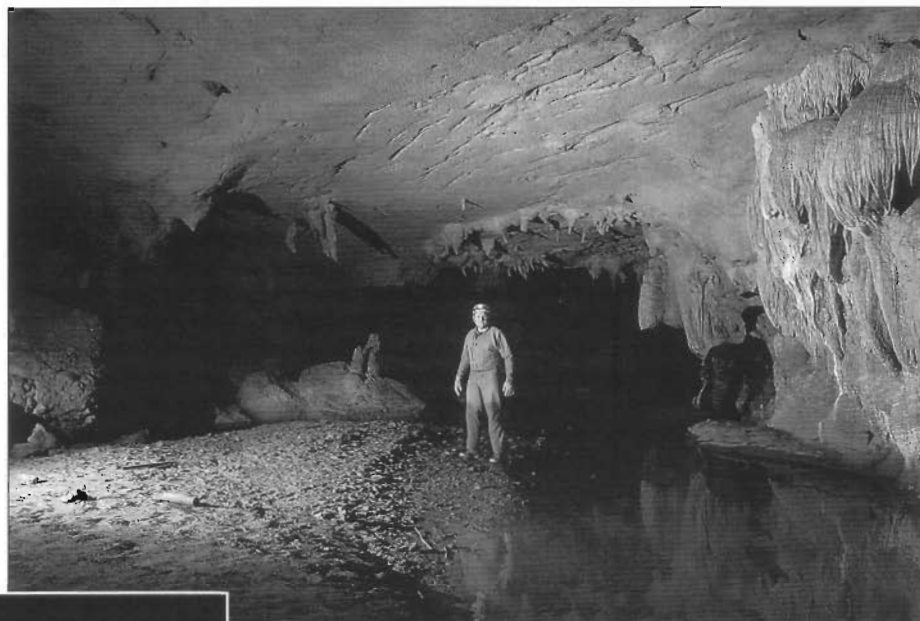
### Tham Nam Long

The rest of our time was spent surveying the natural caves outside the town. Vieng Xai is very scenic, with karst towers surrounding the town and nearby villages. In the Upper Triassic limestone of the area there are a number of large river caves with beautifully decorated passages.

Within a few days we surveyed the 4,795m-long Tham Nam Long and the 2.9km-long Tham Nam. In addition, we



UXO in Vieng Xai. Photo: Wolfgang Zillig.



Left: Entrance to Tham Hua Nga (Elephant Head Cave), Vieng Xai. Photo: Liz Price. Above: Streamway in Tham Nam, Vieng Xai. Photo: Wolfgang Zillig.

surveyed nine other caves to give just over 10km of mapped passages.

Tham Nam Long is a beautiful river cave and a through trip. The water enters in the south-eastern part of the ridge and exits after 1.5km on the north-east side. The 20m-wide, 10m-high river passage is decorated with large calcite forma-

tions and curtains in the roof. Near the northern entrance the floor is covered with dry calcite basins containing thousands of cave pearls up to the size of small eggs. In the middle of the cave there is a third entrance. There are several small tributaries and a 6m-higher maze-like fossil system that connects to the river through side passages or sinkholes in the floor.

### Tham Nam

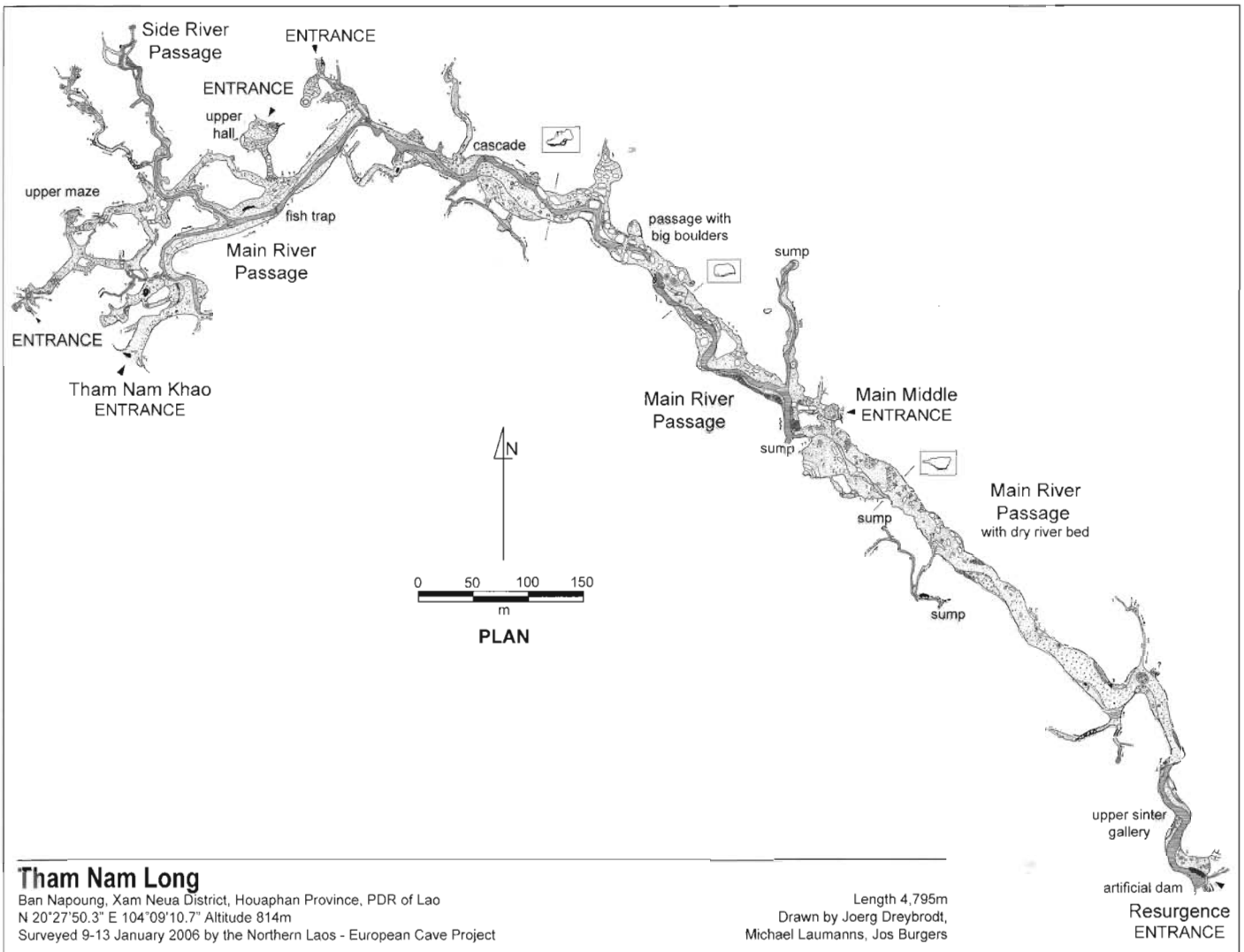
Tham Nam has a 40m-wide entrance that supposedly swallows the river that flows out of Tham Nam Long. A wall to protect the entrance chamber from shrapnel and a concrete podium give evidence of the cave's use during the war. This is underlined by two artificial bunkers that are connected to the cave via a steep passage to the left side of the entrance chamber. Two more bunkers which are not connected to the cave can be found a few meters further away. Another wall and an artificial chamber of unknown use are located in the cave's entrance across the river that enters the cave.

The main passage is large and meandering with a shallow stream, gravel banks, and large boulders. About 200m from the entrance the underground

river disappears to the left in a series of impenetrable fissures. Beyond, the main passage is dry and about 450m from the entrance it splits into two smaller passages. The side passage heading south leads to a T-junction, beyond which the cave starts to get muddy and decrease in size. One passage consists of rifts and low tunnels which lead to a sump. The other passage is muddy and small stream inlets fill the complete width of the Brown River passage until the water becomes too deep for surveying without floatation devices. The streamway joins the main river passage of Tham Nam immediately before the downstream entrance of the cave system. A concrete dam in front of this entrance is apparently the reason for the unpleasant mud-covered floor in the lower cave section.

From the lower cave entrance concrete steps leads to an upper level with a huge gallery that is nicely decorated. This gallery is developed close to the cliff of the karst tower and has several high-level entrances as well as daylight holes. It gives access to a large cave entrance where the cave system can be re-entered through another large entrance to the left. The latter entrance has concrete fittings with Vietnamese inscriptions. A huge 30m-wide chamber stretches out between the latter cave entrance and the vertical connections to the stream. This chamber has three small daylight holes and is filled with small rocks. Some ammunition was found here.

There is still a big danger of UXO in the area. Unexploded ordnance are explosive weapons (bombs, shells, grenades, etc.) that did not explode when they were deployed, and still pose a risk of detonation. Laos has the distinction of being one of the world's most heavily bombed nations. During the period of the American Vietnam War, over half-a-million bombing missions dropped more than 2 million tons of ordnance on Laos, most of it anti-personnel cluster bombs. Each



cluster bomb shell contained hundreds of individual bomblets, 'bombies', about the size of a tennis ball. An estimated 30% of these munitions did not detonate.

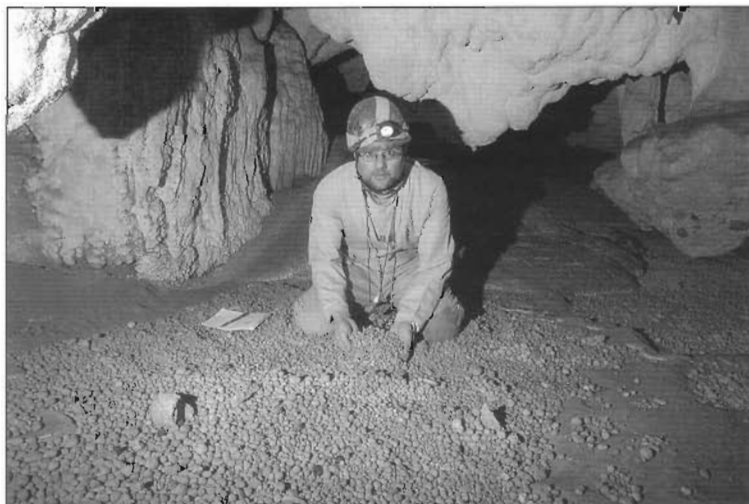
## Vieng Thong

The final caving days of the expedition were spent in the Vieng Thong area of Houaphanh province. This is close to the Nam Et and Phou Loei National Biodiversity Conservation Areas, where several caves have been described by environmental projects with emphasis on eco-tourism.

Three days yielded over 2km of passage in three caves, including the unfinished Tham Thia Thong. We managed to survey 1.3km but ran out of time and left about 200m of passage unsurveyed.

Tham Thia Thong is a strange cave as the beautifully decorated, large, flat main passage changes in character. Enormous boulder piles with brittle and unstable foot and hand-holds lead down to an inaccessible streamway, then a climb up the other side leads to more muddy passages. Eventually a stream is met and the cave

ends in a sump. Some leeches were seen here. One chamber was full of cave straws, many of which had been broken. In another area of fine stalactites, I could only watch in horror as the village headman carefully selected some nice stalactites, knocked them off with his parang (machete), and put them in his bag. This



Joerg Dreybrodt with cave pearls in Tham Nam. Photo: Wolfgang Zillig.

was one of the few caves we visited which still had a large colony of bats – all the rest have been eaten!

Many more caves await exploration. It is planned to revisit the karst of

Houaphanh and especially Vieng Xai in 2008. ■

## Acknowledgements

The expedition would like to thank the National Tourism Authority (NTA) of Laos and the SNV (Netherlands Development Organization) for their help in allowing us to explore the caves and in preparing the permits etc.

## Expedition Members

Jos Burgers, Joerg Dreybrodt, Michael Laumanns, Ju Moua, Liz Price, Helmut Steiner, Steve Weston and Wolfgang Zillig.

## Further Reading

Brouquisse, F. & Cholin, A. (2002) *Khammouane 2002. Cave exploration in the Lao People's Democratic Republic*. International Caver 2002, pp4-14.

Dreybrodt, J. & Laumanns, M. eds. (2005) *The Unknown North of Laos. (Karst and Caves of the Provinces Luang Prabang and Luang Nam Tha)*. Berliner Höhlenkundliche Berichte 16.

Lao National Tourism Administration. (2007) *Laos Opens Wartime 'Cave City' to Visitors*. Press release, 6 March.

Price, L. (2006) *Expedition Report: Vieng Phouka, Laos 2006*. Speleology 7, p13.

Price, L. (2007) *Viengxay's Hidden City*. Heritage Asia, Apr-June, p34-39.

laoscaveproject.de