## Introduction

The aim of our reconnaissance was to take a look at some of the karst areas of Laos and to identify the practical problems that an expedition would encounter in this country, with the prospect of organizing a full scale expedition. We were also interested in exploring some caves, and were equipped with ropes and personal equipment for this purpose.

### Zusammenfassung

AUF DER SUCHE NACH HÖHLEN IN ZENTRAL LAOS, von Elisabetta Preziosi und Mimmo Scipioni

Die Verfasser berichten die Ergebnisse einer Reise zu den zwei bedeutendsten Karstgebieten in Zentral Laos. Das Ziel der Reise war hauptsächlich, sich über technische Probleme klar zu werden um eine großangelegte Expedition vorzubereiten, aber in den zwanzig Tagen ihres Aufenthalts, konnten die Verfasser auch einige Höhlen un beiden Gebieten erforschen.

#### Riassunto

UNA RICOGNIZIONE SPELEOLOGICA NEL LAOS CENTRALE, di Elisabetta Preziosi e Mimmo Scipioni

Gli autori ci offrono i risultati di una visita a due importanti aree carsiche nel Laos Centrale. Lo scopo di questa ricognizione e' stato d'identificare i problemi pratici e preparare una spedizione della regione a grande scala. Comunque, durante il loro soggiorno di 20 giorni, sono stati capaci di esplorare e topografare grotte in entrambe le aree.

#### Résumé

RECONNAISSANCE SPÉLÉOLOGIQUE DANS LE CENTRE DU LAOS, par Elisabetta Preziosi et Mimmo Scipioni

Les auteurs donnent les résultats d'une visite à deux importantes zones karstiquer du Laos Central. Le but de la reconnaissance était de déterminer les problèmes pratiques en vue de préparer une expédition d'envergure dans le région. Cependant pendant leur séjour de 3 semaines ils ont pu aussi explorer et topographier quelques grottes de la région.

#### Resumen

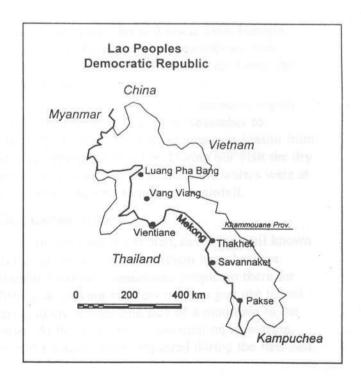
PROSPECCIONES ESPELEOLOGICAS EN LAOS CENTRAL, por Elisabetta Preziosi y Mimmo Scipioni

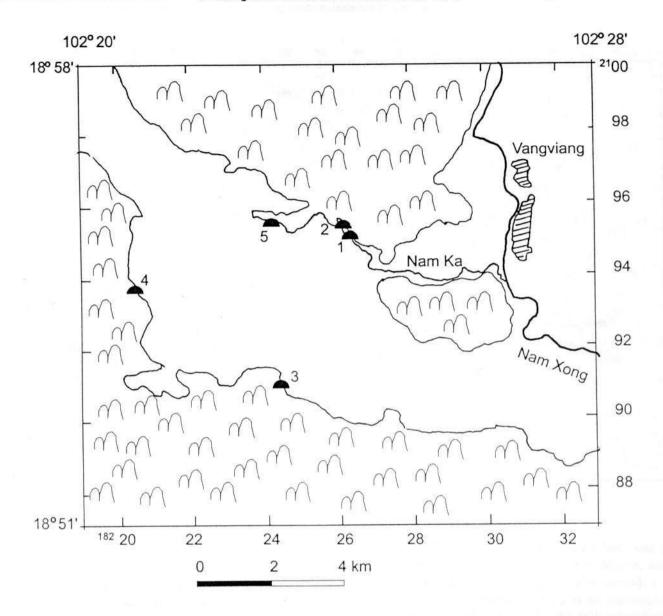
Los autores relatan las peripecias de su visita a un par de regiones kársticas situadas en Laos Central. El propósito de la misma era efectuar un reconocimiento previo y evaluar las dificultades que pudiera plantear una expedición de gran envergadura en la zona. Además, durante su estancia de 20 días de duración, tuvieron ocasión de explorar y topografiar algunas cuevas en ambas regiones.

During about 20 days we were able to visit two important karst areas in Central Laos: the surroundings of Vang Viang, about 80 km north of Vientiane, and the Khammouane province, further south. The main target of this short note is to give some traveling and caving information about this country; a table with the coordinates and a brief description of the explored caves and the surveys of the main ones are provided.

## The country and its karst

Since the recent relaxation of tourist admission, south-east Asia has become an important destination for tourists; travellers and, more precisely, cavers, have visited this fascinating region, drawn there by the appeal of both the Orient and the prospect of large karst areas still unexplored. Laos is a nation of 235,000 km<sup>2</sup>, bordering China, Vietnam, Thailand, Burma and Cambodia, and has roughly 4 million inhabitants. Due to the lack of coast, Laos' tourist industry is very limited; their most important resources are valuable wood and a potential for hydroelectric power. About 50% of the vegetation is composed of monsoon forest, nowadays largely exploited by Vietnam and Thailand (buying abroad since they have stopped exploiting their own forests). New hydropower plants, already in production or still under construction, built by international programs, will permit the exploitation of a part of the millions of cubic metres per second of water flowing through Laos, thus producing electricity to sell to the much





more industrialized Thailand. Caught between the political control of Vietnam and the economic power of Thailand, this small nation risks losing its cultural identity.

The first documentation of Laotian karst comes from the period of the French colonization, when Macey (1908) explored and described one of the longest tunnel caves in the Khammouane province (Central Laos). More recently, French and English teams visited the province of Khammouane (Mouret, 1993; Mouret & Vacquie, 1993; Mouret et al, 1994; Brouquisse & Mouret, 1996; Gregory, 1996) and Vang Viang (Central Laos) (Gregory, 1996). Mouret (1993) also describes some caves visited in the northern Laos region (surroundings of Luang Pha Bang).

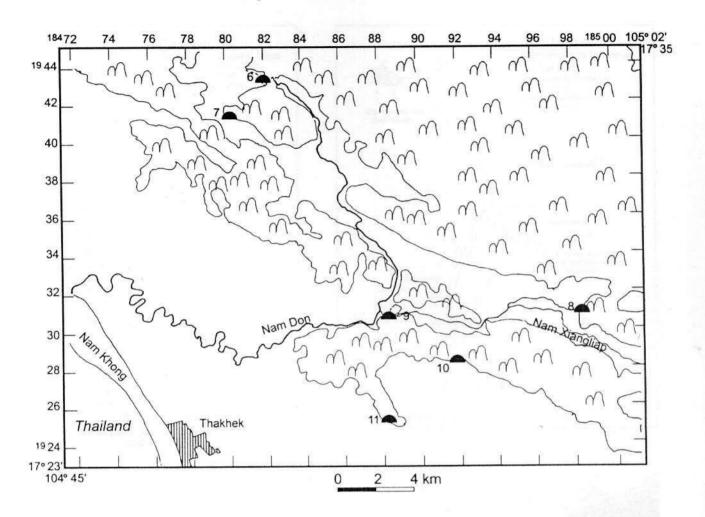
Caves develop in a thick limestone formation, aged Permian-Carboniferous, modelled into

characteristic pinnacles and tower karst features. They are mainly tunnel caves, sometimes with perennial streams, most often dried up during the low water season.

The climate is typical of a monsoon region, with a dry season lasting from November to March/April, and a hot-humid monsoon season from May to September/October. During our visit the dry season was almost at an end and the waters were at a minimum, despite some heavy rainfall.

# Our experience

In the areas we visited, caves are well known to the inhabitants: many of them have become Buddhist temples, sometimes people go there for fishing or picking swallow nests or just use tunnel caves to cross from one side of a mountain to the other. At the moment, documentation is missing, except for some caves explored during the first half



of the century, or in the 90's by French expeditions.

Aside several problems encountered, we were able to visit several caves, five of which we surveyed, totalling about 2000 metres of cave passages (Tables 1-2).

The main problems we encountered can be summed up as follows:

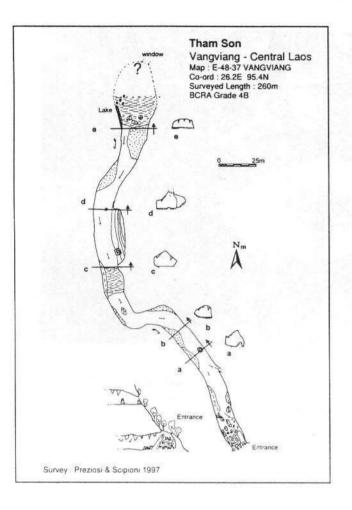
- ⇒ getting visas from Italy
- ⇒ finding the maps of the karst area of an acceptable scale (actually we found some good 1:100,000 maps at the Geographical Institute in Vientiane)
- ⇒ finding a car at a price that we could afford

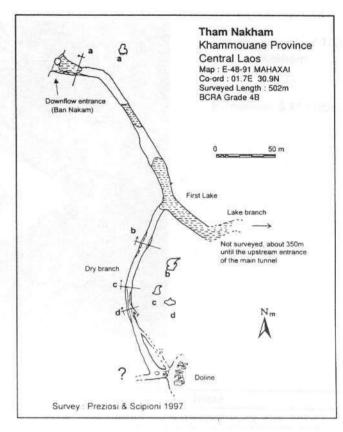
Visas were finally obtained via a tourist operator in Italy connected to an agency in Vientiane. The price for a 15 day visa (the maximum length that can be requested) was about 75 USD! We asked for a 5 day extension while in Laos, costing us 15 USD more.

Maps could be bought at the Geographical Service in Vientiane. Maps are usually not on sale without an official request, for example from a scientific institution. So it could be a good idea to get one before arriving in Laos!

The only inconvenience we had, was that we arrived there on Friday the 7th of March, and there was nobody to receive us. Finally we met a man that kindly explained to us that all the workers were out on holidays. Actually, the following day was March the 8th (the women's international day), but it happened that it was also a Saturday. So the workers of the Service, all women, had began their holidays on the 7th! I'm still trying to explain this to my chief here... Well, finally we had to stay in Vientiane all the week end, taking walks at sunset along the Mekong and drinking "Laobeer", and we would get all the 1:100,000 maps we needed on Monday.

Renting a car in Laos, especially a 4WD, was difficult and very expensive, so we gave it up. We finally decided to travel mostly by public transport. In Vang Vieng we rented bicycles, which proved to be very useful for moving from village to village. Whenever we came upon a group of houses, we asked about caves and surprisingly almost each village has its own cave. On the other hand, it was impossible to travel more than a few kilometres from the main cities (which are little more than villages). In Thakhet we had more luck, and could





rent a little car with a driver, who drove us around for a couple of days. Actually, it seems easier and less expensive to get Visas and rent 4WD in Thailand.

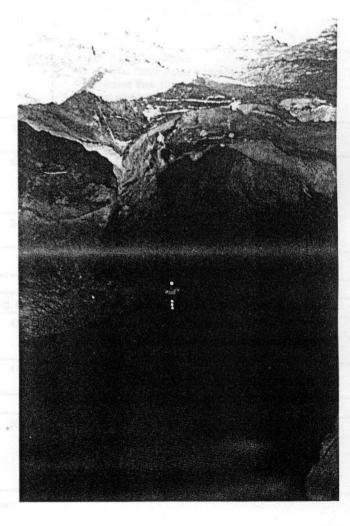
Despite what we read in other articles about Laos, we never heard of areas with unexploded landmines in the regions we visited; yet we heard that this problem is still very important along the border with Vietnam.

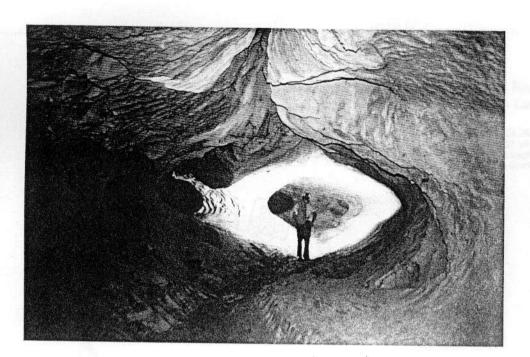
We can confirm that in the area north of Vang Vieng there are some problems with bandits or rebels, and the main road leading north is controlled by the army. We went there to survey a tunnel cave noted on the map, but it seemed dangerous (and it is probably forbidden) to move around.

We agree with Mouret and others, that the main difficulty encountered in this country still

Crossing the first lake in Tham Nakham near Thakhet, Khammouane Province, Laos.

Photo: E.Preziosi & M.Scipioni





The dry branch of Tham Nakham Photo : E.Preziosi & M.Scipioni

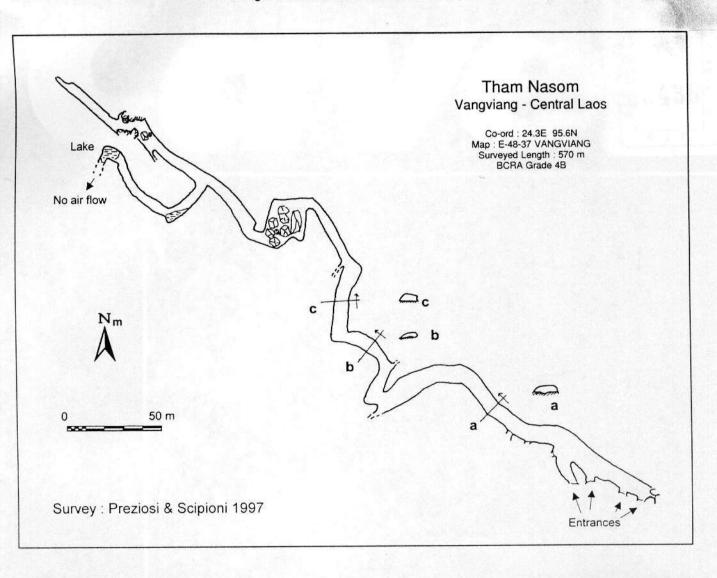
Table 1 - Caves in Vien Chan Province

Name	Co-ordinates *		Notes
	Long. E	Long. E	Map 1:100,000 VANGVIANG, E-48-37
1.Tham Phou Kham (cave of the laying Buddha)	26.4	95.2	<ul> <li>A very large room, about 50m high</li> <li>Development estimated at 300m</li> <li>Use : religious</li> <li>Not surveyed</li> </ul>
2. Tham Son	26.2	95.4	<ul> <li>Nam Ka spring, active</li> <li>Surveyed (260m) until a lake (siphon ?)</li> <li>Estimated flow 100 l/s</li> <li>Water temp. 22,6°C</li> <li>About 30m above is a fossil gallery, not explored</li> </ul>
3. Caves near Nammouang	24.4	91.0	⇔ A narrow fracture about 50m long ⇒ Not surveyed
4. Tham Pha Nang Oua	20.6	93.8	<ul> <li>Not reached</li> <li>A big entrance about 50m high, easily seen from the road, near Ban Nagnao</li> <li>Use : probably religious</li> </ul>
5. Tham Nasom	24.3	95.6	<ul> <li>⇒ Temporaneous spring</li> <li>⇒ Surveyed for 570m</li> </ul>

Table 2 - Khammouane Province (surroundings of Thakhet)

Name	Co-ordinates *		Notes
	Long. E	Long. E	Map 1:100,000 THAKHEK, E-48-90
6. Tham Patchan	84.2	43.3	<ul> <li>⇒ Tunnel cave, surveyed (360m)</li> <li>⇒ Flow : a few I/s</li> <li>⇒ Use : religious, swallow nest gathering</li> </ul>
7. Tham Pha Soung	82.2	41.2	⇒ Tunnel cave, surveyed (502m) ⇒ Fossil
	Falls in		Map 1:100,000 THAKHEK, E-48-90
8. Tham Nakham	01.7	30.9	<ul> <li>⇒ Tunnel cave (development about 700m)</li> <li>⇒ No flow during our visit, some lakes to cross</li> <li>⇒ Surveyed for 335m; another 350-370m until the upstream entrance have not been mapped</li> <li>⇒ Not completely explored, stopped at a large lake</li> </ul>

<sup>\*</sup> Coordinates in km, referred to the LPDR topographical map system



remains the risk from tropical diseases, malaria or dengue amongst others.

## Acknowledgments

The authors wish to thank Stephanie Friday for the review of the English text and Mr. Thong Savat Praxaiavong, for accompanying them in the caves around Thakhet.

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