BORNEO 83

EXPÉDITION SPÉLÉOLOGIQUE FRANÇAISE EN INDONÉSIE-KALIMANTAN FRENCH SPELEOLOGICAL EXPEDITION IN INDONESIA-KALIMANTAN

EXPEDITION REPORT



SPELEOLOGICAL RESEARCH IN INDONESIA KALIMANTAN 1982-1983

RESULTS OF THE 1982 EXPEDITION

A team of four members, Michel Chassier, Jacques Marion, Georges Robert and Arnoult Seveau, made a reconnaissance trip to Kalimantant from the 7th of june to the 5th of october 1982. During these four months, some karstic areas in Eastern and Southern Kalimantan have been surveyed. As expected, a lot of time was spent to travel between areas, to talk in the villages. Nevertheless, our objectives were fulfilled : we have proved that Kalimantan had karstic ranges and caves whom potential is very promising for future.

Ι

Mangkalihat

First, we went to peninsula of Mangkalihat (Kalimantan Timur). The following caves were explored:

Gua Tintang (Mangkalihat, gunung Buntung, Sangkulirang).

1°27'30"N; 117°21'45"E approximately.

This cave is the exsurgence of sungai Tintang, and opens at the bottom of a cliff. We had to swim in the underground river which ends on a sump at 450 m from the entrance. The exploration of the cave took place on 13th and 14th of july 1982.

At 6500 m to the north, we have heard of a big karstic feature (doline? polje ?) of over 1000 m long. According to our guides who go there to collect birds nests in great number, a big cave can be explored.

Gua Mardua (Pengadan, Sangkulirang)

1°14'00"N; 117°44'45"E approximately.

At 800 m from the stabilised road built by the P.T. Sangkulirang, near km2. This cave is located at the bottom of a small range, some 50 m above the dry valley. The cave was shown by Peter Bulan of P.T. Sangkulirang and explored on the 22nd of july.

Gua Ampanas (Pengadan, Sangkulirang)

1°13'00"N; 117°46'00"E approximately.

A few meters before km 5 of the P.T. Sangkulirang road, an exploitation road leads to a small bridge on sungai Ampanas. Just before the bridge, at 50 m on the right, opens gua Ampanas (cave-resurgence).

The entrance is well known by the villagers of Pengadan. The cave was partly explored on 23rd of july.

Hydrological system of sungai Baai.

This system is formed by the river which traverses a karstic ridge.

1. Gua Kapayau.

1°06'30"N; 117°33'30"E approximately.

One reaches the cave by the P.T. Sangkulirang road which must be followed to a bridge near km 36. From there, one has to go down to the river which leads to the entrance. This cave was rediscovered without guides.

2. Gua Ambolabong.

1°09'30"N; 117°34'30"E approximately.

This resurgence was reached by pirogue from Pengadan. The first explorations take place on 27 and 28 july.

An important cave is pointed out near Km 23 of P.T. Sangkulirang road with a big porch.

Other caves are reported in the area of gunung Kulat.

TT

Mounts Meratus

Then, we went to the mounts Meratus, in Kalimantan Selatan. We have heard of limestone in this region, without other informations. We have explored most of the karstic phenomena near the road which goes from Balikpapan to Banjermassin, on the western margin of the mounts Meratus.

A Western margin.

Gua Gunung Batu Hapu (Rantau, Binuang)

Cave known and visited by inhabitants since a long time and by Grabowsky the 4th of april 1882. Surveyed by the French team on the 8th of august 1982.

Gua Lempinit.

Located in gunung Lempinit, around 15 km south of Rantau. Gunung Lempinit is a small limeston range, approximately 600 m long and 200 m wide, and 136 m high. It shows mature features of tropical karst. He is the remainder of a bigger range which should go from gunung Batu Hapu (south) to gunung Talikor (north), a suggested by small lapiez between these two mountains.

Gua Gunung Talikor.

The fossil part of the cave is visited the 11 april 1882 by Grabowsky. As in gunung Lempinit, we find here a fossil level (not shown on the survey) of bigger size, with decorated rooms. The active level lies at the bottom of gunung Talikor, draining the underground system of sungai Gelongin.

B South east margin

In the region of Batu Lincin, near the village of Muara Napu (Batu Lincin, Kota Baru), we have explored some caves in the valley of sungai Setapa.

Gua Liang Wayang.

Old meander, with a big porch, lenghth 100 m ca.

Gua Kabayan (valley of sungai Setapa, Muara Napu, Batu Lincin).

Fossil cave, with a large entrance (60 x 40 m ca), above the present level of the river. It seems in correlation with the fossil resurgence we have not explored, some 2 km upstream.

Gua Malihau (valley of sungai Setapa)

It is a resurgence, at the bottom of a cliff, from which flows a stream which joins sungai Setapa after 400 m ca. It was explored on the 20th and 21st of august 1982.

The south margin of the limestone area is formed by detached ranges and limestone hillocks (tower karst). A few cave entrances can be seen in the cliffs.

We have heard of a pothole, near Km 50 of the road, at a few hours of walking from P.T. Kodeco camp.

At least, Tichelmann (1925) knew the caves of Tamaluang, near sungai Bengkalan, upstream from Klumpung bay. These caves were considered as one of the most important places for birds nests.

EXPEDITION 1983

Members of the expedition

Nicole Boullier, Claude Chabert, Bernard Hof, André Languille, Jean Maurizot, Jean-Claude Morandi, Arnoult Seveau.

Muchsin Hidayat, Siek Liang Swan.

 $\frac{L}{7}$ july: arrival of the expedition $\frac{Log-book}{at \ Jakarta}$.

13 july : flight from Jakarta to Balikpapan.

16 july: departure for Samarinda. Boat from Samarinda to Sangkulirang. 17 july: river-boat from Sangkulirang to the base camp of P.T. Sangkulirang (Pengadan).

19 july: five members leaves the camp for gua Kanyato (sungai Baai).

22 july : return to base camp without reaching gua Kanyato.

19-25 july: exploration and survey of gua Ampanas.

26-28 july: a) trip to base camp of P.T. Segara, via Muara Bulan. First reconnaissance of lubang Dunya.

b) exploration and survey of gua Tempat Penggalian n°1 and n°3. 30 july-6 august : exploration and survey of lubang Dunya. Disease of B. Hof, expedition leader.

31 july : order from the governor of Samarinda to leave the country.

5 august : B. Hof has to return to Pengadan and to be evacuated (8 august) to Balikpapan.

8-10 august : all the expedition leaves Pengadan, giving up lubang Dunya unfinished and the karstic researches around Pengadan unfulfilled.

Narration

THE SUNGAL BAAL TRIP (19-22 july 1983)

The aim of this trip was to continue the exploration of gua Kanyato, underground river partially explored during the 1982 expedition.

19 july.

Everybody wake up at dawn. 8 bags are waiting since yesterday evening. A truck of P.T. Sangkulirang takes us to km 16 where begins an unemployed road. Then, a four-wheel drive carries us during 6 km until the road was destroyed by a river 3 m wide. As we walk, the sunshine gets stronger. A few hours later, one of us has to give up the team.

At 17 h p.m., we stop for night near a creek. We are tired when we go to bed. During the night, mosquitoes and a violent storm make us awake.

20 july.

We get up before dawn, wet and shivering. The rice is already cooking. After meal (mostly nasi putih), we move in the mist which stirs slowly above the forest. After a displeasing pass, the road stops, destroyed by the rains. Below us is a tributary of sungai Baai, as a long and muddy snake into which we will have to wade. Here, in the river, we suffer the attacks of hundreds of mosquitoes and we must protect our arms, our legs, our heads. We pace along the river, making our way through heavy shrubs on the bank...

Soon, we understand that walking in the river is easier. Later, we inflate our small pneumatic boats to carry our bags. But the river is getting deeper and deeper and sometimes we have to swim. After each bend, we desesperate to reach sungai Baai.

Finally, when we arrive at the confluent, it is a river twice bigger we meet. And all this flood disappears underground three kilometers ahead. We hear a waterfall formed by a dam of huge logs which obliges us to reach the shore to avoid that obstruction.

The stream gets stronger. Now we are surrounded by high and white cliffs forming a narrow canyon. We progress slowly. A huge boulder in the middle of the river makes the water rushing. Dark is coming and a shelter at the foot of the cliff looks suitable for the night. As soon as we arrive in the shelter, the equatorial rain begins. Quickly, we gather all the wood around and throw it in the shelter. We can't stay without fire: its smoke keeps away the mosquitoes. The rain is falling since many hours and we are afraid. We have put notches to watch water level. All the night, one of us has to check the river which rises every minute (approximately one meter an hour). In the morning, it has rised more than 6 m and it is still going up. Its width which was 23 m (we measured it with a rope when we had to cross the stream) is now more than 35 m.

After a brain-storm about the possibility of waiting the decreasing flow, we have to take the decision to retrace towards Pengadan. According to all of us, going dowstream looks too hazardous. We give up the heaviest gear. In the stream, we must use the rope as handline where the river is running along the cliff. The flood has submerged the banks where lie thich shrubs We follow the foot of the cliffs, trying to remember the good tributary by which we have joined sungai Baai. For that, we must cross the river. Swimming, we make a 20-meter canal amongst the submerged branches to reach the main stream, while mosquitoes are more and more aggressive. The best swimmer of us, fastened with a rope, plunges into water and fights against the stream with all his energy. He manages to grasp some twigs on the opposite bank. hurting his hands. The rope is tied between two trees and crossing the river begins. This very operation lasts two hours! Is is with a great relief we resume our hike in the burnt forest. We walk on the valley slope; the legs are heavy, the shoulders painful. Always clouds of mosquitoes are following us. From time to time, we must stop to make fire and keep away the mosquitoes.

At 17 hours p.m., we set up the camp for the night, making a shelter with our ponchos and boats. A meal of "mie" and "nasi putih" is all we can eat. During the night, an other storm bursts.

21 july.

At dawn, we move again, after eating the rice of yesterday. Later, through the trees, we recognise the hills where is the road. We cross a last river on a providential log. The walk which is now easier releases our faces. After the storms of these two days, the road is in worse conditions and we must walk to the main road.

The whole team will arrive at Pengadan during the night only.

A. SEVEAU

Remarques de B. Hof - non traduit difficultés de l'expédition 1983 - non traduit rapport financier - id. rapport médical - id. adresses utiles - id

CAVES IN THE VICINITY OF PENGADAN

Gua Tempat Penggalian no 1 (Pengadan, Sangkulirang)
Alt. 90 a.s.l. Development: 62 m and 71 m.

These small caves opens in quarry no 1 of P.T. Sangkulirang. The quarry is situated at km 5 of the main road. From there, a secundary road starts from the right leading to the quarry one hectometer further.

The caves are supposed to be opened and partially destroyed by the quarrymen. At 90 m above sea level, at the foot of a limestone range, they do not belong to the karstic plateau where are gua Ampanas or gua Tempat Penggalian n° 3 (see below). They were shown to us by the foresters of P.T. Sang-

kulirang and surveyed the 26 july 1983.

The western cave develops 62 m and has three entrances. It is formed by a gallery with height up to 8 m, cutting a few narrow joints (1,5 m at most). All passages terminate on pinching fissures.

The eastern cave, with two entrances, has also small galleries and reaches 71 m in development. Each time, fillings of dry clay blocks the way.

B. HOF and C. CHABERT

Gua Tempat Penggalian nº 3 (Pengadan, Sangkulirang).

Altitude: 100 m, D = 427 m, Depth = -16 m.

The main interest of that cave is to show the extension of karstification towards west, far from the Pengadan karst itself. To reach the cave, we have to take the main road of P.T. Sangkulirang for 29 km; then, at a fork, to follow the right road during 1500 m. On the right again, a path leads to the quarry (quarry n°3) where the cave is situated.

This cave was incidentally discovered by the quarrymen when digging for stone. The cave was explored and partly surveyed on the 31st of july 1983.

The cave drains an underground stream which resurges in the forest but we don't know where. From the quarry entrance to the river, we have to clim down 10 meters. The trepanning of the cave has created an upstream and downstream parts which fortuitously are very different.

The downstream part, hastily explored, presents its own geological features. The river disappears under boulders coming from the quarry and is seen again just before the sump, at some 200 m from the entrance. Collapsed boulders lie on the floor and once we have to crawl to cross a room with stratified ceiling.

After the place, we have seen a strange snake looking inoffensive. On the right, a gallery has been left unexplored. The main passage which was horizontal plunges toward the sump.

The upstream part is a beautiful gallery of big size, trending NNW. No difficulty to step in, except near the entrance where we must wade in mud, sometimes 50 cm deep. There is evidence of a temporary lake which forms after big rains: in this event, all the downstream part is flooded.

The ceiling stands at $8-12\,\mathrm{m}$ from the floor, too high to detect upper galleries. The formations on the wall are scarce. The only feature of interest is the smooth bends of the river.

At the time of our visit, the water trickled from wall to wall, in a narrow bed.

200 m from the entrance, on left bank, a slippery slope leads to a fossil gallery which goes out. There, bats are sleeping and the floor is covered by guano. Near the surface, there is a film of water on the floor, in which daylight filtering through boulders reflects.

Back to the main passage, mud and clay disappear and give place to flow-stone, with nice formations. The river flows beneath. There is a sudden modification of the cave. We arrive at a T junction. On the right, as before, a fossil gallery goes outside but we can't get out of the cave, hindered by boulders through which daylight is filtering.

On the left, we find again the river, flowing in a low gallery averaging 2 meters and narrower (six or seven meters). The clay deposits are more important and make the passage even smaller. Then, we noticed a draught, not so promising in fact: it was the indication of an other entrance.

Thus, at 350 m from the "artificial" entrance, we go outside by the real entrance of the cave, a nice swallow hole.

This underground river, flowing in a cave of that size, is a promising sign to find other caves in the vicinity. Comparing gua Tempat Penggalian n° 3 to gua Ampanas, we were surprised to explore a cave which has not been destroyed by the karstic process. The gallery is as big as possible in such a thickness of limestone.

The fauna abounds in the fossil parts of the cave, like swiftlets, bats, spiders.

Gua Tempat Penggalian n°3 deserves a better study.

Claude CHABERT et Jean MAURIZOT

Swallow hole near km 2 (Pengadan, Sangkulirang).

At km 2 of P.T. Sangkulirang road, go to the right in straight line, through the woods, towards the limestone range. A serie of swallow holes forms parallel to the range a line of 1 km long. One of these holes has been partly explored and surveyed.

André LANGUILLE

Cave near sungai Pengadan (Pengadan, Sangkulirang).

This cave is 200 M upstream from P.T.Sangkulirang base camp, with a porche wide opened. The survey shows only a part of the cave. The active level continues upstream and ends on a sump. Downstream, a narrow passage is supposed to join the river. An upper fossil level reaches the plateau by two openings.

André LANGUILLE

Gua Ampanas (Pengadan, Sangkulirang).

Altitude 50 m ca. D = 1227 m.

Gua Ampanas is situated at 7 km from the village of Pengadan and is well known by the inhabitants. Access i easy by the P.T. Sangkulirang road. Just before km 5, an exploitation road starts and two kilometers later crosses sungai Ampanas (this name comes from a sulfuric spring, hundred meters downstream from the road). The entrance of the cave is fifty meters upstream.

Gua Ampanas has been partly explored by the reconnaissance team on the 23 july 1982. In 1983 (21, 23, 25 and 26 july), it has been thoroughly surveyed, giving 1227 m of linear development. We don't know if all the passages have been explored by the villagers of Pengadan.

Some small passages are still unexplored because they looked insignificant. We think that a better exploration of the cave could give a 1500-meter long cave. The survey shows all the passages explored in 1983.

Gua Ampanas is a river cave carrying muddy water the day of our first visit. The underground stream is only 8 m, may be 10 m, beneath the surface. The ceiling is so thin that it has collapsed many times, forming numerous vertical openings, the bigger ones looking like small canyons. There are lateral openings strongly increasing the number of entrances. Thus, no light is necessary to visit the first part of the cave. At some 200 m from the first entrance (resurgence), a big collapse has partly destroyed the main gallery. Here very big boulders are found, under which the river is flowing. This is the end of the part of gua Ampanas.

Just before the collapse, on the left bank, a small inlet leads to a maze of passages and fissures from where it is easy to arrive at the second part of the cave. This one looks in better conditions: there are less chimneys. However, it ends in the same way: an other collapse beyond which there is no more cave passage. The river enters the cave by other inlets. A fossil gallery, beginning on the left bank before the second collapse, joins these inlets. Thar gives to the cave six upstream entrances and in dry season, water uses only one of them.

From the resurgence to the swallets, using the cave as a path, 15 mm are necessary. But, by the forest, it is more (see below the description of Pengadan karst).

The upstream entrances are not spectacular but reserved an impressive sight :in the forest, when the river is in flood, logs are carried by water, big logs, too big for the underground passages. So, they have stopped near the entrances where they are slowly rotting. And to go out, we had to climb these logs!

In that state of its development, gua Ampanas is an half-underground half-aerial cave. It shows evidence of karstic erosion under the tropics. In its evolution, the karst of Ampanas plateau is going to be destroyed. Here the strange fact is the juvenility of the underground morphology while the karst itself is very mature.

Water is drained by bedding planes, trending east-west preferentially. But tectonically the karstic plateau has been segmented by fissures oriented south-north, creating these numerous "daylights" or potholes. The most striking feature is the big collapse spliting the cave in two parts, giving to it an original architecture.

The limestone is corroded from inside by the river and from outside by rain and vegetation as well. Violent floods explain partly the rapidity of karstic cutting off. Rain entering the cave by the chimneys, creating underground and superficial lapiez, accelerates karstic process.

The river flows on a sandy and rocky bed. Pebbles are rare, fillings also :a few stalagmites and curtains.

One more feature has to be noted : the stalactites of the resurgence : there are so many that they look like a stone forest growing down (see front cover).

on an other hand, the cave shelters a lot of swiflets. They nest above

flood level. When they flight, they express a sound looking like a rattle. Besides swiftlets, the fauna is very abundant, mostly troglophile (spiders, crickets, grasshoppers, bats, centipedes,...).

Claude CHABERT

THE KARST OF PENGADAN

The limestone range we see from the village of Pengadan is the first one we meet when going upstream from Sangkulirang by sungaI Karangan. This range is approximately 40 km north of Sangkulirang. If Pengadan is 40 m above sea level, the summits of the limestone ridge are 460 m a.s.l., giving a thickness of some 400 m. In 1982, the limestone was covered by the equatorial forest. In 1983, after the woodfire of february, it was possible to watch the limestone rocks.

The ridge trends east-west and has been strongly eroded, forming a chain of towers which don't look karstified. They are dissected into gulleys or gorges. The slopes are very steep, all ending on screes. The limestone belongs to the miocene formations of Kalimantan.

We have only explored two small caves, gua Tempat Penggalian n°1, at the bottom of the range (we have been unable to check the morphology of gua Mardua which is located in the same area). They reveal the existence of small karstic conduits filled by clay, which don't seem going very far inside the mountain.

These observations, more the lack of caves knwon by inhabitants, did not stimulate us to make further research above 90 m a.s.l.

But eastwards, when sungai Pengadan crosses the range through small but nice gorges, we can see numerous openings, on both banks as well. Some of them are promising porches, standing at water level or a few meters higher (saying 40-50 m a.s.l.). Some give way to underground stream. One anonymous cave, parly explored to a sump (sea above) gives evidence on unconformity between karstic level and geographic level (we may imagine sumps going undernearth the river itself!). Unfortunately, these caves have not been explored by the 1983 expedition. On the other side of the river, some villagers know caves with birds nests.

The karst itself is found at the foot of this range, between 50 and 80 m a.s.l. It develops in a kind of low plateau between the first limestone ranges and the see. It lies upon sandstone bed. This "plateau" forms karstic entity with input and output, separated from the limestone range by impervious strata.

It stretches westwards, going far from the range (at least 25 km). Two caves, gua Ampanas and gua Tempat Penggalian n°3 have been explored. Both look interesting. They are horizontal caves of easy access (see above their description). After their exploration, we can conclude that the plateau has been intensively karstified and is totally independent from the limestone range. The speleogenesis happened in a thin strata of limestone (between 10 and 15 m of thickness only !). All the rivers coming from the range have to cross this "plateau", digging underground watercourses, creating simple hydrological systems, with swallow holes, resurgences and collapsed potholes.

The observation is about the maturity of karst itself. According to intense conditions of corrosion (violent floods, luxurious vegetation), we can say that the karst is in the same time formed and destroyed. It explains why coexist underground juvenile forms and superficial decayed ones. Looking at the survey of gua Ampanas, we can notice various karstic shapes ranging from small conduits to canyon, via collapsed potholes and human size gallery.

On surface, this karstic process has created a wrecked landscape, with lapiaz, fissures, boulders, potholes, where it is very difficult to walk. In this dismantled karst, it is also difficult to distinguish between superficial and underground features. On gua Ampanas "plateau", there are many swallow holes, fissures-caves, fissures-potholes, talus-caves and so on.

Relations between depth and surface, karstic development give birth to an original landscape hidden under an impressive forest.

Claude CHABERT

THE KARST OF TEKAK BULUSAN GUNUNG AKA?

This tower karst is located north-west of Muara Bulan, on the left side of sungai Pengadan. From Muara Bulan, a 46 km dirt road leads to base camp of P.T. Segara. From there, another 15 km before reaching the limestone range itself. This one forms a circle around an inner depression, "datar onion" (approximately 7 km long and 4 km wide) which is roughly at the same level (140 m a.s.l. ca.) than the outer depression. Difficult to say if it is a polje or not.

On summits, limestone looks strongly corroded, like spongework. The nearly destroyed rocks are attacked by rain and vegetation as well.

One pass, at 350 m a.s.l., gives access to the inner plain. From there, big porches can be seen on the other side of the range.

The inner plain shows interesting karstic features: a small river, sungai Liang Pesu, disappears and reappears many times before its last ingulfment under the range. Caves are known by villagers of a small hamlet, Karangan Dalam, some at 2-3 days walking.

Gua Payau (Tekak Bulusan, Muara Bulan, Sangkulirang).

 $\overline{\text{Alt}}$ itude 150 m ca. D = 40 m ca.

One of the caves opening at the bottom of the range, at 40 mn walking from Liang Pesu. After a porch 3 m high, a dry gallery, 5-6 m wide, ends on clay filling, some 40 m from the entrance.

Roughly explored the 3 august 1983. Unsurveyed.

Gua Sungai Liang (same location).

Not far from gua Payau. Outlet of a small stream. Collapsed entrance.

Through boulders, we can hear running water. Checked the 3 august 1983.

Claude CHABERT

Lubang Dunya (same location).

Altitude 230 m ca. D = 4070 m ca. D = 4

The entrance is 45 m above the inner depression. It is very calcified and opens at the end of an old gallery with collapsed ceiling.

The floor which goes up is covered with calcite and guano. In (C) (1) a column nearly blocks the gallery which is now horizontal, before ending on a bigger passage (E). On the left, a forty columns series partly close the way. This passage terminates (F) on three small openings going outside. On the right, the gallery widens quickly after small unexplored passages (H, J, F).

The gallery carries on, with important filling covering the floor (M). It joins (S) an other gallery on the left. The width is now twenty meters wide ca. In the middle, a temporary rivulet digging the clay-guano filling disappears in a 15-meter deep pitch.

The main gallery still carries on, with an high ceiling. On the left side, there is a low passage (X, Y) with formations : columns, gours...

Later, we find the 29-meter deep pitch leading to the lower level (these two pitches are dangerous because they open in the middle of the passage).

The gallery still goes to (A 13) where there is, on the right, a long earth slope.

 (\ldots)

In (A 15), a mass of big boulders blocks the gallery which is now bigger $(30 \times 25 \text{ m ca.})$. Above the boulders, we can see daylight.

On the right (A 15), a low decorated conduit was not fully explored.

After climbing the big boulders, with particular stalagmites, we arrive (A 23) in a collapse room.

On the left, an entrance-porch is the remain of an old room whose ceiling is collapsed (may be an old sinkhole).

The highest point of the cave (+55 m) is found in this part of the cave. There are two openings $(4 \times 3 \text{ m ca.})$ in the roof of the first room.

At the bottom $\mathbf{4}\mathbf{f}$ the room, a big gallery begins which joins 100 m later an other porch. This one is supposed to correspond to an old sinkhole also because it opens in a doline. On the other side of the doline, along the range, an other porch opens at the same level (A 523) which seems to belong to the same karstic system.

From the previous porch, the gallery continues, with big calcified boulders and pillars to end on a collapse of earth and boulders (A 59). In the roof, we can see again daylight (A 58).

In (A 38), a temporary rivulet runs in the middle of the room; then a gallery formed by the lower part of that room and the roof created by calcite leads to a narrow conduit where blows a strong draught.

This gallery from (S1) to (S 16) is very calcified, filled by undisrupted flowstones. Their sides have not been explored and also from (S 9) an upper part which could be the original gallery after reaching a lower passage. It arrives (S 16) in a big doline 40 m wide and 15 m deep ca. On the other side of the doline, at the same level (S 18), there is an entrance of 15 m x 5 m ca

⁽¹⁾ Letters into brackets refer to the cave survey.

and on the right (S 18) an other one (10x 5 m ca), both unexplored. (...)

Amongst the fauna, we have noticed bats, swiftlets and snakes. Around P 29 ("Snake pit"), there was a beautiful specimen, 2 m long, green, hunting swiftlets coming through the pit. When climbing the pit, he never attacks us.

The P 29 opens in (A2, A3). It is a two drops pit which arrives in a small gallery (A') leading on both sides (A'2-C') to a more important one whose floor is broken by many pits. In (A8), gallery ends on a small drop followed by two drops of 15 m and 20 m ca reaching a serie of big galleries we have not explored. According to our survey, they could corresponf to the collapse of (M'4-M'5) and to the pit of (M'42).

In (A'2, A'3), a 25-meter deep pit, unbottomed, seems in correlation

with the aven seen in (M'1-M'2). Its size is 20 x 10 m.

In (A'4-A'5), two small pits open along the right wall. Floor is cover-

ed by collapsed boulders.

In (F'1), a small drop gives access to lower level (gallery ending on earth filling. There, an unexplored tight passage).

In $(G',H',\tilde{I'})$, there is a room with collapsed boulders; between then open

two unbottomed pits.

The gallery continues by a low passage (S')(filled by clay and guano), then gets wider in two drops: in earth (K') and in rock (L') towards a bigger gallery which goes down to river level (Q').

 (\ldots)

In (M'), at different places water is seeping from the roof and makes this dry fossile passage more active. Sometimes, we have to wade in tumps of earth and guano.

 (\ldots)

In (S'-Z'1), two small meanders joins again in (U'-V') and then reach (W'-Y') the active part of the cave.

We have explored the upstream part up to (Z'1). The river gets deeper and ends on a sump or a duck. Downstream part is also deep and a strong stream has prevented exploration.

 (\ldots)

In (M'1-M'2), there is a porch which seems linked to P 25.

In (M'4-M'5), there is a collapsed room.

 (\ldots)

The gallerie carries on : it is a very high joint, at least 20-meter high, with floor alternatively wet and dry because water is seeping from the roof.

In (M'6), on the right, a 15-meter high porch gives sight to a 10 x 5 m aven which seems going upwards to unexplored part of the cave.

The gallery keeps is big size up to (M'21) where a bedding plane tooks place, gets wider and ends in (M'23).

In (M'231), a human size passage, after an easy climb, begins. The floor is covered by guano upon flowstone.

In (M'239), the earth-guano filling rises the floor at 1 m from the roof. The passage goes west and joins a more important gallery which is still unexplored.

In (M'234), again an unexplored passage.

In (M'24), the main gallery arrives in a big collapsed chamber. A slope puts us in (M'28) where we find an active system on the same line than the previous one, at some 700 m far from.

The upstream part, too deep, is still unexplored. Downstream, at (M'30), gallery splits in two parts: on right the river, on left a climb up to (M'32-M'33). After (M'33), gallery gets narrower but deep water prevents further exploration.

The flow looks of the same importance than the previous one and the swallow hole near the outer shelter (Liang Pesu). It is difficult to say anything about the local drainage and the hydrological organization.

In (M'26), a 10-meter deep pit gives access to a pool with water coming

from the roof.

In (M'39), a climb gives access to two leads: the right one, smallest, is unexplored. The left one goes to a meander of big size, still unexplored because we were running out of gear. It overhangs the river, without connecting it.

From (M'44), we can see on the other side of the room (above M'27), a big porch difficult to reach.

Lubang Dunya is composed of two parts with their own active system and

linked by a gallery longer than 700 m.

Many unexplored leads, of big size, show the importance of the cave. The karstic potential of this area looks prodigious: if aerial forms are destroyed, inner ones look strong.

 (\ldots)

The limestone ridge which is supposed longer than 20 km may contains important undergrounf voids.

For instance, on our first trip, we have explored more than one kilometer of cave passage not far from lubang Dunya, without special effort. We think that this area will reveal big discoveries for a light team, speaking indonesian.

0

N.B. The circled numbers give denivellation, datum point being entrance A.

André LANGUILLE

Topographie et report : Non traduit Guides et porteurs : non traduit.

Approvionnement : non traduit. Conseils et pharmacie : non traduit.

Moyens; coûts, temps de transport, hébergement : non traduit.

Commentaires sur les déplacements : non traduit.

Remerciements: non traduit.

HAROUN TAZIEFF 15. QUAL DE BOURBON 75004 PARIS

ATTESTATION

I do recommend to whower eventually concerned the members of the French Speleological Expedition to Kalimantan, Indonesia.

PARIS, May 17 th

LE MINISTRE DES RELATIONS EXTÉRIEURES

21AVR.83 460 CM

Monsieur,

J'ai pris connaissance avec grand intérêt du programme de l'expédition spéléologique que vous organisez de juillet à septembre 1983 dans l'île de Bornéo.

Je connais les résultats intéressants que la mission préparatoire de 1982 a obtenus.

C'est donc avec plaisir que j'accepte, comme vous avez bien voulu me le demander, le patronage d'honneur de cette expédition, et que je lui souhaite bonne chance et bonnes découvertes.

Claude CHEYSSON

The Pederation of Indonesian Speleologic Activities (PINSPAC) officially invites:

. to organize an expedition in BORNEO with LIPI permit

Since the National Institute of Geology and Mining according to their letter no. 413/Va/K/83 has DECLINED to become the COUNTERPART of this 1983 Kalimanton Expedition, we have kindly requested LIFI to officially become the CCUNTERPART of this Expedition.

We also have written a letter to Dr. Benny Hoedoro Hoed concerning this expedition.

The LIPI has not yet received the promised report on the Kalimontan 1082 reconnaissance activities under Mr. Chassier. Neither have we. Would you be so kind to send this report before arriving in Indonesia?

Thank you so much for bringing all the articles we need the Director of the National Search and Riscue Committee he urcently requested us to send the details/brochures of the \$ 600,- speleo rescue stretcher. Will you send it as soon as possible. We cannot order one without examining the features.

Yours sincerely

Rotert KT Ko

President

BOGOR INDONESIA

TELP 0251 - 22073

-Mr. Bernard Hof -Mr. Andre Languille -Mr. Jean-Claude Morsndi -Mr. Jean Naurizot -Mr. Arnoult Seveau -Mr. Claude Chabert - Mrs Nicole Boullier

for SPELEOLOGY in 1983.

Bogor, 6/6/1983

Mr. BERNARD ROF
LES PANORAMIC
Chem des Anes du Purgetoire
06600 ANTIBES
FRANCE BERNARD HOP

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SURAT TANDA MELAPORKAN

1. Hans Tame

Z. Hame tecil

3. Reteresas

S. Relenia

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PERMITTED

stant strat fin. Let Gl teffile

LETTER OF REPORT

. Mr. LANGUILLE

4. Tanevel detamp 13 Juli 1983

Passport Perancis No. 34-81-31 Forcalquier, 14.01.1981-13.01.1986

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Maritupulu Conv: Dr.

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Sechetary



PUSAT

Lampiran t

P.O. BOX 55

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Dear Mr. Hof,

HKSI /EXT /VI /027/BP

UNDANGAN KE KALIMANTAN

LEMBAGA ILMU PENGETAHUAN INDONESIA (Indonesian Institute of Sciences)

WIDYA CRAHA

Thank you for your attention.

3. Jenderal Gatot Subroto, Jakana Selatan Telp. . 511542, 511548, 512098, 512359, 512109

Alamat kewat : UF

Kouk Pos : 250

No.

Subj. Marter

SUBIT - KETEBANGAN No.: 5450 /340142.5/1423.

Yang bertanda tangan dibawah ini Deputi Ketus LIPI Mdang Limu

Pengetahuan alam menerangkan behwa : Hama : Mr. Bernard SCP

Pekerjaan : Ketua Torn Speleologi Peruncia disertal 6 anggota °)

: Le Panorazio

Chenin des ares du Purgatoire 06600 antibes (France)

sejak bulun Juli 1983 berada di Indonesia untuk melakukan survai speleologi di daerah Kalizustan bekerjasama dengan Fimpunan Kegiatan Speleologi Indonesia.

Survei ini diperkirakan akan semakan waktu selama 2 bulan LIPI tidak berkeberatan atas maksud termebut.

Sehubungan dengan hal itu, LIPI akan sangat menghargai buntuan yang dapat diberikan oleh instansi-instansi, baik pemerintah/swasta, maupum perorangan yang akan dihubungi, mehingga penyelenggaraan survai tersebut dapat burjalan dengun lancar.

*) Dafter amerote ;

- Mr. indre Languille Mr. Jean Claude Morandi

- Fr. Jean Faurizot
 Fr. Arnoult Sevenu
 Fr. Claude Chabert
 Krs. Bicole Bouillier.

LIPI Signing Ilmu Pengotahuan ala 11 Didin S. Sastrarrail

DEPARTEMEN LUAR NEGERI REPUBLIK INDONESIA

Somor : 635

Lamo. Perihal : Exspedisi BCRNEO' 83. Kepada Yth. Sdr. Ketma L.I.P.I.

Di -

JAKARTA

Jakarta, Juli 19

U.p. Yth. Sir. Kepala Biro Hubungan International

Mensrik surat kani No. 675/VII/83/06 tanggal 6 J 1983, perihal seperti diatas, bersama ini dengan hort diteritahukan sebagai berikut.

- Anggota-anggota ekspedisi tersebut sebanyak 7 ora telan tiba di Jakarta pada tanggal 8 Juli 1983 c pada tanggal 9 Juli 1983, 4 orang diantaranya tel datang renghadap kani. Ke 7 orang tersebut adala Tuna-tuan Bernard Hof, Arnault Seveau, Jean Claux Murandi, Claude Chaubert, Jean Maurizot, Andre Languille dan Ny. Nicole Boulier.
- Setelah diselidiki, maka memurut penjelasan mereka tujuan ekspedisi sekarang hanya untuk mengadakan menitian dan mengenal topografi gua-gua di semenar jung Kangkalihat di Kalimantan dan tidak akan men lidiki peşunungan Meratus.
- Peninpin rumbongan tersebut, Tn. Hof, menyatakan; la binda oleh karena beberapa alasan naka rendann ngambilan film telah dibatalkan dan penang pan binatang-binatang tidak direndanakan.
- Dalan ekspedisi ini mereka akan minta untuk diser-oleh dua orang ilmuwan Indonesia dari LIPI dan da: bagi partisipasi ini akan menjadi tanggung jawah ekspedisi selurunnya.

Memurat bemat kani ekspedisi ini telah mempunya perlengkapan dan persiapan yang memadai dan karena : dah berada di Indonesia kami tidak melihat adanya alu san-alasan yang memberatkan.

Demikianlah, agar Saudara maklum kiranya dan ketusan serta penanganan selanjutnya kami serancan keja

A.M. MENTERI LUAR MEDERI DIREKTUR JEIDERAL HUBSCSBLDF



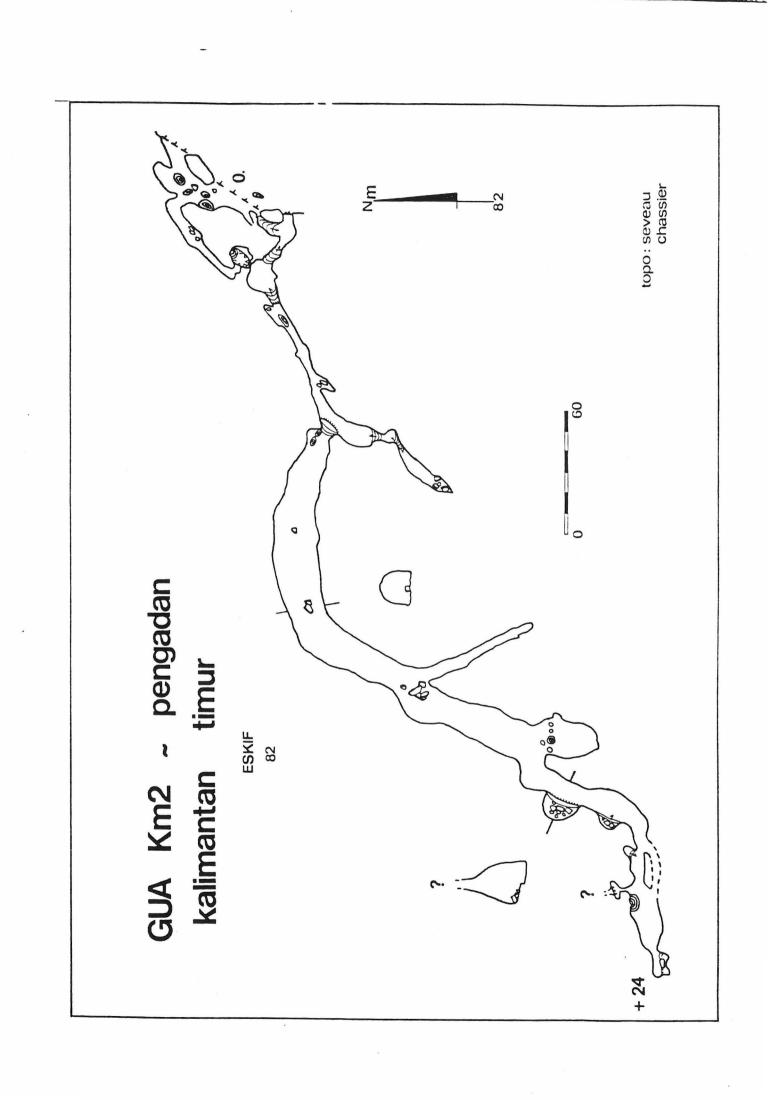
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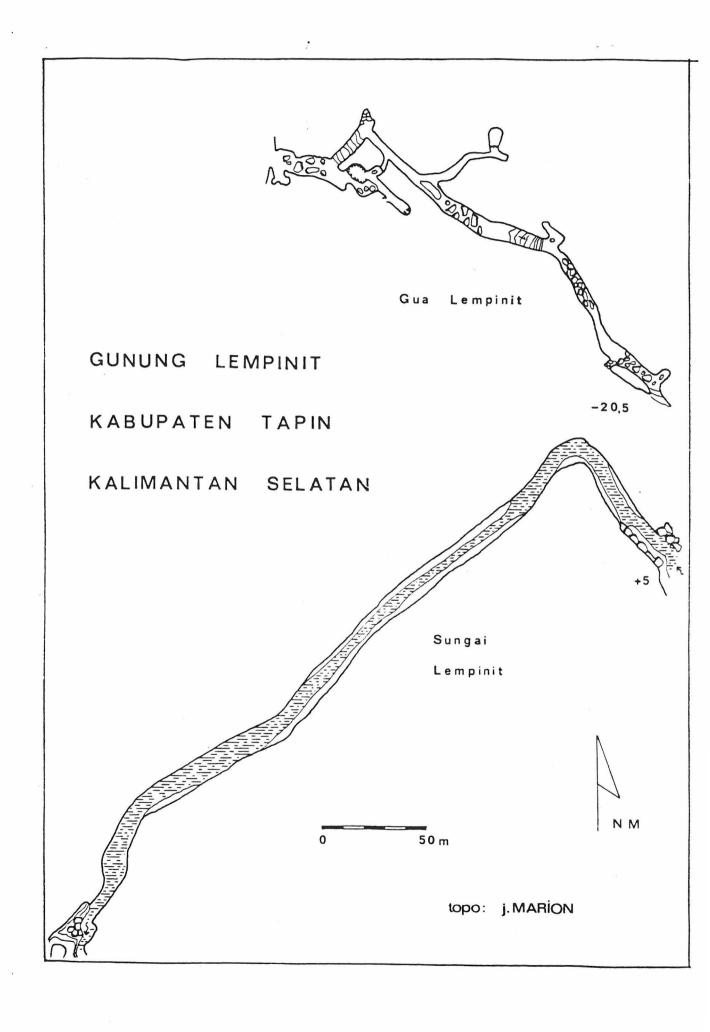
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1.Sdr.Sekjen Deplu 2.Sdr.Dirjen HUBSCSEUDFEN 3.Sdr.Dirjen Politik 4.Sdr.Dir.Eropa.

5.Sdr.Dir.Penluari 6.Sdr.Ketua FLHSPAC

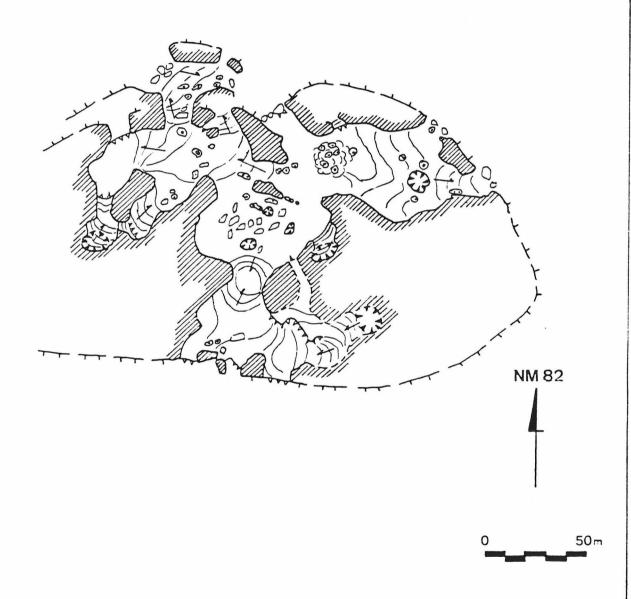
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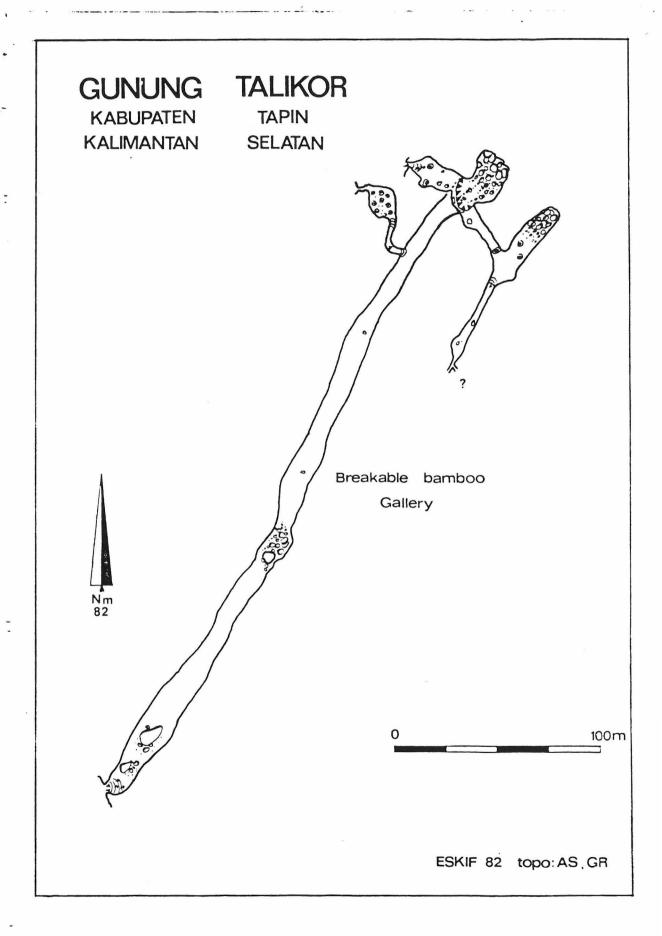


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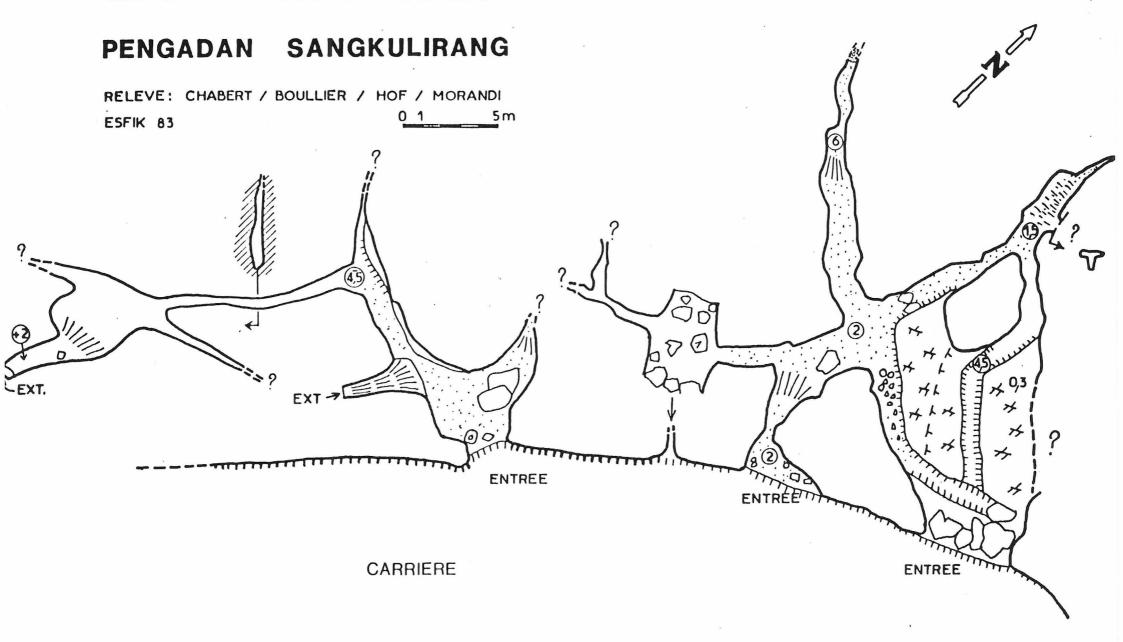
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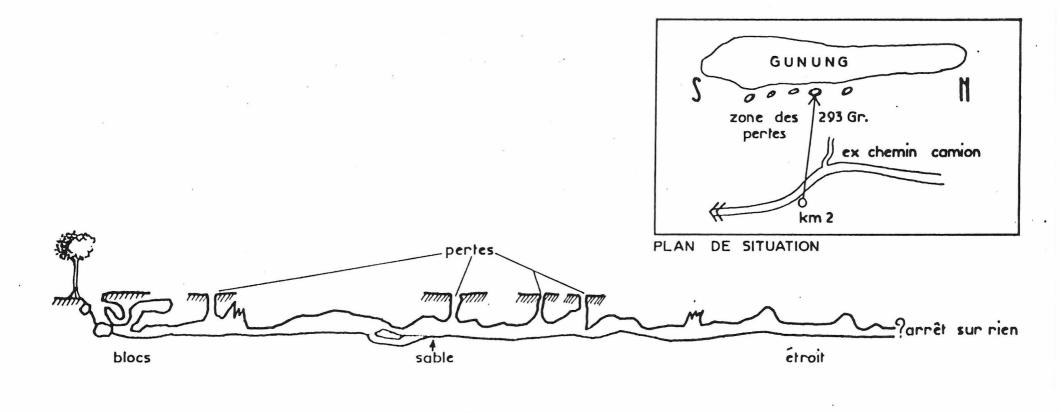
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GUA TEMPAT PENGGALIAN N° 1



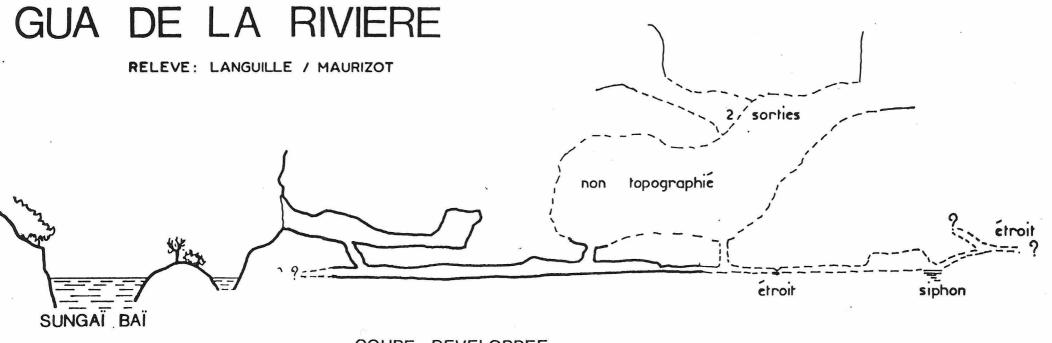
siphon à 200 m № sortie 40 m ~ **GUA TEMPAT PENGGALIAN** N°3 PENGADAN - SANGKULIRANG COUPE DE L'ENTREE RELEVE : C. CHABERT / J. MAURIZOT / N. BOULLIER Boussole et clinomètre SUUNTO _ topofil DRESSLER



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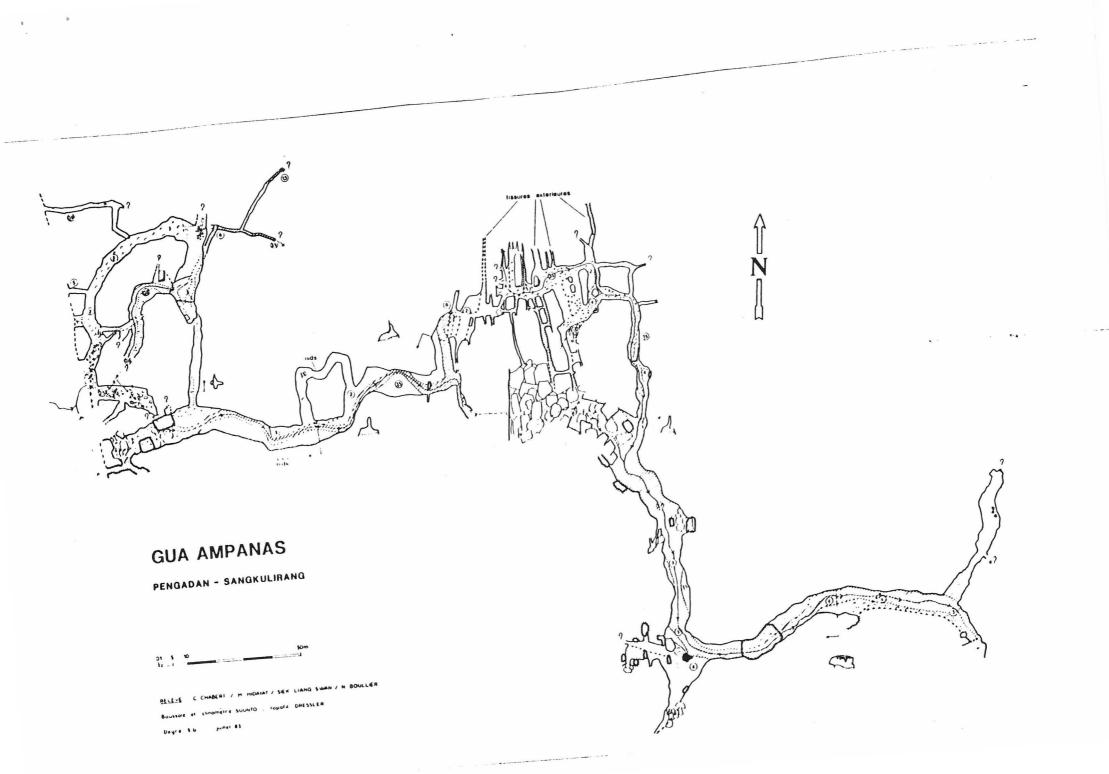
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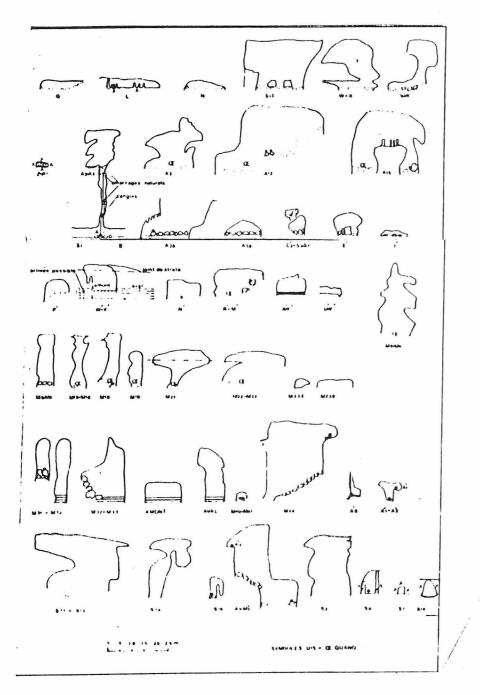
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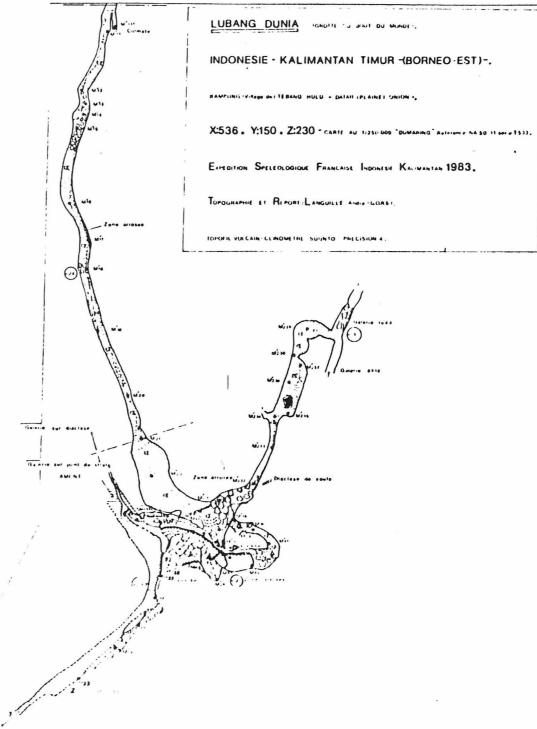


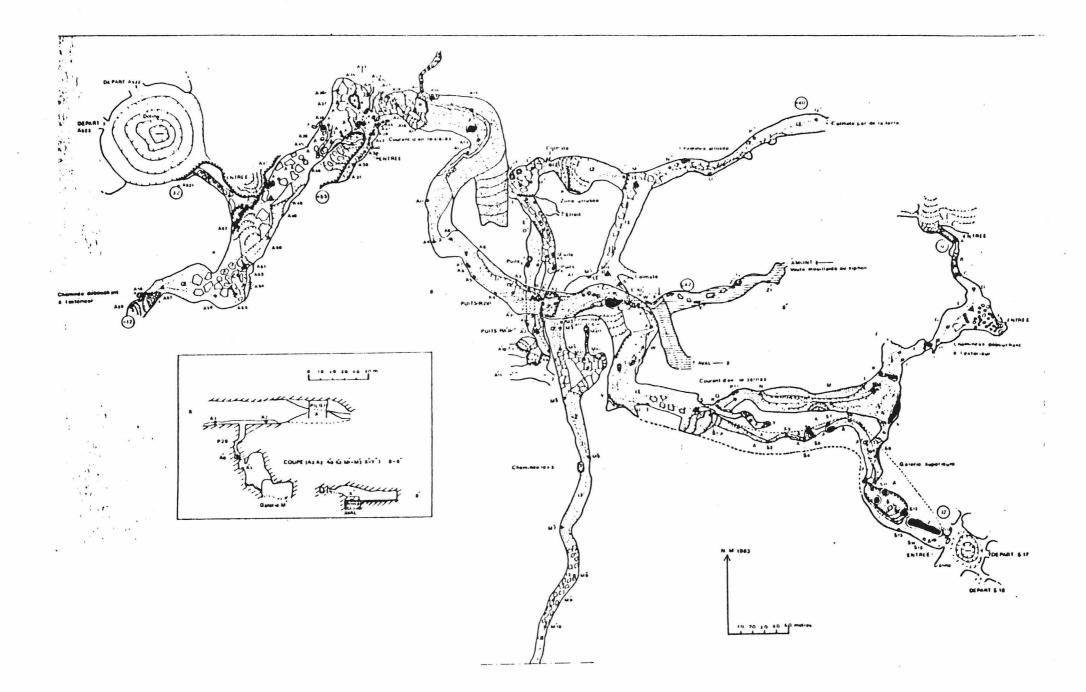
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Nous n'avons pas ici la prétention de publier une bibliographie exhaustive. Les éléments que nous avons pu rassembler nous ont demandé de nombreuses recherches, et pour une grande partie de la littérature en langue néerlandaise, nous nous sommes heurtés au problème de la traduction. S'il est facile de faire traduire un article isolé, il est beaucoup plus difficile de trouver une personne susceptible de compiler l'ensemble des revues traitant des Indes Orientales Néerlandaises...

Cependant, ces recherches nous ont été utiles. Notre seul souhait est que cette bibliographie puisse aider les spéléologues qui dans les années à venir s'intéresseront à l'Indonésie et à Bornéo.

Cette bibliographie concerne plus particulièrement l'île de Bornéo, et surtout sa partie Indonésienne, le Kalimantan. Nous indiquons cependant quelques réfèrences relatives au Sarawak (Malaisie), où les recherches sont plus anciennes et plus nombreuses, et peuvent servir de réfèrence. Pour Java, nous renverrons essentiellement à la bibliographie publiée par le Professeur S. SARTONO in Statigraphy and Sedimentation of the eastermost part of Gunung Sewu (East Jawa), Publikasi Teknik seri Geologi Unum nº1 1964 - Bandung, ainsi qu'aux travaux de Specavina (publiés ou inédits) P.O. BOX 55 BOGOR.

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