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Malcolm Pound

Alison Pound

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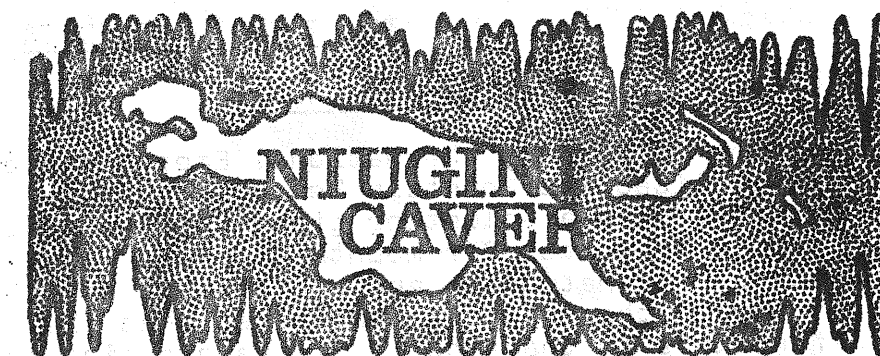
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Editor Malclom Pound,
P. O. Box 3824, Port Moresby,
National Capital District,
Papua New Guinea.

Assistant Editor Alison Pound

Production of Last Issue M. D. and A. A. Pound, N. Stewart,
B. Finch.

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Cover Photograph

A helicopter shot of a large cave entrance in the Keriaka Limestone on Bougainville in the North Solomon's Province. This cave has been visited by Fred Parker (ref. Helictite 8(3) : 63 - 67) and the entrance is reported to be 107 metres wide and 91 metres high (a metric conversion of Imperial estimations). Inside the entrance opens up into a chamber 137 metres wide, 274 metres long and 152 metres high. Photograph by Hans Meier.

TOK TOK BILONG EDITACave Rescue In Papua New Guinea

In the last year, the National Emergency Service has revitalised its Mountain Rescue Squad with the main aim of establishing a volunteer group who are available at short notice to go out for mountain rescue work. The group is a mixture of nationals and expatriates and the eventual aim is to train the national members so that they can carry out all the functions in the future. It is pleasing to note that about half of the expatriates involved are cavers, though mainly non - active cavers.

A recent series of light aircraft crashes has prompted the revitalisation of the group and assisting in locating aircraft crashes will be the main use of the group. Use of the group for other functions such as search and rescue for lost bushwalkers will be minimal, especially away from Port Moresby due to the cost of getting the group on site. For most of these other functions, the police and local service organisations would be available in the area required, and as no special equipment or skills would be required, could be utilised immediately. Though not set up for use in cave rescue work, undoubtedly the caving members of the group could be used to assist in cave rescue work. All previous cave accidents requiring rescues in this country have fortunately occurred on well equipped expeditions, where the cavers and equipment have been available on site to effect a rescue without delay. No small local caving trip has yet experienced an accident requiring additional cavers, etc to effect the rescue. Apart from expeditions, in most cases experienced cavers are just not available, in any case if required.

Cavers should keep in mind that the Civil Defence Organisation described above does contain cavers who could be used for a rescue. However, additional problems are the cost of getting such cavers on site from Port Moresby and the time involved especially if the accident occurs in one of our more remote karst areas.

Until a better rescue system is devised, cavers should take extra care while caving in Papua New Guinea. Overseas expeditions should include cave rescue equipment (particularly a stretcher suitable for underground use as none is available in Papua New Guinea) in their supplies and try to ensure that their group is of sufficient size to effect a rescue if necessary.

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SOME CAVES OF KITAVA, TROBRIAND ISLANDS, PAPUA NEW GUINEA

*D. K. Holdsworth and C. D. Ollier**

Introduction

The Trobriand group of coral islands is situated 160 km off the northeast coast of P.N.G., north of the D'Entrecasteaux Islands. Kitava, the most easterly island of the group, is approximately 7.2 by 4.0 km. It is 24 km east of Wawela on the main island of Kiriwina, though 80 km by sea from Losuia around the north coast of Kiriwina.

The population is approximately 2,000, the majority being subsistence farmers and fishermen. No Europeans live on the island. Yams, taro, sweet potatoes and bananas are the main garden products. Fish, chickens and eggs are eaten, and pigs are used in ceremonial feasts or "sing-sings".

Kitava is served by occasional boats, but cannot be reached by air. A Government work boat is based at Losuia and calls at irregular intervals of a few weeks, the journey from Losuia taking about five hours. Kitavans travel far in their canoes, and the ceremonial Kula trade involves journeys to other Trobriand islands, the Amphletts, Dobu and the Woodlark Islands.

The authors spent four days on Kitava in May, 1969, and lived in a house near the village of Bomapou in the north of the island. A further visit was paid to the south of the island in 1971. Trade tobacco was used as currency to pay for food, and to pay guides and carriers. A trade store has been established since our visits, 1 km from the main village of Kumwageya, and payment in cash may be more acceptable in future. Children appreciate being paid in chewing gum, known throughout the islands as "P.K."

Very little English is spoken on the island and we were fortunate in having the company of Mr. Gilbert Heers who speaks the Kiriwina language fluently.

Geology

Like the other islands in the Trobriand group, Kitava (Fig. 1) is an uplifted coral atoll, but has been raised higher above sea level than the others. The island is saucer-shaped, with the old lagoon now forming a swampy basin in the centre, surrounded by a fairly flat rim - the old reef - which reaches a highest point of 142 m.

* University of Papua New Guinea, Port Moresby, Papua New Guinea

** Australian National University, Canberra, A.C.T. Australia.

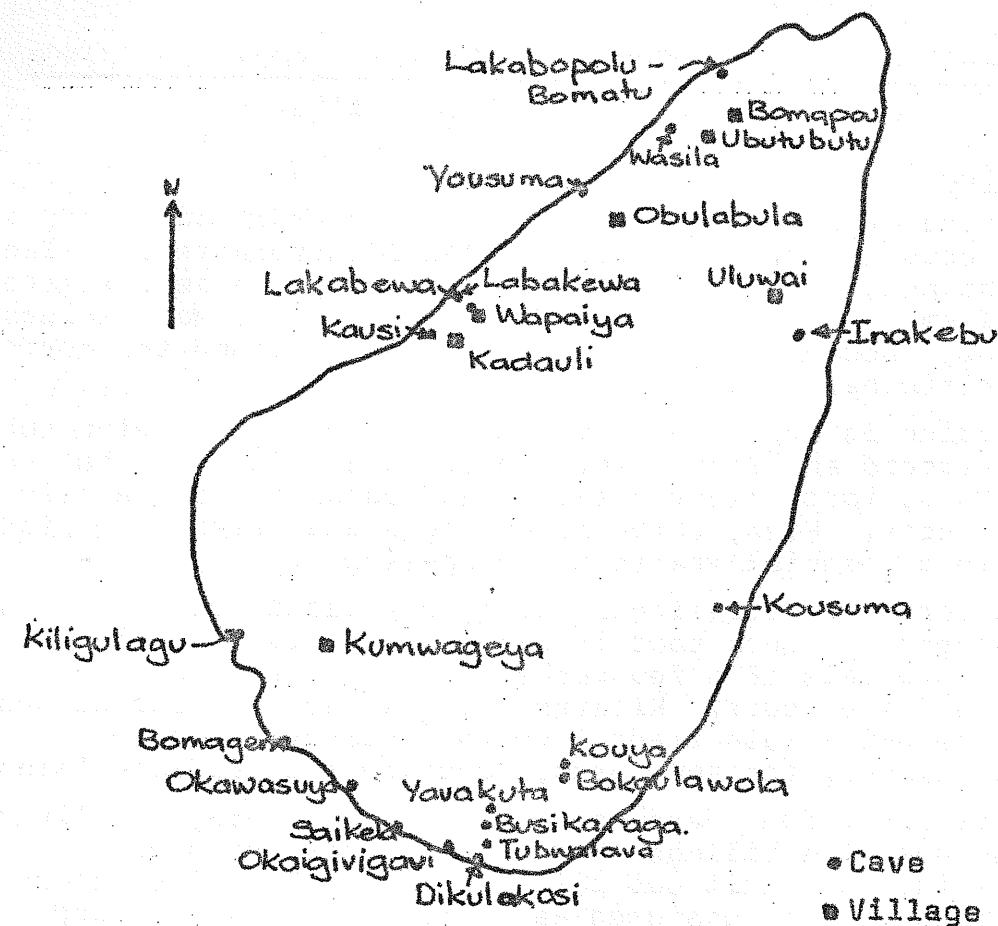


Fig. 1 KITAVA ISLAND

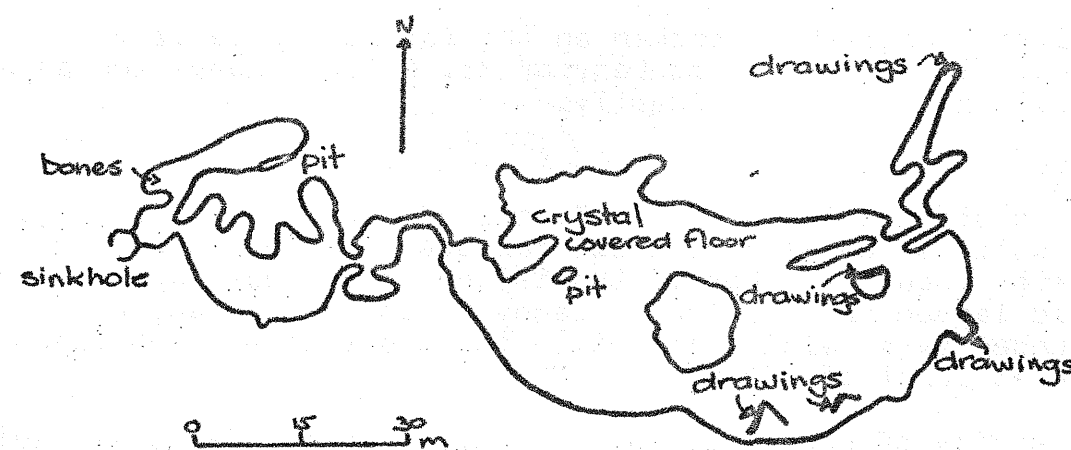


Fig. 2 INAKEBU

There are at least five main terraces on the island, separated by almost vertical cliffs in many places. Each terrace represents a different phase of coral reef development. The terraces do not represent jerky phases of uplift of the island relative to sea level. Rather, there has probably been steady uplift of the land during the Quaternary period, but during this time there have been wide variations in sea level associated with the growth and decline of ice caps in polar regions, and the terraces mark the local resultant of tectonic uplift and glacio-eustatic sea level changes.

Freshwater springs occur only near sea level and, since the villages are nearly all on the top of the island (for the best agricultural land is around the old lagoon), freshwater must be collected either from rainwater or carried laboriously by the women from the shore.

A fuller account of the geomorphology of the Trobriand Island caves is provided by Ollier (1975).

THE CAVES

Inakebu Cave (Fig. 2)

Nearest village: Uluwai. Meaning of name: Unknown. Geomorphic position: Close to the rim of the island, the entrance being on the inner side. Legends: None.

This is a complex cave for the Trobriands. There is one large cavern, several narrow elongate chambers, several high but small chambers, two pits and a few narrow squeezes.

Two circular sinkholes close to the entrance are open to the sky but clearly in line with the cave. Immediately inside the entrance the cave bifurcates. On the western side is an elongate passage, sloping down to the north. In this part of the cave there are fragments of human bones, a bailer shell (*Melo* sp.), a small shell (*Anadara* sp.) and a broken shell of *Turbo argyrostoma* (probably broken for food). This association of bone, bailer shell and small shell is the same as we found in Vakuta (Ollier and Holdsworth, 1969a) and suggests that this part of the cave was once used for funeral practices.

On one side of this chamber there is an elongate pit or rift about 3 m deep, and at the termination there are many shelves and rimstone pool edges indicating a series of falling water levels at some time in the past. The cave is now dry.

To the right, or east, is a more irregular cave which was probably used also for funerals, although the only evidence we saw was a possible "crypt" or artificial barrier of stones on the eastern wall, and in one place a large clam shell (*Tridacna gigas*) perched among some stalactites. This might be a modern intrusion; it might be a font, spittoon, or other feature, but

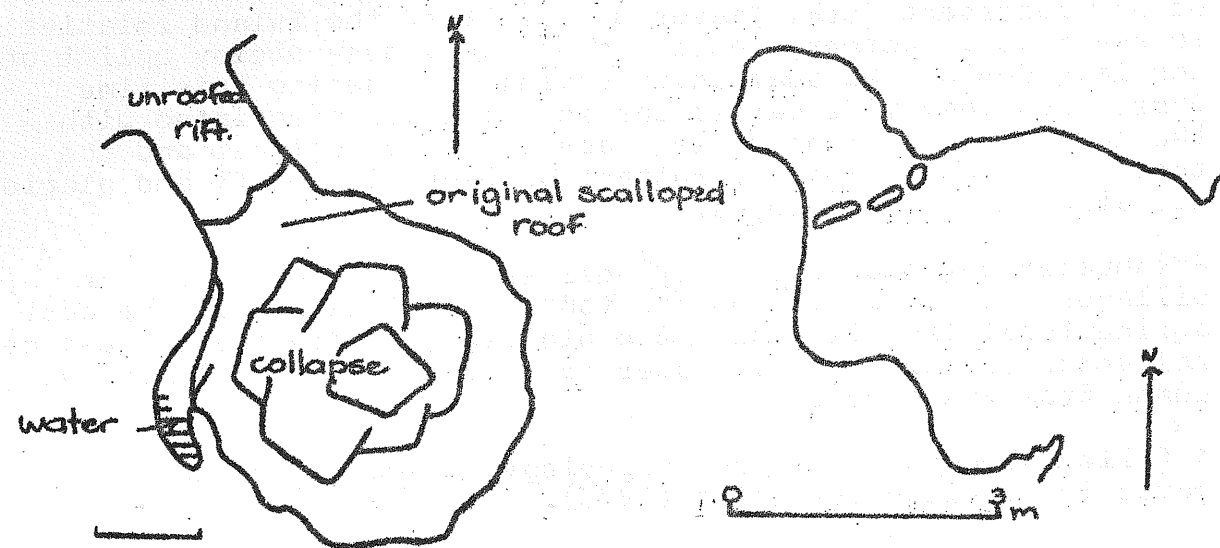


Fig. 3 LAKABOPOLU - BOMATU

Fig. 5 LABAKEWA

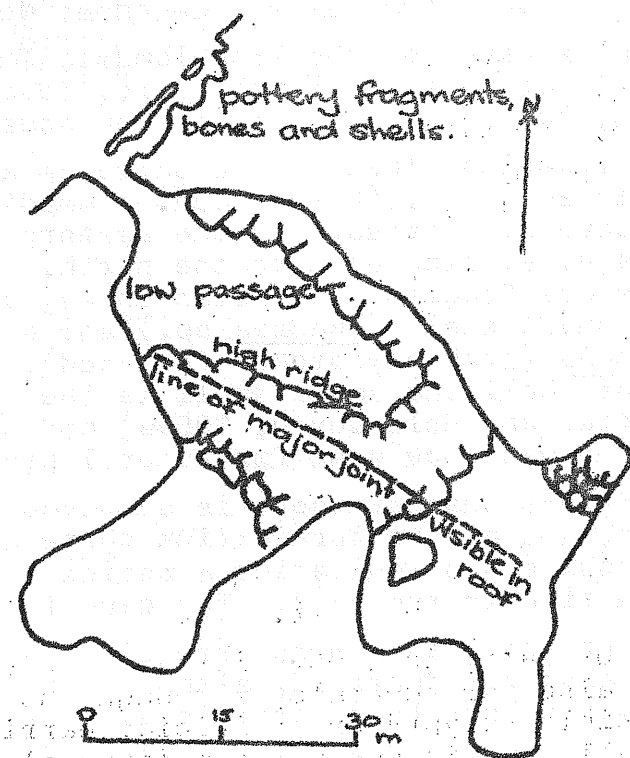


Fig. 4 YOUSUMA

since we found a similar clam shell containing human bones in Kuvwau, Kiriwina, we think it is probably a funeral shell.

Beyond this cave a small entrance, partially blocked by a boulder, leads to a high chamber with many stalactites. There is a small, minor chamber on the eastern side. Next comes the squeeze passage for 8 m leading eventually into the main chamber, which is dominantly an irregular phreatic cave.

The walls of this chamber are covered to a great extent with large symmetrical scallops up to 1 m across and there are bell-pits (Wilford, 1966) in the roof. The cave is modified by considerable collapse and by speleothem formation. There are several good stalactites and columns. Parts of the floor are carpeted by excellent, pure white, calcite crystals, all cemented together. To the northwest there are two extra chambers, elongated but not parallel, indicating some sort of structural control. There is also a pit in the floor of the main chamber which is elongate along some sort of fracture. It is about 3 m deep, with vertical fluting on the sides.

The feature of greatest interest in this cave is the cave art. It is the first discovered in the Trobriand group and, indeed, there are very few examples in the whole of Papua New Guinea.

Lakabopolu-Bomatu Cave (Fig. 3)

Nearest village: Bomapou. Meaning of name: Laka means grave; Bomatu means east wind. Geomorphic position: Close to the sea and not very high above sea level.

Legends: There is a local story that a man out hunting urinated close to this cave and died soon afterwards, so the cave has since been avoided.

The entrance to the cave is through an unroofed rift about 3 m wide, leading to a roughly circular cave. This was a collapse chamber, but the debris has become largely cemented together by flowstone. There are numerous stalactites and stalagmites. Portions of the solutionally shaped roof are preserved, with large symmetrical scallops suggesting a phreatic origin for this cave. It is possible to walk all around the edge of the cave, and partially under the debris. A small pool of water is present on one side of the cave. Snail shells were found in the cave, but no bones, pots or larger shells.

Wasila Cave

Nearest village: Ubutubutu. Meaning of name: Unknown. Wa means in.

Legends: No legends are attached to the cave and our guide (Nigidageda) discovered it accidentally about a year ago while hunting for cuscus.

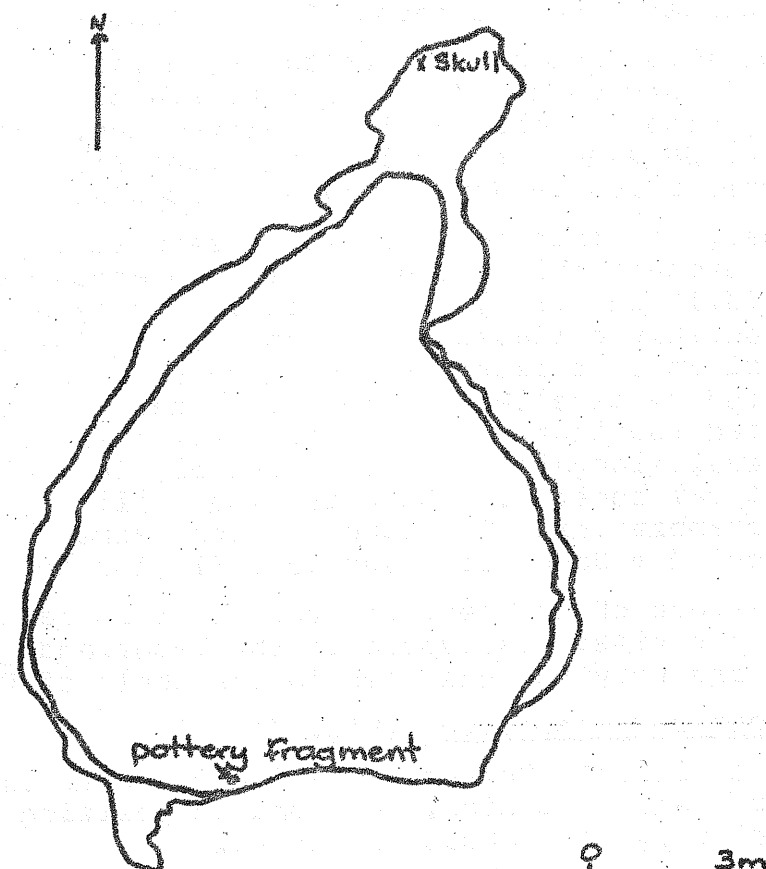


Fig. 6 KAUSI

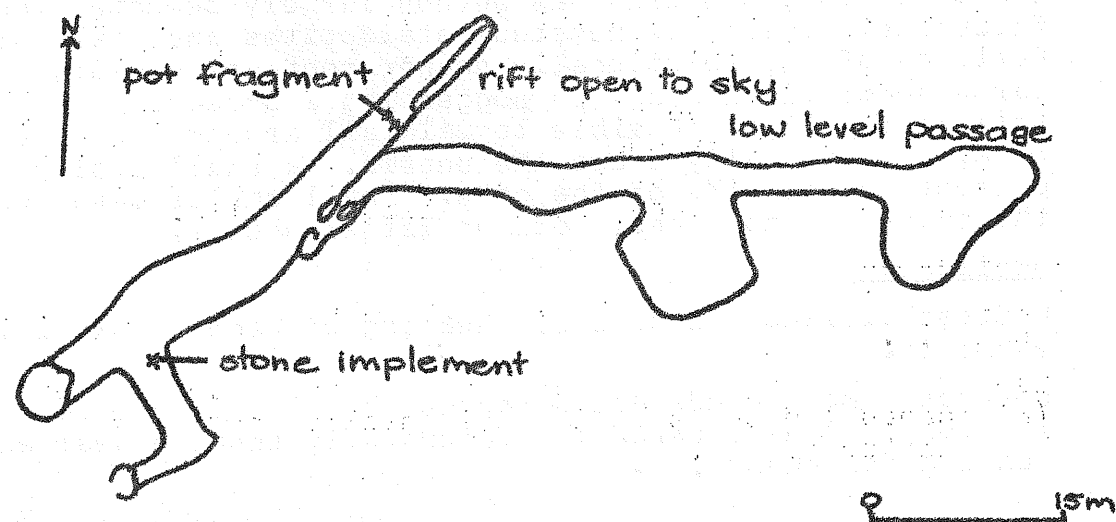


Fig. 7 KOUSUMA

Geomorphic position: On the outside of the rim of the island, about two steps down, a few feet below the top of a nearly vertical cliff over 30 m high. Access is not easy and it would be extremely difficult to find without a guide.

This cave is a small shelf about 3 m deep and up to 1 m high, divided by small columns into three chambers, two of which contain pots and bowls. We discovered more untouched pottery in this cave than in any other we have explored. Although many of the pots have broken - apparently they break in place under their own weight, possibly when moisture softens them - they appear to be all present. We left the pots behind, as it will be much more valuable for a specialist in pottery to examine this find in situ. The pots were large, well ornamented, and apparently of the same kind found associated with other cave burials. There were many human bones in the cave, including skulls, coccyx, ribs and vertebrae. Ribs and vertebrae are not commonly found in the caves so there may be something unusual about the burials in this cave. There was also a wooden tray, which was very desiccated and decomposed, but nevertheless associated apparently with the burials and not a later intrusion. Perhaps the dryness of the locality has enabled wood to survive for a long time, but it does rather suggest that the burials cannot be of very great age - perhaps a few hundred years is all that can be allowed. The pots had turned green and had lost some of their pattern on the exposed sides. The protected sides were fresh and had clearly etched decoration.

Yousuma Cave (Fig. 4)

Nearest village: Obulabula. Meaning of name: Suma means pregnant. Geomorphic position: Near the sea and close to sea level, backed by steep cliffs. Legends: None.

This is a fairly large cave, but some light penetrates to the inner end. Although there is a good deal of rock-fall, there are also many original cave surfaces which display symmetrical scallops up to about 1 m across, indicating phreatic formation. There are also many bell-holes (Wilford, 1966) in the roof. A major joint is visible in the roof of the cave. It appears to have some bearing on the orientation of the cave, although it is not parallel to the main length of the cave. The entrance to the cave is along a fairly low passage, bounded on each side by heaps of debris. The debris must be climbed and then descended to two further chambers, one in line with the entrance and the other evidently a side passage. It seems that the cave was originally a simple branching phreatic passage which has since been modified by rock-fall, especially along the line of the major joint.

Large numbers of flying foxes and small bats live in the cave and there is a great deal of guano. Natives occasionally visit the cave to hunt flying foxes. We also saw centipedes, spiders and small crabs.

To the north of the entrance passage and over 1 m higher is a shelf-like cave with several openings. It has been a funeral cave. A few fragments of pottery and bones were present, and several shells including Strombus luhuanus, Tridacna crocea and Anadara sp., all of which are edible and probably were brought to the cave as food. Also present were four small gastropods of Melania sp. which live in fresh or low salinity water.

Labakewa Cave (Fig. 5)

Nearest village: Wapaiya. Meaning of name: Unknown.
Geomorphic position: Near the crest of the rim of the island on a small cliff facing inland. Legends: See Kausi below.

This is a small rock shelter about 4 m across the front, extending inwards for 6 m and up to 1.5 m high. Inside is a line of stones which appears to be the remains of a barrier which formed a crypt, similar to those found on Vakuta (Ollier and Holdsworth, 1969a) and Kiriwina.

This cave was very rich in pots and bones. One intact pot was taken from this cave by a native and is now in the possession of Mr. G. Heers of Vakuta. Other pottery fragments, many of them large and similar to those in Wasila Cave, were collected by Dr. F. Gerrits early in 1969 for the Port Moresby Museum. Bones are still present, and the cave is remarkable for the concentration of skulls. At least 20 were visible but the cave is floored by a mixture of soil, bone and pottery fragments and there could well be more skull fragments. The skulls had no peculiar injuries as far as we could determine and the teeth were in remarkably good condition. One shell of Godakia sp. was found.

There is said to be another cave nearby, with no pottery, but we did not have time to visit it.

Kausi Cave (Fig. 6)

Nearest village: Kadauli. Meaning of name: Unknown.

Geomorphic position: Near the rim of the island.

Legend: Kausi is a bwala (literally means house), that is a place where the ancestor of sub-clan or dala is reputed to have emerged from the ground. A woman called Ikomwaigo emerged from this bwala. She had two sons and two daughters. When they grew up the daughters and the mother made pots, while the brothers fished. On one occasion a boy brought home fish, and was giving it to his mother when the girls grabbed it and ate it raw. The brother became very angry and the girls were so ashamed and frightened that they fled to Labakewa Cave where they hid their pots. They then made the sea disappear by magic and ran to the mountains (probably referring to the Amphlett Islands). The brother followed them, but was caught and drowned when the sea came back, and he was turned into a stone on the shore, which is still there.

Kausi is a collapse depression with overhanging walls forming niches or small rock shelters. A single fragment of pottery and a skull suggests that this cave was itself used once as a funeral cave.

Kousuma (Fig. 7)

Kousuma is the name of a cave on the land of Moileta north of Lalakaiwa village. The main entrance is a steep-sided cylindrical collapse hole about 5 m deep, but a side passage leads to a smaller entrance to the south-east. The entrance chamber descends steeply, with a rubble-covered floor for the most part, and then a number of unclimbable rifts are found. One large rift reaches the surface and a shaft of light illuminates the cave. A minor passage to the east leads to a climbable slope, which leads to a lower cave and associated chambers. This part of the cave has extensive and fairly spectacular stalactites, though there are few stalagmites and little flowstone on the floor.

A number of bones, including skulls, testify to cave burials. Some bones are encrusted with dripstone. The Rev. Ralph Lawton of Losuia collected a fragment of pottery with indented ornament from this cave on one occasion, and also an implement of polished quartzite.

Kouya (Fig. 8)

This is a depression elongated roughly east-west and about 5 m by 3 m. About 50 years ago Kouya was a cave, and an old man called Yamoi from Lalakaiwa village can remember it being filled in.

The cave is about 500 m northwest of Lalakaiwa village. The cave is a bwala (legendary place from which the ancestors of the sub-clan or dala emerged), but there are conflicting legends about this one. Yamoi believes the first woman to emerge was called Bokaimwau; Dauiya, who lives at Okabulula, says that Ilayuwa was the first woman to emerge.

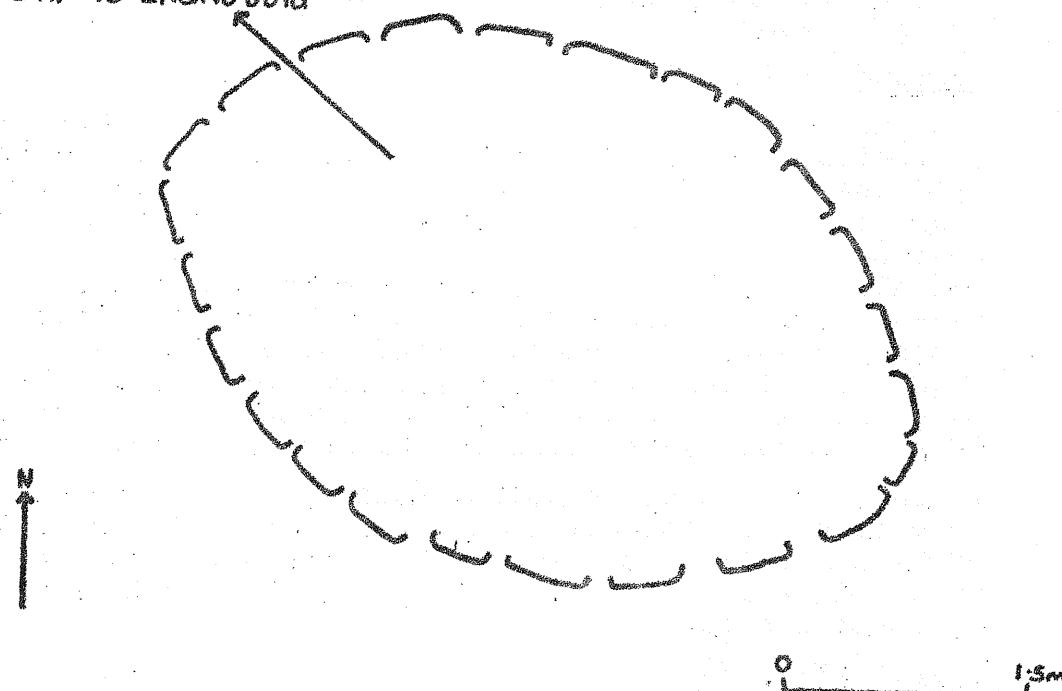
Eighteen metres from Kouya at the base of a large tree is a stone, foreign to Kitava, called Inabulula, which was used by the first people of this dala to bring calm in times of rough weather (the coast near Lalakaiwa is very rocky and dangerous). About 120 m to the northeast is a group of megaliths such as are commonly associated with bwala sites.

Although there are many stories of filled-in caves, especially where there is no cave at bwala sites, Kouya is of particular interest as it is the first example we have come across where this really happened.

Bokaulawola (Fig. 9)

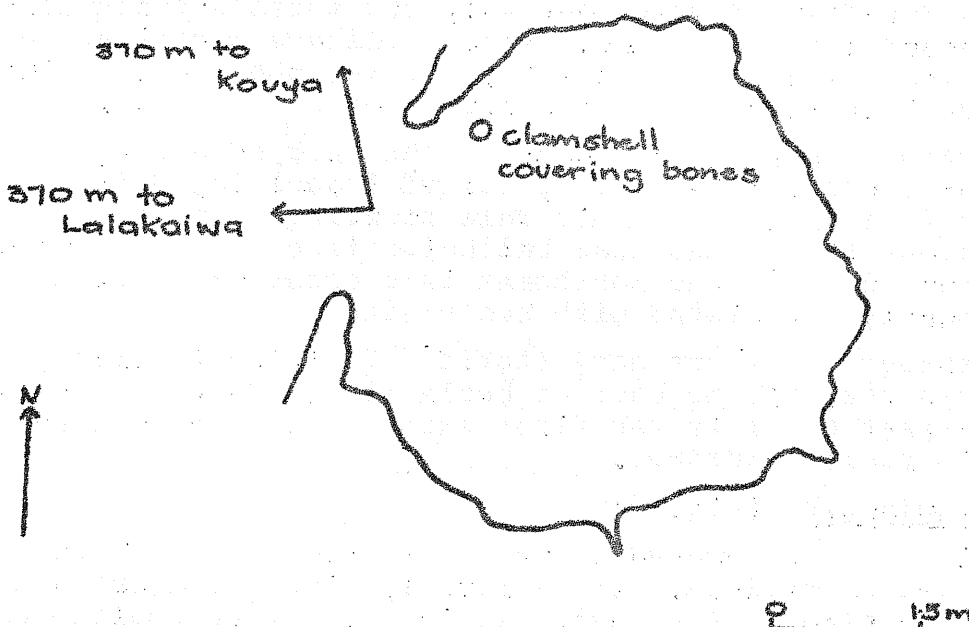
This cave is located about 400 m from the megaliths near Lalakaiwa village. It is roughly circular about 5 m in diameter and opening to the west. It is a low rock shelter on the inside of the rim of the island.

16.5 m to Inanubula

Fig. 8 KOUYA

370 m to
Kouya

370 m to
Lalakaiwa

Fig. 9 BOKAULAWOLA

Bokaulawola is the old burial place of the Milakaiwa dala from Kouya. The cave now contains four skulls and various other bones, a clam shell which was overturned with many bones underneath it, and fragments of pottery.

Busikaraga

(Busi means go down; karaga means parrot in Kiriwina language, although there are no parrots on Kitava.)

This is a real cave rather than the usual rock shelter used for cave burial. It is situated in the mid-slope of the island east of Lalela. Intense flowstone deposition obscures almost all the original rock surface, and entry to the cave is gained by weaving a corkscrew path through the narrow gaps between columns and stalagmites. A lot of stumpy stalactites have grown around roots. At the time of our visit the formations appeared to be dead. However, they may possibly revive in very wet weather. This cave contains no pots or bones.

Yavakuta

This is a small cave close to the rim of the island on the sea-facing side, east of Lalela. It consists of little more than irregular pockets in the cliff face, but has a roof of stalactites, and some columns dividing the cave into sections.

Many bones are present, including skulls. Pottery fragments are of the ancient type, suggesting that cave interments took place a long time ago.

A canoe prow also has been used in one cave as a container for bones. Our informants said that this was an old prow, but we are inclined to think it is not of very great antiquity. There is no longer any trace of white paint, but red paint is still present.

In a small cave about 20 m beyond the canoe cave there was an even more remarkable interment. Remains of a wooden box about 45 cm long and 8 cm wide were found, with half-mortice joints. Questions later revealed that a wartime burial took place in a box, probably an ammunition box.

Olukwaleku

This cave occurs close to the rim of the island on the inner side. It consists of many small ledges, with many bones and some clam shells. Two pots have been taken recently from this cave. They were described to us as black, rather conical pots, and in fact sounded like Amphlett pots. However since no Amphlett pots have been found in any of these caves before, we think they are probably old pots of an unusual type. One pot was intact, the other broken.

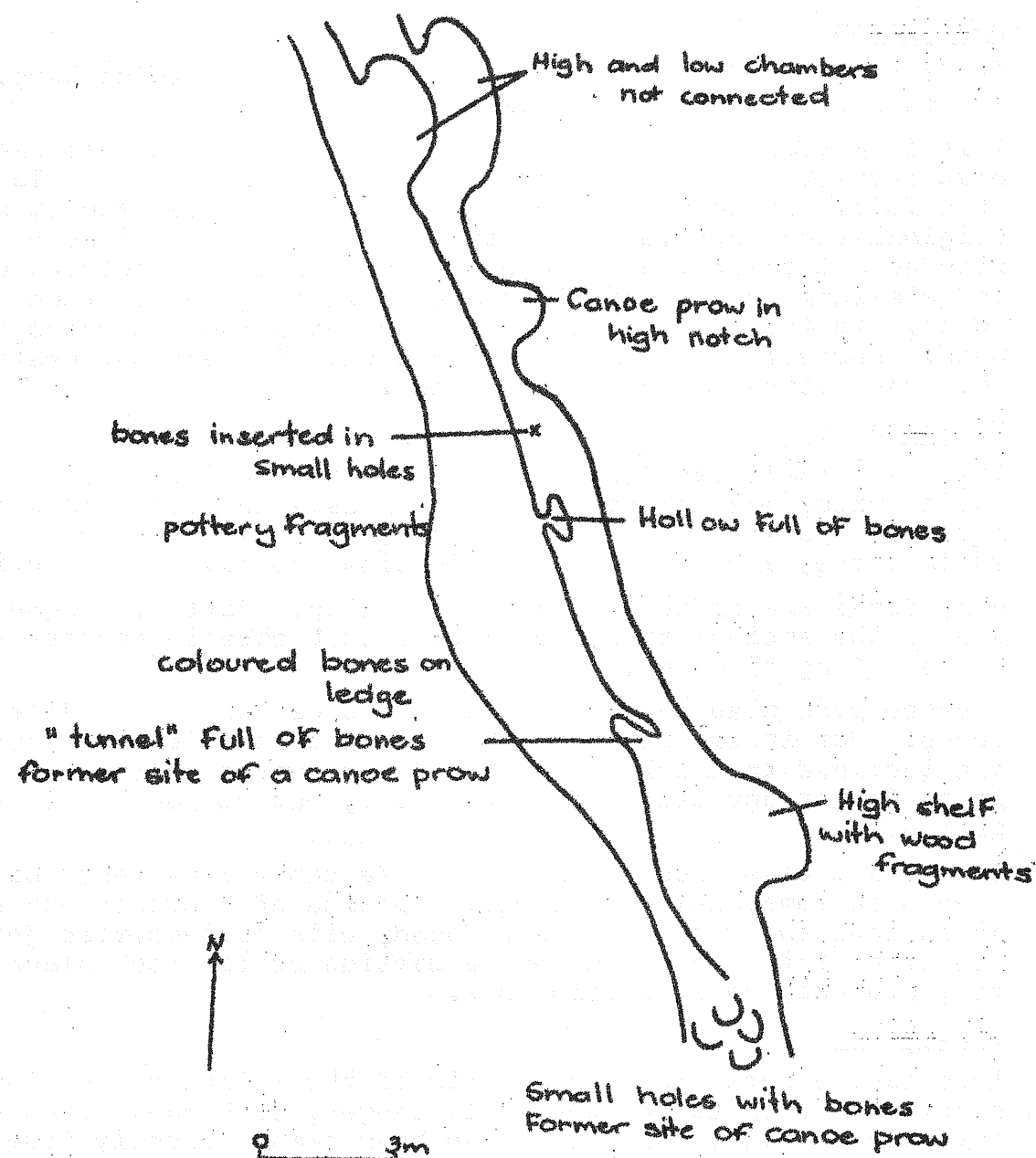


Fig. 10

KILIGULAGUTubwalova

This is a small hole in rock which holds water. It is about 1m across, and is used to soak leaves from the coconut palm for two days. These are used in the manufacture of grass skirts.

Wapaiya

In the middle of this village two new cave openings appeared earlier this year (1971) after heavy rain. A large disc of earth collapsed, almost as a whole, leaving a cylindrical hole about 3m in diameter and 2m deep. The walls expose a deep terra rossa soil with soil structure or horizon differentiation. A little to one side of this large hole is a smaller, irregular hole leading down to a small irregular solutional passage in limestone. It would have been intriguing to investigate these new caves, but the people have tried to fill them with rubbish, and entry would have required extensive digging.

CAVES IN THE SEA CLIFFS

A number of caves, ledges and rock shelters have been used as repositories for human bones. The following list of sites is in sequence from the coast near Kumwagea to the coast east of Lalela.

Kiligulagu (Fig. 10)

This is a sea-cliff cave near Kumwageya, about 8m above sea level, in which there are remains of many burials. There are virtually two storeys, a high and a low level, not interconnected. Of particular interest are the burials in canoe prows. Canoe prows were cut off and used as containers for bones. The canoes were from Kitava and appear to have been old. One intact one remains on a very inaccessible ledge, and fragments of wood that were possibly canoe remains are present on another ledge. Two canoe prows were collected by Dr. Gerrits some time before our visit.

Some limb bones have been partly inserted into small holes in the cliff face so that they stick out. It seems probable that this is a feature of the later desecration rather than an original burial feature.

Another interesting feature is the presence of bones painted red (probably ochre). It seems that in the days of tribal fighting a party of men from Wawela came to fight members of the Lukwasisiga clan from Okabulula. One man hid in the cave of Inakebu, which provides an admirable ambush. When the Wawela men followed him, he killed them one by one, until the remainder were so reduced in number that they gave up their attack and fled back to Kumwagea, where they were killed. Their bones were placed in the burial cave along with other bones, but to distinguish them from local peoples' bones, the bones were painted red.

Bomagem

A small shelf about 2m above sea level. A few bones of Kitava people are present. There was also one canoe prow, but this appears to be a chance find. The prow is modern (it has a nail in it) and there is no indication that it ever contained bones.

Okawasuya

This is a small shelf 6m above sea level. Bones and a clam shell are present. There used to be a canoe prow, but this has been collected by Dr. Gerrits.

Saikela

This is a small shelf about 3m above sea level. A few bones are present, said to be of people from Kumwagea.

Okaigivigavi

This is a small shelf about 3m above sea level, undercut and inaccessible without a pole or ladder. A few bones are present and there used to be a canoe prow, since collected by Dr. Gerrits.

Dikulakusi

The nearest village is Lalela. The name is given to several small caves and shelves about 6m above sea level in the sea cliffs. Many bones are present, including vertebrae, ribs and pelvic bones. In most cave burials we have seen these bones are usually absent, and it may be that some entire bodies have been placed in this cave rather than the usual bundle of bones brought in for secondary interment. On the other hand, there was one small slot that contained many skulls so close together that they must have been put in separately without any container, and separate from the remainder of the skeleton.

DISCUSSIONGeomorphology

In our papers on the caves of Kiriwina and Vakuta (Ollier and Holdsworth, 1968a and 1969), we have remarked how we were rather surprised that the caves showed no unusual features due to the special nature of the parent coral, or peculiarities of origin of coral atolls. We had thought we might find original hollows inherited from the coral reefs, or at least tunnels opening to the sea, but instead we found normal karstic caves. Basically the larger caves were formed as short tunnels fairly close to the watertable, but not opening to the sea, and modified since by varying degrees of collapse and fill; the smaller caves were merely irregular hollows or shelves.

The smaller caves of Kitava are like others of the Trobriands. They can occur at the top or bottom of cliffs, or on irregular ground. However, the larger caves are considerably different, for they present features of deep phreatic origin, i.e. formed below the watertable. The large symmetrical scallops and bell-holes must have been formed when the caves were completely full of water, and the blind valleys, irregular gradients and alternation of large chambers and squeezes in Inakebu all suggest phreatic activity. Yousuma has a simpler shape, but scalloping and bell-pits indicate phreatic origin.

A number of caves are close to sea level, but they need not have formed at sea level, and perhaps a fall to the present sea level merely exposed caves that were already formed.

The lens of fresh water held in a coral island extends for a considerable depth below sea level. The caves may have formed in this situation, the fresh water possibly passing through caves and emerging eventually as submarine springs.

The caves have been modified later by collapse - structurally controlled in Yousuma - and by secondary deposition. Deposition of stalactite, stalagmite and rimstone pools is still active in many caves, though some small ones like Wasila are now dry.

The initiation of new collapses at Wapaiya is a valuable observation, as very seldom does one have the opportunity to see the actual beginning of cave formation by collapse. The small amount of collapse contrasts with the formation of Kwaivau Sopi on the island of Kaileuna where a cenote formed very rapidly (Ollier, Holdsworth and Heers, 1971).

On Kitava there seemed to be a possibility that we might find several generations of caves associated with the different phases of uplift of the island. This was not found, but the possibility is still present, although less likely now.

On the islands of Kiriwina and Vakuta we made a fairly comprehensive exploration of the caves and probably missed only a few, but on Kitava there are probably many more caves to be found.

The Cave People

In previous papers (See Ollier and Holdsworth, 1968a, 1968b and 1969) we considered who used the caves as burial chambers, and when; who made the pottery; who built the megaliths, which appear to have been funeral monuments originally; what was the relationship between the sub-clans (dala) and their alleged places of emergence from the ground (bwala) which are sometimes caves. On Kitava we have all these questions, plus the additional problem of who painted the cave pictures. Cave burials in canoe prows have not, so far as we know, been reported before. The canoe prows appear to be old, and different in style from those of presentday canoes, but expert opinion on this matter must await future work.

On Kitava there seems to have been a genuine dread of caves until very recently. Some discoveries of bones and pots were a surprise to the local people themselves, as was the discovery of cave paintings. The present inhabitants do not seem to be connected directly with either the art or the burials. The pottery found in the caves on Kitava is of a similar style and age to that found on other islands, quite different from that of the present day, and of unknown origin. A number of megaliths are present on Kitava which at one time were probably funeral places. For some the people have no story whatever, while other megaliths are used for magical purposes which seem to be of secondary origin. Some of the Kitava caves are bwala or emergence holes. Kouya, for instance is a bwala - a mythical place of emergence of the ancestors of a sub-clan. The cave is possibly associated with a nearby group of megaliths on land called Molisilasi, and with a magic stone called Inabubula, 18m northwest of Kouya, which was used by the first people of the sub-clan to bring calm weather in times of storms.

Our second expedition to Kitava coincided with the Kula voyage - a ceremonial trade voyage. Except for the very old, very young, blind or crippled, all the men of Kitava were away on the voyage. We used women and children as guides. Although some old men were quite helpful, we possibly failed to learn all the legends of the caves.

We have discovered no association between the cave pictures and other features; it appears that cave burials were made in the same cave that the pictures are in, but in a different chamber, and quite possibly by different people.

All these things suggest the possibility that the present inhabitants are not the people who did all the things connected with the caves, but possibly displaced an earlier (though somewhat similar) people.

The only clue so far as to the time of these postulated former people comes from the dala lines. Each sub-clan can trace its ancestry verbally from mother to mother back to the first woman who emerged from the ground to found the dala. This takes about 25 generations, or perhaps 500 years. Could the "emergence from the ground" refer in reality to the arrival of the present inhabitants (by boat) who wiped out any previous occupants, perhaps 500 years ago.

There is a large enough sample of bones for an expert to work out the sort of people who are buried in the caves, and dates could be obtained from bone, shell and even wood. Investigations of pottery in stratified sites will also give some clue eventually as to the date of the cave burials. The caves of Kitava provide a lot of work and hold out promise of a lot of discoveries for future investigators.

Acknowledgements

We gratefully acknowledge the help given to us by Mr. C. Single, Mr. and Mrs. T. Ward, Dr. F. Gerrits, and especially Mr. G. Heers who first discovered the cave art in Inakebu and whose fluency in the local language was of immense value to our expedition.

C. D. Ollier gratefully acknowledges a grant from the Explorers Club, New York, U.S.A., which assisted the organisation of the 1971 visit.

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LONGEST AND DEEPEST CAVES OF THE WORLD

A. A. Pound*

The following table lists the longest and deepest caves in each country for which data is readily available. This list is based on one published by the French Speleological Federation (Chabert,

Cont'd on page 61.

* P. O. Box 3824, Port Moresby, Papua New Guinea.

LONGEST AND DEEPEST CAVES OF THE WORLD

COUNTRY	DEEPEST CAVE		LONGEST CAVE	
Afghanistan			Ab Bar Amada	1220 m
Algeria	Boussouil	505 m	Tafna	3887 m
Argentina			Brula	2500 m
Austria	Platteneckeishöhle-Bergerhöhle	879 m	Eisriesenwelt	42000 m
Australia	Khazad-dûm	329 m	Exit Cave	16000 m
Belgium	Bernard	140 m	Han	5720 m
Belize			Saint Herman's Cave	3785 m
Boliva	Umajalanta	130 m	Umajalanta	1620 m
Brazil	Córrego Fundo	195 m	São Mateus-Imbira	20540 m
Bulgaria	Raičova dupka	372 m	Duxlata	11200 m
Canada	Arctomys Cave	523 m	Castleguard Cave	13100 m
Colombia	Aire	280 m	Indio	1237 m
Costa Rica	Santa Ana	170 m		
Cuba	Jibara	242 m	Perdidos	26000 m
Czechoslovakia	Zásočie	263 m	Domica jaskyňa - Baradla barang	25000 m
East Germany			Wimmelburger Schlotten	2400 m
Ethiopia	Tula Kiliwisa no 1	64 m	Sof Omar	15100 m
Equador	Tayos	186 m	Tayos	4900 m
France	Pierre Saint-Martin	1332 m	Dent de Crolles	35600 m
Great Britain	Ogof Ffynnon Ddu	308 m	Ogof Ffynnon Ddu	38500 m
Greece	Epos	442 m	Glyphada ou Vlyhada	3400 m
Guatemala	El Ojo de Mal País	240 m	Veronica del Rio Candelaria	7900 m

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NIUGINI CAVER VOLUME 6 NUMBER 2

COUNTRY	DEEPEST CAVE		LONGEST CAVE	
Hungary	Vecsembükki-zsomboly	245 m	Baradla barlang-Domica jaskyna	25000 m
Iceland			Surtshellir	1970 m
India	Sough Cave	60 m		
Iran	Parau	751 m	Parau	1364 m
Ireland	Carrowmore Caverns	144 m	Poulnagollum-Poulelva Caves System	11800 m
Italy	Monte Cucco	922 m	Piaggia-Bella	14000 m
Jamacia	Morgan's Pond Hole	186 m	Noisy River Cave	5633 m
Japan	Byakuren do	450 m	Akka do	8000 m
Kenya	Leviathan	305 m	Leviathan	3500 m
Korea			Bilremos - gul	8000 m
Laos			Sé Bang-Fai	4200 m
Lebanon	Faouar Dara	622 m	Jeïta	8330 m
Libya	Bukarma	101 m	Bukarma-Habibi	2250 m
Luxembourg	Sainte-Barbe	40 m	Moestroff	4000 m
Madagascar	Tolikisy	160 m	Andrafiabe	8350 m
Malagasy			Niah	3200 m
Morocco	Toghobeit	700 m	Wit Tamdoun	7550 m
Mexico	San Agustín	612 m	Arroyo	7205 m
Namibia	Harasib	110 m		
Nepal			Harpan River Cave	1479 m
New Caledonia	Adio	120 m	Adio	3900 m
New Zealand	Harwood Hole-Starlight Cave	357 m	Gardeners Gut Cave	10100 m
Norway	Räggejavre-raige	575 m	Okshola-Kristihola	9500 m
Papua New Guinea	Bibima	494 m	Atea Kanada	30500 m

NIUGINI CAVER VOLUME 6 NUMBER 2

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COUNTRY	DEEPEST CAVE	LONGEST CAVE
Peru	Milpo	407 m
Philippines	Milpo	2141 m
Poland	Wielka Snieżna	9000 m
Portugal	Moinhos Velhos	8000 m
Puerto Rico	Moinhos Velhos	2500 m
Romania	Tăusoare	7000 m
Solomons Islands	Kolokofa Cave	20785 m
South Africa	West Driefontein	364 m
Spain	Piedra de San Martin	10800 m
Switzerland	Hölloch	60000 m
Sweden	Käppatjokkgrottorna	129525 m
Tanzania	Käppatjokkgrottorna	2100 m
Tonga	Ana Ahu	3500 m
Tunisia	Djebel Serdj	1700 m
Turkey	Düdençik	5500 m
USSR	Kievskaja ou Kilisi	110840 m
USA	Neffs Canyon Cave	297080 m
Venezuela	Sarisariñama	10200 m
West Germany	Kargrabenhöhle	7000 m
Yugoslavia	Pološka jama	10300 m
Zaire	Meya-Nzouari	988 m

1977) but is supplemented from other publications and personal communications where appropriate. The length for the Atea Kanada is preliminary.

Reference

Chabert, C. (1977). Les Grandes Cavites Mondiales. Spelunca supplement no. 2

SURVEYING NOTES

M. D. Pound*

The Australian Speleological Federation have recently published the latest edition of their 'Cave Survey and Map Standards' (Anderson et al., 1978). It is not proposed to reprint these in Niugini Caver but copies may be obtained from the Australian Speleological Federation by writing to The Convenor, Survey Standards Commission, Bruce Welsh, c/- 108 Queens Parade, East Newport, New South Wales, 2106 Australia.

It is hoped that all resident cavers will obtain a copy of these standards and adopt them when preparing cave surveys and maps. Use of these symbols will greatly assist speleology in this country and solve the problems which arise when each person appears to adopt his or her own standards.

Overseas cavers visiting this country will in all probability use the survey standards that they are used to in their own country. As the new Australian Standards are based on systems used in other countries and are quite similar, this is not expected to cause any problems.

I was fortunate enough to receive from the recent French visitors a 'Topofil', which is a distance measuring device, used in French cave surveying. The unit consists of a metal box containing a reel of cotton sewing thread which is fed out over a length measuring mechanism. It is used by attaching the end of the thread to the first survey station and traversing along the cave from station to station in the usual manner leaving the cotton thread stretched between stations. The distance between stations is determined as the difference between the readings of the length measuring mechanism at the two stations. The error in distance determination due to stretch or shrinkage of the cotton thread is expected to be small as the thread is of low stretch and is used only once in clean condition. Of course, care is taken to maintain just enough tension on the thread to maintain the thread in a straight line between stations. Apart from the ease in measuring the distance, the

* P. O. Box 3824, Port Moresby, Papua New Guinea.

thread between stations is an aid in determining the compass bearing and vertical angle between the stations as it may be used as a sight wire.

I have used this device on several occasions now and find that it makes for fast accurate surveying, which is what is required in this country. If necessary, a cave survey may now be attempted by one person. On the completion of surveying the used cotton thread may either be removed or left in place. It is considered that in most of Papua New Guinea's caves which are likely to be visited on very rare occasions and which are active and contain large amounts of organic matter, the thread can be safely left to rot in the cave without any detrimental effects. In those caves where visits are frequent, where the thread is unlikely to rot away quickly or if time and route permits the thread should be removed on completion of survey operations.

Reference

Anderson, E. G. et al. (1978) Cave Survey and Map Standards.
Australian Speleological Federation Newsletter Autumn
1978 No 79 (lift-out)

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ERRATA

Volume 4 Number 4

Papua New Guinea Karst Types 6. Doline Karst

Plate 1 inside the back cover shows the Atea Kanada on the Muller Range, not the Apia Sink. The Atea is the sink (with an apparent river flowing into it) 20mm behind the huge collapse doline MR 301

Volume 6 Number 1

Art of Ofafunga Cave and some Cave and Rock Art of the Sonofi Area, Kainantu Sub-Province, Eastern Highlands Province, Papua New Guinea.

The front cover photograph showing a section of the wall of Ofafunga Cave was accidentally printed upside down.

Scales were omitted from all the plates in the article. The relevant scale for each photograph are:

Front Cover Photograph	1/10 approx. scale
Plate 1	1/10 approx. scale
Plate 2	1/10 approx. scale
Plate 3	1/10 approx. scale
Plate 4	1/8 approx. scale
Plate 5	1/8 approx. scale
Plate 6	1/8 approx. scale

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THE PNGCEG EASTER 78 SIMBU TRIP

R. Michael Bourke*

Narrative

A party of six PNGCEG cavers spent the Easter long weekend (24th - 26th March, 1978) in the Simbu (previously Chimbu) pushing two partly explored caves. The team consisted of Roy Blackham (Madang), Michael Bourke (Kainantu), Allan Goulbourne (Lae), David Pease (Goroka), Malcolm Pound (Port Moresby) and Kevan Wilde (Frieda River/Goroka). Also in the party were "base camp cavers" Joan and Marie-Anne Blackham and Chris Goulbourne. Kevan Wilde organised the trip.

On good Friday we converged on Goroka, picked up Councillor Nomani and various Nola people, drove to Chuave, walked to Nola Village (about an hour from Chuave) and got underground in the Lombila system. This cave was previously investigated in 1975 when the name Angunga Sink was used (Wilde and White, 1976). In '75 we descended the 44.5m shaft known as Angugu (not Angunga), followed a passage for some 250m to emerge "as in a caver's dream into a rapid flowing river passage 8-10m wide and 10-15m high" (Wilde and White, 1976). The river was followed for a further 250m, but left for a "dry season" because of very wet conditions. Thus we found ourselves back at Nola two years later - but unfortunately in anything but a dry season.

Lombila System

Friday afternoon Allan, Roy and I descended the Angugu shaft and pushed the river for several hundred metres. As it was in flood at the time, we did not attain the previous limit of exploration. Kevan, Malcolm and Dave descended the shaft, taught Dave how to prussik and prussiked out. The first man out (Mal) found that the sheath of the blue water rope was almost worn through, so it had to be rebelayed before Kevan came up.

Nomani told us that the river in the cave sank several hundred metres from Nola in a cave. This sounded like an easier way to enter the system, so Roy, Allan and I went to investigate. We were taken to a river known as Nolombila (No = river) and saw for ourselves that the stream did indeed enter a cave there. Together with a group of villagers, we followed the stream underground along a decent sized passage till we reached "Kila" chamber. This was the extent to which the villagers normally entered the cave to hunt for flying foxes. A small stream entered the system on the right hand side via a pitch about 13m high. Outside the cave, this stream is used as a drinking water source for the village. It is likely that this is the entrance explored by Kevan Read in the sixties (Wilde/Read, pers. comm.).

* P. O. Box 384, Kainantu, Eastern Highlands Prov., P.N.G.

The entrance area of the system is complex and there are at least four entrances. Some rock art was seen just outside the river entrance. A tributary stream, Nolangomo, enters the system several hundred metres inside the cave. This is said to sink near Langomo Village, several kilometres away. We also explored two older passages in the upper part of the system, one of which "Limukululau" houses insectivorous bats. After leaving the villagers, who then returned to the entrance, we braved the river again and pushed downstream. Some 50m on we moved through a section where the cave narrowed and it became necessary to swim briefly through the river. A short distance on we reached the passage that led to the base of Angugu shaft.

Kevan's party had descended Angugu that morning and pushed down the river. They had roped the section that had stopped our party the previous day and followed the river for several hundred metres further till again stopped by another narrows section. After meeting up in the river passage, the two parties followed the river upstream and exited at the river influx.

The Narrative Continued

It was suggested by a local pastor that caving was not desirable on Easter Sunday. So Dave, being the "new boy" was sent down Angugu to recover gear left at the bottom and then Kevan, Chris, Joan, Marie-Anne, Dave, and Malcolm spent the day looking for cave art near Nola and at the Simbu Gorge. Chris, Roy and I, being of a less religious frame perhaps, drove to Masul Police Station on the highway between Chuave and Kundiawa, walked to the top of the Porol Scarp north of there and investigated Berema Cave (see report, this issue).

Sunday evening we reconvened at Goroka and enjoyed a Chinese meal together. The following morning, the Goulbournes, Blackburns and I drove home together. The Pounds flew back to Moresby on Tuesday.

It was a good trip with some exciting discoveries. We now have explored at least 1000m in the Lombila system. The likely resurgence, Kirowa Cave, is some 200m lower and several kilometres away, so a great system awaits further exploration. A very good relationship has been established with the Nola people. It is hoped a party can return in the "dry season", perhaps over the June long weekend. Likewise, Berema is very worthy of a return trip.

Reference

Wilde, K. A. and White, T. 1976 : Angunga Sink, Chimbu Province. Niugini Caver, 4(1) : 23 - 24.

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BEREMA - POROL ESCARPMENT

A. Goulbourne*

Respecting the wishes of some of the Nola villages with whom we had been staying, meant postponing further exploration of Lombila System. We were determined to get underground, even on Easter Sunday! We had the strongest possible team of cavers within striking distance of the Highlands for some time; and an upsurge of exploration could herald a "Renaissance" for caving within P. N. G..

In 1976 I had called in at Masul, in the Sina Sina District to look up the parents of Ben Kaupa, whom I had met in Moresby. The villagers then spoke to me of nearby caves; and the following day we headed up to the top of the Porol Range - exhausted but gaining a view of an impressive entrance taking water. When our work in Chuave was brought to a halt, I immediately thought of this hole.

"It's only twenty minutes from the highway!" I extolled the others. Roy Blackham, Mike Bourke and I drove the short distance up the highway from Chuave to Masul. We parked the car in the police station; and an obliging police officer locked valuables in the office. My original informant, Papa Kaupa, was away. John, a villager from Nola, had come with us, however. His wife was from Masul, and he was able to introduce us to Bal and Kiage. These two guided us to the cave. We crossed the Highway from Masul police station and headed north up the range. There were numerous tracks. Following the obvious upward ones would make location fairly straightforward.

My "twenty minutes" stretched to an hour and my associates were alarmed by one of our travelling companions, who asserted that we had only three kilometres to go before we reached the cave. He claimed that as a high school student, he had recently surveyed the route. An hour and a half after starting, we arrived at a massive slab just below the top, with a two man shelter which I recognised. Another ten minutes found us in a series of depressions on the back slope, which runs into the cave entrance.

This is a gaping mouth, sloping back about 15° below a cliff face. On the left side a small stream runs over clean limestone and boulders to a climbable drop. On the right, a muddy slope ends in a pitch. Upstream a short way, most of the water enters another shaft. Having decided to try our descent via the stream's route, we diverted all the water down the first hole. We then began to move down over the boulders.

The cave had been first visited by F. Parker, who was kiap in the area. In 1961 he estimated the entrance as 165 feet

* P. O. Box 898, Lae, Morobe Prov., P.N.G.

(50m). This estimate proved to be quite accurate, but probably not in quite the way Fred had meant. After a short climb (15m) we arrived at the first pitch, which would make easy free climbing in drier conditions. Mike and I abseiled 3 metres to the first ledge, using a classic text book belay, then rebelayed to an eyehole belay point. (The cave abounds with holds and anchor points). We then continued down 15m to the next ledge. From this ledge we travelled another 4m to the left on the rope to where the main waters come in.

We were now in a tall rift - very clean, wet and attractive. This time we tied off to a jammed tree trunk and abseiled the last three metres to the end of the rope, 40 metres in all.

Following the stream down was easy, with the odd jammed boulder to climb under or over. We arrived at a pitch. This was overhung where the water went down, estimated to be some 30 - 40 metres deep, but keeping clear of the water would involve traversing the fragmented back wall. We had insufficient rope for this; and so we reached our deepest point (about 60m). The cave shows no signs of closing down; it is very clean and washed.

On our way out we didn't follow the main stream back to where it goes underground. From the ledge above, a passage went back to the muddy slope entrance on the right of the cave mouth. It could be rigged with just 12m of rope and was quite dry. The water is said to resurge just above village level, 400 metres below, so the cave has considerable potential.

The villagers have invited us back to look at another hole as yet unvisited by outsiders. When the next push is made on this hole (Berema), particular care will have to be taken, not only to rig out of the water, but also to avoid the sharp nature of the limestone cutting the rope.

* * *

NEW CONTRIBUTORS

Allan Goulbourne

Although Allan has caved extensively in PNG, this is his first article for Niugini Caver. Allan commenced his PNG caving with the 1975 British Expedition and has since caved in the Highlands and around Port Moresby.

Alison Pound

Although not a keen caver, as the wife of one she has visited a few caves in PNG and Australia. Most of Alison's efforts for PNG caving are not in the field of exploration but in the typing and production of Niugini Caver.

* * *

A GUIDE TO BACK ISSUES OF NIUGINI CAVER

Alison A. Pound*

Volume 1 Number 1

Reports on the exploration of Bibima - PNG's deepest
Information on the Hindenburg Wall area
Caves of the New Britain Area
Loni Cave on Manus Island
pages 1 - 18 Back issues available

Volume 1 Number 2

Covers the 1972 - 73 U.Q.S.S. New Britain Expedition
Four trip reports of caves in the Chimbu
A report on Afaruru Cave in Morobe Province
pages 19 - 52 Photocopy

Volume 1 Number 3

This issue is Focus on the Southern Highlands Region and covers a variety of topics including a speleological - hydrological report on the Waga River
pages 53 - 92 Photocopy

Volume 1 Number 4

Focus on the Chimbu Province (now Simbu) and includes a bibliography of the area
Also trip reports for a variety of caves are presented
pages 93 - 136 Back issues available

Volume 2 Number 1

Contains an index to Volume 1
An article on burial caves in PNG
More from the Southern Highlands
and an article on the Dobora Caves, Milne Bay
pages 137 - 158 Back issues available

Volume 2 Number 2

Two articles on cave art. The first describes engravings from New Ireland and the second covers rock art in the Chimbu
Also more on the caves of the Southern and Eastern Highlands
pages 159 - 190 Back issues available

Volume 2 Number 3

This issue focuses on New Ireland covering the Lelet Plateau and other areas
pages 191 - 232 Photocopy

Volume 2 Number 4

This issue covers a number of topics on conservation and gives an extract from the "Guide for the Preservation of National Cultural Property"
It also contains the 1965 Star Mountains Report
pages 233 - 256 Photocopy

*P.O.Box 3824, Port Moresby, Papua New Guinea.

Volume 3 Number 1

An article on the caves of the Lelet
Other articles cover the Iaro River Cave in the Southern
Highlands and Be Cave in the Madang Province
pages 1 - 24 Photocopy

Volume 3 Number 2

Focus on the Eastern Highlands is the major section of this
issue
The first in a series on PNG Karst types (Tower Karst)
pages 25 - 64 Photocopy

Volume 3 Number 3

Focus on Manus covers the karst types, the caves and the
legends of Manus caves
The second on Karst types (Honeycomb Karst)
pages 65 - 104 Photocopy

Volume 3 Number 4

Gives a preliminary report of the British Speleological
Expedition
Also an article on legends, art and burial caves in the
Telefomin area
Cone Karst - Number 3 in the series
Trip reports from New Ireland, New Britain, Bougainville
and Enga
pages 105 - 144 Photocopy

Volume 4 Number 1

Karst types(4) - Arête and Pinnacle Karst
More from the British Speleological Expedition
A report of the 1975 - 76 Highlands meet and reports of
three Chimbu caves
pages 1 - 42 Back issues available

Volume 4 Number 2

Karst types(5) - Crevice Karst
Details of how to record cave art sites
Also information on caves from New Britain (Lemore), West
Sepik (Piri Cave, Uma) and Chimbu
pages 43 - 84 Back issues available

Volume 4 Number 3

The report of the 1975 New Ireland Expedition to the Lelet
Plateau. A full coverage of the trip including physiography,
cave descriptions and logistics
pages 85 - 136 Back issues available

Volume 4 Number 4

Preliminary report of the 1976 Muller Range Expedition
History of speleology in PNG
Rock art and prehistoric sites in the Telefomin area
pages 137 - 174 Back issues available

Volume 5 Number 1

Lists the longest, deepest, largest etc by way of caves in PNG
Also a preliminary report on the Pargora Limestone
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A long article on the caves of Kiriwina, Trobairnd Islands
covering the caves and their legends with a section on the
geomorphology of the area
An article on Holloch, Europe's longest cave
pages 31 - 60 Back issues available

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The report of the 1976 New Ireland Speleological Expedition.
It follows the standard form with major sections on physiography,
cave descriptions and logistics.
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Volume 5 Number 4

This is devoted to the 1976 Muller Range Expedition and covers
the explorations of the group, contains surveys of the major
caves and many photographs.
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Volume 6 Number 1

A detailed description of the rock art in Ofafunga Cave with
photographs and diagrams
A report on a reconnaissance trip to the Cromwell Range on the
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Please address all correspondence to:

Mr. M. D. Pound,
Papua New Guinea Cave Exploration Group,
P. O. Box 3824,
Port Moresby,
National Capital District,
PAPUA NEW GUINEA.

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THE CAVING SCENE

During the Past few months, much caving activity has occurred in Papua New Guinea. This has been mainly due to overseas based expeditions operating here but much useful work has also been carried out by the local cavers.

French Visitors

Two French cavers, Roger Parzybut and Patrick Cellier together with their wives were here in July and spent two weeks in the Simbu Province in and around Chauve where they explored at least two major new caves near Kao Village. One weekend, Malcolm Pound from Port Moresby and Allan Goulbourne from Lae came to the Simbu and Berema Cave up from Masul was pushed to a depth of over 100 metres where the party was stopped by a deep lake - filled passage which continued as far as could be seen. Another potential deep cave in the same area was shown to us by the village people. After recovering in the Trobriand Islands, they returned home.

Spanish Visitors

Eight Spanish cavers under the leadership of Alfred Montserrat Nebot arrived in July for six weeks caving in Papua New Guinea. They spent most of their time in the Simbu Province out of Kundiawa up the Chimbu Gorge, but they also went as far afield as Porgera in the Enga Province. Apparently only several were caving actively as the others were undertaking photography and collecting fauna. They explored 14 caves up to 220 metres in depth with one cave containing a pitch of 167 metres which becomes the longest descended pitch in Papua New Guinea. The fauna collection was confiscated by the Papua New Guinea Government as they had neglected to obtain permits for the collecting and export of fauna. This collection will not be wasted but will be used as valuable reference material for comparison with specimens from other cave areas.

The 1978 Atea Kanada Expedition

The Australian based 1978 Muller Range Expedition with about 40 cavers from Australia, Papua New Guinea, New Zealand, United Kingdom and the United States under the leadership of Julia James and Kevan Wilde spent two months in the Muller Range in July and August. The group was divided into two parties with most cavers staying about a month. The first party spent most of its time in the Atea Kanada while the second party also examined other caves in the area.

The Atea Kanada was extended to a surveyed length of about 30.4km with a maximum depth of 272 ± 10 metres. Unfortunately a breakthrough into the deeper sections of the cave was not made.

The major cave on Mamo (refer Niugini Caver 5(4) for location) was pushed to a length of 8.5km and a depth of about 280 - 300 metres. This cave contained a single large chamber 250 metres long, 30 - 60 metres wide and 30 - 60 metres high.

The Nali resurgences at the foot of the scarp were visited but unfortunately, no entry could be made to any caves. Much other useful work was done by the Expedition including the first investigation of the fabled Lavani Valley.

U. Q. Research

Dave Gillieson and Jill Landsberg from the University of Queensland are currently in the country collecting data for Dave's Ph. D. thesis entitled 'Evidence for Quaternary Climatic Change from Limestone Cave Sediments in Papua New Guinea'. This research involves recording stratified sequences of sediments in major limestone caves and analysing these to establish the process which formed and deposited them, and by extension the surface conditions at the time. They joined the second party of the Atea Expedition and have since gone on to Selminum Tem, the other major cave in Papua New Guinea that was explored by the British. They also plan to visit caves in the Highlands during their stay.

The 1978 British Expedition

A small group of British cavers is currently investigating caves near the Hinderburg Wall under the leadership of Noel Plumley. Two members of this party participated in the Atea Expedition.

Additional Expeditions

A six man reconnaissance team for the 1979 French Speleological Expedition will arrive in November for a 2 or 3 month inspection of cave areas, mainly New Britain and the Huon Peninsula.

Several other groups also plan expeditions here in 1978 or 1979.

P. N. G. Based CaversNorth Solomons Province

As usual the North Solomons Cave Exploration Group headed by Hans Meier has been active in their area with several trips to the Taroku Nantaut (Nantaut means cave in the 'ples tok' of Urumovi) for further exploration and mapping. Hans advised that the Taroku Nantaut was 1653 metres long at the end of June making this the 5th longest cave in Papua New Guinea (based on the list of Bourke, R. M. (1977). Niugini Caver 5(1) : 8). Hans is preparing an article on the caves of the Manatei area which will appear in a future issue of Niugini Caver.

Eastern Highlands Province

Michael Bourke returned to the Obura area south of Kainantu in August together with some visitors, Helen Tew and John Webb from Brisbane and Basil Williams from Suva. The party visited the cave near the Swiss Mission into which three murdered Chimbu men were thrown in 1963. They followed a small stream down a series of short pitches to a depth of about 50m before being stopped by a lack of rope. The development of the system (Yunamare) can be seen on the surface and the efflux is some 300m lower down. The efflux is said to be Ramaivutaini cave which was visited in May. Prospects look good for a 250 - 300m deep system, provided a party can be fielded to explore it.

Southern Highlands

Michael Bourke spent two weeks working on the Nembi Plateau, a karst plateau south - west of Mendi in the Southern Highlands in September. Whilst in the area he visited a number of caves around Embi and Upa villages and reports that deep shafts occur in the Embi area.

More Information

Anyone caving in Papua New Guinea is requested to forward information on this to the Editor of Niugini Caver for inclusion in this section of the publication. This section can only be as good as the incoming information. You will observe that certain areas and people predominate in this section; this is not because this is where the only caving is going on but due to people sending in information. Apart from making the Caving Scene interesting, this information also goes into the library and forms a continuing record of caving and speleology in this country. So will all those people who haven't been sending in information, please do so.

Reports

It is hoped that all the overseas expeditions briefly mentioned above will prepare full reports describing their expeditions and giving all results for publication in Niugini Caver. This is important as it shows that these overseas expeditions are publishing in Papua New Guinea and their results are not lost to the country.

In the Next Issue:

Karst Morphology of the Eastern Star Mountains

Notes on Papua New Guinea for Overseas Visitors