

Archaeological Survey of Prehistoric Cave Sites in Laos

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A Lao-Japanese archaeological field survey was carried out from Dec. 14th, 1974 to Jan. 11th, 1975 in the areas surrounding Vang Vieng, Luang Prabang and Thakhek (Fig. 1). The field expedition was headed by Prof. H. Watanabe of the Department of Archaeology, the University of Tokyo, and consisted of the following eight other members D. Phomsouvanh, B. Souvannamacho and Ngone, of Musée National du Laos, K. Shigematsu, Assistant, and M. Anzai, a graduate student, of the Department of Archaeology, the University of Tokyo, and S. Ikeda, O. Imai and T. Aoki, of the Reitaku Association for Overseas Development, Vientiane.

The purpose of the survey was exploration of limestone caves in order to locate prehistoric sites for systematic excavations in future. Special efforts were made to find prehistoric archaeological objects on the surface of cave deposits. The survey was carried out in the following periods by the following personnel:

Vang Vieng area, Dec. 14th-21th, 1974: all members mentioned, except Aoki and Ngone.

Luang Prabang area, Dec. 22th-29th, 1974: all members mentioned, except Ikeda, Aoki and Ngone.

Thakhek area, Jan. 4th-11th, 1975: all members mentioned, except Ikeda, Imai and Souvannamacho.

We discovered and investigated many caves and rock shelters in the three areas mentioned where we collected hundreds of relics including pottery sherds and stone artifacts. 56 stone artifacts were collected at seven sites (Anzai, M. 1976 "Stone Artifacts Collected at Prehistoric Cave Sites in Laos." *Kōkōgaku Zasshi* 61-3:43-59. in Japanese): 28 from Tham Hoa Phou Cave in the Luang Prabang area, and 4 from Tham Hoi rock shelter terrace, 9 from Tham Lay Cave, 4 from Tham Pha Ngouai Cave, 2 from Tham Pha Chao Cave, 2 from Tham Yeuang Cave, and 7 in the neighborhood of Ban Somsanuk on level ground on a small hill, all in the Vang Vieng area (Table 1). We made also various records such

Archaeological Survey of Prehistoric Cave Sites in Laos

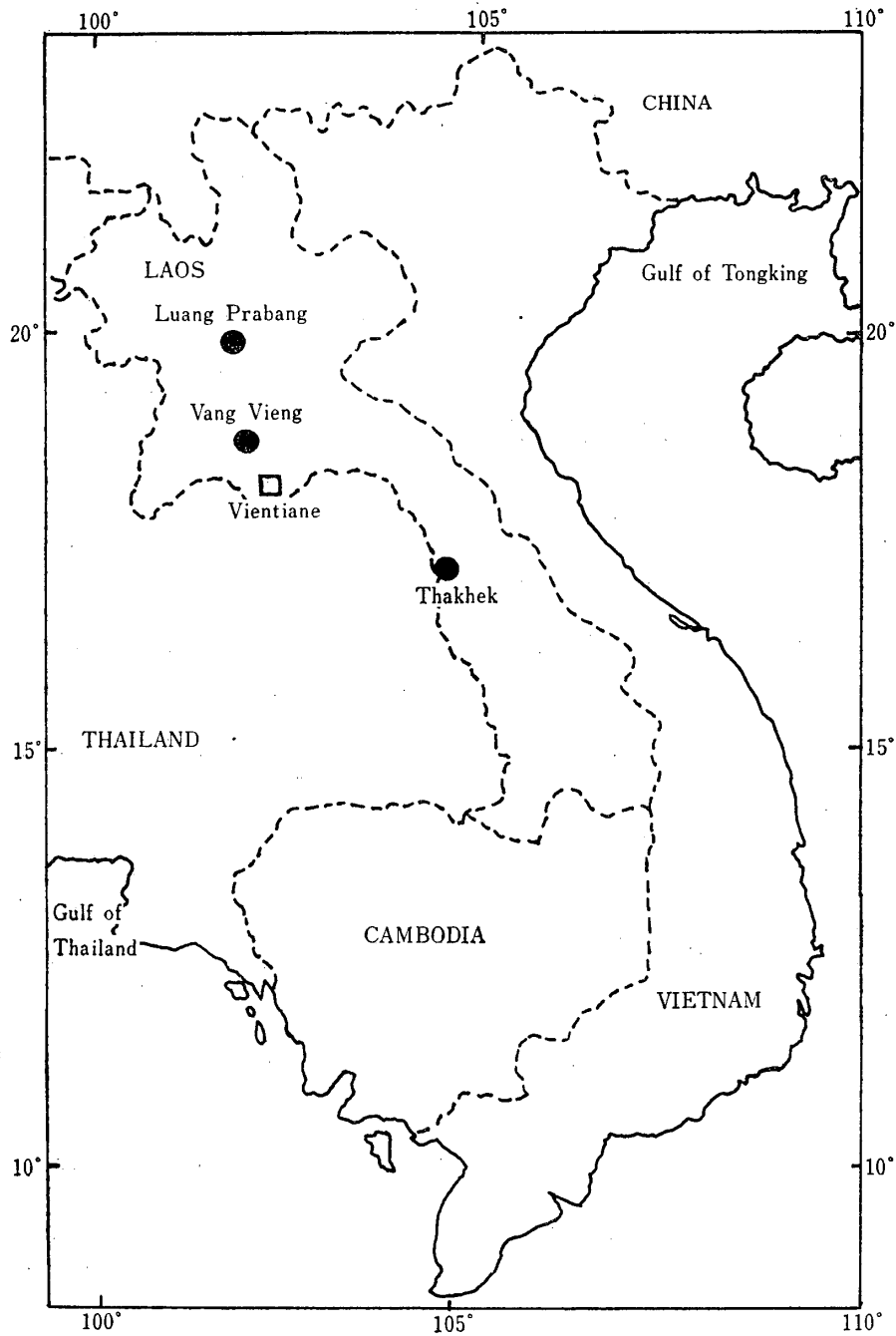


Fig. 1 Map of Southeast Asia showing the survey areas.

as copies of drawings found on the walls of a cave, photographs, sketch maps and plans.

Vang Vieng Area

The area was surveyed during a period from Dec. 14th to 21th, 1974. All investigated caves, except one, are distributed at the eastern foot of limestone ridges along the western coast of the main river (Nam Song) of the area. About 20 caves or rock shelters were

Table 1 LIST OF SPECIMENS IDENTIFIED

Locality	Type	Registration		
		Remark	Number	Material*
Tham Hoa Phou	Pebble Chopper	typical	052	rhyolite
"	"	"	053	"
"	"	"	056	"
"	"	variant	037	siltstone or aphyric andesite
"	Sumatralith		036	mudstone
"	"		055	rhyolite
"	"		057	"
"	Short Axe		046	"
"	"		050	dolerite
"	"		054	rhyolite
"	Hammerstone or Retoucher		047	"
"	Pestle		034	?
"	Pebble with Retouched Edge		035	rhyolite
"	"		051	dacite
"	Flake		038	?
"	"		039	rhyolite
"	"		040	" (?)
"	"		041	calcareous mudstone
"	"		042	"
"	"		043	limestone
"	"		044	"
"	"		045	mudstone
"	"		048	andesite
"	Oblong & Massive Pebble with Flake Scars		058	rhyolite
"	"		059	rhyolite tuff
"	Fractured Pebble		032	rhyolite
"	"	quarter	033	siltstone
"	"	half	049	dacite
Tham Hoi	Massive Pebble with Flake Scars		013	dacitic tuff
"	Flake		010	marble
"	Fractured Pebble	half	012	andesite
"	Pebble Core?		011	rhyolite
Tham Lay	Sumatralith		020	"
"	Pseudo-Short-Axe		021	siltstone
"	"		022	"
"	Oblong & Massive Pebble with Flake Scars		016	rhyolite
"	Flake		019	siltstone
"	Fractured Pebble	quarter	014	rhyolite
"	"		015	dacite
"	"		017	"
"	"		018	siltstone or aphyric andesite

* Identification by Dr. Toshitsugu Fujii, Department of Geology, Faculty of Science, University of Tokyo (July 1975)

The Archaeological Survey of Prehistoric Cave Sites in Laos

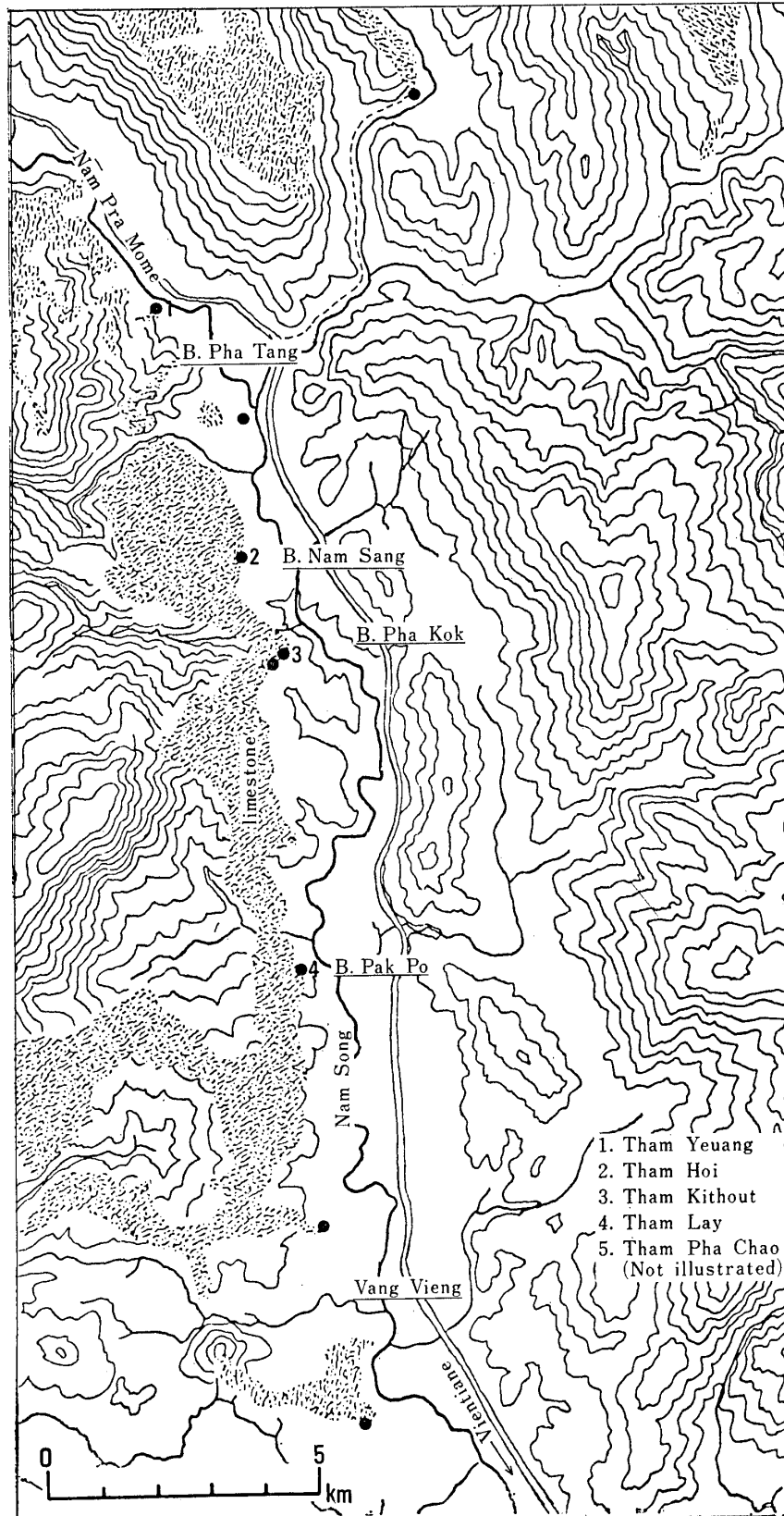


Fig. 2 Map Showing the locations of the cave sites in the Vang Vieng area.

visited and 5 of them seemed to be worthy of test excavation (Fig. 2). These are as follows:

No. 1. Tham Yeuang. Ca. 2 km northwest of Ban Pha Tang. The cave is situated at the foot of Pha Den facing the river Nam Pha Mome. The cave entrance is roughly triangular in outline, width at floor level is ca. 3 m and height ca. 3 m. The cave is a narrow tunnel-like cavity of 2-3 m in width. The distance between the entrance and the innermost end of the cave is ca. 10 m. The surface of the soil deposits was approximately horizontal and ca. 5-6 m above the level of the nearest river. The terrace in front was covered with large angular blocks of limestone which appeared to have fallen from the cliff above the cave. The maximal water level of the river during the rainy season was said to be 1.0-1.5 m above the present level. No archaeological objects were found on the floor, except 2 round pebbles which perhaps were brought to the terrace from outside (Pl. V-1).

No. 2. Tham Hoi. Ca. 1.5 km west of Ban Nam Sang. The cave is situated at the foot of a limestone ridge, behind an isolated limestone hill with the so-called "monks' cave". The main or largest cave shelters a large cement Buddah statue placed near the entrance. The surface of deposits near the entrance and surrounding the Buddah statue, and the terrace in front of the cave have been covered with a thin sheet of cement. The soil deposits were found exposed on the floor behind the Buddha statue. The surface of the exposed deposits was also level and about 5 m in width, and extended deep into the interior. The cemented part of the floor is slightly wider. Deposits in the cave appear considerable.

There were also 6 small caves or shelters close to the main cave. These are distributed side by side almost continuously on the left side of the main cave. Two of them, rock shelters IV and VI, yielded some evidence of archaeological importance. The floor of the rock shelters are several meters above that of the main cave. They have a narrow belt-like terrace of 1-2 m in width outside of which is a slope with scattered blocks of limestone. In rockshelter IV the surface of the deposits formed a low step of ca. 30 cm which resulted from human activity in war time. Just under the surface of the deposits, at the foot of the step, an assemblage of round river pebbles, including some artificially fractured (Pl. V-2), and several pieces of shells and potsherds (Pl. V-3) were found. The discovery of the shell in association with these stones is interesting, because the shell locally called "kouang" is said to occur at present only 40 km downstream.

No. 3. Tham Kithout. Ca. 2 km west of Ban Phon Kok on the way from Vang Vieng to Ban Nam Sang. At the same locality three caves exist side by side at the foot of a limestone ridge on the west side of the main river. The first is called Tham Pha Chao.

The Archaeological Survey of Prehistoric Cave Sites in Laos

The cave with a Buddha statue is dome-like and measures of 18 by 25 m. The entrance is not so high in altitude compared with the present river level.

The second and third caves are connected to form a rockshelter or cave called Tham Kithout. It is higher in altitude than the first one. The conditions of the floor indicated that the top of the deposits was removed arbitrarily in war time. In addition the soil deposits have been eroded by a stream which runs during the rainy season into a narrow cavity at the bottom of the cave. There was a slight difference (ca. 1 m) in height between the floors of the two combined caves. The higher i. e. the third cave, seemed to have thicker deposits in view of an inclination of the cave walls.

No. 4. Tham Lay (Fig. 3). Ca. 1 km west of Ban Pak Po near Vang Vieng. The cave at the foot of a limestone ridge is close to the main river and about 9 m above the present river level. It is dome-like and ca. 3 m in width at the entrance of the cave and ca. 7 m in distance from the entrance to the rear of the cave. The surface of the deposits was slightly inclined toward the entrance, but generally level and without any evidence of artificial disturbances except for several small pits which were remnants of a spring trap for "yeuang" (two-horned animals) and a fire place for hunters. There were many footprints of wild animals. The largest pit, the use of which is unknown, yielded a fairly large fragment of pottery (Pl. VI-2). In addition, 9 stone artifacts including a coarse sumatralith and 2 large flake tools were found on the surface. The latter morphologically looks like a short axe (Pl. VI-1). The cave has a narrow soil terrace in front which is surrounded by a steep limestone cliff. The only route to the cave ascends along the foot of the steep cliff. This cave appears to be worthy of test excavation.

No. 5. Tham Pha Chao. Ca. 0.5 km west of Ban Khan Mak which is situated 7-8 km southeast of Vang Vieng on the eastern coast of the main river. That is a cave at the foot of the east end of a limestone ridge called Pha Khan Mak. The cave is ca. 9 m wide at the entrance and ca. 11-12 m from the entrance to the rear of the cave. Many large blocks of limestone fallen from the ceiling were exposed on the floor which inclined toward the entrance. The front half of the surface of the deposits indicated a trace of artificial disturbance which was represented by a soil step formed along the margin of the floor on one side. It was clear that the surface of the deposits had been cut and scraped to make the floor level. The perpendicular section of the soil step yielded one undecorated potsherd. At the entrance there was a small depression, or pit from which a potsherd with straight incised lines was collected (Pl. VI-3). The position was about 10 cm below the present surface of the deposits. The entrance is ca. 3 m high above the banana plantation in front of the cave

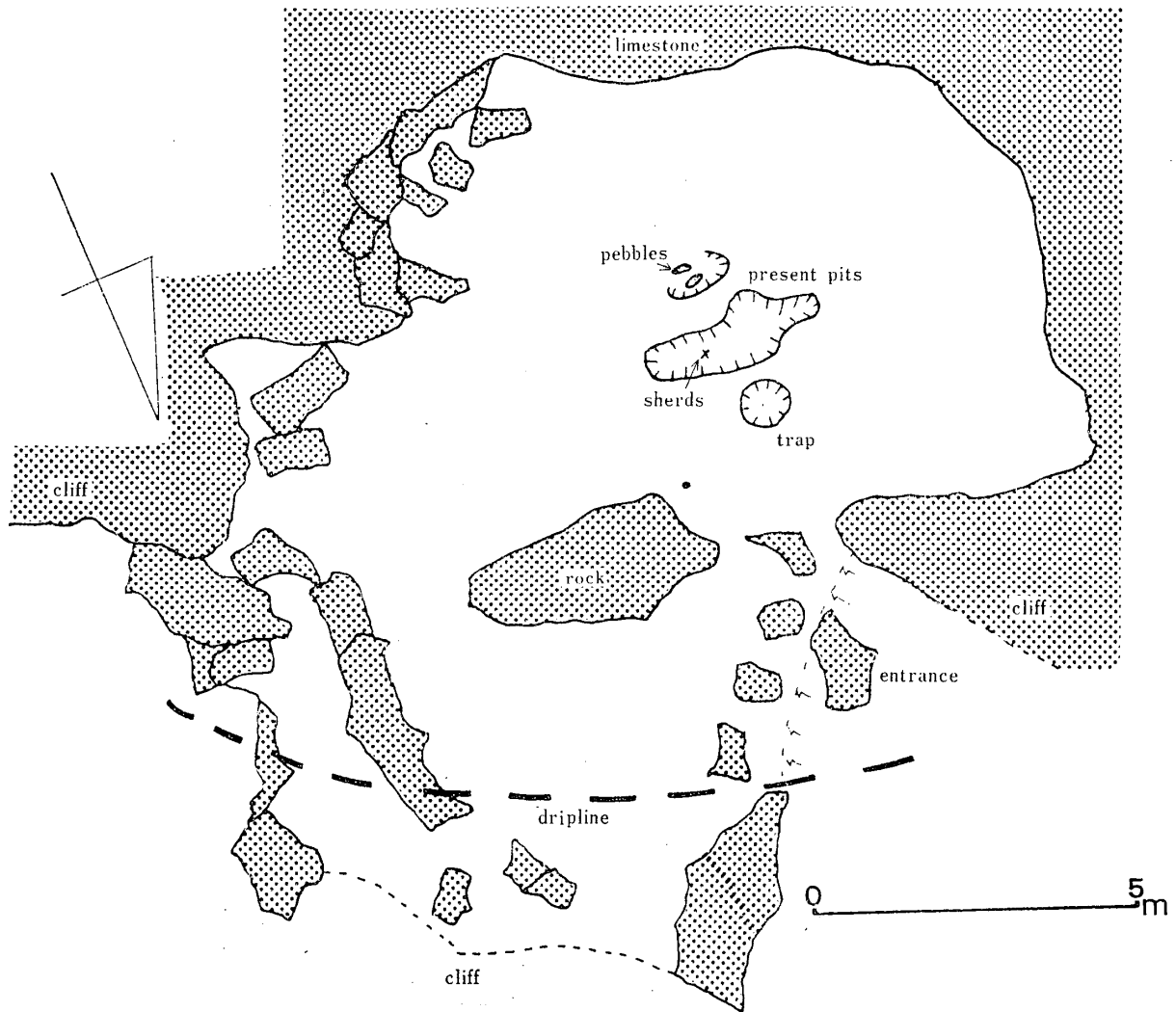


Fig. 3 Plan of Tham Lay, Vang Vieng area.

(Pl. I-1). The slope or terrace between the entrance and the plantation is covered with large and small blocks of limestone which fell down from the cliff above the cave. A thick layer of human occupation cannot be expected in this cave, but the presence of potsherds as mentioned above may justify a test excavation.

Luang Prabang Area

This area was surveyed during a period from Dec. 22th to 29th, 1974. The area surveyed consists of the western and eastern coastal belts of the Mekong, between Ban Pak Ou in the north and Ban Pak Si in the south. All caves investigated are distributed in the area mentioned above. 6 caves were visited and 1 of them was found to be worthy of a test excavation. The cave near Ban Saluan, Tham Pha Dao (Pl. II-1), also appears to be worthy

The Archaeological Survey of Prehistoric Cave Sites in Laos

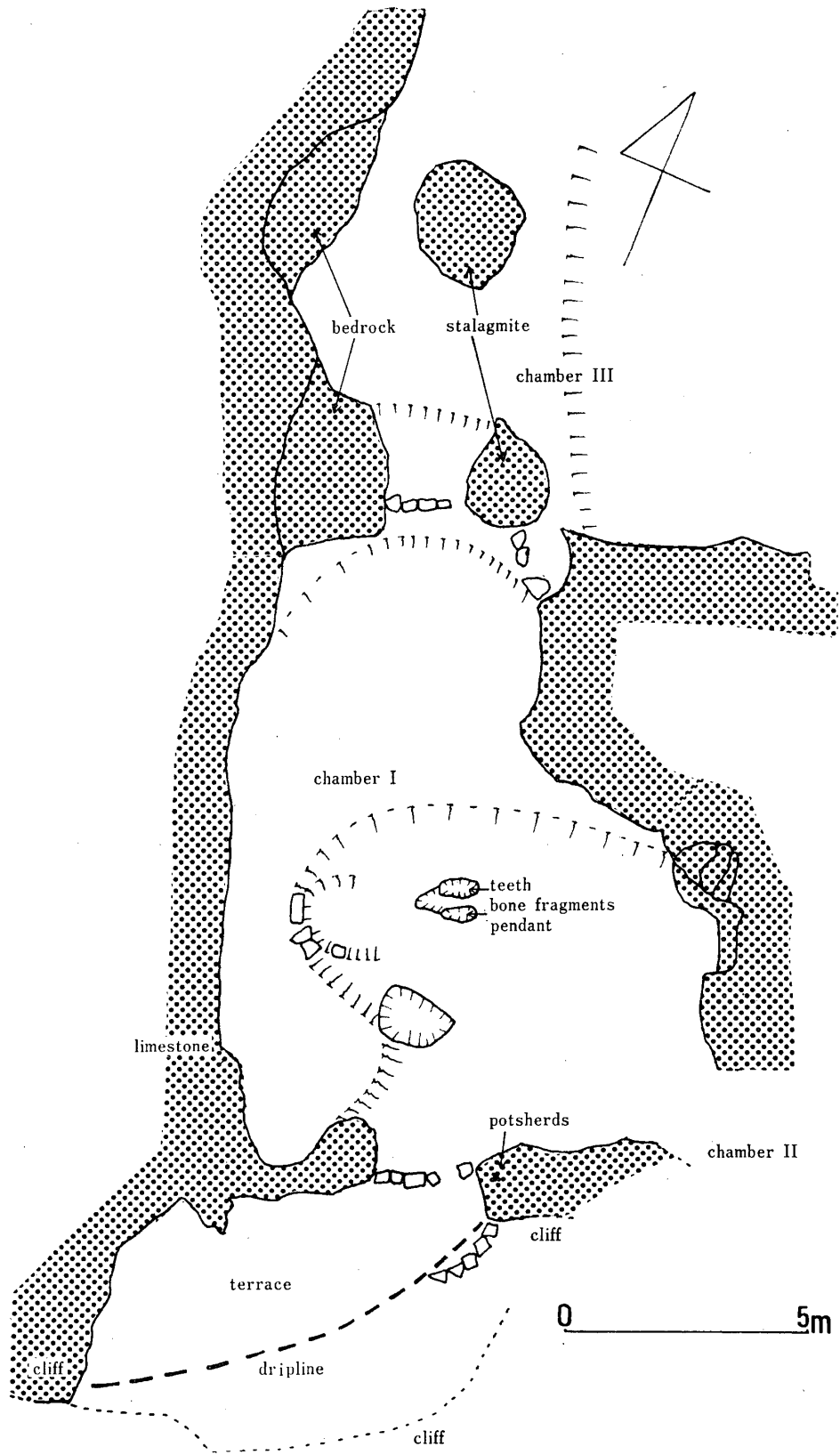


Fig. 4 Plan of Tham Hoa Pou, Luang Prabang area.

of a test excavation, because of its geographical position and other conditions of the soil deposits. Unfortunately, it is impossible, because the surface of the deposits is completely covered with cement from the terrace to the rear of the cave and there is an altar with many statuettes of the Buddha at the center of the cave (Pl. II-2). It is said that the cave temple is maintained by the village and the villagers observe their annual ceremony there.

Tham Hoa Pou (Fig. 4). Ca. 2 km west of Ban Houay Hong (Ban Thin Hong in the map of 1 : 50,000) on the right bank of the Mekong. It can be reached in one hour and a half by a local motor-boat going upstream from Luang Prabang. It is situated on the southern slope of a small independent hill, lying between the village and a mountain with three peaks, the highest of which is 921 m above sea level. The entrance is as narrow as 2 m, but the interior is wide, consisting of three chambers (Pl. I-2). The first chamber, which is directly connected with the entrance, is dome-like and measures ca. 10 by 12 m. The second or smallest chamber is a side branch of the cave system leading to a small hole opening at a distance of several meters from the entrance. It is a dark tunnel-like cavity with a narrow hole ca. 2-3 m in width. The third or largest chamber is behind the first one. The border between the first and the third is constricted by cave walls projecting from both sides to form a narrow passage of 3-4 m in width so that the third chamber is dark.

The floors of the chamber I and III were connected with each other and inclined with a small gradient toward the entrance. There were some piles of stones on the border between the chambers and at the entrance, which are said to have been constructed during the war time. With this exception, there was no clear evidence of artificial deformation or disturbance of the cave deposits. But the fact that archaeological objects were found scattered over almost the entire floor space of three chambers suggests that the top part of the deposits has been removed to some extent.

Most of archaeological objects were found in the first chamber. The surface finds include potsherds (Pls. XI-XIII), artificially fractured pebbles and flakes (Pls. VII-X), a polished and perforated bone object (probably a pendant) and several human teeth and skull fragments (Pl. XIV). The ornamental bone object was found together with the human skeletal remains at a place in the center of the first chamber. Several potsherds were found buried in the subsurface zone of the deposits at the eastern end of the entrance. There appear to be other potsherds remaining in situ there. Other potsherds collected on the surface of the deposits are shown in Plates XI-XIII. Stone artifacts (28 items) from Tham Hoa Phou, where the greatest number of specimens were collected and where identifiable fragments were abundant, can be classified into nine types (Anzai 1976), as follow (Pls. VII-X):

The Archaeological Survey of Prehistoric Cave Sites in Laos

- I. Choppers (4 items)
- II. Sumatraliths (3 items)
- III. Short axes (3 items)
- IV. Hammer stone (1 item)
- V. Pestle (1 item)
- VI. Pebbles with retouched edges (2 items)
- VII. Flakes and Flake-tools (9 items)
- VIII. Massive elongated pebbles with some flake-scars (2 items)
- IX. Broken pebbles (3 items)

Despite the presence of potsherds, we did not discover any specimen of Bacsonian-type polished stone objects, or later shouldered axes and other stone artifacts. The 28 stone objects and flakes collected are richly imbued with a Hoabinhian flavor. It is certain that the cave was inhabited since the Hoabinhian period at the latest.

The cave lies considerably above the nearby river which runs about 100 m distant from the cave. In spite of the relatively large dimension of the cave floor and relative richness of artifacts, the thickness of the deposits may not be great as the wall-floor angle in general suggest. The cave has a small soil terrace which is formed on the top of a steep cliff. An ascending route along the cliff on the right side is the only access to the cave.

Thakhek Area

The area was surveyed during a period of one week from Jan. 1th to 10th, 1975. Owing to the military and political situation, the extent of the field survey in this area is limited. Only an area within a distance of 10-15 km from the town of Thakhek was surveyed. Caves visited in this survey are those at the western foot of a limestone ridge just behind Ban Tham, ca. 7 km northeast of Thakhek (Fig. 5) and those at the foot of a limestone mass near Ban Sangom. 17 caves or rockshelters were visited and many of them yielded several potsherds. But there was no cave which seemed to be worthy of a test excavation. Most potsherds looked very new or actually dated to the ethnographic present. Most caves of this area are situated so low at the foot of limestone ridges that their soil floors were merely horizontal extensions of the surfaces of the flat fields in front of them. One of the Ban Tham caves, Tham Kao, is an exception and is of special interest because it shows a group of paintings or line drawings on the cave walls (Figs. 6-15 and Pls. XV-XIX). No stone artifacts were found during this survey.

Tham Kao. Situated just behind the village of Ban Tham (Fig. 5). The cave consists

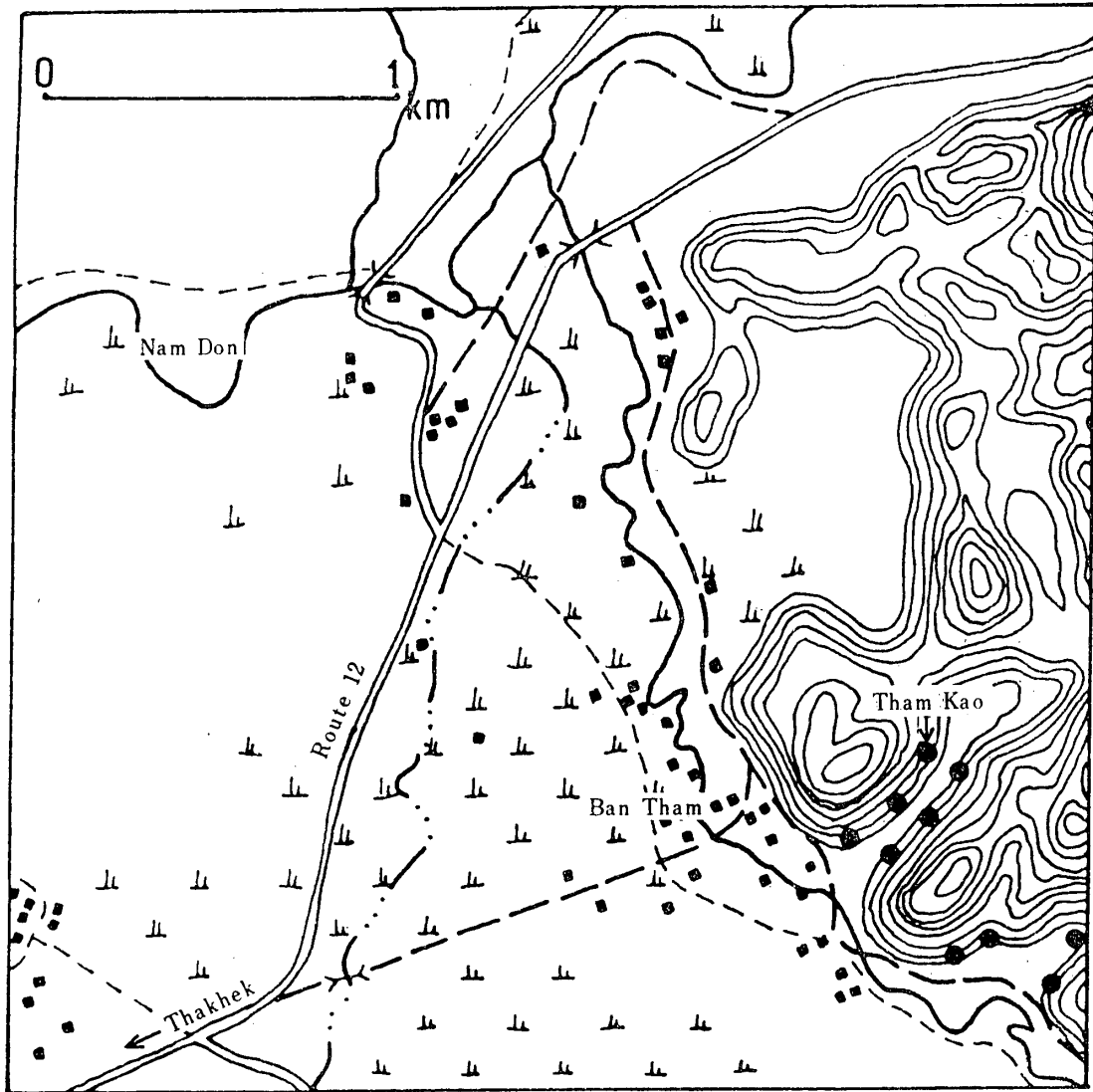


Fig. 5 Map showing the locations of the cave sites near Ban Tham in the Thakhek area.

of a main or front chamber and a rear chamber. The front chamber is a huge tunnel like cave ca. 30 m in length, ca. 7-8 m in maximum width, and ca. 15 m in maximum height from the floor. The entrance is small and situated ca. 10 m above the rice field below (Pl. III-1), which covers the flat bottom of the Kouane Veng valley. One must go down a steep rocky wall ca. 5 m from the entrance to reach the surface of the cave deposits below it. The surface of the deposits is very uneven, owing to many depressions and pits which resulted from excavation of the soils for agricultural use (Fig. 6). The cave deposits have been dug and transported by the villagers to be used to improve the soil quality of their gardens which consisted originally of fine sands.

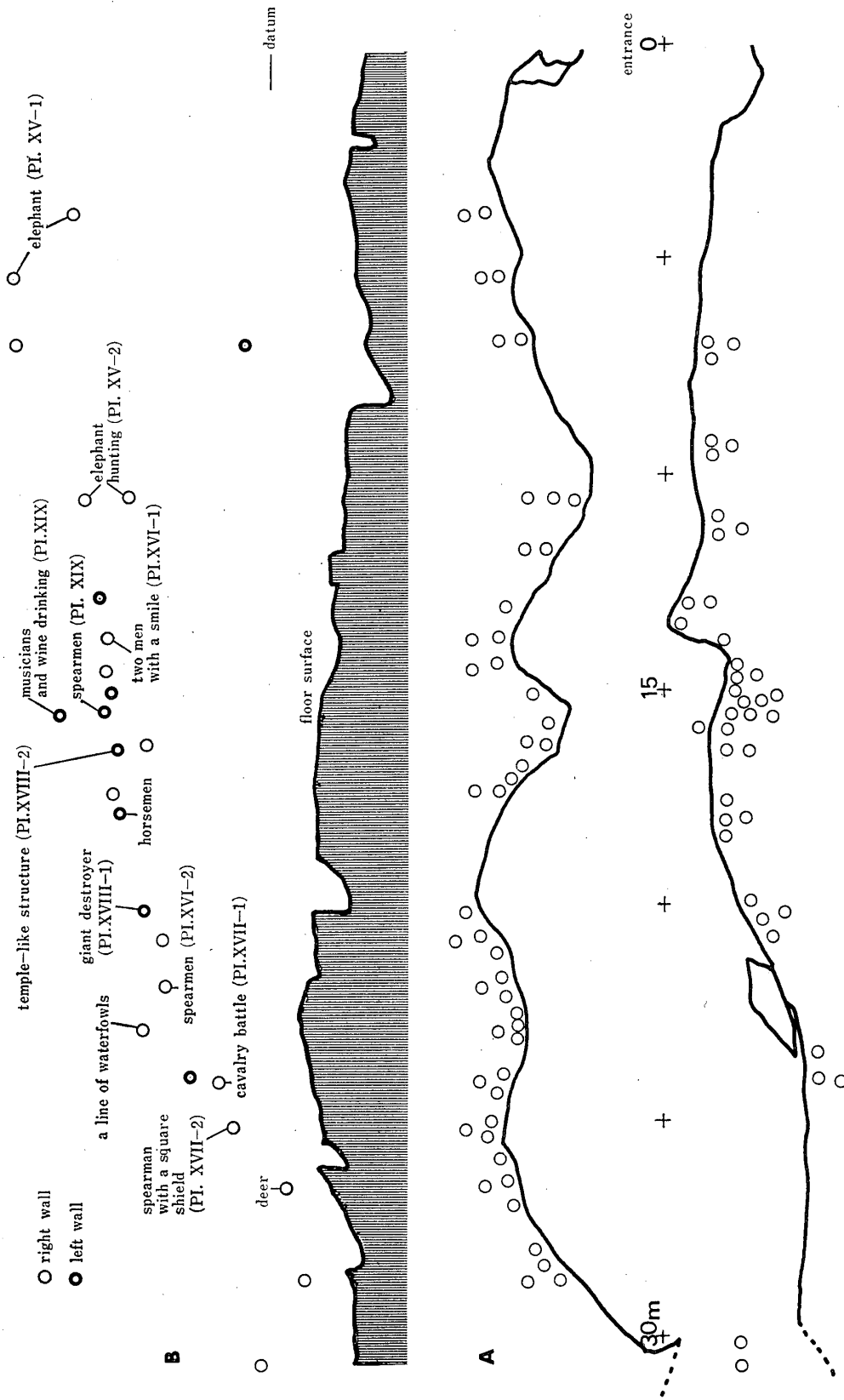


Fig. 6 Plan (A) and section (B) of Tham Kao, showing spatial arrangement of figures.

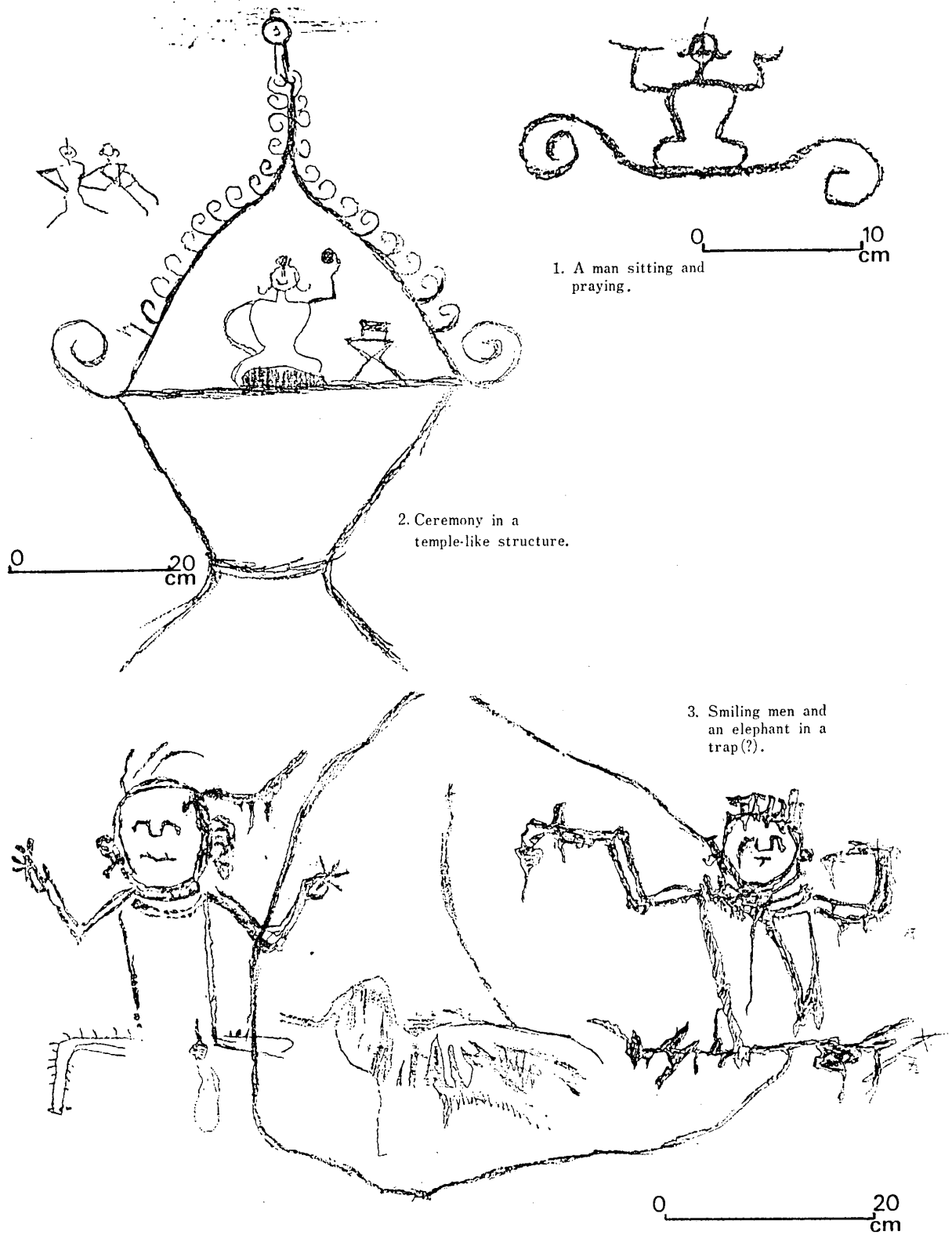
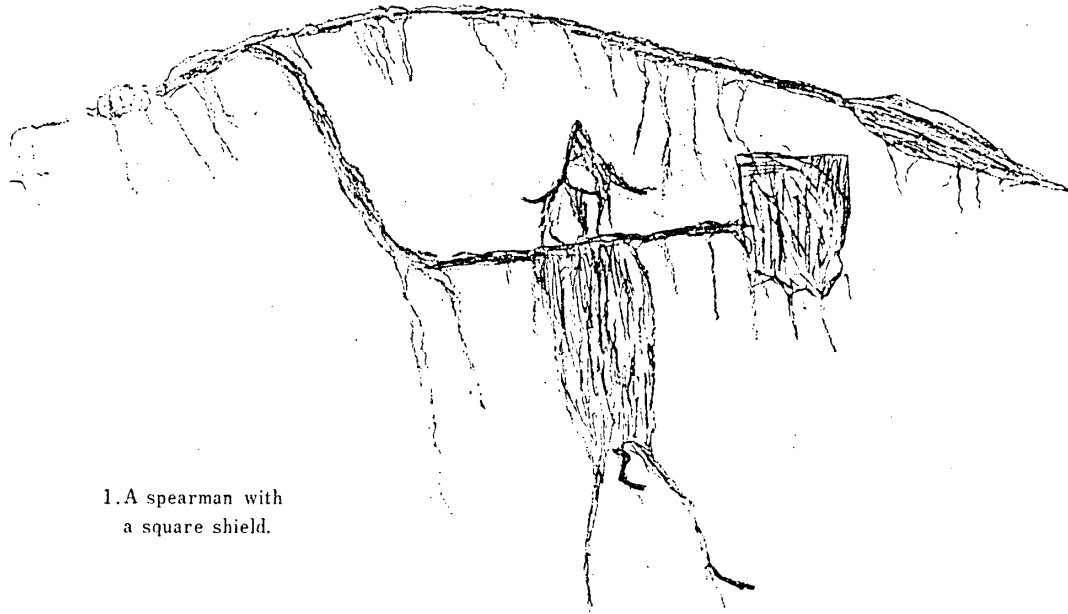
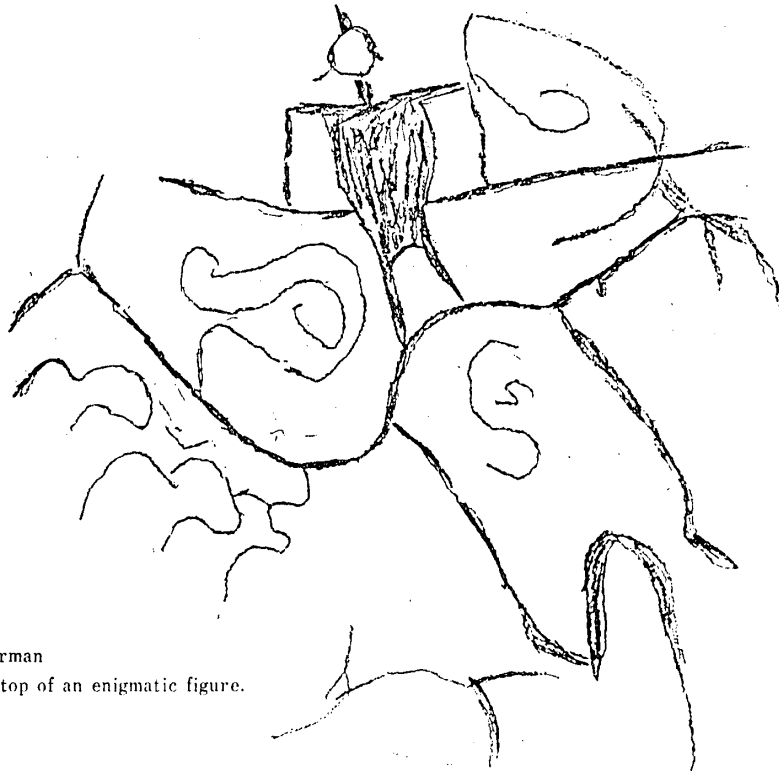


Fig. 7 Human figures on the cave walls of Tham Kao.



1. A spearman with a square shield.



2. A spearman on the top of an enigmatic figure.

0 ————— 20
cm

Fig. 8 Human figures on the cave walls of Tham Kao.

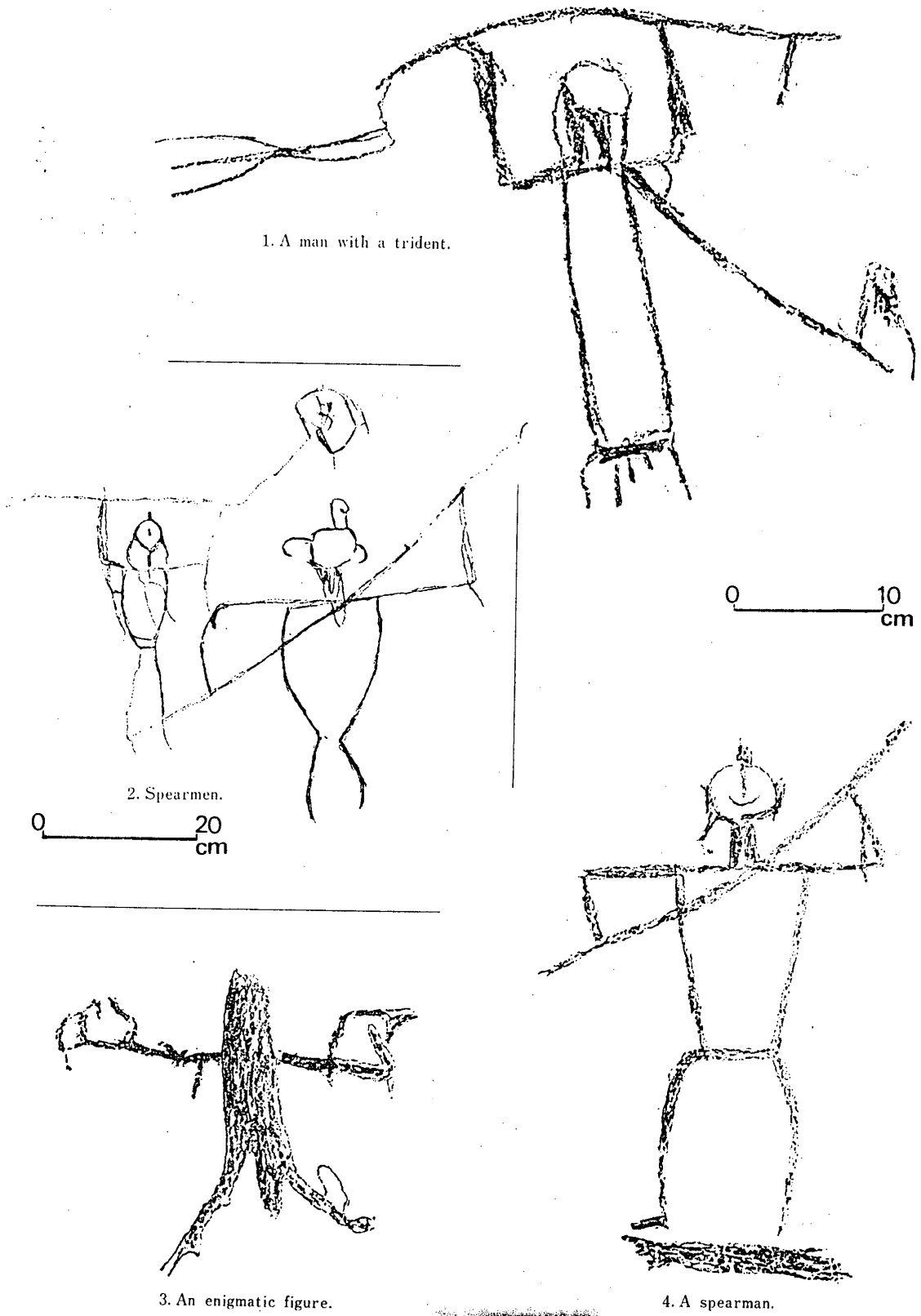


Fig. 9 Human figures on the cave walls of Tham Kao.

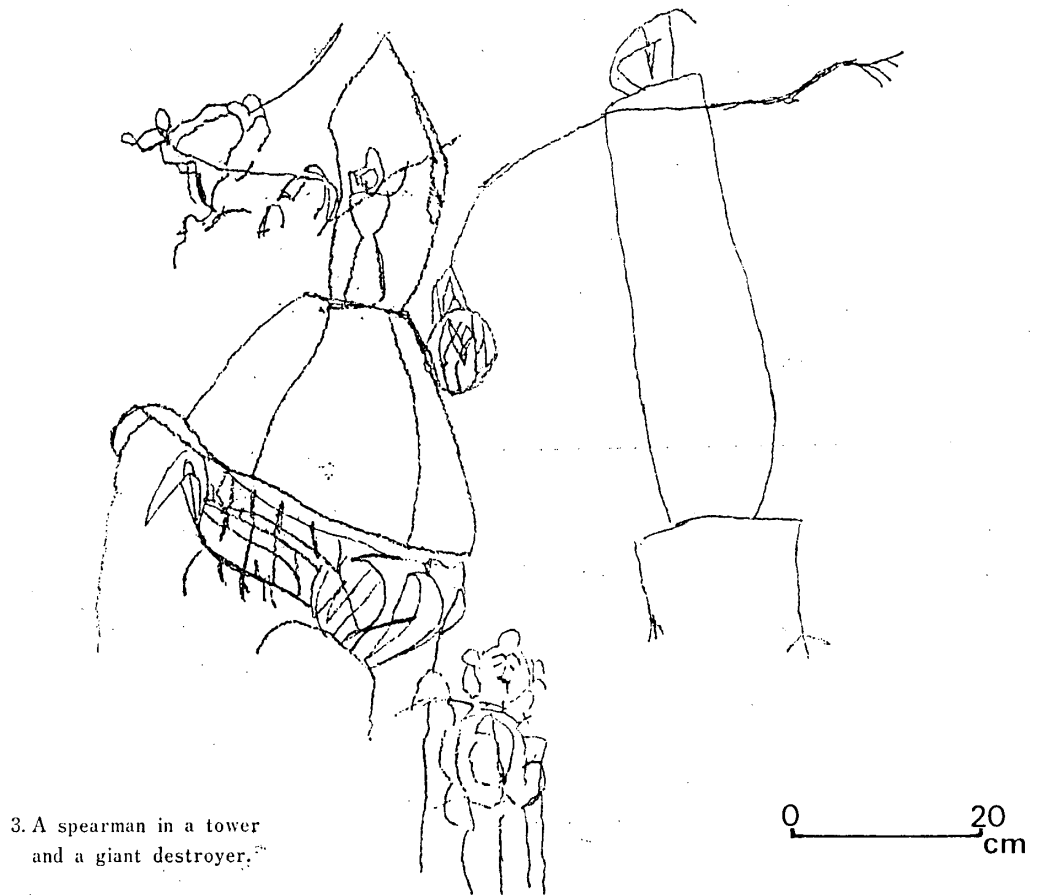
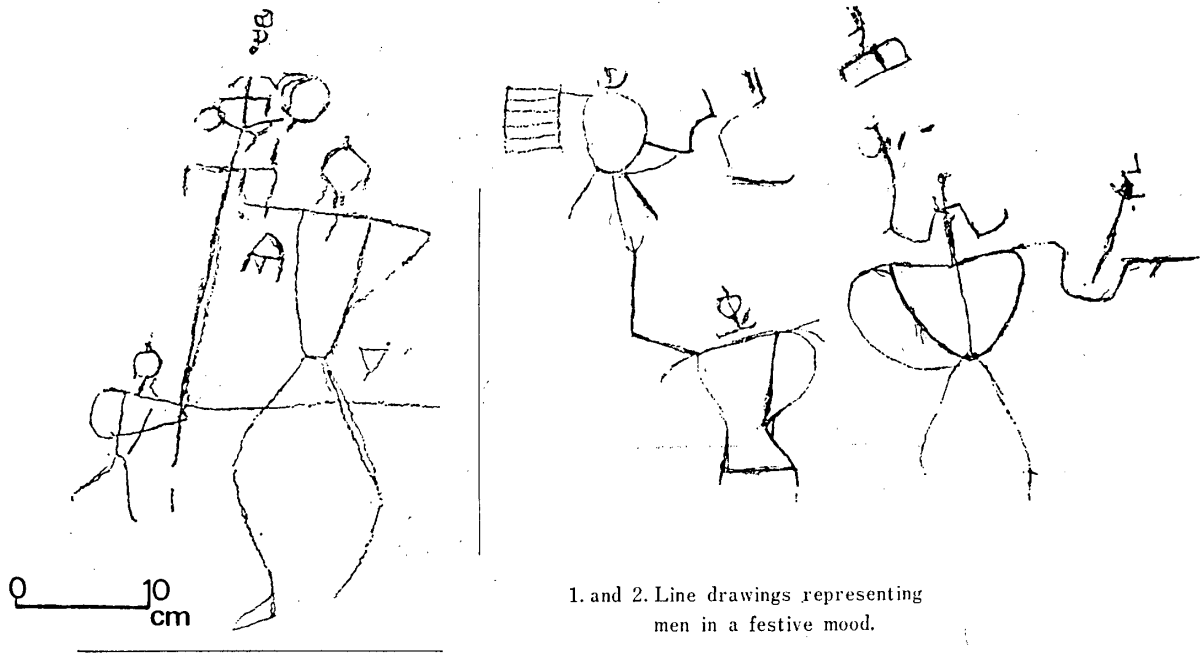


Fig. 10 Human figures on the cave walls of Tham Kao.

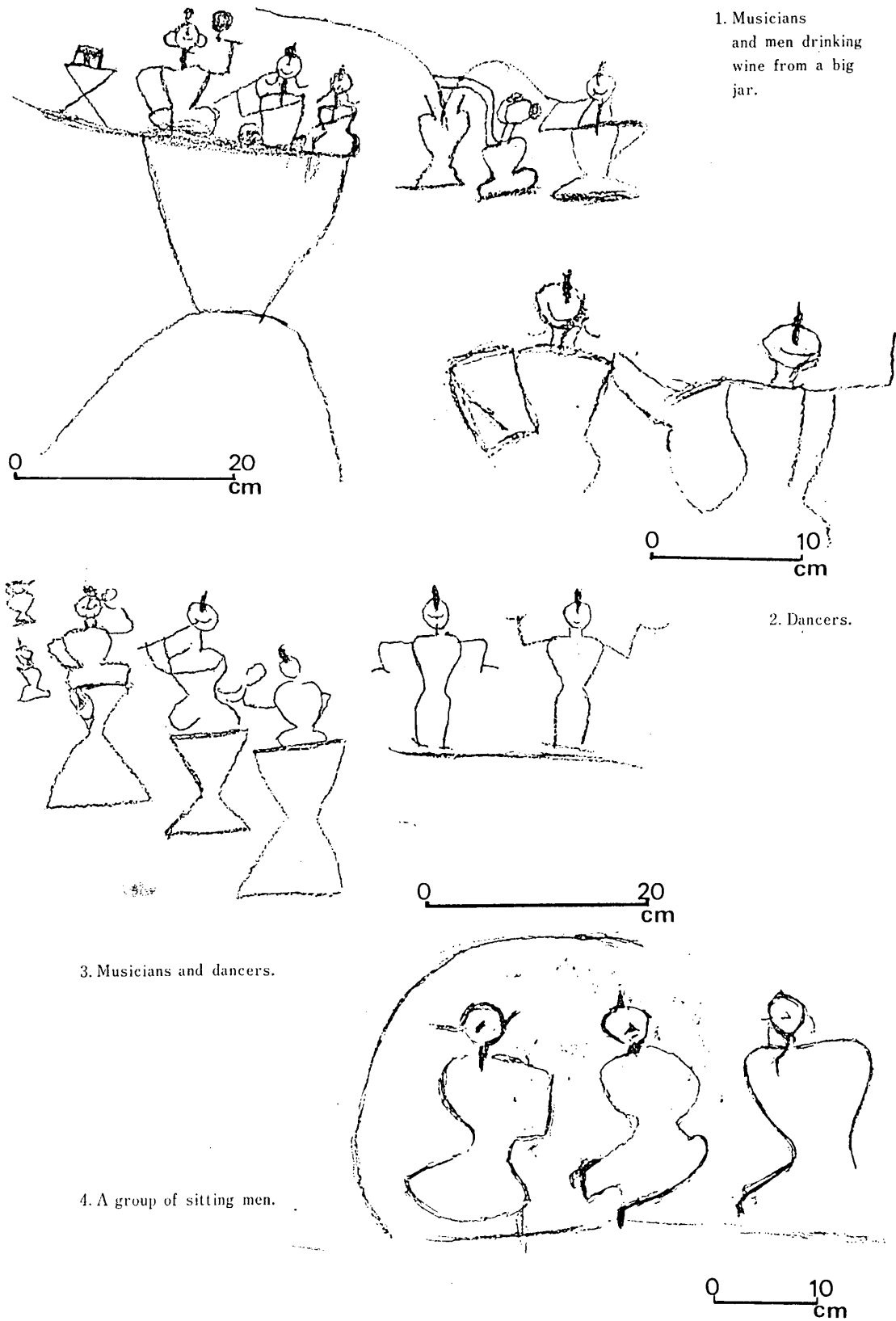


Fig. 11 Human figures on the cave walls of Tham Kao.



Fig. 12 Drawings of elephants on the cave walls of Tham Kao.
Elephants. No. 1 drawn in black line
Nos. 2 and 5, painted in black and white
Nos. 3 and 4, painted in black

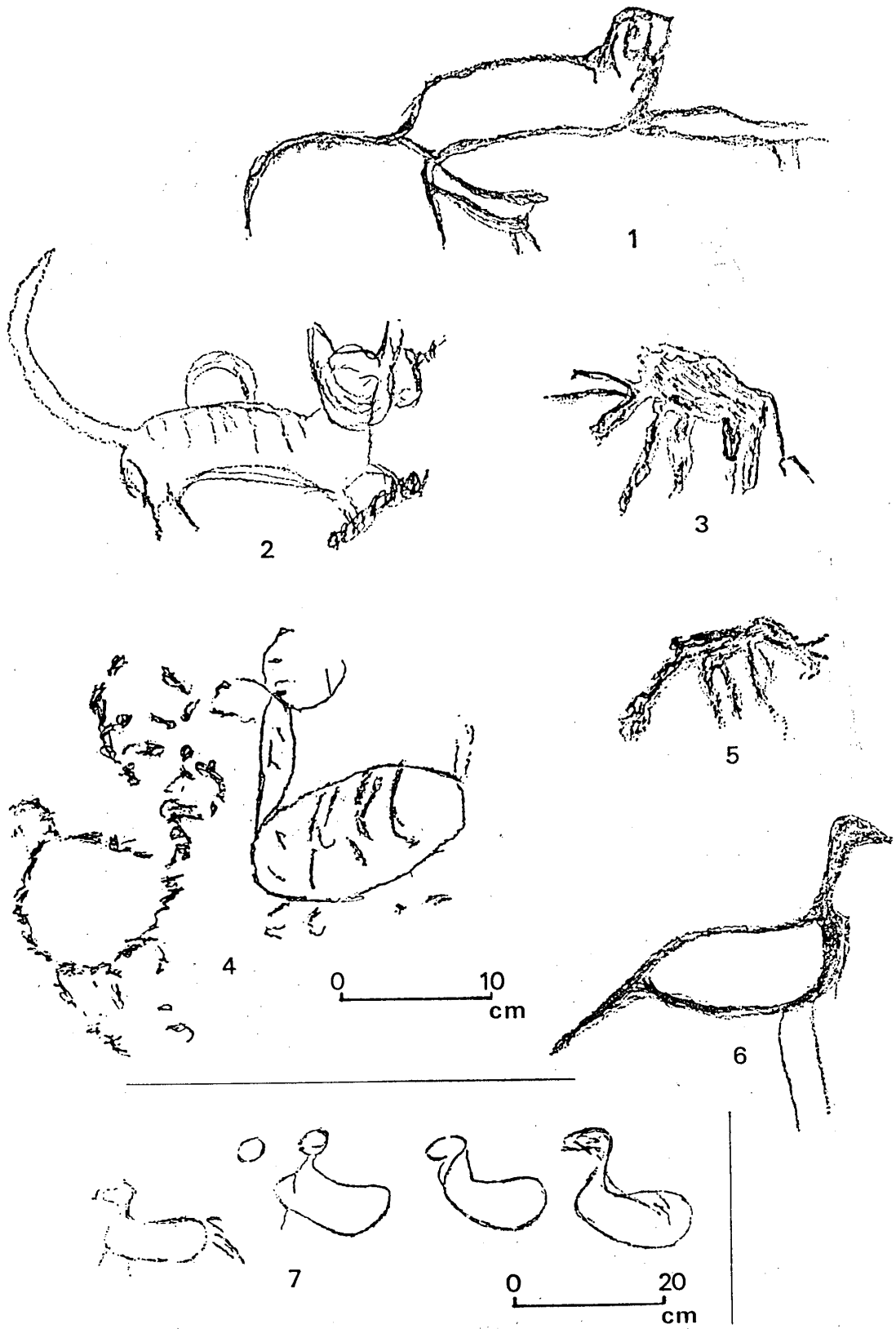


Fig. 13 Animal figures on the cave walls of Tham Kao.

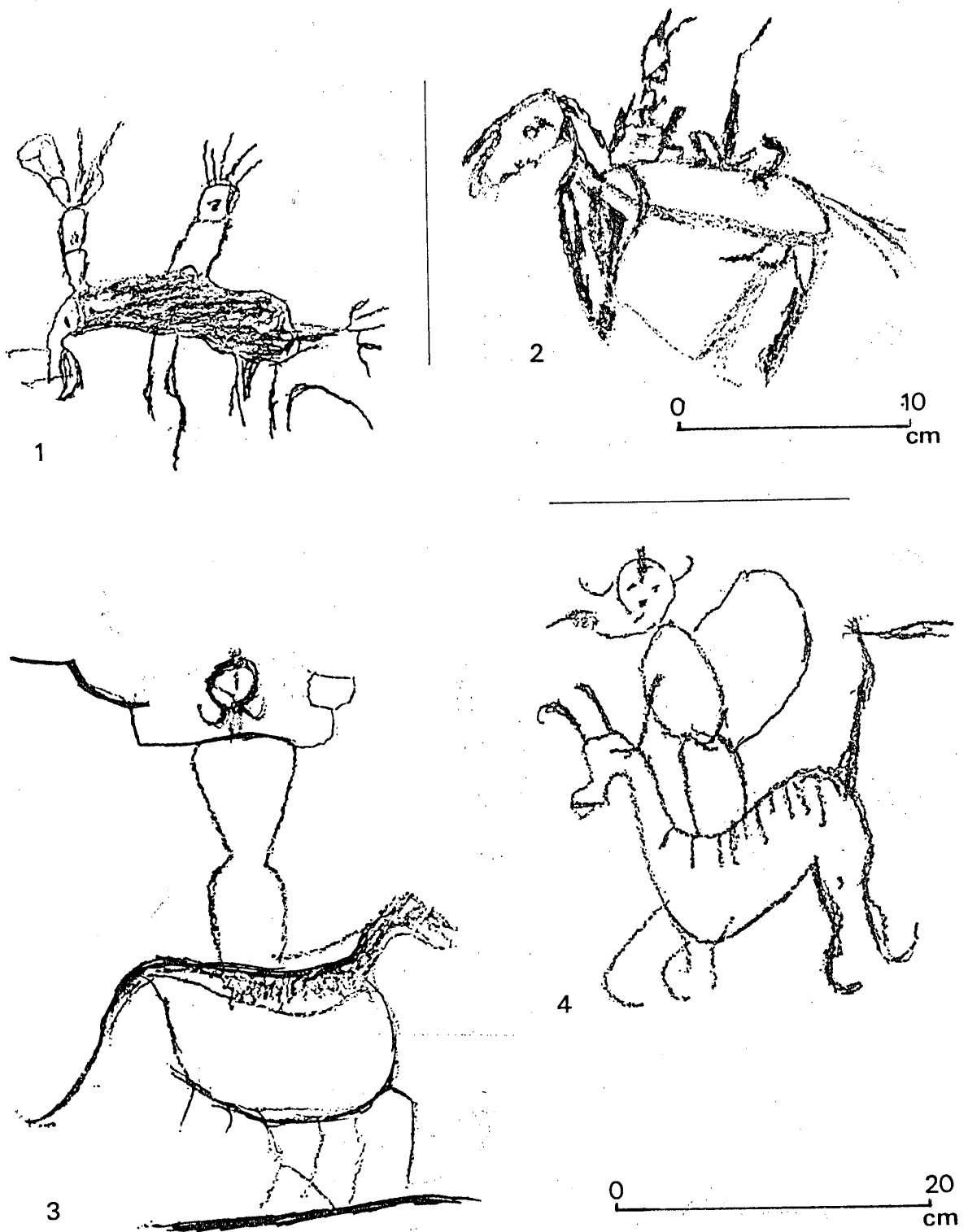
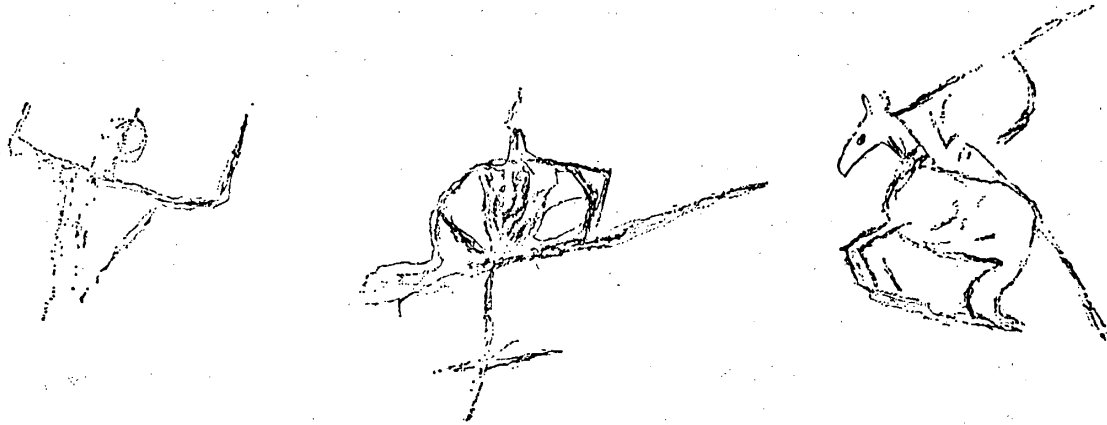
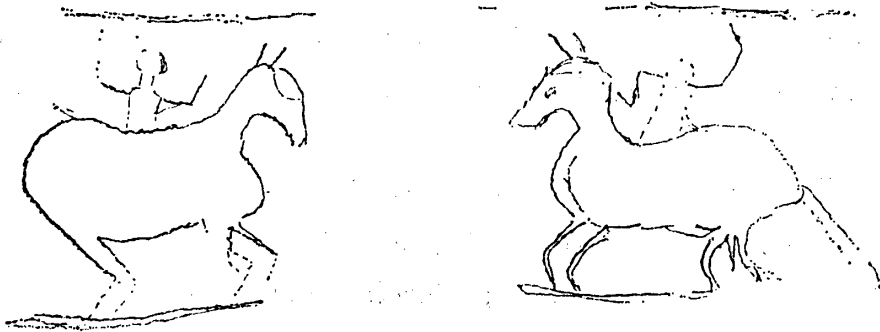


Fig. 14 Figures on the cave walls of Tham Kao. Man riding on the horse in various forms.

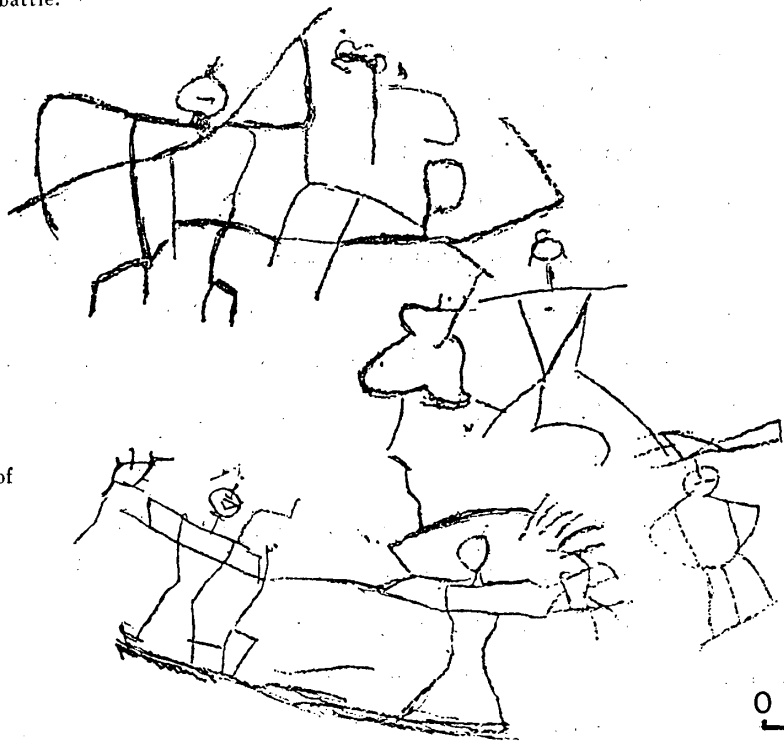


1. A lancer on horseback versus a spearman on foot.



2. A cavalry battle.

0 20
cm



3. A cluster of persons including spearmen.

0 20
cm

Fig. 15 Human figures on the cave walls of Tham Kao.

On the walls of both sides of the main chamber many drawings were found (Fig. 6). Those distributed in the innermost part of the chamber were situated so low as to be in reach of a man standing on the floor. But those situated closest to the entrance of the chamber were as high as ca. 8 m above the floor. The cave floor has been considerably lowered by digging for soils, especially in the front part of the cave. But we do not know how high it was above the present level when those drawing were drawn. The drawing in question are black, white or black and white in colour. Most of them are simple line-drawings. Black drawings predominate over white ones. Those in white look newer than the ones drawn in black. The white ones include a line-drawing of an aeroplane.

The subjects of black drawings (Pls. XV-XIX) are classified into three major categories of men (Figs. 7-11), animals (Figs. 12, 13), and men riding on animals (Figs. 14, 15).

Men are represented schematically as opposed to a naturalistic representation, and certain subjects, such as men with spears or lancers, whether riding or not, are emphasized (Figs. 8, 9, 15; Pls. XVI-2, XVII). Men have a characteristic and formalised head. A group of black-line drawings represent musicians playing musical instruments, including a flute (Fig. 11; Pls. XVIII-2, XIX). Another drawing in black represents men drinking wine from a big jar by means of curved drinking tubes (Fig. 11; Pl. XIX). This reminds us of a custom of rice-wine drinking popular among living peoples in the area (Pl. IV-2). Existence of ethnographic parallels in the same area may allow interpretation of drawings by direct historical analogy. Those drawings may not be products of art for art's sake, but may be records of historical events or some ritual scenes. The meanings of the drawings must be investigated from historical and social points of view. In this connection we also must attempt in future, to search not only for murals on cave walls, but also on mud walls of temples and shrines, or in historical documents of the areas concerned.

Many of the drawings of animals, which were clearly and realistically drawn, represent elephants (Fig. 12; Pls. XV, XVI-1) but other animals represented could not clearly be identified (Fig. 13).

Some of the riding animals are elephants (Pl. XV-2), but these were difficult to identify. Some of the others may be horses, although their necks seem to be too long, or too curved (Fig. 14). No horse was seen in the area at the time of our field survey. The cave drawings seem to suggest a set of values centered around the relationship between men and elephants and/or horses. One of the animal drawings shows the two colours black and white, but the white lines appear to be newer than black ones. Some white lines are superimposed on the black ones.

Some characters, words or sentences in Lao were found in five locations on the walls. In four locations they were written in black, in one in white. Relationship of those words or sentences with drawings were not clearly recognized on the spot. Some old men of the village informed us that white lines or drawings were new, maybe 20 to 50 years old, but black ones were old. The villagers denied that some monks might have drawn the drawings, saying that monks in this area never had such a custom.

All the drawings and letters were photographed, and most of the drawings were copied from the originals by using semi-transparent paper and soft pencils (Pl. III-2).

Some potsherds were found on the surface of the cave floor but the sections of excavated pits and depressions yielded no artifacts in situ. The possibility that the cave was used for normal occupation is negligible in view of its setting.

Acknowledgement

We wish to express on behalf of the Department of Archaeology, the University of Tokyo many thanks to the Government of Laos, especially the Ministry of Foreign Affairs, the Ministry of Education, the Ministry of Defence, the Representative of the Patriotic Forces of Laos, and the Ministry of Religion for their kind cooperation and support without which the field survey could not have been realised. We owe very much especially to Mr. K. Souvannalasy, Directeur Generale, Ministere de l'Education Nationale, and Mrs. V.S. Luan-gkhot, Directeur, Service des Relations Exterieures, Ministere de l'Education Nationale, whose cooperation and assistance was very helpful. We also thank the Embassy of Laos in Tokyo, especially Mr. T. Khamhing, the Ambassador, Mr. S. Khamsy, the first Councilor, and Mr. O. Ratanavong, Director of International Economic and Technical Assistance Division, Ministry of Economic and Planning and the Embassy of Japan in Vientiane, especially Mr. K. Sukanuma, the Ambassador, Mrs. Mochizuki, the Councilor, and Mr. Akasaka, for their devoted cooperation and kind help in realizing the field project. We very much appreciate the cooperation and assistance of Musée et Bibliothèque Nationale du Laos, especially Mr. P. Soulisak, Directeur General, Mr. D. Phomsouvanh, Directeur, Division du Musée, Mr. B. Souvannamacho and Mr. Ngone, which made the field survey so successful. We would like to mention the names of other people who kindly helped our expedition in the survey area in various ways, especially the Chief of Vang Vieng, the Chief of the Police in Vang Vieng, P. Olivier of Mission Catholique Vang Vieng, Mr. B. Souvandy, the Chief of Luang Prabang, policemen and officials from local governments who escorted us in the survey in the Luang Prabang area, Mr. T. Kigasawa and other members of Japan Overseas Cooperation Volunte-

The Archaeological Survey of Prehistoric Cave Sites in Laos

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(Names of offices and institutions and titles of persons are as at the time of the field survey).

For a detailed description of research data, see Appendix (in Japanese).