

ARCHAEOLOGICAL SITES IN BA BE NATIONAL PARK.

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BA BE (THREE LAKES) NATIONAL PARK

Ba Be National Park is located in the district of the same name, in the northwest of Bac Kan Province (latitude 20°30' N and longitude 105°3'E), about 240 km northwest of Hanoi. The park covers a total area of 23,000 hectares and consists of limestone mountains with unique flora and fauna. Historical sources indicate that the park was completely covered by thick forests until late in the 19th century. Botanical studies have established the presence of more than 660 botanical species, 526 faunal species, 17 species of fish, as well as many species of reptiles and birds, many of which are endemic. The climate is tropical monsoon with pronounced wet and dry periods. The high rainfall has left dramatic cuts in the karst and soil erosion.

The region is also distinguished by a series of grandiose caves (Puong, Tien, Na Puong and Ba Cua) with subterranean streams flowing through them. A series of waterfalls also flow from the lake. Because of its unique biodiversity, Ba Be was established as a National Park in 1992. The park's main feature is its three linked tectonic lakes (Pe Lam, Pe Lu and Pe Leng), surrounded by limestone and schist mountains. The lakes lie about 178 m above sea level, cover a total area of 500 ha, and extend over 8 km at an average depth of 20 m (35 m in the deepest parts). Formed on a limestone block, the lake never lacks water and is recognized internationally as one of the 20 natural freshwater lakes in world that warrant protection. Because of its strategic location and unique environment, Ba Be is important to the cultural history of Vietnam.

ARCHAEOLOGICAL EVIDENCE FOR PALAEOLITHIC GROUPS

Tham Think Cave

The earliest cultural remains identified in Ba Be thus far come from Tham Think Cave, a site belonging to the Late Palaeolithic, dated about 15,000 BP. Archaeologists from the Institute of Archaeology in Hanoi and other specialists from the Research Institute of Geology and Minerals first identified Tham Think Cave in 2005. It is located on a large (12 m) limestone mountain in Cho Leng village, Quang Khe Commune. The site lies about 8 km from the edge of parkland and about 100 m from the Cho Leng stream, which flows through the valley. The stream

contains large numbers of pebbles that have long provided material for primitive tools.

Tham Think is of simple construction, featuring a large open area with a large narrow chamber running deep within the cave. The surface of the cave is very flat; measuring about 100 m², with a domed ceiling containing a few stalactites. The cave entrance opens wide to the southwest, looking out to the valley below, and receives a lot of natural light, making it attractive for human occupation. In recent years there has been considerable human activity at the mouth of the cave as it is located close to populated areas. It has been used as an air raid shelter, for worship and for storage. As a religious site, it is known as Hang Chua or the Pagoda cave. Evidence of religious activity comes from remains of clay bases, broken clay Buddhist statues and painted Bodhisattva sets. A badly eroded lacquer board showing the three Chinese characters (Tu, Van, Quang) also sits on an elevated clay base, deep inside the cave. Because of recent human activity, the surface layers are mixed, thereby destroying a lot of archaeological evidence. The artefacts located during the abovementioned survey were found mainly outside the cave entrance, on the surface next to the cave walls.

A 1 m² test-pit was dug in the centre of the cave. In the southern wall, a 60 cm sequence was recorded, as follows:

- top layer, 10-14 cm, light grey, soft soil;
- ash layer, 5-7 cm, grayish white; this layer contained vestiges of fires from early to modern times;
- small gravel layer mixed with soft grey soil, 30-35 cm. This is the cultural layer and included the bones of small animals, freshwater shells (*Antimelania siamesis*) and stone tools;
- a sterile layer composed of dark-red soil mixed with gravel and grit, >30 cm. No archaeological artefacts were found in this layer.

During the preliminary survey, 27 stone tools were identified, 9 surface finds and 18 from the cultural layer. All were produced by the same techniques. This technological conformity indicates that all of the tools were manufactured in the same way and suggests that the surface finds may have originally come from the cultural layer. Table 1 shows the different types of tools found at the site.

Most of the choppers are longer in length than breadth (Fig. 1). All are of medium size and worked at one end

with concave edges made on one face. The remaining end was not worked and left intact so that the pebble cortex could function as a handle. The chopping technique is very simple; one layer was chopped with successive, strong strokes to make a balanced blade, almost perpendicular to the horizontal axis of the pebble. A few samples have sloping edges. The only cleaver in the assemblage was made from a thin, flat pebble. The flake tools were made from large flakes, some with pebble cortex (Fig. 2). Altogether, 15 flakes were found and represent 56% of the artefacts found at the site.

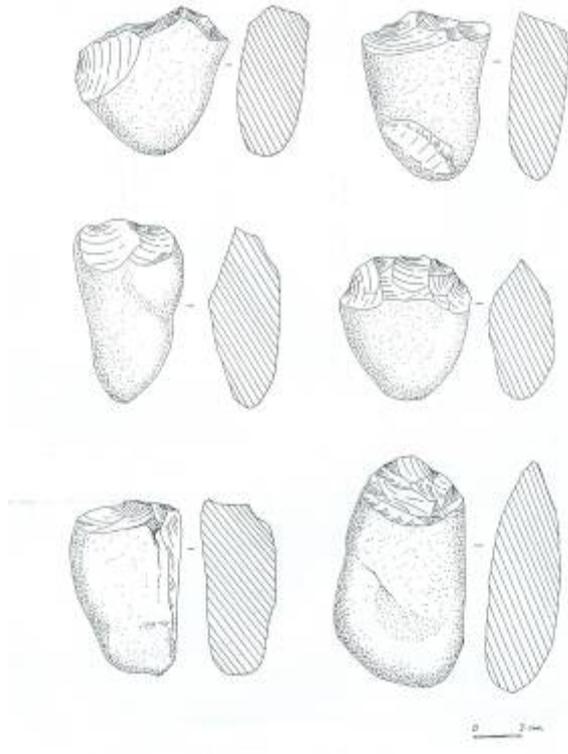


Figure 1. Tools from Tham Think Cave.

Table 1: Stone artifacts from Tham Think Cave.

Types	Surface	Cultural layer	Total (%)
Choppers	3	2	5 (18%)
Cleavers	-	1	1 (4%)
Flake tools	3	2	5 (18%)
Flakes	3	12	15 (54%)
Worked pebbles	1	1	2 (6%)
Totals	10 (33.33%)	18 (16.66%)	28 (100%)

Neither ground objects nor pottery were found in Tham Think, although shells were recovered from the cultural layer. Although animal bones were fewer in number, and badly broken, they do indicate the mixed diet of the late Pleistocene hunter-gatherers at Tham Think.

PHOUNG CAVE

In 2004, Phuong Cave was investigated by archaeologists from the Institute of Archaeology and researchers from the University of Natural Sciences. The cave is located in Khang Ninh commune. While there were signs of human occupation, only one stone tool was recovered. It was a surface find and has been identified as a Palaeolithic chopper (Mai and Vu 2004). Further test-pits and data collection are proposed for the site.

ARCHAEOLOGICAL EVIDENCE FOR HOABINHIAN GROUPS

Tien Cave

In 2001, archaeologists from the Institute of Archaeology discovered Tien Cave, a large cave in the Tien Mountain Range, near the Ao Tien area of northern Ba Be Lake (latitude 22° 26' 45"N and longitude 105° 36' 39"E). The northwest entrance to the cave is dome shaped, 10 m above water level and 10 m away from the edge of the lake. Boat access is preferable as high cliffs restrict access. Large fallen rocks cover the floor of the cave, resulting in an uneven surface. The ceiling of the cave is high with a few stalactites and exposed hanging rocks. Most of the cave receives natural light.

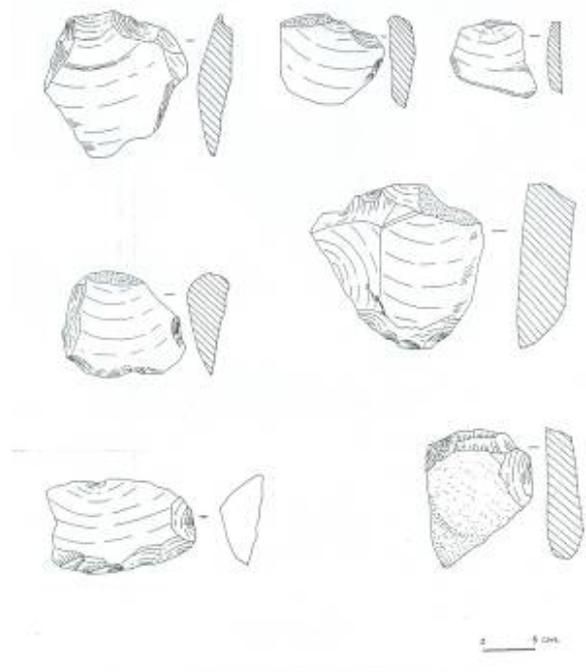


Figure 2. Tools from Tham Think Cave.

While traces of prehistoric occupation were found everywhere in the cave, some of the material was very mixed. The main occupation area appears to be near the mouth. Test-pits were not dug because local groups had already exposed a cultural layer when searching for gold.

The layer was 30-35 cm thick, 15 cm below the surface of the cave, composed of grey clay. It yielded a few *Antimelia siamensis* shells and a number of artefacts.

Tien Cave is a typical Hoabinhian site, marking the beginning of the Early Neolithic (in Vietnamese terminology) in the Viet Bac area. Hoabinhian sites are widely distributed in the mountainous regions of Tay Bac, Son La, Lai Chau and Ha Giang provinces as well as in the limestone areas of Hoa Binh, Ninh Binh and Thanh Hoa provinces, extending towards the mountainous areas of Nghe and Quang Binh provinces.

The archaeologists collected a number of Hoabinhian stone tools which local gold miners had previously removed from the cave (Figs 3, 4). No ceramics were found. The tools were identified as axes, knives, choppers, cleavers and a grinding pestle. All were made from stones from the nearby rivers and streams. The main technique evidenced was direct flaking, executed skillfully with accurate strokes. There was no evidence for ground tools. Some of the Tien Cave tools belong to the "Sumatralith" category, a form which did not occur at Tham Thinh, although it does occur at other Hoabinhian sites.

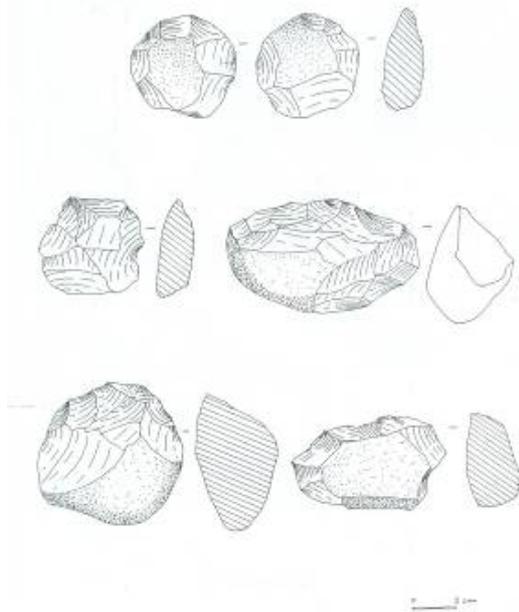


Figure 3. Stone tools from Tien Cave.

In summary, the tools from Tien Cave show cultural continuity from the Palaeolithic into the typical Hoabinhian. The assemblage is believed to date to about 10,000 BP (Trinh, Nguyen and Ha 2004).

CONCLUSIONS

While fewer sites have been located in Bac Kan province than have been located in the adjacent provinces of Lang Son, Cao Bang and Tuyen Quang, there is sufficient evidence to indicate cultural continuity over a long period (Trinh 2004). Although the cultural materials within the

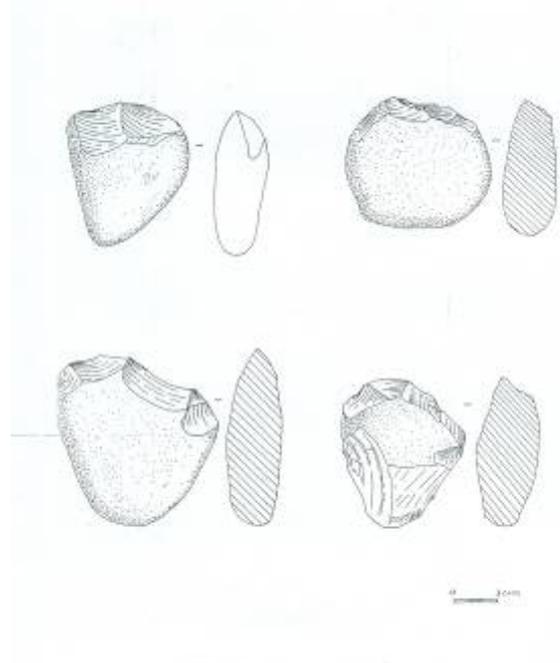


Figure 4. Stone tools from Tien Cave.

caves at Tham Thinh, Puong and Tien were disturbed, the remaining artefacts indicate that prehistoric groups inhabited the region from the Palaeolithic period through to the Neolithic. There are other unstratified stone artefacts from the sites of Na Ca, Na Tem and Khau La that show that local resources were also exploited during the Late Neolithic/ Early Metal Age, c.4000 -3000 BP. The tools are the same as those produced by groups belonging to the Ha Giang culture, but while Ha Giang sites have been identified in Ha Giang, Cao Bang, Tuyen Quang, Thai Nguyen and Yen Bai provinces, no stratified Ha Giang culture sites have been identified in Bac Kan province. Yet the tools suggest they exist and the close proximity of the large caves in Ba Be National Park to abundant flora, fauna and water imply settlement, but further investigations are required to establish this.

It is clear that archaeological sites in Ba Be National Park are of cultural significance and warrant protection. There can be little doubt that Ba Be National Park has enormous potential for further archaeological research.

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