

into the Palaeolithic (Old Stone Age); all these phases were fairly well documented by artefacts. The Bronze Age was, however, only slightly represented by finds found *in situ*.

At a depth of 96" fragments of a skull were recovered. These fragments have been reconstructed and proved to be 40,000 years old; this is the earliest representative of *Homo sapiens* in this part of the world.

Because of the undisturbed conditions prevailing in the site the human deposits *in situ* remained well preserved without becoming fossilized. Human and food remains went back to 40,000 years to the depth of about 100". Any remains below this level disintegrated and the sequence was based on stone implements.

Lucas Chin

ARCHAEOLOGICAL RESEARCH IN SARAWAK SINCE 1971

Sarawak covers an area of 48,250 square miles in northwest Borneo and is the largest state in Malaysia. The country is generally rugged and topographically complex with swamps, many rivers and forested areas, most of which remain to be explored.

More active archaeological research has been conducted in Sarawak than in Brunei, Sabah and Kalimantan, all in the island of Borneo. However, like many developing countries, we are faced with the problems of manpower and finance. As a result, we have not been able to continue fieldwork at the most important stone-age site at the Niah Great Cave, the Tantric and other major metal-age sites in the Sarawak River Delta along the coast in the First Division.

Efforts are being made to recruit and train more personnel to take charge of this discipline. The limited manpower resource of the Sarawak Museum has been primarily involved on new sites which have been discovered.

Since 1971, eleven new sites have been discovered. But only three had been completely excavated. The others, including three cave sites in the First Division, have

only been preliminarily excavated. Further fieldwork will be undertaken, particularly on the cave sites in the near future.

So far evidence recovered from these cave sites indicate they contain Neolithic remains. A lecturer of the University of Malaya will be working on two of these cave sites for her PhD thesis in 1977.

The others are proto-historic sites. The material excavated from these sites are large quantities of ceramics (Ch'ing-pai, Yueh and Celadon) of the 10th to 12th century AD. They were found in association with beads, mostly monochrome, gold and metal artefacts and are similar to those recovered from sites in the Sarawak River Delta and Gedong which had been described in the *Sarawak Museum Journal*.

The most impressive proto-historic site is at Sungai Kelaka in the coastal Kabong Sub-district of the Second Division. A substantial quantity of early blue and white sherds had been recovered in association with Sawankhalok ware from this site. For the first time, a number of Tzu Chou sherds had also been recovered here. Further fieldwork is planned for this site.

The site at Sungai Kelaka is considered important because it is so far the only site ever located in this southwestern part of Sarawak from which post-Yuan ceramics had been recovered in sufficient quantity. The late Mr Harrisson's postulated 'Ming Gap' of this area now needs clarification because of this new material. He had interpreted that the lack of Ming blue and white sites in this southwestern part of Sarawak was due to the shift of the centre of contact with China from the Sarawak River Delta in the First Division in Sarawak to Brunei by the 14th-15th century AD.

Perhaps the most exciting site located during these recent years in Sarawak is at Ulu Balleh in the interior of the Seventh Division. A brief field season was conducted on this site in late 1974 and the material so far recovered from this site is remarkable.

The site is situated on a hill at the junction between Sungai Putai on the northeast and Batang Ulu Balleh on the southwest, covering roughly an area of 5 acres. It is about 500 ft above sea level.

On 12 September 1972, when relatives were digging a grave for a dead village man, the first stone tool was

recovered. Two years later, on 28 August 1974, another grave was dug during which another stone tool was found. These two graves were dug one behind the other.

In October 1974 just before the northeast monsoon set in, we spent two weeks surveying and carrying out reconnaissance work on the site.

A total of 50 trenches, 5' x 5' covering an area of about two acres were randomly excavated during the field season, at a depth down to 36" where we struck sterile earth.

Seventy nine stone tools were recovered in these trenches in association with local earthenwares, several iron implements and beads.

Seventy of the 79 tools recovered are monofacial and the other 9 bifacial. Most of the tools occurred between 6" and 24". Only two were found between 24" and 30"; none below 30". They are in various sizes, ranging from 180 x 70 mm to the smallest, 45 x 12 mm. The majority of these tools were evidently made from small pebbles which are abundant along this part of the Balleh River. Sixty nine tools show that they had been worked and polished but a good deal of the pebble skin still remains.

Seventy eight of these tools can be classified as quadrangular adzes; one perhaps may be described as a 'trapezoidal' adze, but the ridge on the 'roof' is not quite distinctive.

Many of these tools show signs that they had been used and are therefore functional. However, those made of sandstone could be thunderbolts which were esteemed by the indigenous people for a wide range of mystical purposes; for protection against illnesses, invulnerability in battle, as fertilizers for crops etc. Even some of these tools could be burial items.

Other material recovered in association with these stone implements were 37 cherts, two agate, one quartz, one stone bark beater, three metal earrings and bangle fragments, nine iron fragments of knives and spears and only seven monochrome beads. Two agate and five cherts are shaped like arrow-heads or scrapers.

Local earthenware sherds on the other hand occurred virtually at every layer right down to 36" with more concentration between 6" and 24". They consist of plain, cord-mark, cross-diamond, basket, ribbed and incised patterns.

So far, no human or food remains have been recovered. No carbon has so far been encountered.

This is an important site as it is the first open known site ever located in Sarawak where stone tools in abundant quantity had been recovered in association with earthenware. Further fieldwork is planned which it is hoped will yield more exciting finds.

Special attention will be paid to plant remains which have hitherto been neglected at the other sites in Sarawak.

Lucas Chin

PHASEOLOGY OF THE PREHISTORY OF SARAWAK

with emphasis on West Mouth, Niah

PHASE	MAIN MATERIAL CHARACTERISTICS
Middle Palaeolithic before 40,000 BC	Before 40,000 BC at the depth below 100", the only surviving stone implement so far recovered was a tiny 'chip flake'. No other tools or human and animal remains had been found at this depth. It is believed that any human or other animal remains at this level would have disintegrated. However, further excavation at this depth may reveal other artefacts.
Upper Palaeolithic c.40,000 BC	Fragments of earliest representatives of <i>Homo sapiens</i> , that is true human beings, were recovered in association with 'Sohan flakes' and chopper tools and food remains at the depth of above 100". The food remains consist of several species of animals like Orang Utang and the Great Anteater which had long become extinct in that part of Sarawak. Cave-men ate a lot of both marine and freshwater shells. During this time, cave-men already knew the use of fire by striking quartz pebbles on resin.