

## Prehistoric Pakistan

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Pakistan consists of two distinct geographical zones—one separated from the other by a thousand miles of the Indian territory. The eastern wing (Dani 1960: ch. 1) is mainly the delta of the Ganges and the Brahmaputra, fringed with tertiary uplift and folding on the north and the east. The main deltaic region is a *khadar* area, the new alluvium overlapping the old, and though the old alluvium is traceable in the red lateritic soil of Barendra (northern part of East Pakistan) and much more so in the Lalmai-Mainamati Range in Comilla district and near Sitakund in Chittagong district, nothing has so far been discovered about early man in this region. Only in the hilly parts have some neolithic tools been found. 'A piece of fossil wood, pointed, elongated, one side flat, truncated butt, beautifully polished' was picked up from Sitakund (Brown 1917: 130). Four more specimens are preserved in the British Museum. All of them are varieties of the faceted tools of Assam (Dani 1960: 87). Some years ago Robert Dyson paid a visit to the Chittagong hill area and collected more examples. As far as I know, these tools also belong to the same culture complex.

West Pakistan is the child of the Indus. The Indus basin is bordered on the west by the southerly offshoots of the great Himalayas and on the east the great Indian desert, the only gap into India being the narrow passage between the desert and the Himalayas—the great *Kurukshetra* of the Indian tradition—leading directly to Delhi. The great Indus zone itself divides into two main parts—the hilly regions of the west, which include tertiary folding and wide open valleys and plateaus, and the main alluvial valley of the Indus, which mostly stretches to the east of the river. The zone itself breaks into minor geographical and geological divisions. The first is the Peshawar plain consisting mainly of the valley of the river Kabul, a tributary of the Indus, surrounded ringwise by hills with a gap only towards the mouth of the Kabul. The valley incorporates much of older and newer alluvia while the foothills preserve many pleistocene beds (Spate 1954: 445–48). The second is the Panjab plain which starts with the undulating ground east of the river Indus and merges with the alluvial flat of the five great tributaries of the Indus, that give rise to the terminology of the Panjab, meaning land of the five rivers (五川). It is in the western defiles, locally known as the Salt Range, that sufficient geological studies have been made, and in its smaller area of the Potwar plateau that the Stone Age materials have been examined in relation to the Himalayan glaciation (de Terra and Paterson 1939). The third area is the delta of the Indus, which starts from a point where the desert comes closest to the western hill. This point is the bottleneck between the Panjab plain on the north and the Sind delta on the south.

It is marked by the limestone hills of Sukkur and Rohri, where alone flint and chert are available in large quantities. As a result this place has been the great factory site for the production of blade and flake tools as well as late microlithic implements. It is the worked materials from this place that were moved down into the great protohistoric cities like Mohenjodaro—the type site of the famous Indus Valley civilization of bronze age (Marshall 1931, Mackay 1938). The fourth region is the almost desert-like plateau of Baluchistan separated from Sind by the Kirthar Range. This is an eastward extension of the Iranian plateau. Geologically it is *terra incognita*, but quite a large number of protohistoric sites have been discovered here. They all relate to the cultural phase that links the bronze age civilization of the Indus Valley with those of Iran and Mesopotamia. But under the prevailing geographical conditions the economic level could not rise beyond village communities (Wheeler, 1960: 9–16, calls them ‘hill villages’).

D. N. Wadia (1928) of the Geological Survey of India was the first man to draw attention to the presence of palaeolithic artifacts in the Salt Range. K. R. U. Todd whose materials are kept in the University Museum of Archaeology and Ethnology at Cambridge (U.K.) in 1930 discovered a site at Pindigheb near Rawalpindi. In 1932 de Terra, of the Yale North India Expedition, reported a palaeolithic find. As a result a joint Yale-Cambridge Expedition went into the field in 1935. The results (de Terra and Paterson 1939) of this expedition are the basic source material for all the studies that have so far been made in the prehistory of Pakistan. V. D. Krishnaswamy (1947) of the Indian Archaeological department surveyed this material for the first time in the general background of Indian prehistory. H. L. Movius Jr (1948) reviewed the entire material in the light of the palaeolithic cultures of Southern and Eastern Asia and suggested a new terminology for the tool types. Recently Paterson, one of the participants of the Yale-Cambridge Expedition, has come out with a new study entitled *SOAN, The Palaeolithic Pakistan*. The book is published by the Department of Archaeology, Government of Pakistan.

The palaeolithic complex discovered by the Yale-Cambridge Expedition has been generally termed Soan (Sohan) valley culture, the term being first proposed by Paterson. It originates from the name of a small river Soan, a tributary of the Indus, which provided the main source material for the study of the archaeological data in relation to different terraces of the river. In all, five terraces have been generalized. A direct connection is supposed to have been established between the boulder conglomerate of the Potwar and the outwash of the second glaciation of the Himalayan mountains. An earlier conglomerate was found to correspond with the first glaciation and, by continuous tracing mountainward, a series of terraces was correlated with the later interglacial and glacial phases. The pleistocene in the Potwar region is mainly divided into three periods: lower, middle and upper. It is in the boulder conglomerate of the second glaciation that the earliest tools of this region have been found. These early implements have been significantly called ‘Pre-Soan’ as they do not correspond with the dominant characteristic of the Soan culture. The pre-Soan tools are big flakes or split pebbles of quartzite with un-faceted striking platforms mostly at obtuse angles. They are heavily worn. Following this phase of the second glaciation there was a prolonged second interglacial phase

which was redeposited on Terrace 1. It is here that we find the typical 'Soan' industries. The 'Early Soan' is a pebble and flake industry consisting mainly of chopping and scraping tools, which are further classified by Paterson on the basis of available shapes. The flake tools include both high-angled Clactonian types as well as low-angled Levalloisian examples. Along with them have been placed a few ovate types of hand-axes. During the succeeding glaciation Terrace 2 was formed in a process of aggradation making two deposits—the basal gravel containing the pebble industry of the earlier phase showing both unifacial as well as bifacial cutting edge, and the upper loess consisting mainly of Late Levalloisian flakes. The materials of this terrace are generally referred to as 'Late Soan'. The evolution of the tools can be summarized in the words of the authors: 'the presence of the large number of pebble tools and cores made on small pebbles is one of the most outstanding features of the Panjab . . . in the Soan pebble tools there can be traced a development towards smaller and more finely made types. The Soan flake industries, too, provide an excellent example of the evolution of a flake culture in a small area. In the early stages the flakes are crude . . . in the late Soan, alongside the simple forms, there are other flakes, showing a development in technique, with much more regular primary flaking and often with faceted platforms, denoting careful preparation of the core in a manner reminiscent of the Levalloisian' (de Terra and Paterson 1939: 311-12). In the final stage of terraces 3 and 4 a new stone industry of blade-flakes and scrapers was recognized. This was termed 'proto-neolith' by the authors. Recently they have been included under the category of Indian Middle Stone Age industries (Subbarao 1959, Allchin 1959).

The Late Stone Age materials have been found occasionally in Pakistan. De Terra and Paterson have reported stray finds of microliths in the Panjab, but the tools found by them at Uchali west of Naushehra in the Salt Range have not been described (Gordon 1958: 21). The most important source material is the Sukkur and Rohri limestone hills, where long chert cores, six by two and half inches long, have been found. It is again here that long ribbon flakes were originally made and transported to other sites. These flakes have been traced in a number of sites in Sind (*ibid.*: 19: 21; also in *Man* 1938). Gordon (1958: 19) has also reported microlithic finds in the vicinity of Taxila and Rawalpindi; but he is certainly wrong when he talks of Jamalgarhi cave. There is no cave near the Buddhist ruins at Jamalgarhi. The nearest cave traceable is situated about two miles away from Jamalgarhi on way to the rock-cut Buddhist cave of Kashmir-smast. It is here that we find the microlithic finds talked of by Gordon. This find is not an isolated phenomenon in this region.

The survey conducted by the University of Peshawar this year has brought to light many sites in the open plain and at the foot of the hills that separate Buner from the district of Mardan. The plain shows the reddish loamy soil washed down from the hills. It is here that the microlith using men moved about with their arrows and bows hunting wild game. Far away, right at the foot of the hill, is the village of Sanghao (meaning a Buddhist monastery 僧房). The village is situated at the mouth of a valley enclosed all round by a ring of hills. This valley is further subdivided into smaller valleys by spurs jutting out from the main tertiary hill. In these smaller valleys springs are abundant, and in the past each one of them

supported human habitation. All over the valleys Buddhist ruins are scattered far and wide. In several of the smaller valleys ancient caves are extant. One such valley is named Parkho-darra which has a very big cave, about 100 feet long and 30 feet deep. It is a natural cave formed by weathering and disintegration of the original conglomerate rock that makes up the spur. It is in this cave that this season's work was concentrated.

The present floor of the cave is 5 feet higher than the ground level, and its ceiling is coated with thick black soot. The approach to the cave is sloping and this slope makes a rough embankment of carelessly packed stones collected together at different times obviously to protect the inside from occasional flood rains. With the object of revealing the cultural deposit a long trench 50 feet long by 10 feet wide was laid in the middle of the cave. The excavation was carried to the rock bottom which roughly averaged between 12 to 15 feet from the top surface. Four main periods were revealed in the excavation. The top two layers belonged to the Buddhist period datable by the discovery of a Kushana coin of the 1st century A.D. and a single sherd of Northern Black Polished ware which may be placed in 3rd century B.C. in this context. The occupation layers show an irregular habitation in several pits of charcoal and ash full of potsherds, bones and other sundries. It is in this period as well that the pitching of the embankment was mainly done. But the next early period is known from the material mixed up with the embanked stones and one or two pits. It is here that we get for the first time in West Pakistan neolithic tools of an advanced character—tools which are partly made by grinding and partly by rough battering. Among them we clearly recognize rounded hammer-stones of granite, maceheads, spearheads, meat choppers, wood-cutting axes or wedges and hoes of two types: (a) curvilinear longish type, and (b) shouldered tool type. The last type is for the first time discovered in this region. All these types are also found scattered in the terraced fields in the whole valley as well as across the hill in Buner, lower Swat and Dir. At a place near Thana in Malakand Agency and another near Timurgarha in Dir these tool types have been collected in large numbers. It is strange that among them we have not discovered a single example of the well-known pointed butt type of the Indian ground axe. The neolithic tools so far found all copy metal types, and though the older chipping technique is preserved in some of them chronologically they do not appear to be very early. If the tool types are at all indicative, it seems that this region was a backward area and continued to produce food by using these stone tools which are based on metal forms probably at a time when other regions were beginning to use metals; a detailed account will be given in a forthcoming publication on *Sanghao Cave* by the University of Peshawar.

The main deposit in the cave belongs to (i) the microlithic period which started immediately below the embankment; and (ii) middle stone age, which continued to the rock bottom showing ten different layers of occupation. As was expected in a cave dwelling, these layers do not make floor levels but they represent different stages of occupation accompanied by masses of ashes and charcoal deposit. All these layers form at an acute-angled incline from the back rock of the cave, beyond which lie the thrown-off spoils. Through all these ten layers we can trace the evolution of the tools and study carefully their manufacture in the waste material

that was thrown near about in the cave as well as in the rubbish deposit outside. The main material used is quartz which is available as outcrops in the local hills. Sometimes white crystalline quartz is also found. A few tools are also made of bluish silicate lime stone and some of bone. The microliths are completely different from those found in Sind. In character they can be described as completely non-geometric. We have not found a single example of crescent, trapeze or parallel-sided blades. The predominant types are three: different varieties of scrapers, points of various types, and triangles, some of which are perfect arrowheads. Some of the scrapers may be classified as knives with blunted back. Even now they are so sharp that several students got their fingers cut. They vary in size from three-fourths of an inch to two inches long and show fine secondary retouch at the edges. Many of them show marks of use. These people were, no doubt, hunting game in the valley. The excavation produced three horns of wild goat and many bones.

These people were the earliest to occupy the cave soon after its formation. The approximate date of the cave formation can be fairly well deduced. The layers which are seen in the cave stop immediately at the point where the cave ends, and below the rubbish pit there is a clear line of break, beyond which the layers outside the cave are entirely different from those within. Outside we have not been able to trace any charcoal or ashy layer in the lower levels. On the other hand we find solid red loamy soil apparently deposited by the washing down of the hills. It is on the top of the red loamy soil that the microlithic people came to live. Outside in the open plain their implements are scattered over the same soil. But below this level the soil makes two clear deposits of compact earth containing altogether different materials. Here again the raw material is the same quartz, but the size of the tools is astonishingly large and under no circumstance can they be included under the term microlith. The types are also entirely different. We find here rough triangles, awles and large size scrapers. Only one example of an arrow-head(?), four times the size of an ordinary microlith, was found. These tools do not show such fine workmanship as is the case with the microliths. Though no long blades or chopping tools have been found here, I am inclined to classify them as upper palæolithic (middle stone age) artifacts stratigraphically distinguished from the later microlithic tools. None of this type is found within the cave. Obviously the upper palæolithic man lived in and outside the cave. Here then we have the first important evidence of two clear periods of deposit—one before the formation of the cave (which remains to be excavated) and the other after the formation of the cave—distinguishable stratigraphically as well as culturally.

The rock bottom of the cave is a very irregular formation showing huge boulders here and there. On breaking deliberately some of the boulders two good specimens of middle Acheulean hand-axes were recovered. This find suggests that the conglomerate belongs to the middle pleistocene period. Thus the first season's work at Sanghao has brought before us a complete picture of the prehistory of Pakistan. The excavated materials are yet to be studied in detail, and more explorations have to be done in the neighbouring areas before these tentative conclusions are finally confirmed.

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