

First prehistoric remains in the Siwalik Hills of Western Nepal

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Abstract: During geo-archaeological investigations in the Siwaliks of Western Nepal (or Churia Hills as they are called here) first authentic discoveries of remains of prehistoric man have been made in Nepal. A number of prehistoric sites as well as a number of smaller localities were found during the survey in the Dang and Deokhuri valleys in Western Nepal, belonging to stone age people of yet unknown age and cultural provenance. These are the first definite evidences that Nepal was occupied by prehistoric man during the stone age and that hitherto unknown people of a time before the historic period did penetrate into the Nepalese mountains.

Previous work

It had always been an intriguing question, whether stone age man did in fact live in Nepal. Several attempts had been made in the past to fill this gap in our knowledge about the roots of Nepal's history. R. V. Joshi (1964) investigated the Kathmandu valley for prehistoric remains, but though his survey yielded no finds, he came to the conclusion that it would only be a matter of systematic search to locate sites. N. R. Bannerjee and J. L. Sharma of the Department of Archaeology in Kathmandu investigated the Narayan River valley in the Nawal Parasi District (Bannerjee 1969). They found near Danda, what they called a few „handaxes, cleavers, choppers and scrapers“, (though no description nor figure has been given in the article) which seem to have eroded out from recent to subrecent river deposits. These artefacts are however – after the author investigated them in the department – naturally worked river cobbles rather than man-made artefacts. The merit of this investigation, though, is that it did make a first beginning of looking into Nepal's prehistoric past.

In the same year Bannerjee and Sharma (1969) also described some interesting polished stone axes from Nepal and Sikkim which had been found at various places by chance, amongst which there is one oblong axe which was found by R. N. Pandey in the Dang valley near Tulsipur on the surface. This raised the question whether these so-called neolithic tools were authentic neoliths from a people who had lived in Nepal and made these tools in Nepal, or whether they had been imported at a much later time from Tibet and brought in by migrants and used as shaligrams, like the ammonites from Muktinath.

Some of the polished celts, however appear to have come from original Nepalese environment. J. L. Sharma describes (1983) all the polished axes which so far have been recorded from Nepal, and a number of them seem to be derived from tiller up soils, mainly in the Charikot area. None, however, are recorded with any stratigraphical background, except perhaps a celt from Kottauri, Danda Khola, a tributary of the Narayan River in the Chitwan plains, where Sharma says: „on the basis of grey ware and its associated pottery surface collection it may be suggested that there we can get some archaeological evidence about the Neolithic phase up to historical period“.

Some preliminary neolithic survey had been carried out in the Kathmandu valley by the late A. Laming-Emperaire (1975) and she quotes the surface finding of two polished celts at Timal in the Kathmandu valley, but without an further description. After my findings in the Dang-Deokhuri valleys, however, I am quite convinced that neolithic man must have occupied also the Kathmandu valley

and that sites did exist on the margin of the basin; but the continuous tilling of the terraced fields makes any search very difficult.

The present investigations

One of my aims therefore, when I began work in Nepal in 1983, was to explore whether prehistoric man in fact did live in Nepal or whether the Himalayan valleys in Nepal were only occupied rather recently in historic times.

The prehistoric exploration is part of a larger research programme of „Quaternary explorations in the Siwaliks of Nepal“, financed by the Deutsche Forschungsgemeinschaft, and headed by Prof. Dr. Gisela Freund, Institut für Ur- und Frühgeschichte, Universität Erlangen. The programme includes also geological and stratigraphical research of the Siwaliks of Nepal with the aim of building up a stratigraphical base for the Nepal Siwaliks for future detailed palaeontological research and to establish the palaeoenvironmental background of the earliest hominoids in Nepal. First palaeontological collections in the Siwaliks have been made by an American team (West et al. 1978) in Western Nepal. They had also found the first evidence of *Ramapithecus* in the Siwaliks: an upper left molar, found along the Tinau Khola exposures north of Butwal (Munthe et al. 1983).

The prehistoric explorations, therefore, formed only a small and secondary part of the programme this year. Most of the time in the field was used for stratigraphical work in the Siwalik Formation, the results of which are described elsewhere¹. It was therefore with particular joy to see that the very first attempts at searching for prehistoric man yielded such an unexpected variety and abundance of localities.

For prehistoric investigations the Kathmandu valley and the Chitwan area along the Narayan River were chosen, as well as the Dun valleys of the Rapti and the Babai Rivers in the Deokhuri and Dang valleys (Fig. 1).

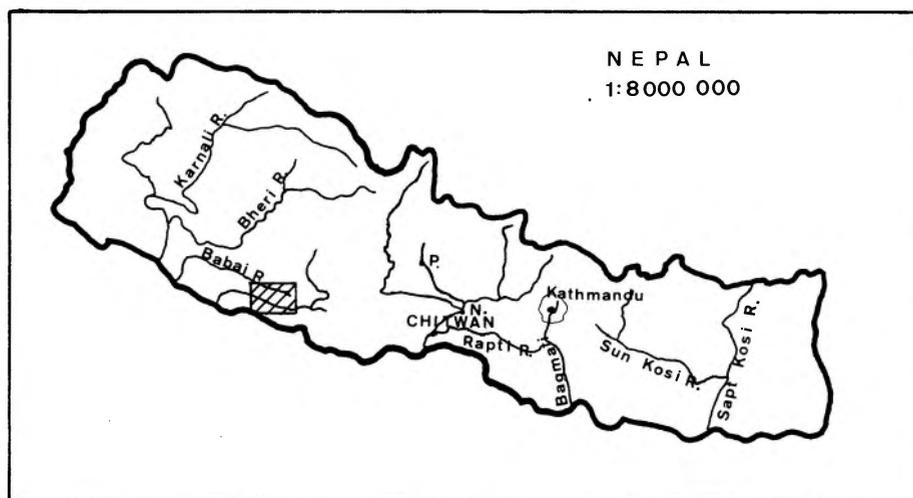


Fig. 1. Sketchmap of Nepal with the area of research (shaded).

¹ G. CORVINUS, Preliminary report on stratigraphical research carried out in the Siwaliks in Western Nepal. Report submitted to the Geology Department, University, Kathmandu, 1984.

The Kathmandu valley and the Chitwan area have not been searched extensively and so far proved to be sterile, though it is felt, that the locating of sites is only a matter of continued search. The topmost part of the Kathmandu valley sediments are, however, very disturbed due to continuous tilling and cutting of the rice and wheat terraces, and even if early man did live in the valley, their traces may have been quite disturbed, if not destroyed.

The river terraces in the valley of the Narayan River, on the other hand, seem to be very young Holocene deposits, which makes it improbable to find anything older than Holocene.

The search therefore concentrated on the obviously older, red terrace system at the foot of the Siwaliks at the outer edge of the broad Chitwan valley with terrace heights of 25 to 45 m above river level. These terraces are remnants of colluvial and alluvial fan deposits of post-Siwalik age along the foot of the Himalayas. They appear to be of interest for the search of early man's remains. They are very forested and so far have yielded nothing, but further extensive exploration will be carried out.

Similar deposits were encountered along the foot of the mountains in the Deokhuri and Dang intermontane basins. And these were the areas which were chosen at first sight and were then investigated by foot. They consist of heavily dissected, yellow silty deposits of colluvial and alluvial character, which interfinger further riverwards with the purely alluvial, younger deposits of the river. These yellow, fine sandy and silty sediments seem to have been deposited by the many small tributaries and lateral nallahs which have brought a considerable amount of colluvial, fine material of the weathering Siwalik sandstones and mudstones from the hills down into the valley. On these fan deposits as well as within these deposits the archaeological material was found between the river and the hills. Man must have lived

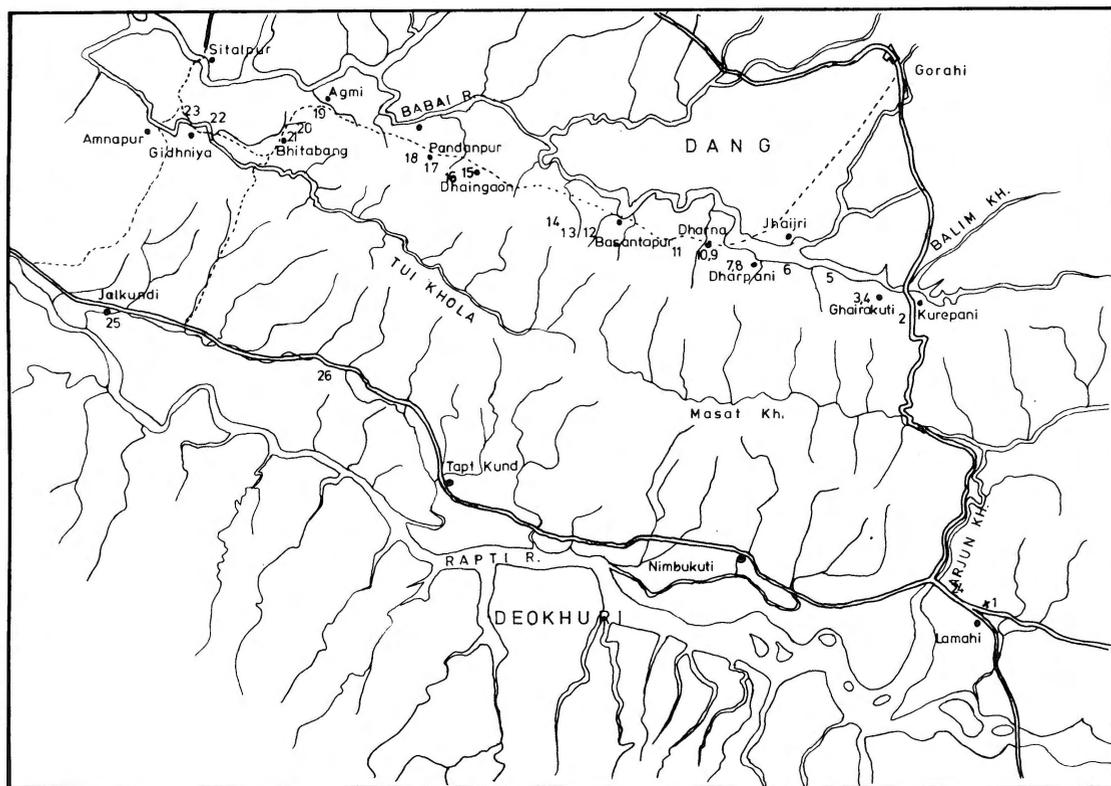


Fig. 2. Distribution of prehistoric sites in the Dang and Deokhuri valleys, Western Nepal. 1:500 000.

here on the margin of the Dun valley, where they could overlook the valley from a slightly elevated position, and where it was not far to the water.

The Dang and Deokhuri valleys are two tectonically initiated intermontane basins within the southernmost Himalaya. The Deokhuri valley lies within the Siwaliks and is separated from the plains by a 10 to 12 km broad belt of heavily forested Siwalik hills of a height of up to 900 m. Dang valley lies to the north of Deokhuri valley and is separated from it by a second range of Siwalik hills of a height of up to 1 000 m and 8 to 10 km wide. The preliminary survey of an area of about 25 kilometer in a west-east direction yielded 23 localities in the Dang valley and 3 in the Deokhuri valley (Fig. 2).

Only sample collections were made, but most of the material was left in the field for further detailed study, so as not to disturb the archaeological evidence in the field. Most of the localities are small and yielded only some surface material and occasionally some *in situ* material. But it was the fact that definitely fashioned stone artefacts were found in concentrated situation and in stratigraphical context which was exciting and entirely new.

A few localities, however, are definite sites with concentrated artefact scatters, and two of them, Lamahi and Kurepani, are site complexes with several concentrations.

All of these sites and localities are connected in some way or other with the yellow silty deposits along the foothills. But how, and in what chronological order can not yet be said.

The archaeological findings

The archaeological material from these localities seem to point not only to one cultural unit, but to several and have macrolithic as well as microlithic artefact assemblages. The macrolithic assemblages consist of flakes, cores and corescrapers and are made from quartzite, and the microlithic artefacts (flakes, cores, much waste) are made from chert, quartz and also quartzite.

A number of localities, for example Lamahi, Kurepani, Dhaingaon, (site 1,2 and 16) seem to have affinities to a microlithic culture. They are dominated by small flakes of chert and quartz, (but also of quartzite) and small microlithic irregular and discoidal cores, also of chert. The larger artefacts on these sites are made on quartzite and they show a typical step-retouch on their dorsal faces at the edge to the platform, while their platforms are often of cortex. Tools are few, but a retouched little point, a small round scraper and a fine backed and retouched lunate are significant.

These artefacts are associated on the surface with artefacts which seem at first sight to belong to a much older period. These are cores or „corescrapers“ of sizes of 4 cm to 13 cm (the average is 10 cm), which seem to have affinities with the Soanian choppers. They are made on quartzite cobbles which are well chosen, for all of them are rather angular in shape and have one or two natural flat surfaces which render them very suitable for the particular type of workmanship they exhibit (Fig. 3). They all have one (and sometimes two) straight, unifacial, extremely steep edges with an angle of 80° to 90°. The edge is formed by steep, shallow primary flakes and step flakes, followed by fine retouch, unifacially removed from a natural flat cortex plane of the cobble. It is a very interesting tool and similar tools have been found occasionally in the late Soanian in India. This tool type is in fact the most common tool type in the investigated area in the Dang-Deokhuri valleys and found at many of the discovered localities. At this point it is however not possible to say in what way they are connected with the other artefacts of microlithic and macrolithic appearance. It is however curious that we find them in connection with both.

Another curious feature must be mentioned at this place. The microlithic-type artefact localities are dominated in about equal parts by chert and quartzite raw materials, whereas the macrolithic assemblages only have quartzite as their raw material and no chert. But one particular feature is common

to both. They share a curious and rather unsuitable rawmaterial, which is a very soft, fragile and very light „tuffacious“ rock. Flakes as well as „corescrapers“ (Fig. 4a) are made of this rocktype and as such they would not be suitable for any hard work. An analysis by X-ray defraction determined this rocktype as a soft, porous silica (type triple) (pers. comm. Prof. Dr. Bausch, Mineral. Inst. Univ. Erlangen), which may have become leached off its cementing matrix by weathering. It is supposed here that this type of weathering process must have started only after the manufacture of the artefact.

Of particular importance was the finding of two polished stone celts, especially since one comes from stratigraphical context. One was found on the silt surface and was associated with a few quartzite flakes, which may, however, have nothing to do with the celt (fig. 4 b, right). It is a lovely, flat, but broken piece with a sharp, splayed edge, made on a banded, indurated mudstone. And another one was found *in situ* at Basantapur in the yellow silt, associated with other archaeological material: some very weathered light-red potsherds, which have not been found *in situ* but in the directly adjoining gullies. They apparently weathered out from the same silt which embedded the celt. A number of chert and quartzite flakes were found as well in the neighbourhood. These are very exciting finds and they will certainly throw light on the puzzling question of the origin and the archaeological context of the polished stone celts which have been found previously in Nepal, but disconnected with any other archaeological material and with no stratigraphical context.

Interesting are also a few grindingstones on flat cobbles, found isolatedly on the surface at several places.

Most of the localities show mainly artefacts of macrolithic nature made of various kinds of quartzite (Fig. 5). They consist of flakes with small platforms, which are sometimes prepared, but more commonly of cortex. Characteristic to many of them is a pronounced stepflaking at the edge of the platform on the dorsal face. The cortex platform and the stepflaking at the platform edge of the flakes correspond well with the steep edges of the „corescrapers“ and it seems the flakes have been taken off the edge of the „corescrapers“. The question therefore arises, whether the „corescrapers“ are in fact only cores or whether the flakes constitute resharpening flakes of the „corescrapers“. The quartzite flakes do not show any retouch and from their appearance most of them seem to be waste flakes. However, only further work will solve these interesting questions.

At one site, however, at Gidhniya in the Tui Khola valley, it seems quite evident that the chopper/„corescraper“ is a definite tooltype and not a core. Here, the unifacial, steep-edged tool is the dominant artefact type (Fig. 6) and from the preliminary study of the artefact assemblage it seems quite certain that this occupation site can be placed into the palaeolithic period. But to what time and to what people and cultural period it belongs is again an open question.

An isolatedly found chopper (Fig. 7a) and a handaxe-like tool are the two oldest looking tools of the discovered archaeological material and are intriguing indications that may be even earlier palaeolithic man lived in the Dang-Deokhuri valleys.

A short description of the most important localities will be given at this place.

The localities (Fig. 2)

The first site complex found was Lamahi in the Deokhuri valley (Loc. 1) situated about 0,5 km to the east of Lamahi village on small yellow siltexposures at the foot of a low Siwalik hill which juts out into the valley. Three artefact concentrations were found, scattered on dissected silt and in the dissecting gullies, site 1, 2 and 3, about 200 m apart from each other. At site 3 some artefacts were found *in situ* in a small silt exposure above Siwalik bedrock, at 0,40 and 0,90 m below the silt surface.

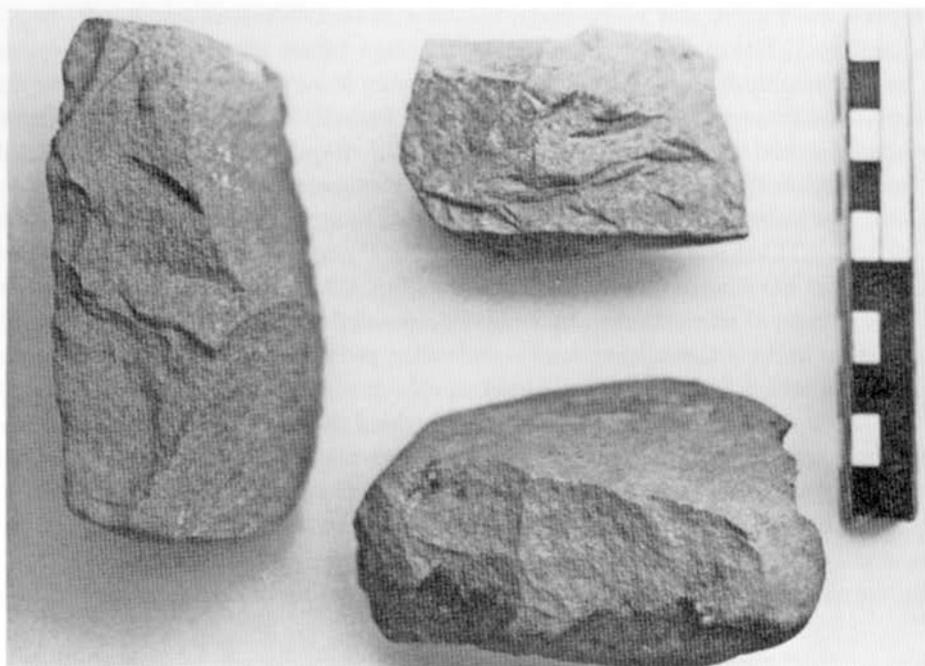


Fig. 3. Corescrapers from Gidhniya (above) and Kurepani (below).



Fig. 4 a. (above) Corescrapers from Lamahi, made on soft 'tuffaceous' silica.

Fig. 4 b. (below) Small axes, the oblong axe from Basantapur, the broken, broad one from Bhitabang.



Fig. 5. Flakes from various localities, made on quartzite. From top left to right: Kurepani, Dharpani, Lamahi, Kurepani, Dolgaon, Pandanpur, Lamahi, Bhitabang and Gidhniya.



Fig. 6. Corescrapers from Gidhniya, Tui valley.
a. (above) View of the high-backed part of the artefacts. b. (below) View of the flat base and the steep edge.

A small stream runs from the Siwaliks towards the south to meet the Rapti river and is dissecting at present the silt as well as the bedrock. The silt must have been brought down from the slopes of the Siwalik hills by the stream in the form of fine washed-out weathering debris from the Siwalik mudstones. At what time it was deposited is difficult to say. But possible charcoal remnants from the silt may eventually give some dates.

The Lamahi artefacts consist mainly of quartzite, of various kinds of chert, of milky quartz and crystal quartz. There are large quartzite flakes up to 80 mm in length with multidirectional and unidirectional primary flaking and with mainly small, plain narrow platforms (Fig. 7b). Much small stepflaking on the dorsal face at the platform edge corresponds to the small stepflaking on the cores and „corescrapers“. Besides these larger flakes there is a variety of small to microlithic flake material, which is mainly made on chert and quartz but also on quartzite. A beautiful backed and retouched lunate and a scraper, resembling a thumbnailscraper (Fig. 8a), are unique at site 1 at Lamahi. Interesting are a fine, retouched quartzite point (Fig. 7b) and two small, perfect discoidal cores of chert and quartzite with sizes of 34 and 24 mm, as well as two microlithic cores (Fig. 8b).

A little away from the site 2 concentration were found a large bifacially worked core (Fig. 9 a) and two very large quartzite flakes, one of which is quite weathered and would at first sight be classified as an Early Stone Age flake. They were also found in the dissected gullies in the silt. It is not known to date in what connection these large artefacts are with the other artefacts at Lamahi.

Curious at all three sites at Lamahi are 5 steep-edged cores or corescrapers, 4 of which are on light, soft tuffaceous material (Fig. 4a) and one on quartzite. They all show an 80° to 90° edge, which has been formed by steep shallow retouch and stepflaking from a flat cortex surface of the cobble as a base. For what purpose tools made of such soft, fragile material could be used is quite an intriguing question.

The artefact assemblage at Lamahi is a very curious, heterogenous industry and could, in fact, belong to not only one cultural unit. But only more detailed study will give the answers.

Another small site was found near Lamahi, but 0,5 km to the west of the village (Loc. 24) amongst dissected deep-red silts, not far away from the bridge over the Arjun River. Here, many quartzite flakes and waste pieces and one conical, discoidal core have eroded out from the silt at a level of 3 m below the actual siltsurface. It seems to have been a small flaking place and therefore all material from this spot was collected, consisting of 1 discoidal core, 1 worked piece, 1 snapped flake-blade, 32 irregular waste flakes and 28 waste chips and flake-like pieces. All artefacts are made of the same finegrained quartzite. No microlithic element is apparent. The snapped blade and the discoidal core makes this little assemblage interesting.

Two other small localities were found in the Deokhuri valley (Loc. 25.26), at its western end where the Siwaliks from a western and southern barrier towards the plains of the Terai. 2,5 km west of Tap Kund (Loc. 26) along the road a small conical core of black chert with a fine pointed flake taken off from its base was found in colluvial silt at the side of a gully, which cuts into the silt.

Just east of the village of Jalkundi within the Siwaliks (Loc. 25) before they open up into the plains, two flakes, an irregular core and a lovely double-edged, steep corescraper were found on the surface of a silted up erosional Siwalik platform with a thin pebble cover over the silt. They are all made on quartzite though most of the available cobbles and pebbles are of Siwalik sandstone.

All the other localities are from the Dang valley, which is separated from the Deokhuri valley by a second range of Siwalik Hills.

Here, west of the road into Dang valley at Kurepani another site complex was found (Loc. 2), also connected with a yellow silt and apparently eroding out from the upper part of it.

The silt here forms a considerable thick deposit at the foot of the Siwalik hills and is the debris of the weathered mudstones and sandstones of the Siwaliks, brought down by the numerous gullies and small

lateral streams into the broad Babai River valley. They finally became dissected by these same streams so that deep canyon-like gorges and badlands have developed upon the silts.

Site 1a at the Kurepani site complex is found at the edge of one of these canyon-like valleys. Many flakes and waste pieces seem to have eroded out from the uppermost part of the silt, where they are found in the gullies of the badlands. The raw material of the artefacts comprises quartzite, (very fresh and unweathered in the case of artefacts recently eroded from the silt, or rather weathered in the case of artefacts which have been lying on the surface for a longer time, as well as various kinds of chert and quartz, and again this light tuffaceous material which was used at Lamahi. The Kurepani site complex resembles the one at Lamahi but differs in its composition in having more pronounced macro-type artefacts and less microlithic artefacts. Of interest is specially a more isolatedly found large „corescraper“, which is made on a rectangular flat quartzite cobble simply by forming a steep unifacial edge along one straight side (Fig. 3 below). Of particular interest at Kurepani are a few fireplaces of a rather special construction. They are circular in shape, with a diameter of 67 and 70 cm and have a baked mud rim around the entire circumference which bends outwards. Inside is only some ash and charcoal, nothing else could be seen from the unexcavated appearance.

The fireplaces seem to erode out from a level some 25 cm below the recent surface of the silt and seem to be in association with a few artefacts of quartzite and tuffaceous silica. A few weathered, light red potsherds, different from the recent pottery, may also be associated with this site. However, nothing conclusive can be said about these findings until some excavations have been carried out.

From Kurepani westwards along the southern fringe of the Dang valley and the Babai river many localities with either a few scattered artefacts or small concentrations of them were encountered, 17 in all, apart from Kurepani.

Of these most of them yielded a few larger quartzite and „tuff“ flakes as well as steep-edged „corescrapers“. Only two of them seem to have been larger sites. One is a site at the SW of Dhaingaoon village (Loc. 16), which is a rich surface scatter. The artefacts are lying on an eroded, lime pellet-covered siltsurface, 1,60 m below the actual siltsurface. The thick scatter of artefacts is about 20 by 20 m in extension, bordered by deeply incised gullies all around. The site is rich, but lacks tools. It seems to have a similar appearance as Lamahi and Kurepani, with a great variety of raw material (various quartzites and many-coloured cherts, and again the soft tuffaceous material). Some of the chert artefacts are of microlithic appearance, but the quartzite flakes are of large to medium size, with the characteristic stepflaking at the platform edge. One small steeply retouched piece of green chert was found which looks like a miniature form of the large „corescrapers“, with steep retouch perpendicular from a flat cortex plane.

The other less rich site is Basantapur W, a few hundred meters west of the village (Loc. 12). Here, together with a few chert and quartzite flakes an interesting blade of black chert (Fig. 9b) was found eroded out from the silt. It is patinated and has calcrete adhering to its surface. Here again the artefacts seem to have been eroded out from the upper part of the silt. They are lying on an eroded siltsurface, some 5 m below the actual recent silt surface, amongst residual lime and sandstone pebbles. On a slightly higher level some microlithic-type artefacts of flakes and chips made of chert and fine quartzite, all very small, were found on and in the silt. They all seem to derive from the silt at this very level, about a meter above the blade.

The most interesting find at this site however, is a fine elongate celt (76 × 28 × 13 mm, Fig. 10 and 4b), made on a small oblong cobble. The raw material is again the soft tuffaceous material which we have encountered so often. No other work than the grinding of the narrow chisel-like edge has been executed. The edge has an angle of 55° and carries parallel grindings striations on both sides, vertical to the edge.



Fig. 7 a. (above) The chopper, made on quartzite, from Pandanpur.

Fig. 7 b. (below) Quartzite flakes from Lamahi.

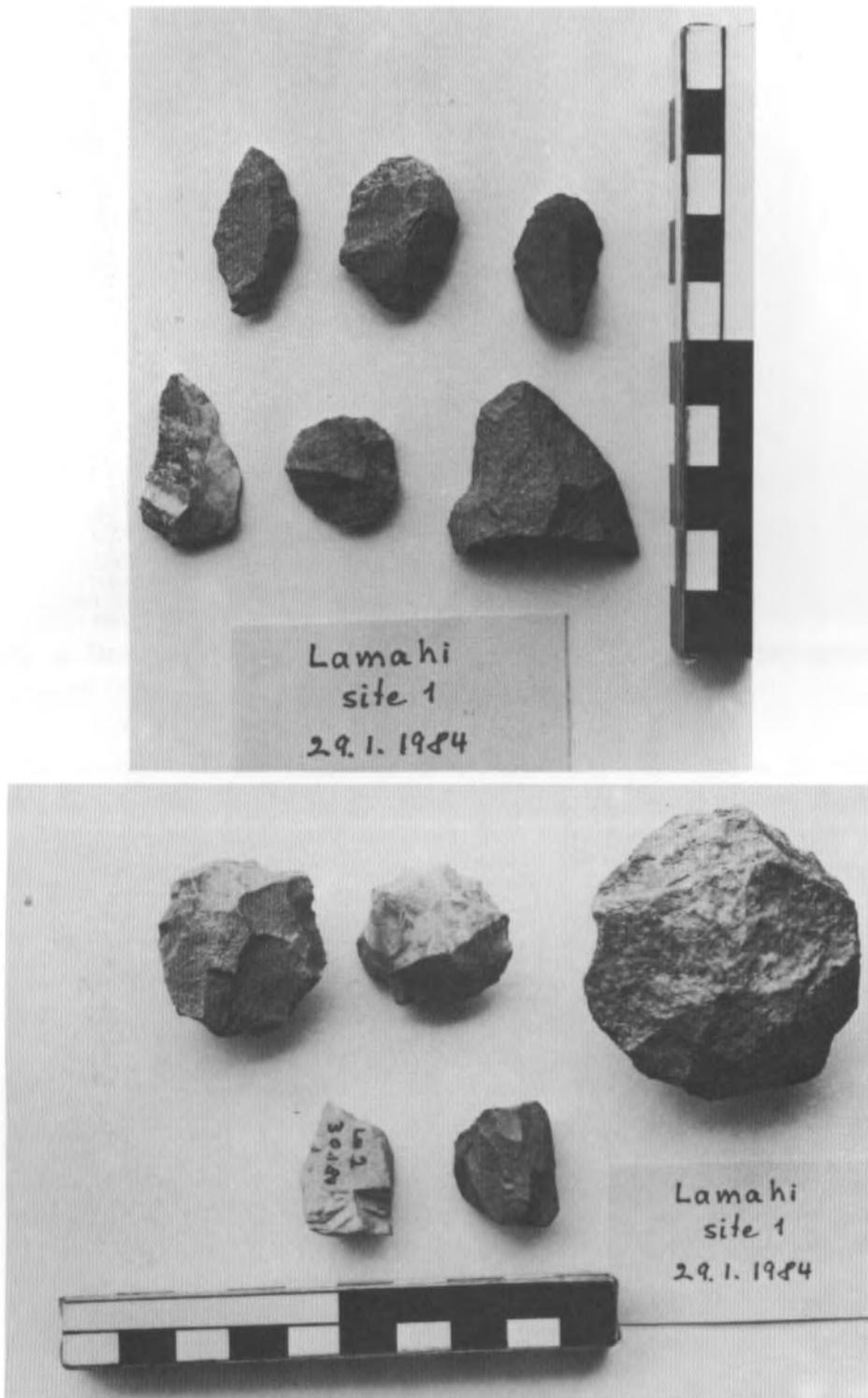


Fig. 8. Artefacts from Lamahi.

- a. (above) Small retouched pieces. Top left a backed lunate, top middle and right small endscrapers. b. (below) Disoidal cores (top) and two microlithic cores (below).



Fig. 9 a. (above) A large core on quartzite from Lamahi 3.

Fig. 9 b. (below) A blade of patinated black chert (right) and flakes of quartzite (left bottom) and grey chert (left top) from Basantapur W.



Fig. 10. The oblong celt from Basantapur W., together with some potsherds (above) and a quartzite flake (below).

This find is particularly valuable because of the fact that it has been found *in situ* within the silt, 0,75 m below the silt surface, 4 m above the microlithic type artefacts and 5 m above the blade. It was sticking out from a vertically eroded wall of the silt. Two quartzite flakes with cortex platforms were found on the surface below the celt in the immediate vicinity and a number of very weathered and lime-encrusted lightred potsherds were also found in the immediate vicinity in small gullies cutting into this silt, pointing to the probability that they belong to the celt level.

Only further work can clarify whether these different tool- and artefact types belong to different stratigraphical levels and different cultural contexts or whether they form one unit.

The importance of this find at Basantapur is that we have here at last a clear evidence of a polished celt in stratigraphical position and in association with other archaeological material, which will eventually clarify the enigma of the Nepalese polished stone axes found without any archeological context elsewhere. Another very interesting small, but broken celt was found, near Bhitabang in the Tui Khola valley (Fig. 4b right). It was found not *in situ*, but on the surface in a gully of the red colluvial silts at the foot of the Siwaliks on the upper edge to the Tui valley. It is not in association with any other archaeological material though a few quartzite flakes were found nearby, also on the surface of the dissected silt. The celt (45 × 43 × 9 mm) has a splayed, sharp edge of 35°, made on a perfectly lovely piece of reddish, extremely fine-banded mudstone. It is a fragile tool, the material hardly suitable for a celt. It is like an ornament rather than a tool.

Interesting may be to mention at this place the finding of a few grinding stones at three different places, one isolatedly near Pandanpur South in the valley of a khola² cutting into the silt and another one near Dharpani on a small silt hillock, covered with cobbles near the river (left in the field), and a

² khola: small river.

third one at Bhitabang in the Tui valley in association with a few chert flakes and small cores on the silt surface. They are flat, oblong cobbles with grinding surfaces on the narrow oblong sides as well as on the surface. One of them carries striation marks on its upper surface, in spite of it being a very weathered tool, and the other has an interesting shallow rill on its upper surface, as if it was used for polishing beads.

Apart from this rather young appearing archaeological material which all seem to belong to the Holocene period, there are a few stone tools, which have a much older appearance.

Of particular interest in this respect are the large unifacial choppers or „corescrapers“ (Fig. 3, 4a, and 6), made on quartzite cobbles which have one or two natural flat cortex surfaces, from which a straight, steep edge was formed by shallow stepflakes and small retouch. They do not resemble the usual Soanian choppers, but are quite a separate type, though occasionally such tools may be found amongst the Soan choppers. The edge is much steeper, usually vertical and is made with much finer flaking. It is yet not certain, whether they are really older and belong into the palaeolithic period or whether they belong to a relatively young period. They have been found isolatedly at various places, always in connection with the silt, but also at places like Lamahi and Kurepani, in loose connection with the other artefacts.

One isolated tool, which resembles more than the others a Soanian type unifacial chopper (Fig. 7a) was found, however, in different context. It is also made on a flat-based quartzite cobble, but it has a unifacial edge with an angle of 70°, formed by shallow flaking and without any fine retouch. It was found within a subrecent, reworked cobble gravel of a khola at Pandanpur W (Loc. 18) and is covered with a lime crust.

Another very intriguing tool, also found isolatedly, but not *in situ*, occurred near Ranigora, south of Jhajri in a gully (Loc. 6), which had cut its bed into the silts. It is a flat handaxe-like tool, not fresh, but rounded and rolled. The proximal part is broken away and the existing distal part is well worked into a handaxe-like point and both lateral edges are worked, one unifacially, the other bifacially. It seems to have been made from a large flake. A very curious, unexpected tool, indeed!

A challenging feature at this locality (Loc. 6) is that the Babai River has deposited here a cobble gravel of quartzites above alluvial silts. These silts are fluvial in character and interfinger hillwards with the lateral silts washed down from the hills. The quartzite cobbles do not derive from the surrounding Siwaliks but have been transported from the Himalayan interior. It is probable that the handaxe-like tool has been derived from the cobble gravel, because the slopes and the gully, in which the tool was found, are covered by derived cobbles from the above lying gravel. A core (16 by 13 cm) with a bifacial edge as well as a few irregularly worked pieces (which have not been taken along) were found also amongst the cobbles in the gravel.

Was this indeed a handaxe? And from where did it come? It is certainly very different from all the other artefacts of the Dang valley and does indeed exhibit Early Stone Age features. But nothing more can be said at the moment. In India handaxes and cleavers have been found in the otherwise Soanian chopper dominated areas along the Himalayan foothills. But no handaxes or cleavers have so far been found in the interior of the Himalaya.

A most interesting site is Gidhniya in the Tui Khola valley (Loc. 22). This locality is a well demarcated occupation site on top of a promontory above the valley, which forms a remnant of an older river terrace above a younger, lower one. The surface is covered by fluvial river cobbles of quartzite. This is interesting, as the Tui Khola only traverses Siwalik hills and nowadays carries only cobbles of brittle Siwalik sandstones and no quartzites. Many of the cobbles are worked and the site abounds in artefacts of flakes, of choppers/ „corescrapers“ and cores and waste, all made from quartzite. Here, the unifacial, steep-edged „corescraper“ is the dominant tool type (Fig. 3). Interesting at this site are also a number of very small high-backed „corescrapers“ showing the same features of a steep edge against a flat cortex surface as the larger „corescrapers“, but with sizes of only 45 to 47 mm (Fig. 6). From the

preliminary study of the site and the artefact assemblage it appears that this occupation place can certainly be placed into the pleolithic period. But to what time and to which people it belonged is again an open question.

Conclusions

These are only first, preliminary notes on the newly discovered sites and much more work has to be carried out before any conclusive results can be presented. But it is quite apparent that stone age people of different periods, who have fashioned a variety of different stone age tools have occupied the Dang- and Deokhuri valleys and have been able to penetrate into these Himalayan valleys via the heavily forested Siwalik Mountains. It is also evident from the new findings that the archaeological material is unexpectedly rich and varied in its artefact composition and in the raw material used. Nothing about its origin and the chronological position within the known cultural sequences elsewhere can be said at the moment. But this makes these findings the more interesting and poses an abundance of very challenging and curious questions, which to solve will be the purpose of the future research.

The findings are however, unique in that they represent not only the first authentic prehistoric sites in Nepal, but also because they show such an unexpected variety and complexity of features, pointing to the possibility that they constitute the remains of not only one people and their toolkit but probably of people of different cultural periods, from the Pleistocene to the Holocene.

Acknowledgements: My thanks go to the Department of Archaeology of H. M. G. and especially to Mr. J. L. Sharma, the acting Director of the Department, for his encouragement and interest and help, also to the Research Division of the University for permitting me to do this work. Particularly thankful I am to my co-worker Mr. Vishnu Dangol, who accompanied me into the field and shared with patience the hard work, and who proved to be of great assistance. Finally I must not forget to thank with great appreciation my three other loyal companions in the field, Mr. Man Bahadur Gurung, my driver, Mr. Man Bahadur Magar and Ram, the porters, who did not only do their own work, but were enthusiastically sharing the search for fossils and without whom, in fact, I would not have found half of what I did find. To work would not have been possible. My particular thanks go to the Deutsche Forschungsgemeinschaft for financing this project and to Prof. Dr. Gisela Freund, Erlangen, for her great help and assistance.

Localities in the Dang and Deokhuri valleys.

(Numbers refer to the numbers in the map of Figure 2).

1. Lamahi, Deokhuri valley, with three sites: Lamahi 1, 2, 3. - 2. Kurepani, Dang valley, with three sites: Kurepani 1, 2, 3. - 3. Ghairakuti SW, Dang valley. - 4. Ghairakuti W, Dang valley. - 5. Ranigora, Dang valley. - 6. Opposite Jhaijri, Dang. - 7. Dharpani, Dang. - 8. Dharpani W, Dang. - 9. Dolgaon, Dang. - 10. Above Dharna, Dolgaon/Dharna, Dang. - 11. Dharna, Dang. - 12. Basantapur SW, Dang. - 13. Basantapur W, Dang. - 14. Basantapur WW, Dang. - 15. Dhaingaon Camp, Dang. - 16. Dhaingaon site, Dang. - 17. Pandanpur S, Dang. - 18. Pandanpur W, Dang. - 19. Agmi, Dang. - 20. Bhitabang NE a, Tui-Khola. - 21. Bhitabang NE b, Tui-Khola. - 22. Gidhniya E, Tui-Khola. - 23. Gidhniya N, Tui-Khola. - 24. Arjun Khola Bridge, Deokhuri. - 25. Jalkundi E, Deokhuri. - 26. Tapt Kund W, Deokhuri.

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