

Ancient Settlements in Karachi Region

Karachi Region lies along the middle part of the West Pakistan coast, which extends from a point east of Nagar Parkar Peninsula to beyond Jewani on Makran coast in the west. This part juts out boldly into the sea for a considerable distance. This projection into the sea was even more pronounced during prehistoric times when much of the lower Indus delta on one side of it and part of the Las Bela plain on the other side, were under the sea. Moreover, the mountains and valleys of Baluchistan, trending north-south, gradually lose their height and merge into the coastal plains of Karachi. Thus the region provides a transition between the mountainous belt to the north and west and the vast lowlands to the east. From its peculiar position, this area must have been a meeting place of different pre-historic cultures flourishing around it—Kulli culture to the north-west in Makran and parts of Las Bela; Naï-Nundara in the north in Jhalawan; and the Indus and Amri cultures to the east and north-east. In the maritime communications between the Indus and the Mesopotamian civilizations, for which we have enough evidence, the importance of this region is self evident. Apart from being on the highways of ancient cultures and civilizations, the Karachi region, with its maritime environment, its sources of food from the sea, its genial climate, its terrain with low parallel ridges and flat intervening valleys, watered by numerous good springs and perennial and semi-perennial streams, enjoyed very favourable conditions for being itself the home of indigenous cultures. From such considerations one could expect that this region must have played an important role in the drama of human progress from the earliest pre-historic times.

The search of prehistoric sites in this area is attended with rather peculiar difficulties. The land has risen vertically relative to

the sea several times since the end of the Glacial period. After every uplift of land the processes of erosion have been accelerated. The result is that old surfaces have been destroyed to a great extent. Only limited patches remain in the form of old terraces. The old sites themselves have been levelled down and are nowhere found in the form of high mounds which could easily be detected. The material used for building houses was either mud, mud-brick or mat. There is absolutely no evidence of use of fired bricks. Only at a few sites, specially the Harappan and Amri sites stone has been used but that too only for a few courses in the foundations. With the result that all the sites have suffered from the relentless process of erosion by wind, rain and sheet-flow. The mud and the mudbricks used in the buildings have dissolved, and gradually disappeared. The imperishable materials like pottery, stone implements, shingle, probably used in hearths, oyster shells, some gastropods used as food or their shells for ornaments and some bones have collected on the surface as lag material while the finer material has been carried away by wind or flowing water. This process has mixed up and accumulated materials from different horizons into one layer on the surface. This makes the working out of any stratigraphic sequence at any one site almost impossible. But as the number of sites located is quite large and during the long period under study, the very configuration of land surface has been changing, forcing the people to change the location of their habitations, a comparative study of different sites makes their general classification in terms of time sequence possible. As the study is based only on surface finds, and the decorated pottery is scarce, some of the conclusions must remain tentative. For older sites reliance has been placed on the evolving technology of tool-making, which has been an universal phenomenon and there is no reason to suppose that this region has been an exception in this respect. Correlation of these sites with marine and river terraces and geological deposits provides further aid in arriving at certain conclusions acceptable regarding these settlements.

Archaeological surveys by Majumdar, Stein and other workers before the birth of Pakistan and more recently by some foreign archaeological missions in coordination with the Department of Archaeology have revealed a very large number of prehistoric sites

in the Indus Valley, in Baluchistan and even in the northeast Sind Kohistan. The Karachi region, however, remained almost blank on the archaeological map of Pakistan. The only sites known in this area till recently were—Amilano, near 26th milestone on Sehwan road; Orangi, near a spring at Lal Chakro village in Mangho Pir hills; a site near the Mangho Pir Ziarat; one site north-west of the University in Deh Gujro; Nal Bazar (or Allahdino) in Malir Valley; Tharro Fort, an Amri outpost near village Gujo and one more site, recently reported, in the Hab Valley in Bela District in the area of Qila Levy Post.

The present study was started a few years ago as sidework during the geological and geomorphological studies of the region with the modest goal of filling up this blank space on the map, but luckily the results actually achieved reach far beyond. As a result of systematic search during the last three years and particularly the last two summer vacations, about 250 pre-historic sites have been located. They range from small camping grounds to fair-sized rural settlements, from trading posts on the ancient highways to fortified outposts guarding the frontiers. In time they go back to Upper Palaeolithic period. Thus we find, in this area, the vestiges of the oldest cultures of our country so far known after the Soan Valley culture of Potwar Plateau.

HARAPPAN OR INDUS VALLEY SITES

Out of the seven previously known pre-historic sites only two, Amilano and Nal Bazar (Allahdino), are assigned with certainty to Harappan culture. Of the new sites located by the present writer three, namely, Pir Shah Jurio, one site near Hab Chauki, and Gazkar belong undoubtedly to the Indus civilization.

Pir Shah Jurio : Pir Shah Jurio is the most important of them, as it is located near the mouth of the Hab River and must have served as a port. This is the fourth port-site of this period, the three previously known sites on the Pakistan coast being Sutkagen Dor on the Dasht River, Sotka Koh near Pasni and Kot Bala near the bank of the Winder River in Las Bela. Pir Shah Jurio is located on a conglomerate terrace, more than 50 feet above the sea-level, on the left bank of the Hab. The sea water reaches

beyond this point even now at high tide. There are indications of some stone foundations, covered with wind blown sand. The site is now occupied by a graveyard. The objects found at the site include much plain and red pottery, some decorated with designs in black, perforated pottery, broken frame of toy cart, chert blades and scrapers, one polished chert weight, clay and shell bangles, copper pieces, and triangular clay tablets. All these objects are typical of Harappan sites. No terracotta figurines were found on the surface.

Site Near Hab Chauki: Another site is located near Hab Chauki, again on the left bank of the Hab. It is slightly above the ground level, covered with stones and surrounded by cultivated fields. Here again many of the typical objects of the Indus Valley sites were found.

Gazkar: Gazkar or Gazkal is yet another important Harappan site, with stone foundations of a large number of houses exposed on the surface. The site is located on a conglomerate terrace, half a mile south of old Sehwan Road after crossing the Langheji or the Bazar River. It is only five miles from Amilano and $3\frac{1}{2}$ miles from Nal Bazar, the other two previously known Harappan sites. Gridiron pattern of streets, so typical of Indus Valley sites can be clearly seen. Many of the typical objects of the Harappan sites are found here. This site is outside the Malir alluvium and apparently has no local source of water-supply. Close to this site the remains of a long Gabrband built across the Tarawari Nadi have been found. The building material used is the same as that used in the houses at the Gazkal site, and appears to be associated with this site. Six more Gabrbands have been found in different parts of Karachi region. Pre-historic sites are located in close proximity to these bands, but these sites appear to be somewhat older.

All these five Harappan settlements—the two previously known and the three newly found are situated on a route from the Manchhar Lake area through Thana Bula Khan to Pir Shah Jurio, the Harappan port-side on the Hab mouth. Between Gazkal and the Hab Chauki site, a distance of 30 miles, there are three Chalcolithic sites—one on the right bank of the Thaddo Nadi, where Sehwan road crosses it,

another on the left bank of the Lyari, near the point where Malir-Manghopir Road crosses it, and the third near the Manghopir Shrine itself. But only at Manghopir a few pieces of shell bangles were found. No other typical objects were seen on this site or on the other two. Between Amilano and Thana Bula Khan also no Harappan sites have so far been found, though some Chalcolithic and even older sites have so far been found, though some Chalcolithic and even older sites have been located. Majumdar discovered several Harappan and Amri sites between Thana Bula Khan and the Manchhar Lake. Away from this route at about a dozen sites occasionally a few pieces of shell bangles, sawn pieces of conch shell, terracotta beads, black-on-red sherds with designs not very characteristic of Harappan ware have been found, which at best may be supposed to show some affinity to but are no sure evidence of Harappan sites.

Along the coast at some points such as near Kunari Nallah—between Gadani and Phuari headlands—north of Hawke's Bay, near a hill about 2 miles east of Rehri, close to Gharo village north of the Creek, on Makli Hill south of Thatta road, within Kalan Kot and even on Pir Patho hill indications of prehistoric occupation have been found. However, the material recovered is too scanty and of the nature that the cultural association of these sites cannot be determined. Whether the Harappans maintained just a few outposts along the trade route passing through the domain of an alien culture and terminating at the port-site at the Hab mouth or there were other Harappan sites in the area which have been completely eroded away is not yet certain. Even the known Harappan sites with the exception of Nal Bazar have been eroded almost up to their foundations.

AMRI SITES (Pre-Indus)

Only one site, the Tharro Fort near village Gujo on National Highway was identified by Piggott as an Amri settlement. Located on a low limestone hill, which must have been an island at that time, and protected by double semi-circular stone walls on the west and north, has been termed by Piggott as a typical promontory fort.

Mai Garhi: Among the sites, newly discovered by the present

writer, Mai Garhi on the left bank of the Hab appears to belong to this culture. This is a small fortified settlement on top of a limestone ridge overlooking the river. It is enclosed on three sides by a stone wall. On the side of the river to the north the wall might have been destroyed due to under-cutting by the river. Apart from much worn plain red ware a few sherds with reddish-brown or black bands on a light red surface were found. No typical objects of Harappan culture were found here. One terracotta head of a dog was also found. Among the stone implements apart from parallel edged long blades, typical of Chalcolithic sites of Sind, a good number of microliths in the form of lunates were also found. Now lunates have been found recently in stratigraphic sequence at Anjira mound in the lowermost horizons belonging to Neolithic period. This site may also have its beginnings actually in Neolithic period, but the defences show the traditions of Amri culture. This site at some time was affected by faulting, cutting off its western wall, which can be recognised west of the fault gap in the heap of stones at a much lower level. These earth movements must have destroyed the settlement. This site commands a route passing through these hills and proceeding across the Hab and through Rahig pass in the Pab Range towards the Las Bela plain.

Kot Raja Manjhera : Kot Raja Manjhera near 90th mile on the National Highway was identified by Cousens and Majumdar as a Buddhist stupa of 5th century A.D. During a brief visit to this site a few years ago the present writer found a number of chert blades indicating pre-historic origin of the site. Recent study has revealed that it is a fortified settlement belonging to Amri culture. It is located on a flat-topped limestone hill more than 100 feet above the flood plain and projecting into an old meander bend of the Indus. The entire flat top is enclosed by a stone wall up to 6 feet thick and there are numerous buildings with massive limestone walls. The brick structure identified with the stupa occupies only a small portion in the middle. Several hundred chert blades were found on the surface. Pottery is mostly plain red, but mixed up with it several sherds with reddish brown or black decoration on buff or light red surface were also found identifying the site with Amri

phase of pre-history. Pre-historic occupation extends right upto the edges of the hill top, which could not have been possible without the protection of the wall, as the slopes on all sides are steep and even precipitous. Therefore, the defences and all the stone structures belong to the Amri culture. As no typical objects of the Indus civilization have been found on the site, the occupation appears to have ceased after Amri phase, perhaps due to temporary shifting of the river, to be re-occupied later only during the Buddhist period. From the size and nature of the buildings it appears that Kot Raja Manjhera must have been an important place, most probably the seat of a king.

The location of these three fortified Amri settlements, Mai Garhi, Tharro and Kot Raja Manjhera on the periphery of Sind Kohistan is very significant. Later work may reveal more sites particularly between Gharo and Jangshahi and between Jerruck and Amri. On the left bank of the Baran River at the point where the old road from Kotri to Thana Bula Khan crosses it, on top of conglomerate hill several stone structures were noticed, and near the first wall a chert blade was also found. Due to lack of time the site could not be examined, but it is quite possible that it may be a pre-historic settlement. On an isolated outcrop of limestone on the left bank of the Indus called Budh Jo Takkar, opposite Jerruck, Carter found some stone implements and Lambrick has recently confirmed the presence of a pre-historic site on the eastern end of the hill. To which phase of prehistory this site belongs is uncertain.

TWO MORE FORTIFIED SITES

Kara Jabal and Kotwari Buthi: There are two more sites enclosed by stone walls. One is situated in Deh Konkar on an isolated conglomerate hill called Kara Jabal near the junction of the Konkar with the Thaddo Nadi. The second is situated on the left side of the Khadeji gorge on top of the highest hill in this area known as Kotwari Buthi. It commands the whole gorge of the Khadeji River, which must have served as a route at that time, and also the top of the hilly area. A sharpcrested low ridge connects Kotwari Buthi with the rest of the hilly area and on other sides it

slopes very steeply towards the bottom of the valleys. It is a true promontory fort. Another common feature of both these sites is their pottery, which consists of a thick ware with slightly everted rim, perhaps a storage jar, the other is a thin ware again with slightly everted rim. More characteristic is the thick shining plumred paint of the ware.

Another site with both these wares is located on the top of a hill, north of the National Highway between miles 18 and 19. This site is much disturbed by quarrymen and no traces of any wall are seen here. Along with parallel edged chert blades, a few lunates were found on all the three sites and the sites may be much older. This plumred pottery is not reported from any other site outside the region to compare with. Within this area a few sherds were found at some sites in the Moi Valley which produced lunates and polished axe also and belong to Neolithic period.

OTHER PRE-INDUS SETTLEMENTS

There is a very large number of sites spread all over the area which from their long parallel-edged blades and wheel-turned pottery appear still in the Chalcolithic period, but they have produced no typical objects of the Harappan culture. The pottery is either plain or is so worn that no decoration is left to help identification. These sites either represent the rural part of the Harappan period or some other contemporary culture or may be pre-Harappan in age. Some of these sites are so close to the Harappan sites that they could not have remained uninfluenced by them. Therefore, they must belong to a different period. Presence of hand-made pottery at many sites, the greater erosion on the sites in some cases and the extent of wearing suffered even by potsherds suggest that majority of these sites are much older.

NEOLITHIC SITES

There are a few sites which have produced polished stone tools, a characteristic feature of Neolithic Period. One of such sites is in Deh Mendiari, in the Hab Valley, one mile north-east of Sona Pass. Three polished chert axes or celts were found at a point in wind

blown sand by a student of Geology Department, while mapping this area. No other objects were found along with these axes. Three microlithic and one chalcolithic site had previously been located in the same area within a mile further west.

Site in University Area: In the University area, the ground between the buildings of the Faculty of Arts and Staff quarters, has yielded a large number of stone implements. They include a large number of parallel edged blades similar in form and technique to those of Chalcolithic period but none exceeding 1-1/4 inches in length and majority of them falling between 1/2 and 1 inch range. Many of them are indented and some show lustre or sheen on their surface. They must have formed parts of some composite tools. Cores are missing. Apart from them a fairly good number of microliths, particularly lunates, have been found. Three tiny arrowheads or dart points found in this area are quite different from those found on some older sites in this region. The Department of Archaeology has reported a find of stone axe from the same area. One small scraper resembling thumbnail scraper of Wilton Industry of East Africa was also found (a similar scraper was also found near Wagodhar). Pottery is present and is much worn. It has a pinkish red body. It is in too small pieces to give any idea of the shape of the pots. This assemblage suggests Neolithic age for the site. Several tusks of boats were found. But it is uncertain whether they represent the spoil of hunt or a stage in the domestication of animals.

Site in Deh Bail: Another similar site is located in Deh Bail, east of the Mol River. The site extends westwards, from the hill marked 445 on one-inch sheet, to a small nallah joining Khadeji. A smaller tributary nallah divides the site in two sections. The eastern half towards the hill is occupied by Megalithic cists of uncertain age and shows later occupation with grey incised pottery and some very old Muslim graves along with Chalcolithic material. But the western half towards the bigger nallah has suffered greater erosion and older levels are exposed. On this area apart from usual parallel-edged blades and plain red pottery of Chalcolithic period, a good number of sherds of hand made pottery, one rimless

pot, microblades, microblade cores, scrapers, and indented blades were found. Towards eastern and northern edges, where gulley erosion has cut deeper, a polished stone axe and a few lunates were also found. From this it is clear that occupation at this site started from Neolithic period.

Similar assemblages are found at other places also, though stone axes are rare. One of such sites is located on the western bank of the Ran Pethani Nadi where the gas pipe line crosses its bed. Similar sites are present in the Konkar-Thaddo Valley also. Near Pir Mazarani in Wateji area a stone implement on a large flake about 3-1/2 inches long and 1-1/2 inches wide, with broad tapering sharp edge was found. It appears to be a hoe-blade. A similar flake-tool smaller in size, but with similar broad sloping end found on a site near the University, may have been used for tipping the digging sticks. One unfinished stone axe and two tanged blades and one circular hammer-stone were found in the Lakhra area north-west of Kotri. Appearance of such tools and also the moving out of the people from the hilly fastnesses in the immediate vicinity of the source of perennial water supply to more open and flat areas, as in case of the Neolithic site in the University area, is suggestive of the changing techniques and the changing way of life of the people occupying the area.

Megalithic Cists : A fairly good number of Megalithic cists are found in the Karachi Region. They are similar to those found in South India, but they lack the port-hole in one of the vertical stones. In South India iron objects have been found associated with these Megalithic tombs, and Wheeler dates them from 3rd century B.C. to the 1st century A.D. In Europe these monuments belong to Neolithic period. In Karachi region no excavations have been carried out on these graves and their real nature and age is not known. Here they differ considerably in size. Some of them are built of very large slabs of shell concrete up to six or seven feet long. The graves are up to 8 feet in length. In the Mol Valley limestone slabs have been used which are somewhat smaller in size. These graves in the Mol Valley are best preserved, the cap-stone is found only on these tombs. They suggest complete inhumation. They are found in close proximity to sites where

occupation in Neolithic period has been noted. There are many others in Dumlottee and other areas, much smaller and without any cap-stone. They appear to belong to a different period and suggest a totally different practice. In two cases of rather small ones, not exceeding 2 feet in length, the erosion had exposed a broken pot enclosed in these stones containing ash and charred bones. They suggest cremation and fractional burial. Trial digging of a few Megalithic tombs in this region may prove quite interesting. Several Menhir-like Megaliths are also present in the Hab Valley and in other parts of the region.

MESOLITHIC AND LATE UPPER PALAEOLITHIC SITES

The most interesting and the most important part of the study is the find of a large number of sites representing the microlithic phase of the Stone Age. Invariably all of them are associated with old wind-blown sand, adjacent to the hills or in the valleys within the hilly belts. In the river gorges they can be related with geological deposits. During the last Glacial phase when the sea level was much lower compared to the present one and the climate distinctly more pluvial, river gorges were deepened considerably. But with the deglaciation, the sea level rose and the river gorges were filled with gravel. Towards the end of the Glacial period the climate became very dry, much drier than the present one. At this time extensive areas were covered with wind-blown sand and loess-like material. Even in the narrow river gorges the aggradational phase culminated in this sand and loess deposit without any intercalations of river gravel.

Within these sands some very rich Mesolithic and late Upper Palaeolithic sites have been found. They are spread all over the area, but some concentrations have been noted. They extend all along the coast from Gadani to Dabeji and Jungshahi area. River gorges like those of Kalu, Ran Pethani, Khadeji, Mol, Thaddo and Sham Nadi contain many of these sites. One area of concentration lies around the University Campus, while another significant belt runs along a thick sandstone outcrop extending from the new Hab-Dam site through Manghopir hills right up to Cape Monze. This sandstone is a good aquifer and dozens of springs are located even

now within this bed, and support many of the existing settlements. There are indications of many more springs within it which have now ceased to flow or have turned brackish or salt.

Mesolithic Sites : Mesolithic sites are quite numerous. These settlements or camping grounds can be divided into two age groups, earlier and the later. At the earlier sites many tools of the Upper palaeolithic traditions are present and many of the tools usually associated with Mesolithic cultures of other parts of the world have been found; the later group of sites where most of the larger tools and the usual arrowheads disappear, and microblades and lunates become the standard tools. The typical parallel edged blades appearing first in Neolithic period are missing. Occasional bright-red potsherds also appear on surface of these later sites, but they could be later intrusions, or some of these later sites may have continued till Neolithic period.

The chert implements of the earlier group of sites include leaf-shaped and transverse arrowheads, notched blades, several types of scrapers—small end-scrapers, side-scrapers, hollow-end-scrapers, nosed scrapers and semi-circular scrapers—different types of burins—parrot-beak burin, angle burin, microburin—some larger lunates or crescentic backed blades, numerous microliths like lunates, trapezes and triangles, some pointed tools for piercing and boring, triangular rods probably used as borers or reamers, circular hammer-stones, various types of cores including small cylindrical cores, disc-cores and biconical cores. A tanged missile-head with triangular cross-section was found at one site in the University area. Every site is a living place as well as a tool making site, with the result that cores and the chipped waste are also abundant. Chert is inferior in quality and intractable. Most of the material appears to have been obtained from somewhere in Sind Kohistan, from Eocene rocks. Only a small amount of red variety has been obtained from Parh limestone at Gadani. The white chert, though abundant there, is coarse grained and much crushed and hence not suited for tool making. The people of these Mesolithic sites were essentially hunters and fishers. Sea provided considerable proportion of their food supply. At all these sites oyster shells and shells of one or two varieties of sea snails are found in abundance. Bones of some

unidentified animals are also found. Fish vertebra are generally lacking. Dentalium and a few small marine gastropods were collected perhaps for use as ornaments.

Late Upper Palaeolithic Sites: The most characteristic tool of the late Upper Palaeolithic period is a knife like tool, with strongly curved and steeply blunted back and very sharp and more or less straight cutting edge. It is a beautiful tool derived from the Chatelperronian tradition. It is a little less than two inches long. Bohmers prefers to designate them as micro-Chatelperron or Tjonger points when such tools are less than 50 mm in length. Best specimens of this tool were collected from Khadeji gorge. They are present at many other sites also. At one site in the Mol gorge a tanged arrowhead resembling Aterian point was found, and another similar arrowhead was found at the western foot of Piara hill north of Goth Haji Shah Beg near Hab mouth. Other artifacts found include comparatively larger flakes, scrapers, cores, hammerstones and much chipped waste. At some of these sites occupation appears to have continued through Mesolithic period while others were either abandoned or the younger horizons have been eroded away by rain water and typical Mesolithic tools are not found.

EARLIER PHASE OF PALAEOLITHIC PERIOD

Apart from the implements of late Upper Palaeolithic industries found in association with microlithic sites, some isolated implements found at different points indicate occupation in Upper Palaeolithic period at somewhat earlier time. Some end-scrapers were found in Konkar area on higher terraces at the foot of hills. One isolated panshaped point was found in the gravel near the old cliff south of Landhi. Another point was picked up near Wagodhar in gravel outside the fortification walls there. These points are quite different from the arrowheads found on Mesolithic sites. Moreover, the gravel terrace itself is a late Pleistocene terrace. Therefore, it is quite possible that these points indicate human occupation during earlier period. Another chert point was found on the edge of a gravel terrace near field No. 194, in Deh Konkar, near Goth Jalab. It is a very fine specimen of later phase of Levalloisian technique. It is triangular in shape and has a faceted butt, with typical Cupid's

bow outline. It shows a high level of skill in core preparation. It is white with patination.

The Mesolithic cultures of this area show some affinity with the Magosian and Upper Kenya Capsian cultures of East Africa. The presence in East Africa, of what is called Developed Levalloisian culture contemporaneously with the Lower Kenya Capsian cultures, during the Gamblian Pluvial, provides another parallel with this region. This shows somewhat parallel developments in East Africa and the Karachi region during Upper Palaeolithic and Mesolithic periods.

Evidence about the Upper Palaeolithic age except for its latest phase, is, however, very scanty. Several higher terraces belonging to Pleistocene period are present in the area. But they have been eroded so deeply that the entire loose material and soil from their top has been removed. Only the basal conglomerates or bare rocky erosion surfaces are left. No living floors of earlier Palaeolithic period have so far been discovered. The poorly developed limestone caves and rock shelters in the valleys and hills around have also failed to produce so far any evidence of occupation by Palaeolithic man. But the study of these shelters and higher terraces is only in its initial stage and further work may reveal more evidence.

MORE RECENT SITES

Apart from the prehistoric sites there are many settlements and structures belonging to proto-historic to historic period.

Circular Stone Structures: In the Hab Valley, Manghopir and Drigh Road hills, several circular structures of stones have been located. They stand 3 to 5 feet high, with a narrow opening on one side. Hughes Buller noted many such structures in Baluchistan and considers them to be Dakhma or Parsi Towers of Silence. It is significant to note that Alexander's historians have recorded the fact that the people of Las Bela disposed of their dead as the Zoroastrians do.

Muslim Occupation: All over the area there are a large number of Muslim graveyards. Many of them appear very old. The graves

are in the form of rectangular platforms built with squared thin slabs of stones, with no mortar or plaster now visible. Their antiquity is attested from the fact that at many places erosion has lowered the surrounding area considerably leaving these graves perched on higher patches of land. In many cases erosion has gone so deep that the graves have crumbled and even the bones are scattered on the surface. Near these graves and at a very large number of other points, at many pre-historic sites, microlithic as well as Chalcolithic and also at places where no indication of pre-historic occupation is noted, a characteristic grey incised ware has been found. This pottery is identical with the grey incised ware found at Bhambor during later period. Excavations at the latter site have revealed that occupation lingered on till 13th century A.D. This shows that at this time the entire area was occupied by people using this grey incised pottery and they must be related in some way with the later phase of the history of Bhambor also.

Kot Nathelo : This is a fort on the right bank of the Bazar river, covering a few acres of land, stated to have been built by the Mirs of Sind. Its stone walls, with bastions are still several feet high. The fort is actually built on an ancient site. The earth filling in the bastions contains much pottery. Some terracotta figurines of animals found here closely resemble those found at Bhambor in lower horizons. A chert core was found in one of the bastions and several chert blades were picked up within the walls of the fort indicating pre-historic occupation of the site.

Shahr Halat : In the Indus delta adjacent to Karachi region there are some sites of Muslim period which have not yet been reported. The largest one is a fairly high mound covering a few acres of land, close to the south-east corner of the Haleji lake and half a mile west of Pir Makhdum. It is locally known as Shahr Halat. Much plain and glazed pottery and small copper coins are found on the surface. On the lower ground stone foundations of some buildings are also exposed.

Puttan Shahr : Another site is located about a mile north-northeast of Samohi, the first capital of the Sama rulers of Sind, in

the gap north of Makli Hill. The site, located on the edge of limestone hill north of the gap, is enclosed by fortification walls and is of small size. This seems to be the fortified house of the first Sama ruler who is stated to have built his house on rock after establishing his capital at Samohi.

Pir Patho Hill : One statue of Buddha is reported to have been found near the Mazar of Pir Patho and another one at Pir Shah Hasan, west of Makli Hill (the writer has not been able to see them). On the Pir Patho Hill south of the road an ancient mosque and a tower is still intact. The whole surface is covered with graves and much pottery is seen in the intervening space. East of the tower right up to the foot of the Hill, slope is covered with debris of houses and pottery. A few stone walls can be seen. The pottery contains glazed as well as painted sherds in which a few sherds of polychrome ware, somewhat similar to that from Muslim period at Bhambor were also picked. One small copper coin was also found. At the foot of the slope a chert scraper was picked up.

Buried City East of the Hill : A city is said to be lying buried under the soil just east of the hill. The area is now covered by a graveyard, in which numerous walls are exposed on the surface. Large amount of glazed as well as painted and plain red pottery is present. Several small copper coins similar to those present at Bhambor were found on the surface. Large amount of slag is also seen. Blocks of laterite or iron-stone are also seen lying on graves. Investigations in this area are relevant in connection with the final determination of the position of Debal, a question which has so far been wisely kept open for further research, and also for the identification of the position of Barbarikon, the port-city at the mouth of the Indus in the 1st century A. D. mentioned in the Periplus.

The Kalri Lake Area (Manjabari?) : The depression of Sonehri and Kinjhar, now occupied by the Kalri Lake is quite important for its ancient sites. The shrine of Amir Pir on its western edge according to Karachi Gazetteer dates back to the early Muslim period. A Shiva temple at Jhimpir, indications of ancient settle-

ments also on the eastern edge, Kot Raja Manjhera, with Amri settlement and a Buddhist stupa about four miles to the east, many old legends about this region and the association of the name of a semi-legendary king Manjhera with this region are all very significant. This depression to the west of the Indus, with its gushing spring on the western edge and much flowing water and date palm groves, conforms very closely with Idrisi's vivid description of the environs of Manjabari, which could be an altered form of Manjherapura.

GENERAL CONCLUSIONS DRAWN FROM THE STUDY

The area so far intensively searched does not extend, due to lack of facilities, beyond a radius of about 40 miles from Karachi, and even within this area considerable parts still remain to be surveyed. Beyond these limits only a few isolated places have been visited. Yet the number of sites located already exceeds 250. Many of these sites might have been alternate camping grounds in different seasons and different years. Some may have been occupied successively, while others are so close together that originally they may have formed a single large camping ground, but later erosion reduced them to detached small patches of ancient remains. Giving due allowance to all such factors, the results already achieved clearly indicate that within the entire region, extending from Karachi to the Manjhar Lake and between the Indus and Las Bela Plains, the number of the pre-historic settlements must be very large. These sites show human occupation from the Upper Palaeolithic period to the latest phases of pre-history and protohistory. After the Soan Valley this area preserves the oldest pre-historic cultures so far known in our country. This region, therefore, becomes the key area for the study of pre-historic life in Pakistan. In the Indus alluvium, because of the natural processes of erosion and deposition accompanied by earth movements, most of the prehistoric settlements have either been destroyed completely or lie buried under the alluvium or else waterlogged and hence beyond the reach of archaeological research for the time being. The total number of sites within the Indus alluvial area is not much more than a dozen, although this had been the heartland of the Indus Civilization. The remain-

ing known settlements are located within north-east Sind Kohistan, along the shores of the Manchhar Lake, and on the talus slope along the Kirthar Range. Therefore, concentration of archaeological researches on the Karachi region becomes imperative for the reconstruction of the history of ancient cultures in this part of the world.

Much has been written during recent years about the pre-historic archaeology of Pakistan. Much speculative theorising has been done about different aspects of the Indus Civilization, particularly its origin and its end, also about the geological processes operating at that time, the pre-historic climatic conditions and about the position of the sea during that period. In many cases, conclusions have been hastily drawn without the support of sufficient evidence and the result is confusing rather than enlightening. For instance, on the evidence of marine shells found at Amri, it has been claimed that the sea reached up to that point and Amri actually stood on an estuary of the sea. As a matter of fact shell-middens are widespread all over Karachi region, along the coast as well as in the interior, far inland and at considerable heights. Marine shells are present at all Mesolithic sites as far as Khadeji and Mol gorges and in Thaddo Valley at heights up to 500 feet above the sea and near the Sham Nai about 35 miles inland and at a height of 750 feet. Even north of Thana Shah Beg 60 miles inland and at a height of more than 1,100 feet, shells are found at a Chalcolithic site. The mere presence of marine shells and that too at ancient settlements, without any other supporting evidence proves nothing regarding the changing sea-level or the position of shore line. The only inference to be drawn from this is that the people of those days used certain mollusca as food and their shells as ornaments. The people were not living in isolation. They formed a well organised and well-knit society, having adequate arrangements for carrying such commodities far inland and bringing back from there good quality chert for tool-making which is totally lacking near about Karachi.

Indigenous Origin of Urban Civilization: The presence of a large number of Mesolithic sites in this area which are generally regarded a necessary prelude to the Neolithic revolution and the

development of Urban Civilization, and even some indications of Neolithic revolution reflected in tool-making, gives credence to the idea of indigenous development of the Urban Civilization in the Indus Valley. The stages of this development, however, could be discerned only by exploring the whole area and carrying out intensive research at some selected sites of the region.

Pre-historic Climate: Pre-historic climate has been another controversial topic. During the early phase of archaeological researches too much emphasis was laid on the change of climate to explain the abrupt end of the Indus Civilization. It is now claimed, as a reaction to it, that the climate has remained unchanged not only since the Harappan times but during the entire post-Glacial period. Karachi region provides convincing evidence that towards the close of the Glacial period climate became very dry, even drier than the present one, and continued so through the Mesolithic period. Then towards the Neolithic period there is some possibility of climate having ameliorated appreciably, which made the change from the hunting and gathering economy of the people to food-producing one possible. This amelioration appears to have been nearly synchronous with the Atlantic phase of Europe, Makalian wet phase of East Africa and Sub-Pluvial phase of Sahara. Then there is some evidence that the climate was deteriorating through Chalcolithic period. When it reached the present state is yet uncertain. These later changes require further research. The degree of change is also difficult to estimate, as the geomorphological processes operating at the time were accentuating the effect of this climatic deterioration.

Tectonic Processes: The study of Karachi region provides the most valuable clues about the tectonic processes operating during Post-Glacial times. The study of coastal area near Karachi reveals a series of raised beaches and marine terraces. Three marine terraces—20-25 feet, 30-40 feet, and the highest one over 50 feet above the sea are matched with river terraces inland of roughly similar heights. The highest gravel terrace, capped by wind blown sand, has yielded implements of the latest phase of Upper Palaeolithic and Mesolithic periods. The middle terrace is occupied by Neolithic and Chalcolithic

sites. The lowest one has so far failed to show any evidence of occupation during pre-historic times. The areas of this elevation i.e. 20 to 25 feet above the sea, between Karachi and Makli hill, and also along the Las Bela coast are backed by old sea cliffs, rocky for considerable distances.

This old shore line corresponds very closely with the description of coast given by Nearchus. From his description and the configuration of land we can easily recognise that his fleet emerged through the gap north of the Makli hill, where the rocky bar was met, and entering the open sea followed the tortuous rocky coast which now forms the southern edge of Sind Kohistan in Jungshahi area and reached Alexander's Haven, somewhere near Gharo, which was an embayment into this rocky edge of the land. After the monsoons he sailed out to Domai, a deserted island, most probably the site of Bhambor, which has been connected with land by two artificial embankments, now enclosing the lake. Then via Saranga or Caranga, a place obviously on Korangi Creek, he reached Morontobara, some point within the present Karachi harbour, probably west of the Lyari mouth. From this we can see that most of the land between Karachi and the Makli hill has emerged only after the Greek period. In the Indus plain there is some indication that even since the Arab period there may have been an uplift of 10 to 15 feet, but it requires confirmation by other evidence. The 14 feet high wave-cut bench at Cape Monze may correspond with this uplift. Towards the end of 13th century or just after it drastic changes appear to have occurred all over the lower Indus Basin. In Karachi area there are a number of terraces much higher than those noted above, but they are all much older and belong to the Glacial period.

Effects of Uplift: We thus find clear evidence that the land has been rising intermittently even after Glacial times. Every uplift resulted in the recession of the sea, sinking down of river beds into their own deposits, gradual lowering of regional water-table, drying up of many springs, destruction of forests previously inundated by seasonal floods but now left dry, severe soil erosion and disruption and deterioration of irrigation works, which may have been in

operation before such movements. At Amri in Pre-Indus level an artificial canal has already been brought to light during recent excavations. These processes also explain the presence of Indus silt much above the present flood-plain. If these upheavals occurred as violent convulsions then earthquakes and abrupt and wholesale destruction of settlements must have been the result. Evidence from Greek historians, later local histories and the traditions about the destruction of most of the ancient settlements by earthquakes strengthens this possibility, though some of the present writers ridicule these traditions.

Exceptions to this general trend of uplift are present. Faulting at Mai Garhi site and subsidence of one part relative to the other has already been noted. Ghara Creek area is another example which runs along a broad syncline, and there is some evidence of faulting also. The visible tilting of the floor of the mosque at Bhambor in a south-easterly direction indicates that warping and lowering due to faulting have both affected the area. There are other examples also. From all this we can see how profoundly such natural calamities and the behaviour of the rivers must have been influencing the life and economy of the ancient people of our country. The end of some cultures and the breaks in the sequence of pre-history can be easily understood in the light of such natural changes going on upon the land itself.

VALUABLE ASSET FOR TOURIST TRADE

With more than three million people concentrated at Karachi and the city serving as the main gateway from outside, there is great future for tourist industry in this area. Our resources are still untapped. The real bottleneck is lack of proper roads to reach many places. The presence of a large number of ancient settlements and monuments provides much scope to make tourism in this area much more instructive and fascinating. This needs approach roads and a little improvement of these places. Many of these monuments are not very far from the existing roads. Some of them are within short distances of some natural beauty-spots of man-made tourist resorts. Association of these monuments with such resorts, some

publicity and guidance could make these resorts much more attractive.

Along the national highway, apart from the known objects of interest, there are two Gabrbands, one north of Pipri hill and the second near Dabeji. Tharro Fort of Amri period and the Shrine of Sheikh Haji Turabi on the same hill are only two miles from Gujo, but at present inaccessible from the road. Near Haleji, Shahr Halat, an ancient mound, is located only one mile from the south-east corner of the lake. At Makli Hill, Kalan Kot is only three miles to the south. A gravel road exists but even the local people are unable to point the way to the place. Near the northern end of Makli hill Samohi or Samui and Puttan Shahr are only four and five miles, respectively, but they are cut off by canals from the Makli area. Kalri Lake area possesses many attractions. Apart from the interest in the scenic beauty of the lake itself, fishing and boating, there are many ancient monuments all around the lake. East of the lake 'at 90th mile from Karachi' Kot Raja Manjhera, with its prehistoric and Buddhist remains and the grand view of the Indus flood-plain and reserved forest is another attraction. Jerruck itself with its ferry across the Indus and hills overlooking the river, could be made another attractive place. Budhjo Takkar with its prehistoric remains is situated on the opposite bank of the river.

Similarly, along the super-highway under construction, there are many sites. Amilano and Gazkal with a Gabrband representing Indus sites are just along the road. Kot Nathelo and Nal Bazar are little off the road but easily accessible. Khadeji gorge with perennial flow of sweet water, Upper Palaeolithic and Mesolithic remains, an early Chalcolithic or perhaps Neolithic fort on top of Kotwari Buthi on its left side, culminates in a beautiful and enchanting water-fall, already attracting many tourists. Similarly the Mol gorge with perennial flow of water, many ancient sites and Megalithic cists and Karo Spring about six miles from the junction of the Khadeji and the Mol could be developed into a beauty spot.

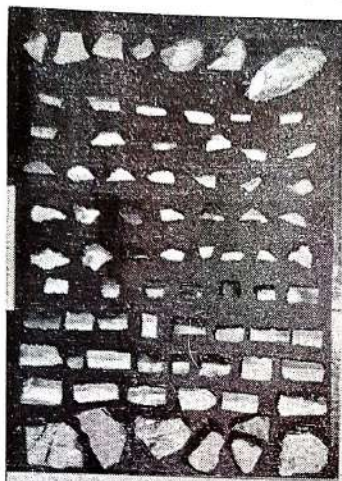
Mai Garhi, a walled pre-historic site on the left bank of the

Hab can be reached by a jeepable road through the Orangi Valley, Pir Shah Jurio, the Harappan port-site near the Hab mouth is beyond Hawke's Bay area and is approached from this much frequented beach area through the Sonia Pass to the north. Beyond the Hab mouth, Kallar Lake, a haunt of flamingoes, is another nice place which could be developed as a tourist resort. Many of these sites after improving their surroundings and making them more easily accessible could become a valuable asset for tourism in this region. Some of the Mesolithic sites need protection for future research and to serve as cultural museums.

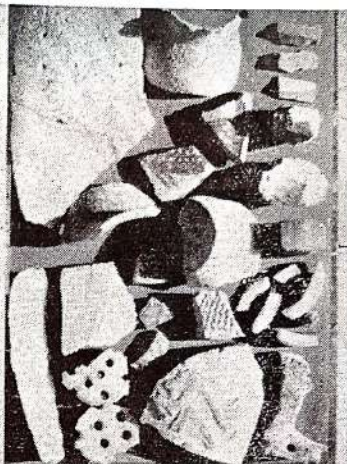
Bibliography

1. Bohmers, A., 1963, "Statistical Analysis of Flint Artifacts" in *Science in Archaeology*, Eds. Brothwell, Don and Eric Higgs. Bristol.
2. Butzer, Kart, W., 1965, *Environment and Archaeology*, London.
3. Casal, J. M., 1964, *FOUILIES D'Amri*, Vol. 1: Text with English summary, Paris.
4. Clark, J.D., 1957, "A Re-examination of the Industry from the type site of Magosi, Uganda." In *Third Pan-African Congress of Prehistory*, 1955. Ed. J.D. Clark, London.
5. Clark, Grahame and Piggott, Stuart, 1965, *Prehistoric Societies*, London.
6. Cole, Sonia, 1964, *The Prehistory of East Africa*, London.
7. Cousens, Henry, 1929, *The Antiquities of Sind*, Mem. Arch. Surv. India, Vol. XLVI, Imp. Series No. 29.
8. De Cardi, Beatrice, 1965, "Excavations and Reconnaissance in Kalat, W. Pakistan." *Pakistan Archaeology* No. 2, Karachi.
9. Department of Archaeology, Pakistan, 1964, "Exploration-Sites in the Karachi area," *Pakistan Archaeology* No. 1, Karachi.
10. Hughes-Buller, E., 1906, "Gabr Bands in Baluchistan", *Report Arch. Surv. India* 1903-4, Calcutta.
11. Hunting Survey Corporation Ltd., 1960, *Reconnaissance Geology of Part of West Pakistan*, Ottawa.

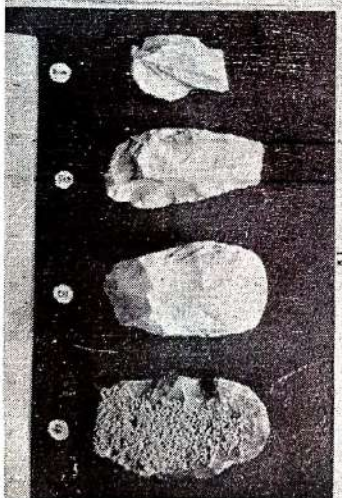
12. Lambrick, H.T., 1964, *Sind, A General Introduction*, Hyderabad.
13. Majumdar, N.G., 1934, *Explorations in Sind*, Mem. Arch. Surv. India No. 48, Delhi.
14. Piggott, Stuart, 1950, *Prehistoric India*, London.
15. Raikes, R.L., 1961, "The Prehistoric Climate of Baluchistan and the Indus Valley." Am. Anthropologist No. 63.
1965, "The Mohenjo-daro Floods," Antiquity xxxix.
16. Wheeler, Sir Mortimer, 1959, *Early India and Pakistan*, London.
1966, *Civilization of the Indus Valley and Beyond*, London.



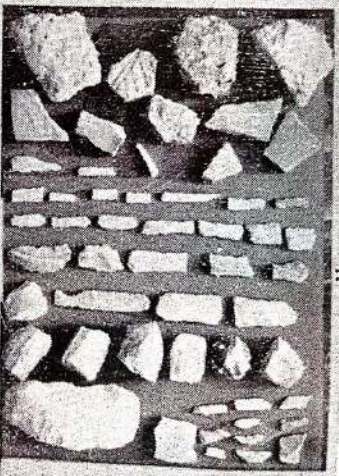
III

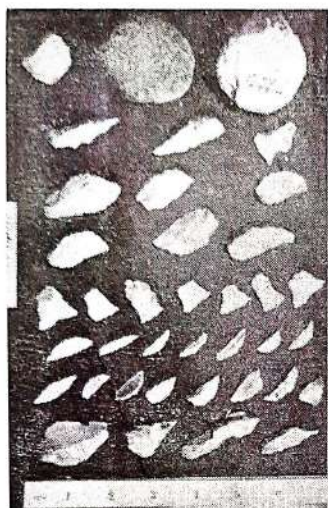


2

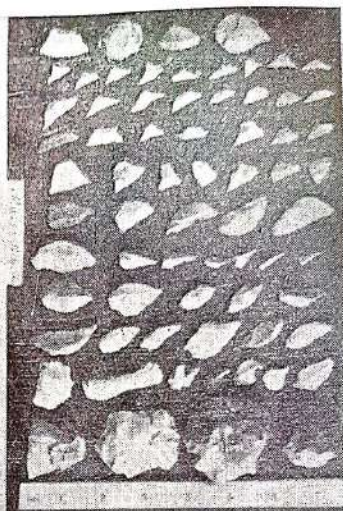


VI





VII



VIII

