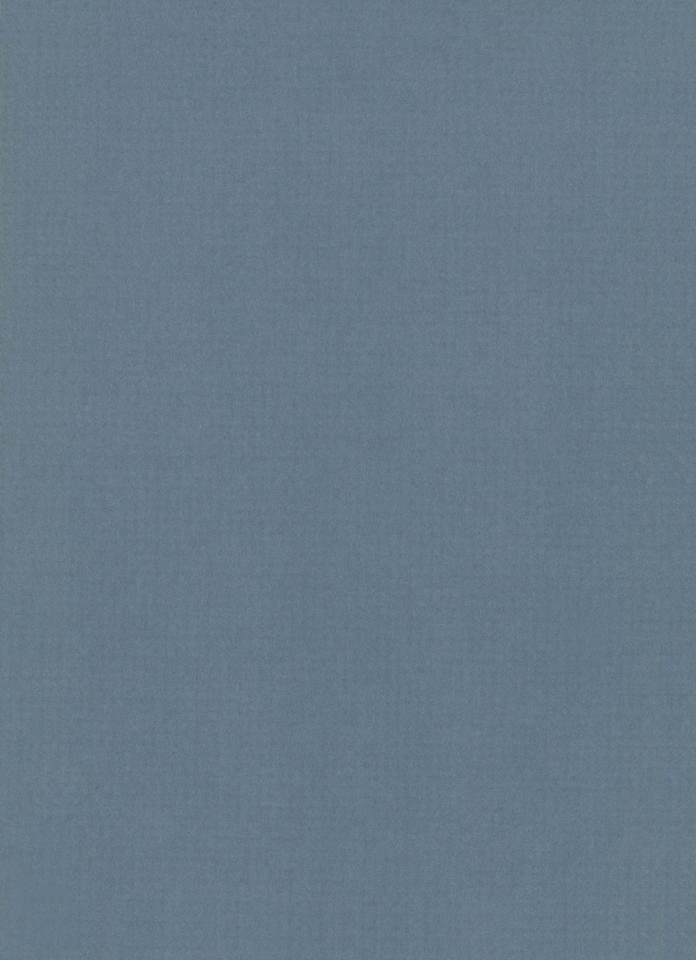
# EXCAVATIONS AT BAMPUR, A THIRD MILLENNIUM SETTLEMENT IN PERSIAN BALUCHISTAN, 1966

BEATRICE DE CARDI

VOLUME 51: PART 3
ANTHROPOLOGICAL PAPERS OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
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#### INTRODUCTION

THE PRESENT PAPER outlines excavations carried out in 1966 on a prehistoric settlement at Bampur in southeastern Iran. The site had been sampled by Sir Aurel Stein some 34 years earlier but it was necessary, in the light of more recent knowledge and methods, to establish the cultural sequence of this region of Persian Baluchistan.

Excavations in two deep cuttings (Sites Z and Y) revealed six interlocked periods of occupation.

The Bampur pottery is of importance because it throws fresh light on cultural relations between the frontier region of Persian Baluchistan and the adjacent countries of Afghanistan and Pakistan during the third millennium. There are hints also of slight contact with the opposite shores of the gulf, but this possibility awaits further evidence.

The wares of the first four periods represent development within a hitherto unrecognized assemblage, designated the Bampur I-IV culture, which was superseded in Period V by a hybrid culture from which Period VI developed.

No carbon-14 determinations were made but comparative evidence suggests that the six periods of occupation extended from about the second quarter of the third millennium to ca. 1900 B.C.

Briefly, the results were as follows:

Period I: A horizon containing only debris from adjacent occupation.

Period II: The earliest structural occupation, of relatively short duration, which yielded cream-slipped wheelmade red and gray wares.

Period III: Marked on Site Z by rebuilding and three subsequent phases of occupation. Pottery reflecting contact with regions to the north, notably Seistan, and related to Mundigak IV, 1 in southeastern Afghanistan, appeared during Phase 3.

Period IV: Divided on Site Z into an initial phase of redevelopment and two later structural phases. The cultural link with the northeast continued in Phase I and was reflected both in the pottery and the small finds. The arrival of aliens at Bampur toward the end of this period is indicated by their wares both there and in a burial (B.ii) at Khurab, a few kilometers to the east of Bampur.

Period V: Marked a stratigraphical and cultural break with the previous period. The cream-slipped pottery of the Bampur I–IV culture was largely replaced by buff and red-slipped wares, and new techniques, notably streak-burnishing and incising, were applied to grayware. A few designs known also in the

Qal'ah and the Shugha cultures of Fars appeared in Phase 1, and a resemblance to the Mehi stage of Kulli-ware was apparent in Phase 2. The evidence suggests that Period V was in part contemporary with the end of the mature Harappan occupation at Amri (IIIC) in Sind and the period of greatest prosperity at Lothal (A-Phase IIIB) on the coast of western India.

Period VI: Was represented by a local ceramic style derived from that of Period V. Among the pottery that continued in use from the previous occupation were incised gray vases and black-on-gray ware canisters with distinctive animal patterns exactly paralleled in cairn-burials of the Umm an-Nar culture of the Oman Peninsula. These parallels provide the first stratigraphical link between the two sides of the gulf. The Umm an-Nar culture of Oman is said to be partially contemporary with the subsequent Barbar culture known on the island of Bahrain. The discovery there in a Barbar context of an "Indianesque" seal-impression similar to one in the Yale Babylonian Collection dated to ca. 1923 B.C. suggests a terminal date of ca. 1900 B.C. for the Bampur sequence.

The existence of about a dozen prehistoric sites (Fig. 1) in the Bampur Valley of Persian Baluchistan was first revealed by Sir Aurel Stein in 1932. Two sites in the northwestern limits of the valley, Chah Husaini and Qal'a-i-Sardagah, yielded handmade pottery decorated with simple geometric patterns. Of manifestly later date are the wares from Stein's excavation of a cemetery at Khurab on the left bank of the Bampur River and from sites in its upper reaches where the foothills meet the plain north of Iranshahr, the present administrative center. Different, but equally interesting wares were found during his trial excavations on the prehistoric settlement that lies at the foot of a high fort on the outskirts of the present village at Bampur in the center of the valley.

In describing the results of his reconnaissance, Stein (1937, 108) drew attention to resemblances between the pottery of the Bampur Valley and other material on sites in Pakistan Makran representing the Kulli culture, of which more will be said (p. 267). More recently, affinities have been noted to the Qal'ah culture of Fars (Vanden Berghe, 1959, 42). In addition to these east-west links, a connection was recognized by Walter A. Fairservis, Jr. (1961, 98), between some prehistoric wares of southern Seistan and the "Khurab phase" in the Bampur Valley which he ascribed to cultural movement eastward from Iran.

Despite the obvious interest they generated, these wares had remained unrelated stratigraphically to their cultural and chronological background. It was with the object of establishing a sequence for this region of Persian Baluchistan that our excavations were undertaken in the spring of 1966.

Bampur was selected because its position in a well-watered valley on a main east-to-west thoroughfare near the intersection of other routes suggested that it might have been a settlement of major importance as early as prehistoric times. As such, it seemed more likely, than would the smaller sites in the valley, to provide evidence of cultural contact with the adjacent countries.

Surface sherds noted during our preliminary survey confirmed Stein's view that the area of prehistoric settlement lay to the northwest of the present fort (Fig. 3), whose crumbling walls edge a high, elongated mound partially encompassed by soft dunes. It seems likely that a prehistoric tell forms the nucleus of this mound, whose

summit has subsequently been utilized as a vantage point and overlaid by debris from a succession of mud-brick strongholds (Fig. 5). Although neither time nor resources have been made available to test this theory by excavation, the possibility there of occupation predating the Period I levels revealed by our excavations, should be borne in mind.

During our work, two sites, Z and Y, were excavated to the natural surface, Site Y coinciding with part of Stein's uncompleted trial trench. On both sites six periods of prehistoric occupation were overlaid by levels that formed a raised platform whose limits in this sector follow the outer contours of the site. The disturbance of these levels in both cuttings ruled out all possibility of establishing the sequence of the later occupation. A length of mud-brick wall, associated with that period, had been cut by Stein's trench. The dimensions of its bricks (40 cm. by 22 cm. by 11 cm.) may help to date this occupation when more is known about the masonry of early historic sites in this region.

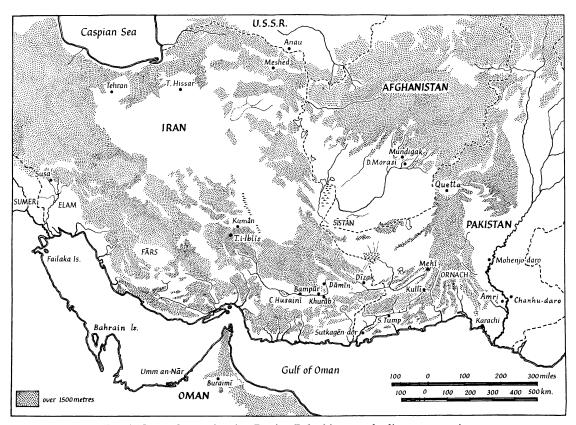


Fig. 1. General map showing Persian Baluchistan and adjacent countries.

A medieval and later settlement lay between the fort and the present village. Its position on a main trade route and the range of its surface material suggests that Bampur was a center of importance in Islamic times.

#### TOPOGRAPHY Figures 1, 2

Geographically, the Bampur Valley forms part of a natural highway leading to Pakistan. Communications lie eastward along the river to Iran-shahr, where the main road follows the Karwandar River north toward Vasht (Kwash). From there alternative routes run on either side of Kuh-i-Chehiltan, a semi-active volcano, and link up with the main routes to Pakistan, Seistan, and northern Iran. A route through the mountains, which enclose the valley east of Iranshahr, leads to Magas and thence by a choice of tracks to Saravan and the broad, but deeply fissured Mashkel Valley. It crosses the Pakistan border near Kuhak and passes, via Panjgur, into

the Rakhshan Valley which provides access to central Kalat.

Another route to Pakistan cuts through the mountains southeast of Iran-shahr on its way to Sarbaz and crosses the frontier near Mand. From there it continues past the prehistoric site of Shahi Tump to the Kech Valley, one of the main thoroughfares through the Makran.

A wide stretch of soft sandy desert lies to the south of the Bampur River and is crossed by a barely discernible track to the small oasis of Gwargusht. Pottery related to that of Bampur IV (Fig. 15) was recorded by the Expedition on spoil heaps along a newly dug *kanat* just outside the village, and serves to illustrate the fortuitous nature of field survey in a region in which a thick alluvial deposit has in all likelihood covered many sites.

South of Gwargusht, three tracks meet the more circuitous route from Bampur via Qasimabad to Champ, Qasrqand, and thence to the Dasht River in Pakistan. Stein (1937, 113; 1943,

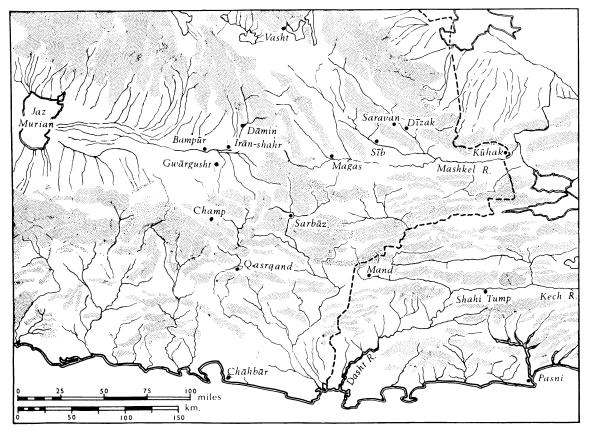


Fig. 2. Map of the districts of Bampur and Saravan.

222) has suggested that it may have been along this route that Alexander the Great led his army on its way to the Gedrosian capital of Pura, whose location has been variously set at Bampur, Iran-shahr (Fahreh), and even as far west as Fehraj in Narmarshir.

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Communications to the west lie along the Bampur River which drains into the marshy Jaz Murian depression. Two tracks skirt to the north and the south of this obstacle. The northern route then follows the Halil Rud, and prehistoric sites along its course suggest that it served as a corridor down which filtered the settlers of Chah Husaini and other early prehistoric sites with cultural contacts in the west.

#### **ACKNOWLEDGMENTS**

The excavations were sponsored by the Royal Asiatic Society and financed by generous grants from the British Academy, the Leverhulme Research Fellowship, the Russell Trust, the Crowther-Beynon Trust of the University of Cambridge, and the Society of Antiquaries of London. In addition, the Expedition is much indebted to various organizations for donations of food, medical supplies and even poultry.<sup>1</sup>

I am indebted to His Excellency Mr. Mehrdad Pahlbod, Minister of Culture, for permission to excavate, and I would acknowledge with thanks the help and interest expressed by the Iranian Archaeological Services and by Prof. E. Negahban.

The expedition personnel, under my direction, consisted of Mr. Peter Broxton and Mr. Timothy Strickland, who supervised Sites Z and Y respectively, Dr. E. C. L. During Caspers, and Mr. George Barrington, M.C., who organized the overland journeys from London to Iran and

<sup>1</sup>Messrs. Alfred Bird and Sons; British Edible Oils; the British Egg Marketing Board; C.I.B.A.; Dunlop Rubber Company; Glaxo Laboratories; the Nestlé Company; Oxo, Ltd.; Sterling Poultry Products; and Unigate, Ltd.

back. Mr. Mohammed Sarraf acted as Representative of the Iranian Archaeological Service. Our foreman, Heydar Zare, and his colleague, Salmon Zare, both trained at Pasargadae, were able to pass on something of their skill to the six Baluchis who formed our labor force.

An expedition of this nature clearly owes much to the assistance of many organizations and individuals. I am particularly grateful to Mr. D. B. Stronach and Dr. Brian Spooner, respectively Director and Assistant Director of the British Institute of Persian Studies, for their help in the initial negotiations and during our stay in Iran. My thanks are also due to His Excellency Mr. A. A. Dehestani, the Governor-General of Baluchistan and Seistan; to Mr. Hushang Mubashsher, Governor of Bampur, who made us welcome; and to Mr. Friedrich Gulestian, for much kindness during our stay there.

On leaving Iran, I was able, with the collaboration of officials of the National Museum, New Delhi, to examine material from southwestern Makran in the Safdar Jang reserve collections. I must also record my indebtedness to Mr. T. G. Bibby who enabled me to see the pottery in Aarhus Museum from Danish excavations on sites across the gulf. My initial conclusions regarding the relation between the pottery of Bampur and Mundigak were later discussed with Dr. Jean-Marie Casal, who very kindly examined the relevant material.

I am also much indebted to Dr. During Caspers for her contribution on the carved stone and incised grayware (pp. 319–325), and to the Reverend H. E. J. Biggs for reporting on the molluskan material from Bampur (pp. 333–334).

In conclusion, I wish to acknowledge my gratitude to Sir Mortimer Wheeler for his help and advice both in the preparation of the expedition and in the compilation of the present paper.

#### **EXCAVATIONS**

The purpose of the excavations was to establish the cultural sequence of the site by means of one or preferably two deep cuttings. A site (Z) was selected within the interior of the prehistoric settlement, 150 meters to the northwest of the fortress mound, and a grid covering 10 square meters was laid out on a stretch of level ground traversed by a cattle track leading from the dunes to the village. This locality abounded in prehistoric sherds, and its compact surface sug-

gested that the area had not, as elsewhere, been used as a burial ground. It was therefore embarrassing on opening up three squares within the grid to come at once upon a concentration of Muslim graves cut into the underlying prehistoric levels. In deference to the villagers, who considered the burials to be of relatively recent date, work was abandoned in all but one trench which measured 6 meters by 2 meters. Within so limited an area, it was clearly difficult to extract

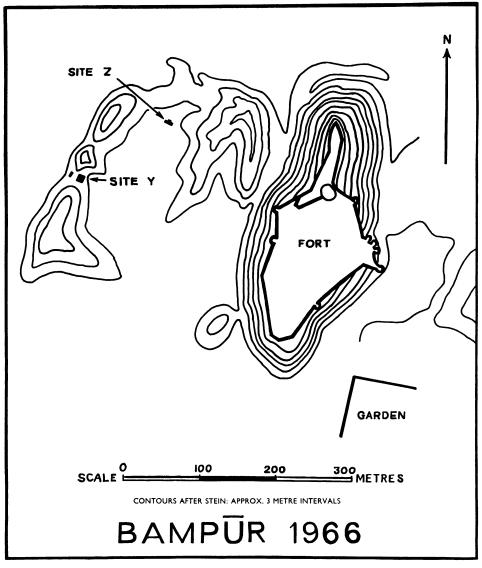


Fig. 3. Bampur: general plan of the site.

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much information as to the size or nature of the structures exposed but the work fulfilled its primary purpose, and the sounding, which reached natural sand at a depth of 7 meters, provided a sequence of six interlocked periods of prehistoric occupation.

The results were confirmed by excavation in a second area, Site Y. As a means of reaching prehistoric levels without the initial clearance of Muslim burials, a trench measuring 4 meters by 3 meters was opened up across the line of Stein's original sounding. This lay 134 meters to the southwest of Site Z, on a ridge marking the limits of the settlement. Stein's sounding, barely discernible on the present surface, had been sunk to a depth of only about 4 meters which represented the level of the surrounding plain.

On re-excavation, the cutting was continued down to the natural surface, and produced results that were consistent with those obtained on Site Z.

Of the two areas examined, Site Z was by far the more informative as the remains uncovered there represented occupation levels lying partially within living rooms which contained much pottery. In contrast, the deposits on Site Y are best identified, at various periods, as a rubbish dump, a workshop and a series of backyards, in fact, the kind of usage to which any plot of land on the outskirts of a village might be put today. In consequence, many of the levels on Site Y were relatively featureless and, apart from the rubbish tip of Period VI, produced little pottery.



Fig. 4. View of Bampur fort from the garden to the southeast.



Fig. 5. Bampur fort from the northwest.

#### SITE Z Figures 6, 7

At least six periods of prehistoric occupation, ranging from about the middle of the third millennium to ca. 1900 B.C., were reflected in section in the south face of Site Z (Fig. 6).

#### Period I

The earliest signs of occupation in this area of the settlement were: a pit (Fig. 6, No. 63) dug into the natural sand at the east end of the trench, and two layers of debris which overlaid the natural surface and contained a few sherds (p. 279); fragmentary animal bones and flecks of ash—scant, but sufficient evidence to suggest that a building had almost certainly existed in the immediate vicinity of the trench although no structures were encountered within its limits. Even though these Period I levels were the oldest found during the excavations, it is pos-

sible that they may not in fact represent the earliest occupation at Bampur. A tell generally builds up over the nucleus of a settlement with subsequent expansion often marked by a distinct shelf raised above ground level. Site Z was situated on such a terrace and the core of the original settlement may still await discovery below the fortress mound.

#### Period II

The settlement had certainly extended to Site Z by Period II when two mud-brick buildings, separated by a narrow passage, were erected on an approximately north-south, east-west alignment (Fig. 7).

Within the space available it was only possible to examine the turning of the passage and the occupation levels within one structure,

Room A. This room was bounded by a substantial and well-constructed wall (59) built against the east side of a foundation trench. Bricks measuring 20 cm. by 10 cm. were laid in regular courses and both surfaces of the wall had

been plastered with mud. Above its construction trench, the wall had been extended at floor level within Room A, thus doubling its thickness (95 cm.). Against it lay a floor of hard sand, 15 cm. thick, which showed signs of subsidence

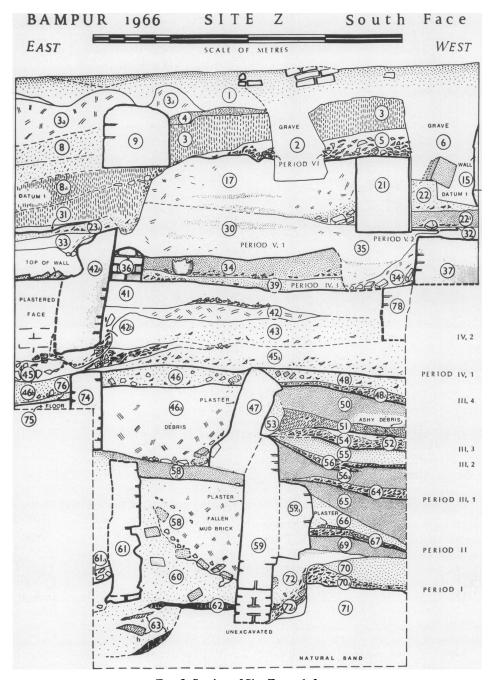


Fig. 6. Section of Site Z, south face.

below the west face of the trench. An occupation level (67) covering the floor produced much pottery, including wares comparable with those of Period I (p. 281).

Across the worn surface of the passage stood part of another building or room. The projecting corner of its wall (61) was removed and a floor level overlaid by occupation was visible in section to the southeast, but was impossible to excavate.

#### PERIOD III, PHASE 1

The occupation of Period II was of short duration and was followed by the temporary abandonment of both buildings which soon fell into disrepair. The excavations showed that exposure to sun and wind had stripped the plaster from the walls inside Room A. A large patch of wall plaster lay on the floor below a drift of windblown sand piled against the wall, and the corridor had become blocked by sand and collapsed masonry.

In the redevelopment, which took place at the beginning of Period III, the area inside Room A was leveled and a new floor laid against the face of wall (59). Outside, a courtyard replaced the passageway, its floor of hard sand (58a) covering the earlier wall (61). Apart from a small hearth and a fragmentary quern, found with a large stone in the angle of the wall, the courtyard contained only a few waterworn pebbles, 5–8 cm. in diameter, and some scattered sherds comparable with those of Period II.



BAMPUR 1966. Site Z.

#### Period III, Phase 2

The area within Site Z was virtually rebuilt during Phase 2, on the same north-south alignment as before, but the structures were erected slightly to the east of the earlier buildings. A new wall (47) was built directly upon the floor (58a) with its footings consolidated against the east face of the earlier wall (59) whose course it followed eastwards to join another wall (74). This wall ran roughly parallel to form the third side of a courtyard (Room C) and was mudplastered on both surfaces. No proper floor was found within Room C which, to judge from the lack of occupation debris, had not been much used. Traces of a floor were, however, found in another room (D) at the east end of the trench, but lack of space prevented its excavation.

During Phase 2, the floor level (56a) inside Room A was again consolidated and covered by a thin layer of occupation (56) with a hearth at the northern end. A small wall (57), standing to a height of only 30 cm., projected from the northwest corner of the trench and probably served as an internal partition subsequently sealed by the leveling of Phase 3.

#### Period III, Phase 3

The main structural plan changed little during Phase 3 except for the demolition of the partition wall (57) when another floor was laid in Room A. Upon it was a hearth extending under the southwest corner of the trench and a thick layer of occupation (54) containing a good deal of burnt brick. Above this debris lay another thin floor with uneven surface (52), covered by a thick layer of ash, charcoal, and patches of burnt mud, suggesting that the room had served as an outbuilding rather than a living room during this phase—a change of usage consistent with the nature of the pottery recovered. While much of the latter could be rated only as kitchen hardware, some better quality decorated sherds provided the first evidence of cultural contact with Seistan (see below, (p. 284).

No signs of occupation were found within Room C but a floor level (Fig. 7, 74) inside Room D should probably be ascribed to this phase.

#### Period III, Phase 4

This phase saw the final leveling of the floor in Room A. A substantial make up of hard mud (50) was overlaid by an uneven layer of debris containing ash, but there was no sign of a hearth. The position of the hearths in Phases 1–3 (occupation Levels 64, 56, and 54) in the west end of the trench suggests that, if they were sited centrally, the west face of the cutting lay approximately in the middle of Room A, thus giving the room a width of 3.20 meters from east to west.

#### PERIOD IV, PHASE 1

The orientation of the architectural complex on Site Z changed completely during Period IV. The whole area within the trench was leveled in Phase 1, the earlier buildings sealed below a make-up containing sand, broken bricks, and pebbles (Levels 46 and 48).

No structures were associated with this phase but buildings almost certainly existed nearby, to judge from the debris layers (45 and 45a) that covered the site. Layer 45a, which overlaid the leveled surface (46), produced fragments of animal bones and a good deal of pottery, including one whole vessel (Fig. 23, No. 182, see p. 293). A secondary deposit (45), which sloped down at the east end to lie above the leveled surface, yielded an accumulation of potsherds which most probably represents refuse from an adjacent building. These potsherds showed conclusively that the redevelopment of the site should not be interpreted as indicating any major cultural change. Stylistic development was evident in the pottery of Phase 1 but the earlier tradition persisted and the links with Mundigak IV, 1, first noted in Bampur III, Phase 3, continued.

#### Period IV, Phase 2

It was not until Phase 2 was revealed that structural remains associated with Period IV were found within the cutting. Redevelopment seems to have been undertaken in two stages. One building bounded by a wall (78) on a north-south alignment lay to the west with its living quarters outside the trench. The width of this wall could not be determined because it lay below a Phase 3 wall (37) parallel with the west face of the trench. A thick sandy deposit (43) extended eastward from the foot of the Phase 2

wall and contained a certain amount of pottery (p. 292). On it lay a heap of mud bricks, including some burned fragments which had either spilled outward from a structure to the south or had been dumped there when the later building at the east end of the cutting was constructed.

This second structure was represented by a well-plastered wall (42a) set in a foundation trench that had cut through earlier Period IV levels and produced a good deal of sherd debris. Only the north face of this wall, which stood to a height of 1.50 meters and formed the corner of the building to the southeast, was uncovered, as it ran flush with the south section. Partially sealing the foundation trench and the brick heap was a beaten mud floor. This was some 6 cm. thick in places, but badly worn, and did not extend across the cutting.

The corner of another wall (43a) in the northeast of the trench was also associated with this phase and probably formed part of a separate building. One side of this wall ran parallel to a wall (42a) and then turned north under the face of the trench. A thick layer of sand and debris (41) had accumulated between these walls during Phase 2 and contained some pottery of interest, including a few pieces of streak-burnished and incised gray wares (below, p. 294).

#### Period IV, Phase 3

Extensive rebuilding took place in Phase 3 when the layout of the structures again changed. The new buildings represented part of a room (E) bounded by a wall (36) with a narrow court-yard or open area separating the room from another structure to the west.

One wall (36), which formed the west corner of Room E, was built of bricks measuring 19 cm. by 19 cm. by 10 cm., and its width of 40 cm. was narrower than the earlier masonry; it stood to a maximum height of 82 cm. This wall ran south from the north face of the trench for a length of 1.75 meters and turned east for a distance of 2.25 meters before turning south again to run under the trench face. Near the north face was a small internal partition providing an alcove within Room E. A feature (25), thought at first to be a later reconstruction of a wall (36), probably represents its upper courses. Traces of a possible doorway, 50 cm. wide, were noted on the westeast section of wall (36/25, see Fig. 7).

Across the courtyard from Room E lay another building bounded on one side by a

wall (37). It was not possible to establish the full width of this wall as it lay partially outside the cutting but it had a width of at least 75 cm. and a height of 70 cm. Against it, in one level (38), only visible in the southeast corner below a floor (34), two small pots (Fig. 29, No. 310, one of a pair) were found. Two occupation levels (34 and 39) were associated with Room E, and the discovery in the later level of several jars and small pots standing upright against the walls suggests that the occupants may have fled precipitously, abandoning their home and possessions. The pottery was of interest because it included examples of the alien wares which became dominant in Period V (below, p. 294).

#### PERIOD V, PHASE 1

The definite break in the ceramic tradition which occurred in Period V clearly marks the introduction of a new culture (p. 266).

Site Z lay on the outskirts of habitation during Phase 1 but a thick deposit (described as Level 30 in the south sector of the trench and Level 23 to the north) contained residual material presumably derived from buildings immediately adjacent. This deposit overlaid both the earlier structures and a shallow disturbance (35) partially filled with masonry.

#### Period V, Phase 2

The habitation area near Site Z was either expanded or rebuilt in Phase 2. Within the cutting, these changes were represented by only short stretches of the external walls of two separate buildings. The corner of one of these buildings, aligned north-south by east-west, projected from the northeast angle of the trench. Its substantial walls (28 and 29) were mudplastered on both faces and enclosed a room (G). Lack of space prevented its excavation.

A well-constructed wall (21), erected on the Phase 1 make-up in the west end of the trench, had been built of mud bricks measuring 13 cm. by 10 cm. by 10 cm., and stood to seven courses (1 meter). Unlike the earlier walls, only the interior surface, facing Room F, had been plastered, two coats having been applied to give a total thickness of 9 mm.

Within Room F a floor of beaten sand (32) overlaid a Period IV, Phase 3 wall (37). Little remained of the occupation levels (22 and 22a)

inside this room which, together with the wall (21), had been cut by later graves (6 and 7).

The two Phase 2 buildings were separated by a layer of hard sand (17) containing flecks of charcoal, a few lumps of burned clay, and pottery bearing a strong resemblance to the later Kulli-ware of Pakistan Makran (below, p. 305).

Two levels (18 and 20) did not extend to the south face but were noted below Wall (9). They are therefore not shown on the diagram. The disturbance in that area made it impossible to say with certainty whether these levels belonged to the Period V, 2 complex, but their ceramic content supports the attribution.

#### PERIOD VI, A-C, AND LATER

Period VI marked the final prehistoric occupation of the settlement for which a date of ca. 1900 B.C. is proposed (p. 269). All the levels of this and subsequent periods had been much disturbed by eight graves cut from the surface and it is only possible to place reliance on the primary occupation of Period VI (Level 5). This layer comprised a dense accumulation of potsherds, used and broken in antiquity but not kiln waste, which overlaid the Period V, 2 wall (21) and spread from the center of the trench to the northern extension (see plan, Fig. 7). This was dug as a staging to facilitate the removal of spoil as excavation proceeded and included levels 20a and 20b. Levels 20a and 20b do not appear on the diagram, therefore.

The only wall (15) associated with the occupation of Period VIa, had been badly damaged by Graves 6 and 7. Nine courses of masonry, built with mud bricks measuring 18 cm. by 18 cm. by 9 cm., were nevertheless visible to a height of 90 cm. in the side of Grave 6.

A large pit dug in the secondary phase, VIb,

at the opposite end of the trench had not only obliterated any trace of structure but had cut into Period V levels and spread their contents over the primary occupation of Period VI.

In Period VIc, a substantial wall (9) had been built across the western lip and into the upcast of the Phase b pit, but the only deposits which could be associated with it (Levels 4 and 8) contained so mixed an array of sherds as to be worthless for dating purposes.

Site Z subsequently served as a Muslim burial-ground and eight graves, probably contemporary with one another, were uncovered. All had been cut from, or above, Level l and were laid on the same northwest-southeast alignment, with the bodies facing to the east. The discovery of these burials shortly after the start of the excavations caused considerable concern to the villagers of Bampur and their contents were as far as possible left undisturbed or reinterred elsewhere. They are briefly catalogued as follows:

- 1. Grave 2: 1.40 meters deep; cut from the surface and sealed with sun-dried mud bricks. Width at base, 60 cm., slightly narrower at the top.
- 2. Grave 6: 1.70 meters deep; body laid in narrow grave sealed with mud bricks (30 cm. by 30 cm. by 5 cm.) wedged vertically into the top. Width at base 40 cm.
- 3. Grave 7: 1 meter deep; probably cut at the same time as Grave 6.
- 4. Grave 11: 1.20 meters deep; to the east of Grave 7. Not sealed with bricks.
- 5. Grave 12: 165 cm. deep; ?child's grave, east of Grave 11, sealed with upright bricks. A cylindrical, white-slipped vessel was found on the floor along the side of the grave.
- 6. Grave 13: 1.10 meters deep; ?child's grave, cut at the same time as Grave 12. Width, 60 cm.
- 7. Grave 24: East end of grave not sealed with bricks but body wedged by two bricks.
- 8. Grave 20d: Corner of grave in northwest of extension cut on Site Z. Grave cut at an angle from the surface, slightly narrower at the top than at the base.

#### SITE Y Figures 8, 9

As a means of checking the results obtained on Site Z, a second area, 134 meters to the southwest of that cutting, was examined. To avoid disturbing burials known to exist there, and as an expeditious means of reaching the prehistoric levels, a portion of Stein's sounding (Fig. 9, No. 2) was re-excavated. This trench had extended for a length of 22.50 meters but had

been completely filled by sand from the adjacent dunes and was difficult to trace on the surface.

A trial trench (Y.1), sunk on the outer edge of the ridge that encircles the northwestern limits of the settlement, failed to locate it. This trench, measuring 2 meters wide by 5 meters long, was dug to a depth of just over 1 meter but yielded hardly any pottery. The top of a wall built of

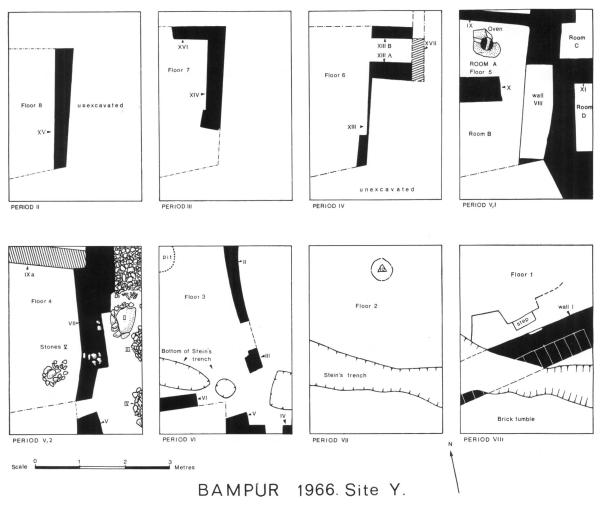


Fig. 8. Site Y: plans.

mud bricks, measuring about 40 cm. by 22 cm. by 11 cm., was uncovered at 80 cm. below the surface and was associated with a brick-paved floor running across the southern end of the trench. The absence of pottery and the fact that the wall had been partially cut into, suggested previous disturbance, although no sign of Stein's trench was visible.

With the help of one of Stein's former workmen the original trench was eventually traced 10 meters to the southeast of Y.1 and a cutting (Y.2) was laid across it. An area of 3 meters wide by 4 meters long was marked out initially, but the need to provide access by means of steps and balks in this area of rather soft sand meant

that the working space within the trench became progressively less as it neared the natural surface. The eastern half of the cutting above floor 6 was eventually used as a stage for removing spoil, and excavation was confined to the western sector until clean soil was reached at a depth of 7.50 meters. To avoid confusion with Site Z, a different system of numeration was adopted for the stratigraphical divisions on Site Y.2. Occupation levels were particularly ill-defined in the lower part of the trench and they have been related to the main sequence as distinguished on Site Z on the basis of their ceramic contents (Table 1, p.255).

No structures were found in the earliest debris

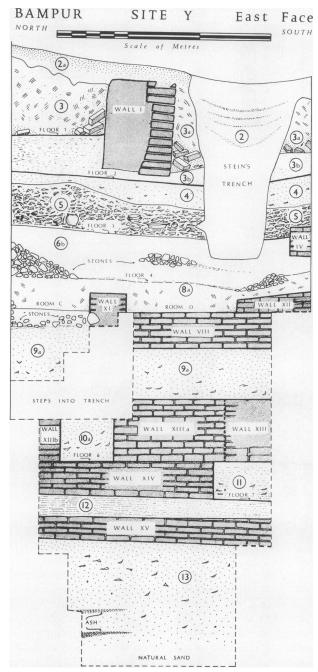


Fig. 9. Section of Site Y, east face.

level (13) which lay on compact sand containing only a few specks of charcoal. Apart from two thin zones of ash running under the north face of the trench, which may indicate no more than casual bonfires, Level 13 yielded only four clay sling missiles, part of a clay? figurine (p. 326), two marine shells identified as *Oliva bulbosa* Roding, and some pottery of Period I–II type (p. 346), which became progressively more plentiful in the upper limits of the deposit.

The earliest masonry on Site Y.2 was represented by a low wall (XV) running from north to south along the unexcavated east face of the trench (plan, Period II, Fig. 8). Associated with this wall was a layer of black ash (Floor 8) which extended across the western half of the cutting. Both the wall and this floor were subsequently covered by debris (12) that contained much the same material as the preceding level, although part of a pottery trap for small animals (p. 327), comparable with those in use during Mundigak IV, 1, was of particular interest. The pottery is best related to Period III on Site Z.

In Period Y.III a new wall (XIV), replacing the earlier structure, was built roughly on the same alignment, but extended only partially across the cutting. Its southern terminal may represent a door jamb. Along the north face, this wall turned westward to enclose a courtyard. Debris in the deposit (11) which lay on Floor 7, contemporary with this structure, yielded the only fragment of a carved serpentine vase found in a stratified deposit at Bampur (see p. 310 and Fig. 44A). Other finds included part of a small alabaster bowl (p. 330) and some badly corroded and largely unidentifiable pieces of metal. Two more sling missiles were found and a certain amount of pottery, including some sherds with designs identical to those found on Site Z during Period IV, 1-2 (cf. Fig. 28, No. 262 and Fig. 31, No. 52).

In the rebuilding which took place in the next phase (Period IV on plan, Fig. 8), Wall XIII was built along the line of the earlier wall (XIV), but slightly to the east of it. A gap in its length to the north may indicate the entrance to a building lying below the unexcavated eastern sector of the cutting. The finds from the debris level (10) outside this building comprised a chert scraper, small scraps of metal, a stone pounder, nine more sling missiles, and relatively little pottery, in fact, the kind of objects most likely to be left lying about a yard.

Another Wall (XVII) on a north-south axis crossed Walls (XIIIA and B) in the northeast corner of the cutting and was contemporary with a hard sandy deposit (9 and 9a) which produced much pottery, including a piece of incised grayware, fragmentary alabaster bowls, a clay bead, and five more sling missiles. Other small finds comprised part of a bronze ring, a

clay figurine of a bull, and a compartmented stamp seal (p. 328).

Much of the area cleared at this level must have been used as an external yard and it was particularly difficult to distinguish any stratigraphical differences between Levels 10 and 9 in the west face of the section. On the evidence of the pottery, this phase is best related to Period IV, 3, of Site Z.

Levels of the subsequent Period V, Phase 1, contained a building with two rooms, C and D, divided by a wall (VIII) on a north-south alignment, from a working area to the west. Within this western sector a small oven (below, p. 253) had been partially built into the ashcovered floor (5) of Room A (Fig. 10). No wasters nor kiln furniture were found in this floor. A partition wall (X) had been built to the south with a doorway leading into Room B. A recess, some 25 cm. above the level of floor (5), had been built into the major dividing wall (VIII) and may have served as a seat. What appeared to be a similar feature was noted on the north side of wall (IX). The living quarters, rooms D and C, lay to the east. Room D measured 1.50 meters from north to south. It was bounded on the north by Wall (XI) which was bonded with Wall (VIII). Part of Room C lay in the northeast corner of the trench.

In Phase 2, the main north-south wall (VII) maintained almost the same alignment as in the previous phase. This wall was irregular in width varying from 30 cm. to 70 cm. In the western sector of the cutting, Rooms A and B of Phase 1 were replaced by a large open space, and a new wall (IXa) overlaid the earlier masonry in the north.

A notable feature of this phase was the presence of several piles of stones of various sizes. The largest lay in the northeast corner of the trench, resting in a wedge (maximum height 50 cm.) against the east face of wall (VII). Several smaller heaps lay elsewhere on the floor (4). While the use to which they were put is not apparent, they must almost certainly have been brought some distance from the river, and the presence of two cooking pots, one supported by a pile of stones, suggests that they had a domestic use.

Stein's trench had cut into levels 6a and 6b but had not reached Floor 4 at any point. Both its depth and width were irregular but easily

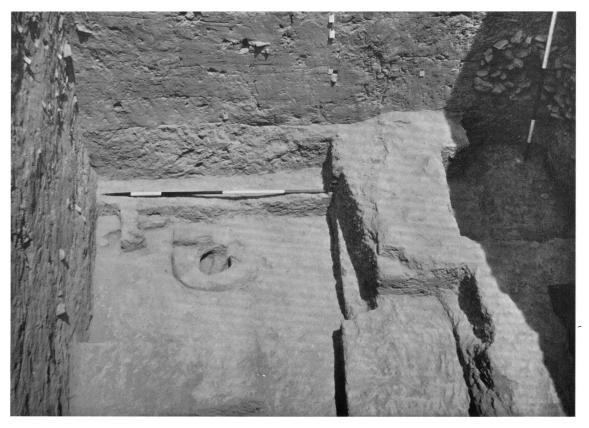


Fig. 10. Site Y, from south, showing the top of the oven in the background.

visible in section (Figs. 9, 11). The level below Floor 3 was partially divided by Wall II and although contemporaneous, the area to the west of the wall was designated 6a, whereas that on the east was called 6b, the latter showing in the East Face section. Level 6a is not visible on the diagrams.

In the overlying occupation of Period VI, Floor 3 covered the stones and walling of Period V and sealed a small pit (7) in the northwest corner of the cutting. The architectural remains of this period are difficult to interpret. An interrupted stretch of mud brick (II and III) curved from north to south and may have formed part of the complex of walls in the south of the trench. Wall VI set 40 cm. deeper in Level 6a may be slightly earlier than walls IV and V which probably represent the exterior of another building.

Part of this area appears to have served as a rubbish dump, judging from the quantity of used and broken pottery contained in Level 5.

As on Site Z, it is virtually impossible to reconstruct the history of the subsequent periods. No masonry was found in Period VII and Floor 2, which extended across the cutting, and except where it had been destroyed by Stein's trench, it was covered by a thick layer of streaky, windblown sand. A Period VI jar stood in the northern part of what may have been an open yard.

The final occupation produced a well-built wall of mud bricks comparable in size with those noted in the trial trench Y.1. It ran from east to west and stood to 1.20 meters at its highest point. Immediately below it was found a small, black stone seal (p. 329). The area to the north had been disturbed, but traces of a mud brick step or the edge of a brick-paved floor were noted. This level produced a little pottery, but the mixture of Bampur VI material with a white-slipped ware not found in the prehistoric assemblage, suggests that it is unacceptable as evidence, and none of the post-Period VI pottery has been included in the present report.



Fig. 11. Site Y, east face, showing Stein's trench in section.

#### THE OVEN Figure 12

A small but well-preserved oven was found on Site Y in Room A of Period V, 1. It was roughly oval in plan and at its base measured about 80 cm. in length by 56 cm. in width, with an approximate diameter of 35 cm. for the circular opening to the baking chamber. The internal walls and the central pillar, which extended right across the inside of the oven, had been smoothly plastered. Set at different heights, ranging from 13 cm. to 30 cm. from the top, were five flues piercing the walls of the oven. These had also been plastered and are presumed to have been used to regulate the temperature, as broken sherds were found blocking one vent. Only the central ridge and the upper part of the walls at a height above flue A were firereddened. An opening in the flattened brick neck of the oven could have served as a sixth

flue when a lid had been laid on top.

The puzzling feature of this oven is the absence of a stokehole or any means of clearing the ash from either side of the hollows below the central ridge, except by brushing it through the flues. No kiln furniture nor wasters were found in the associated occupation. Its use for metalworking is difficult to reconcile with its structure, but lime-making or cooking might have been possible. Its aperture would have taken a cooking pot which could have been balanced on the central ridge and against the walls. Fuel could have been pushed through the vents once a slow burning fire had been lighted in the base, and heat of the kind required to cook a stew could have been maintained. The side vents certainly preclude its use for baking bread, if present-day methods are any guide.



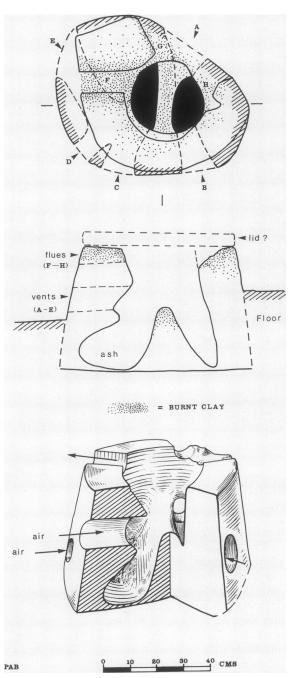


Fig. 12. Isometric reconstruction, plan and elevation of Site Y oven.

#### **BRICKS**

It was possible to obtain the dimensions of mud bricks used during the Bampur I-IV culture and in the later periods. Those of Periods II, III, 1 and IV, 3 were square and uniform in size (dimensions given below). A rather smaller brick of comparable proportions was employed in Periods V and VI.

In the subsequent levels on Site Y a larger, rectangular brick was used both for Wall I (Y.2) and for the paved floor in Trench Y.1. These bricks do not correspond exactly in size to those listed from sites in Seistan but they come closest to those of the Parthian period at Shahristan and Atish-Kadah which measured 41 cm. by 28 cm. by 10.3 cm. (Fairservis, 1961, Table 4, Sites 4 and 5).

The thin square bricks found in Grave 6 on Site Z were identical in size to those from the Rud-i-Biyaban, Burj-i-Afghan and ruins near Kalat-i-Gird, ascribed by Stein to the fourteenth century A.D. (Fairservis, 1961, p. 58, Site 47). The resemblance may be purely fortuitous and little reliance can be placed on such parallels until further data is available from other sites in southeastern Iran.

Period II, Level Z.59	$20\times$ ?×10 cm.
Period III, 1, Level Z.58	$20\times20\times10$ cm.
Period IV, 3, Level Z.36	$19 \times 19 \times 10$ cm.
Period V, 2, Level Z.21	$13 \times 10 \times 10$ cm.
Period V, 2, Level Z.20	$15 \times 15 \times 8.5$ cm.
Period IV, a, Level Z.15	$18 \times 18 \times 9$ cm.
Post-Period VI, Grave 6	$30 \times 30 \times 5$ cm.
Post-Period VI, Y.1 floor	$40 \times 22 \times 11$ cm.
Post-Period VI, Y.2 Wall I	$40\times19-24\times11$ cm.

 $TABLE\ 1$  Levels of Site Y in Relation to the Stratigraphy of Site Z Based on Analysis of Their Pottery

Sherd N Site Y	lumbers Site Z	Remarks on Form or Decoration	Site Y Level	Site Z Period
1	11	Jars with carinated shoulders	13	I–II
ī	62	Fringed M motif	13	II
ī	28, 129	Panels of sigmas and dividers above multiple chevrons	13	II–III
$\dot{\hat{2}}$	61,71	Vertical dividers with fringed edge	13	II–IV
$\frac{2}{2}$	76	Jar with sigma band around the shoulder	13	II
$\frac{2}{3}$	70 29		13	II
		Groups of pendant lines inside the rim		
.8	38	Sigmas in vertical rows	13	II
11	35	Hatched scallop frieze with single neat wavy line below	13	II
14	54	Bowls with nailhead rims	13	II–III
15	53	Bowls with nailhead rims	13	II–III
17	61	Short-necked storage jars	13	II
Unillus.	60	Rectangular section cordons with painted stripes	13	II
18	88	Processing ibex facing right	12	II
22	Unillus.	Similar design from Z (54)	12	III, 3
$\frac{1}{20}$	36, 121	Triple wavy lines and rows of short dashes inside bowls	$\tilde{12}$	II
21	79	Hatched crescents	12	ΪΪ
$\frac{21}{24}$	60		12	ΪΪ
44	00	Rectangular section cordons with painted stripes and	14	11
0.0	CT	triangular crosshatched shapes with denticular edging	10	***
23	67	Opposed crosshatched triangles and striped meander	12	II
25	12, 185	Palm trees	12	I–IV, 1
28	119	Bowls decorated on both surfaces; design on outside occurs also in Z (51)	12	II–III, 3
29	144, 272	Cups and bowls with sigmas in vertical rows	12	III–IV, 2
30	163	Double bands of hatched crescents used horizontally on Site Z example	12	III
32	244, 270	Hatched diamonds	12	IV, 1–2
33	32	Short-necked jars with wavy comb incising	$\overline{12}^a$	II
35	262	Deer with branching antlers	iī	IV, 2–3
36	262, 316		11	IV, 2-3
39	Unillus.	Checkerboard and vertical dividers with fringed edge	11	
		Horned heads, fragmentary, in Z (51)		III, 3
39	269	Horned heads as a frieze	11	IV, 2
40	200	Verticals edged by hatched crescents	11	IV, 1
41	176	Crosshatching inside a loop, a Seistan motif	11	IV, 1
42	181	Crosshatching inside a loop, a Seistan motif	11	IV, 1
43	182	Jar with sagging base	11	IV, 1
46	184	Vertical dividers with fringed edge and crosshatched "axes"	$11^{b}$	IV, 1
51	316–318	Checkerboard, fringed dividers, and crosshatched triangles with serrated edge	10	IV, 2–3
	262	Checkerboard, fringed dividers, and crosshatched triangles with serrated edge	10	IV, 2–3
52	262	Deer with branching antlers	10	IV, 2-3
53	317	Crosshatched triangles with serrated edge and open	10	IV, 3
F 4	004	triangle inside	10	TT 7 0
54	264	Dotted band	10	IV, 2
54	297	Stylized heads and horns	10	IV, 3
55	350	Fringed diagonals and panel dividers, with single chevron of new type shown on Site Z sherd	9	V, 1
57	298	Form and design	9	IV, 3
62	354	Band of vertically hatched triangles	9	V, 1
63	290	Palm trees	9	IV, 3
71	262	Deer with branching antlers	9 <b>a</b>	IV, 2
72	310	Opposed hatched triangles separated by a single (Z) and double (Y) line	9a	IV, 3
74	317–319	Hatched triangles with serrated edge, open triangle inside, and striped meander	9a	IV, 3
81	296	Horned heads	8	IV, 3
77	Unillus.	From Pit Z (35)	8	IV, 3–V, 1
,,				

TABLE 1—(Continued)

Sherd I Site Y	Numbers Site Z	Remarks on Form or Decoration	Site Y Level	Site Z Period
83	351	Date stalk motif	8	V, 1
86	350	Similar but not identical designs	8	V, 1
Unillus.	260	A seven-rayed motif and meander	8	IV, 2
Unillus.	379	Arrow tipped tree	8	V, 2
Unillus.	264	Double bands of vertically hatched diamonds	$8^c$	IV, 2
89	376	Fringed ovals enclosing a circle	6b	V, 2
90	366	Form	6b	V, 2
92	312	Bowls with crudely executed wavy lines	6a	IV, 3
	322,325	Bowls with crudely executed wavy lines	6a	V, 1
93	354	Jars with similar design	6a	V, 1
98	355	Palm trees	6b	V, 1
	375	Palm trees	6b	V, 2
100	326	Striped M's	6a	V, 1
107	379	Comparable combination of tree motifs	6a	V, 2
108	379	Arrow tipped tree	7	V, 2
110	382	Spiky edged tree	6a	V, 2
111	338	Similar but not identical design	6a	V, 1
115	484	The Site Z animals are rather more static in pose	6a	VI
116	389b	Combines the Period V, 1 chevron with a later motif	$6a^d$	V, 1–VI

<sup>&</sup>lt;sup>a</sup> Level 12 contained none of the distinctive Seistan designs which appeared on Site Z in Period III, 3.
<sup>b</sup> The absence of any Period V elements suggests that Level 11 is not later than Period IV, 2. It contained the only stratified fragment of carved serpentine (p. 319).
<sup>c</sup> Level Y.8 produced no examples of the single chevron pattern common in Period V, 1 levels on Site Z.
<sup>a</sup> On both Sites Y and Z, Level 5 yielded pottery of Period VI.

#### CHRONOLOGY AND COMPARISONS

In relating the Bampur sequence to the chronologies of adjacent countries it is necessary to stress at the outset that the evidence provided by the excavations is based wholly on ceramic industries, not cultural assemblages. The term "culture" has been used in relation to the first four periods of occupation because of the persisting and homogeneous character of the pottery and its external affinities, notably with Seistan and the occupation of Mundigak IV, 1 in southeastern Afghanistan. These suggest that once the major cultural impulses affecting those regions have been recognized, it will be possible to view the Bampur I–IV culture in its proper perspective. The intrusive pottery of Period V, which was

clearly the product of an alien culture, and its Period VI derivative, have nevertheless been treated as purely local despite their strong links with that phase of the Kulli culture reflecting Harappan influences. Current evidence points to several stages in the devolution of Kulli-ware but until it has been more clearly defined by excavation, too close an identification of the Bampur V occupation with the Kulli culture could be misleading.

Its peripheral position on the borders of Iran and Pakistan makes the establishment of a firmly stratified sequence at Bampur of particular value. No carbon-14 determinations were obtained but the stratigraphy could be related to

 ${\bf TABLE~2}$  Bampur Sequence and the Chronologies of Adjacent Countries

S. E. Iran	Afghan- istan		Baluch- istan		Inc	lus Val	ley	India	Oman	Bahrain
Bampur	Mundigak	D. Sadaat and Kile Gul Mhd	Anjira	Kulli and Nal	Mohenjo- daro	Amri	Chanhu- daro	Lothal		
VI				Kulli- Mehi		IV	III	В		Barbar
V	V				Late	III	II	A	Um an- Nar culture	
3	3	DS.III			Inter- mediate		I			
IV, 2	IV, 2 1	 DS.II		Kulli	Early	II				
III				Na	ıl					
II	III	DS.I ↑	III			I				
Ι	II	KGM.IV								
		KGM.III	II							
	I ↓	KGM.II	I							
		KGM.I								

several phases of the chronology recently proposed for Afghanistan, Baluchistan, and the Indus Valley (Dales, 1965, 257–284); it has also been possible to establish a stratigraphical link—the first of its kind—with sites across the gulf at the beginning of the second millennium.

# BAMPUR IN RELATION TO THE CHRONOLOGY OF IRAN

In terms of the Iranian chronology (Dyson, 1965, 215–256), the results were disappointing, and links with the major Iranian sites are presently either too weak to be pressed or can only be established indirectly. This is not surprising, for most of these sites lie far from Bampur, the nearest being those at Tal-i-Bakun, Fars, and Tal-i-Iblis near Kerman.

Current excavations at Tal-i-Iblis have yielded a handmade ware with simple geometric patterns in the second period of occupation, which has a carbon-14 dating of ca. 4000 B.C. (Caldwell, 1967b, 154). Although this ware can be traced on several settlements down the Halil Rud and eastward across the Jaz Murian to Chah Husaini and Qal'a-i-Sardagah, two sites in the Bampur Valley (Stein, 1937, 111), it was not found during our excavations at Bampur. Carbon-14 dates, calculated on the new half-life, were obtained for Iblis III (ca. 3792) B.C.) and a time range of from ca. 3645 to ca. 2869 B.C. was indicated for the duration of Iblis IV. This occupation produced beveled-rim bowls and handmade bichrome ware described as showing some degree of similarity to the bichrome pottery of Mundigak I. The appearance of plain wheelmade vessels in Iblis IV suggests a rough correlation with Sialk III, 4 to 5, when the use of the wheel was first noted, and the wares of Iblis VI showed affinities to those of Sialk IV. The designs on the Iblis pottery were largely geometric but included a few scorpions. These insects—an unpleasant local hazard also decorate some sherds from Tepe Yahya, a mound about 150 kilometers due south of Kerman. Further excavations are in progress there and may provide a link between Tal-i-Iblis and Bampur I (Lamberg-Karlovsky, 1968, 167-168).

A few sherds, mostly in a black-on-gray ware, comparable with those from Bampur I-II, were found by Stein on Tappa-i-Nurabad, some 200 kilometers southeast of Tal-i-Iblis (Stein, 1937, Pl. 25, Nur. 2, 28, 31, 37). Their presence there

extends the westward distribution of the Bampur pottery considerably but throws no light on its relation to the Iblis wares. It seems unlikely that wheelmade pottery would have been in common use at Bampur before it appeared at Tal-i-Iblis and, pending the full publication of the Iblis pottery, the only assumption that can be made is that the start of the Bampur I–IV culture should probably not be set much earlier than the second quarter of the third millennium.

One or two designs, notably the fringed M and angular multilinear band (Fig. 19, No. 62) bear a superficial resemblance to motifs current in Susa A (Le Breton, 1957) and Bakun A (de Morgan, 1912, Pl. 21, 9; Langsdorff and Mc-Cown, 1942, Pl. 68, 1, 50, found only in Level III), but it is more likely that the Bampur decoration is derived from the pottery of Kerman Province. Even allowing for a time lag in the eastward diffusion of these cultural influences, the great disparity in current dating seems to invalidate direct comparisons with sites beyond Kerman and for that reason they have been omitted from Table 4 (p. 265) which has been appended as a means of reducing notation in this section of the text. Cultural influences certainly filtered through to Bampur from Kerman Province and may have been derived ultimately from as far afield as Fars, as a major land route links the regions. Current field-work in those provinces should provide the answer. It is also possible that the innate conservatism, apparent in the decoration of the pottery of Bampur I-IV, might explain the long survival of these motifs.

Among other equally unlikely parallels are deer with branching antlers (Fig. 28, No. 262; Fig. 30, No. 35; Fig. 31, No. 52), which at first glance are almost identical to designs from Khafajah (Protoliterate Period) (Delougaz, 1952, Pl. 4, Kh.ix.198 and Pl. 31a). Rather more stylized cervids are found on the pottery of Bakun A (Langsdorff and McCown, 1942, Pls. 70, 6 and 71, 2, Level III). At Bampur, however, the design only appears in Period IV and simply underlines the dangers inherent in stylistic comparisons of this kind.

Some Hissar cultural influences may have penetrated to Bampur, belatedly and at second hand. The early Bampur ceramics contained none of the more exotic Hissar forms yet both industries showed a taste for carinated shapes. Design parallels included the use of vertical multiple chevrons (Schmidt, 1937, Hissar IC, Pl. 9, H.3478), and the fringed panel divider (Fig. 19, No. 61) may represent a later abbreviated version of the unilateral ladder pattern popular in Hissar I, B-C, and Sialk III, 4-7. Birds appear in the designs of all three sites but unlike their Hissar counterparts, which are "stacked" one on top of the other when used vertically, the Bampur birds (Fig. 21, Nos. 95, 99) file head to tail up the side of the pot they adorn (cf. Schmidt, 1937, Pl. 6, DH.44.10.3; Pl. 12, DH.45.30) and are occasionally interspersed with crosshatched insects in concentric patterns inside bowls (Fig. 22, No. 154). Further links with later periods at Hissar occur in other contexts and are best dealt with in relation to the chronology of the Afghan and Baluchi sites.

#### BAMPUR I-IV CULTURE IN RELATION TO AFGHANISTAN AND PAKISTAN

Little work, apart from survey, has been done across the Pakistan border in either western or southern Kalat (formerly Kharan and Makran). A black-on-gray ware comparable with that of Bampur II occurs at Nazirabad in the Kech Valley (Stein, 1931, Pl. 10, Naz. 8, 32, 37, 44) and considerably extends the southeastern distribution of this pottery in an area in which only late prehistoric sites have hitherto been recognized.

In Afghanistan, comparative material related to the later stages of the Bampur I-IV culture is derived from two settlements in the southeast, Mundigak (Casal, 1961) and Deh Morasi Ghundai (Dupree, 1963), with surface finds from wind-eroded sites in both Iranian and Afghan Seistan supplying an intermediate link (Stein, 1928; Andrews, 1925; Fairservis, 1961; Tosi, 1968). In many cases these sites, concentrated in the southern delta of the Helmand River, have been almost wholly destroyed by the wind, and the prehistory of Seistan has therefore to be reconstructed in relation to the stratigraphy of adjacent regions. The first signs of contact with Seistan occurred during the middle of Bampur III and continued into Period IV. A few distinctive designs and forms (p. 284), together with some of the small finds, notably part of a pottery "mousetrap" (Fig. 50) and a compartmented bronze stamp seal (Fig. 51), have close analogues in the occupation of Mundigak IV, 1 and serve to relate Bampur III-IV to the chronology suggested by Dales for Afghanistan and Pakistan (see Table 2, p. 257).<sup>1</sup>

The above chronology is based on a correlation of total assemblages of archeological material, presented as a succession of phases ranging from Phase A, covering the early Stone Age, to Phase F, which coincided with the mature to late Harappan occupation of the Indus cities, their eventual abandonment and the spread of the culture to the coast and hinterland of western India.

Our sequence runs roughly from the start of Phase D to Phase F of this chronology, with the Bampur I-IV culture lying mainly in Phases D and E. Few close parallels can be cited before Phase E, but it is necessary to set the stage by outlining events within Afghanistan and Baluchistan during Phase C which saw the introduction of wheelmade pottery and metal, and the establishment of a small settlement at Mundigak. Settlements such as Sur Jangal and Rana Ghundai sprang up in the hills of the Loralai and Zhob districts of northern Baluchistan and at Kile Gul Mohammed,<sup>2</sup> a site near Quetta. The wheelmade black-on-red ware in use there during Periods II-IV spread south to central Kalat where it was current during the first two periods of occupation at Anjira (de Cardi, 1965, 116-120).

Fresh influences appeared in Phase D and are apparent in the assemblage of Mundigak III when copper-tin alloying was introduced (Lamberg-Karlovsky, 1967, 146). Changes occurred not only in the metal work but also in the pottery of Mundigak III. This pottery falls into three groups: a distinctive dark brown-on-buff ware with linear geometric designs known as Quetta ware; a bichrome; and a polychrome ware. In northern Baluchistan, a similar bichrome ware was in use during the first occupation at Damb Sadaat, a small settlement south of Quetta (Fairservis, 1956, Fig. 53, 259-261), and a few sherds occurred also at the start of Anjira III (de Cardi, 1965, 127, the term bichrome being used to denote black and red paint on a light-toned slip). All these bichrome wares are generally akin to the pottery of the pre-Harappan occupation of Amri IA-B in

<sup>1</sup>Table 2 is based largely on correlations proposed by Dales, (1965, 278–279), and Casal (1964). The Anjira sequence has been extended to fall within the early part of Dales's Phase E, contemporary with Damb Sadaat II and ending at about the same time as Amri IIB, as suggested by Casal.

<sup>2</sup>Fairservis (1956 and 1959, Site Q.24). See also reevaluation (Dales 1965, 260–261).

Sind (Casal, 1964, 57-58) but no comparable ware occurs at Bampur.

It seems more than likely that Quetta ware reached Mundigak III from southern Turkmenistan where comparable designs were current during Namazga III and in the final occupation at Kara Tepe, a deposit with a carbon-14 date of  $2750\pm220$  B.C. (Masson, 1961, 210). Quetta ware did not appear in northern Baluchistan until toward the end of Damb Sadaat I, and its geographical range does not extend much farther south than the locality of Kalat town, to judge from my surveys of Saravan and Jhalawan.

By inference, Mundigak III must have been partially contemporary with the first two periods of occupation at Bampur but surprisingly few close parallels can be cited, although there is the general stylistic similarity to be

expected between two ceramic industries relying largely on geometric ornament. Bampur produced neither bichrome nor polychrome wares and no true Quetta ware designs. The closest analogy is provided by the large storage-jar (Fig. 19, No. 63) from Bampur II, with a stepped pattern vaguely reminiscent of some Quetta ware decoration on the pottery of Mundigak III (cf. Casal, 1961, No. 135). A fine, hard grayware, used generally for small bowls, was found on both sites but there is no similarity in the decoration of the Mundigak and Bampur vessels. Nor did the Mundigak III wares show any trace of the rectangular cordons which were so distinctive a feature of the Bampur III pottery.

It was, in fact, not until midway through Bampur III, in Phase 3 (p. 284), that intrusive elements appeared, placing the local wares in their wider setting and relating them specifically

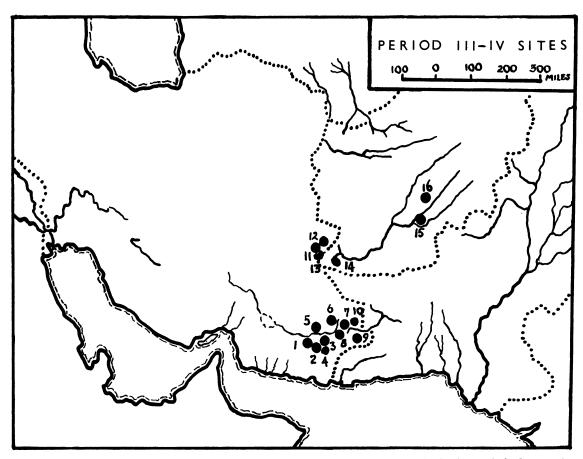


Fig. 13. Location map showing sites with pottery related to Bampur III-IV. 1. Qasimabad. 2. Gwargusht. 3. Maula. 4. Khurab. 5. Bampur. 6. Damin. 7. Katukan. 8. Shahr-daraz. 9. Gabr Maro. 10. Robahok. 11. Kalati-Gird. 12. Shahr-i-Sokhta. 13. Ramrud. 14. Gardan Reg. 15. Deh Morasi Ghundai. 16. Mundigak.

to the pottery of Mundigak IV, 1. In terms of Dales's cultural phases, Mundigak IV, 1 belongs to the early part of Phase E, and is partly contemporary with the second period of occupation at Deh Morasi Ghundai, in the same region of Afghanistan. Mundigak first attained urban status at this time with the building of a temple, a palace, and town walls. The pottery of the previous period continued, but the angularity of the Quetta ware designs was replaced by curvilinear decoration identified with the Sadaat style in northern Baluchistan (Fairservis, 1956, 362). As Table 5 shows, many parallels can be cited between the pottery of Mundigak IV, 1 and the wares current toward the end of Bampur III and during the first phase of Bampur IV, including part of a pottery mousetrap (Fig. 50) of the type in use at Mundigak. Significantly, it is largely the new Sadaat traits in the Mundigak ceramics which occur on the pottery of Seistan and Bampur. This Sadaat style could be the reflection of a fresh wave of cultural impulses that swept through Afghanistan, one branch possibly turning southward through Seistan, the other penetrating eastward to northern Baluchistan and eventually reaching central Kalat. Had these impulses originated in southern or southeastern Iran, the pottery of Seistan would surely have contained some of the more common Bampur II-III designs and forms. Their absence suggests that the Sadaat style came from a different, but at present unidentified, direction.

The possibility of direct contact between Mundigak and Bampur, via the Helmand River, seems unlikely, as analogues between the pottery of the two sites are only partial, and a survey of the middle Helmand Valley yielded only one sherd of a type common before Mundigak IV. 1 Nor did Bampur produce any of the distinctive balloon-shaped goblets, which were a hallmark of Mundigak IV, 1 and comprised 12 per cent of the pottery (Casal, 1961, Figs. 62–65), and the animal patterns in an early Kulli style which adorned the goblets.

Although the relation of the Bampur sequence to Mundigak IV, 1 adds nothing in terms of absolute dates to our chronology, as the carbon-14 determinations for Mundigak were unacceptable, it provides a useful link both with

the cultures of Baluchistan and with those of northeast Iran because it was during Mundigak IV that Hissar III elements first appeared there. This correlation is supported by several small finds from Bampur IV (p. 326), notably clay sling-missiles, sickle-shaped pendants, and a compartmented bronze stamp seal that has parallels in Hissar IIIB and Namazga IV-V. It should be noted that metal seals with back lugs comparable with the Bampur example only became current toward the end of Namazga IV, and a carbon-14 date of  $2100 \pm 50$  B.C. for the latest Namazga IV occupation at Altin-depe (Layer 4) is of particular relevance (Masson, 1968, 178–180, Pl. 26).

Prior to recent field-work at Shahr-i-Sokhta, the pottery from such Seistan sites as Kalat-i-Gird, Ramrud, and those in the Gardan Reg was best related to the end of Bampur III and the start of Bampur IV.2 There was no evidence of earlier contact and relatively little at the end of Period IV. Two sherds with the birds characteristic of Bampur II-III (Tosi, 1968, Fig. 13a, 13b) now suggest that work at Shahr-i-Sokhta may eventually reveal an occupation related to that of Bampur II. There are some parallels, both in form and decoration, between the pottery of Bampur III and Mundigak IV, 1, but they do not become really numerous until Bampur IV, 1 (p. 289). They cease almost completely during Bampur IV, 2 (a level which admittedly produced little pottery); and material from earlier occupation levels, disturbed during rebuilding in Bampur IV, 3, may be responsible for the few links with Mundigak IV, 1, noted at that time.

The most probable explanation for the sudden cessation of cultural connections is that Bampur IV, 2, coincided with a period of widespread unrest in Iran and Afghanistan, a period when Hissar IIB and Mundigak IV, 1 were sacked, and movement along the northern land routes may have been temporarily disrupted. Mundigak, although rebuilt in Period IV, 2, did not regain its former affluence. Quetta ware virtually disappeared, although some debased designs lingered on through Phases 2 and 3 when a growing preference for red-slipped or red wares became apparent. This change in taste was not restricted to Mundigak but is reflected in the pottery of Damb Sadaat III and other

<sup>&</sup>lt;sup>1</sup>Information kindly supplied by Norman Hammond, who recorded the sherd from a site in the area of Darweshan in the middle Helmand valley.

<sup>&</sup>lt;sup>2</sup>I have been able to examine only the few sherds in the British Museum.

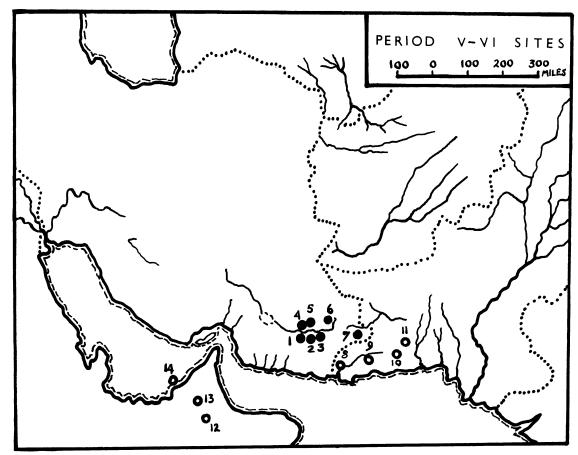


Fig. 14. Location map showing sites with pottery related to Bampur V–VI. 1. Qasimabad. 2. Maula. 3. Khurab. 4. Pir-kunar. 5. Bampur. 6. Damin. 7. Gabr Maro. 8. Sutkagen-dor. 9. Shahi Tump. 10. Kulli. 11. Mehi. 12. Bat. 13. Hili. 14. Umm an-Nar.

sites in Baluchistan, and in the wares that appeared toward the end of Bampur IV. It is possible to point to a few parallels between the pottery of Mundigak IV, 2–3, and Bampur V, but before dealing with these, it is necessary to review material from other sites in the Bampur Valley.

#### STRATIGRAPHY OF THE BAMPUR VALLEY Figures 13, 14

Reference has already been made (pp. 237 and 258) to surface finds from Chah Husaini and Qal'a-i-Sardagah to the west of Bampur, which predate the occupation of Period I. We found during local survey some comparable sherds, fragments of alabaster bowls, and small flint flakes in the troughs between high dunes along

the track to Sardagah followed by our camel-driver. These were mostly plain red wares, with a sprinkling of cream-slipped buff sherds, but one fragmentary bowl bore a black design similar to the vertical "stitching" common on Kile Gul Mohammed ware in northern Baluchistan (de Cardi, 1965, Fig. 8, 2 and 20; Fairservis, 1956, 273, No. 13). This material had most probably been carried down by the movement of the dunes from the mound that forms the highest point in the area.

Farther west, a visit to Chah Sardu revealed nothing comparable with the range of Bampur ceramics. The sherds from this site included a plain grayware and some handmade red ware,

<sup>1</sup>Survey was restricted because the expedition's vehicle was impounded during much of its stay in Bampur, and it was not possible to visit all the sites known to exist in the valley.

representing straight-sided bowls, occasionally cream slipped and decorated with simple linear designs. One sherd, however, bore irregular black rings similar to those on a fragment from a site near Takkul in the lower Halil Rud, along the route which skirts the northern edge of the Jaz Murian Basin (Stein, 1937, Pl. 20, Tak.c. 68). The material from Qasimabad falls into two groups: a red-ware jar from what is likely to have been a burial near the fort, and sherds from a settlement mound. The former should probably be related to Bampur IV, 3 to V, 1, whereas the latter contained some Period VI designs. A couple of sherds from Pir-kunar could be assigned to either Periods V, 2 or VI.

Stein's examination of sites in the eastern limits of the valley yielded nothing earlier than Bampur IV. This could well be because he was unable to reach the lower levels of occupation in the short time he had available, as was the case at Bampur; or these settlements, which follow the route to Seistan might have been established only during Period IV when contact with the northern regions was strongest. On the evidence of the published material, Damin, which lies on a tributary of the Bampur River, is best related

to the first two phases of Period IV, with only three sherds suggesting later occupation. Shahrdaraz, east of Iran-shahr, produced pottery of Bampur IV, 2–3, whereas the pottery of Katukan, to the northeast, ranged from the middle of Period IV to Period VI.

Our survey across the river from Bampur produced little, but villagers showed us a complete cup in black-on-red ware with multiple chevron band, which clearly belonged to Period IV (e.g. Fig. 25, No. 254). This had been found at Dambian and was regarded as a treasure. We failed to locate the site of Maula in the desert south of the Bampur River but about 8 kilometers due south, near the small oasis of Gwargusht, we found pottery of Period IV, 3 to V, 1 (Fig. 15) in the spoil heap alongside a kanat. Several of the vessels were identical with those found in the largest of the burials (B.ii) that Stein excavated at Khurab, a cemetery on the south bank of the river, east of Bampur (e.g. Stein, 1937, Pl. 16, Khur.B.ii.161-2). No trace now remains of these graves that presumably lay near the settlement area covered for the most part with Islamic wares but providing a few prehistoric sherds.

 $\begin{tabular}{ll} TABLE & 3 \\ Surface Pottery from Sites in the Bampur Valley and Saravan Related to the Bampur Sequence \\ \end{tabular}$ 

Site	Pre-Bampur	I–III	IV, 1	IV, 2	IV, 3	V, 1	V, 2	VI
Chah Husaini	x							
Chah Sardu	X							
Dambian			5					
Damin		5	x	x	$\mathbf{x}$		x	x ?
Deh-i-qadi								5
Gabr Maro, Sib					x	$\mathbf{x}$	x	
Gwargusht					x	$\mathbf{x}$		
Katukan				x	x	x		
Khurab, B.i						x		
B.ii					x	X		
$\mathbf{C}^a$								
D						x	x	
D E F							x	
${f F}$					X	x		
$\mathbf L$								
Maula					x		X	X
Pir-kunar							X	X
Qal'a-i-Sardagh	x							
Qasimabad					x			x
Robahok, Saravana					X	x		
Shahr-daraz Tump-i-Zabardast <sup>a</sup>				x	X			

<sup>&</sup>lt;sup>a</sup>An affinity was noted between the pottery on all sites thus marked.

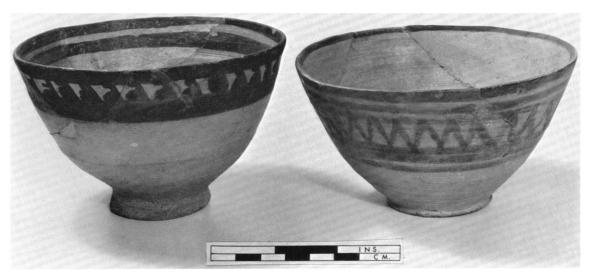


Fig. 15. Cups found in the spoil from a kanat at Gwargusht.

The Khurab cemetery contained seven major burials whose contents indicated a fair degree of affluence among the local population. Analysis of the grave goods (Table 4) suggests that the burial ground was in use from Bampur IV, 3 to the close of Period V, 2. Burial B.ii contained the largest array of grave goods but it is not clear whether it, like some of the others, contained a fractional burial. In it were found fragments of alabaster cups, two copper bowls and metal rods, and some 60 pots. Of these, a jar and a bowl were almost identical to vessels from Bampur IV, 3 (Fig. 6, Levels 34 and 39) and other pottery reflected the alien influences noted at Bampur in the same horizon.

Burial F, which seems to be transitional, contained fewer objects. Only one small bowl or cup can be equated with Bampur IV, and a grayware bowl was matched by one in Period V, 1. In addition to pottery, this burial contained an alabaster bowl and a cylindrical carved stone vessel described below (p. 320), a spearhead, and a metal dish

Burials B.i, D, and probably E can be related to Bampur V; B.i contained some 16 pots, an alabaster bowl, and a rather smaller dish than Burial F. Most of its pottery bore carelessly executed patterns, but one sherd was decorated with designs in the Bampur V, 1 style. A fractional Burial D was accompanied by a metal bowl and funerary pottery including two small-based vessels comparable with some Kulli-Mehi

types. One of these (D.246) was made in the red streak-burnished ware that appeared at Bampur during Period V, 2. The other vessel, a conical cup, was similar to one in Burial F.

A man of some eminence had been buried in grave E, to judge from the grave goods. These included metal and alabaster vessels, an agate bead with gold ferrules at both ends, and a shafthole ax-pick decorated with a seated camel. This weapon is of a type ascribed to the end of the third millennium (Deshayes, 1960, No. 1821; Maxwell-Hyslop, 1955, Pl. 36, 161). The pottery consisted largely of unpainted cups, some comparable with those of Bampur V, 2 (p. 307), which Stein found also at Sutkagen-dor on the Dasht River (Stein, 1931, Pls. 6 and 7).

Khurab Burial C is difficult to place. It contained a grayware bowl compared by Stein with those with hatched swastikas in the cemetery at Shahi Tump. The quartering of triple wavy lines on the Khurab bowl seems, however, to be closer to designs that persisted to the end of Bampur IV, 3 and into Period V, 1. There is quite clearly a link between the three sites as several of the Shahi Tump bowls, including that just cited, were decorated with stylized horned heads similar to those noted on another bowl in Grave C and on some Bampur IV, 3 vessels.

Stein also examined three graves to the southwest of the Khurab cemetery. Burial L.i contained 36 red-ware pots, mostly undecorated, but some were of unusual shapes including two high-stemmed vessels and a "flower pot" with flared rim comparable with forms in Bampur VI. The absence of painted decoration, so common in that period suggests that this burial may not be later than Period V, 2, but it is probably the latest burial in the cemetery.

Although strictly outside the Bampur Valley, the results of our survey in Saravan have been included in Table 3. Some of the pottery from Robahok, near Davar Panah (formerly Dizak), is best related to Bampur IV, 3, and other elements could be compared with the decadent Khurab Burial C and Shahi Tump. The badly eroded site of Gabr Maro, just west of Sib, on a track from Davar Panah to the Bampur Valley, also produced Bampur IV, 3 and some Period V wares, together with part of an incised grayware jar with "hut" pattern.

 $\begin{tabular}{ll} TABLE 4 \\ Khurab Burials in Relation to Bampur Pottery $^a$ \\ \end{tabular}$ 

Khurab No. and Plate		Bampur No. and Period		
Burial B.i				
	Pl. 17	346-348	V, 1	Animals
		Y.100	V, 2	Animals
		354	V, 1	Triangles in a band
		Y.93	V, 2	Triangles in a band
127	Pl. 17	_	V <sup>'</sup>	Burnished grayware current in both Phases 1 and 2
Burial B.i	i			
132	Pl. 16	301	IV, 3	Ware, form and design similar
133	Pls. 14, 17	272	IV, 2	Ware, ?design
136	Pl. 16	297	IV, 3	Ware, ?form and design
137	Pl. 16	269	IV, 2	Ware and design
		300	IV, 3	Ware, form and design
142	Pl. 16	310	IV, 3	Form and design
147	Pl. 16	Y. 81	V, 1	Ware, form and design
149	Pl. 16	314	IV, 3	Part of design
152	Pl. 14	298	IV, 3	Part of design
153	Pl. 16	296	IV, 3	Ware, form and design
155	Pl. 14	324	V, 1	Ware, ?form and design
158	Pl. 16	244	IV, 1	Ware, form and design
162	Pl. 16	323	V, 1	Ware, form and design
170	Pl. 17	_		Comb-incised jar of the kind current in the Bampur I-IV
174	Pl. 17	240	37 1	culture
178	Pl. 17	340	V, 1	Form and type of decoration
170	P1. 17	203 308	IV, 1 IV, 3	Form and design
100	DI 19		111, 3	Form and design
199 200	Pl. 13	290	IV, 3	Tree pattern
200	Pl. 13	315,316	IV, 3	Design
901	DI 12	349	V, 1	Cross
201	Pl. 13	319	IV, 3	Form and design
202	Pl. 13	318	IV, 3	Form and design
205	Pl. 17	357	V, 1	Disembodied animal heads
207	Pl. 17	354	V, 1	?Form and part of design
210	Pl. 17	264	IV, 2	?Form and design
224	Pl. 14	326	V, 1	Form, ware and striped M's
229	Pl. 19	343	V, 1	Form
Burial C	DI 19			No greatiles accommed at Damenum best a shared title
232	Pl. 12	_	_	No swastikas occurred at Bampur but a sherd with a comparable design was found at Gwargusht in spoil containing Bampur IV, 3–V, 1 pottery
236	Pl. 12	260	IV, 2	Star motif

TABLE 4—	-(Continued	)
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Khura	b	Bampur	
No. and Plate		No. and Perio	ł
Burial D			
244	Pl. 15	354 V,	
		339 V,	Chevrons and pendant lines inside rim
245	Pl. 15	425 VI	Form
246	Pl. 15	– V,	-VI Red streak-burnished ware
Burial E			No parallels in design
Burial F.i	i, 2		
263	Pl. 6	— V-V	I Incised grayware
264	Pl. 16	254 IV,	Small cups with multiple chevrons continued to Period IV, 3
267	Pl. 16	425 VI	?Form
268	Pl. 16	323 V,	Form, ware and design
Burial L.	i		
276	Pl. 6	419 VI	Comparable rim
		423 VI	Similar base
278	Pl. 15	428 VI	Stemmed vessel, but may not be the same shape
279	Pl. 15	452 VI	?Form
Burial L.	ii		
293	Pl. 15	Y.72 IV,	B Design

<sup>&</sup>lt;sup>a</sup>Correlated on the basis of published material (Stein, 1937, 118–125).

# EXTERNAL RELATIONS IN PERIODS V AND VI Figure 14

Period V marked not only a major cultural change but also a reorientation in the external relations that had existed since the middle of Period III (map, Fig. 14). The parallels that can be recognized between Bampur V and Mundigak IV, 2-3 amount to only three in Phase 1 and five in Phase 2. By contrast, it is possible to cite nearly 50 analogies to material from a few key sites in Pakistani Makran or farther east, seven to sites of the Shugha culture of Fars, and some 16 to burials of the Umm an-Nar culture in the Oman Peninsula. The evidence thus points conclusively to east-west relations during Periods V-VI, with goods traded along the gulf as a possible explanation for the connection with Oman.

Resemblances between the pottery of Bampur V and that of the Qal'ah and the subsequent Shugha cultures of southwestern Iran rest largely on a few common traits, some of which could well have been transmitted along the route from Fars to Bampur. These correlations are suspect because the Qal'ah assemblage is best compared with Bampur V, 2,1 whereas the later Shugha culture, with its single chevrons, barred inter-

secting lines, and fringed diagonals (cf. Fig. 34, No. 342; Fig. 36, Nos. 86, 87; Fig. 39, No. 390) has parallels in Bampur V, 1 (Vanden Berghe, 1959, Fig. 9 and p. 43). Future field-work will no doubt explain these anomalies. Meanwhile, the general evidence suggests that Bampur V is probably best related in terms of the Iranian chronology to the transition from Giyan IV to III (Vanden Berghe, 1959, 44).

A rather more satisfactory relatedness can be established with sites in Sind and western India which places Bampur V in Phase F of Dales's (1965) chronology. Recent excavations at Amri, in Sind, have provided not only a chronology for the lower Indus Valley but also a means of assessing the relative date of several key sites in southern Baluchistan (Casal, 1964). Stylistic comparison of the pottery of Bampur V and Amri suggests some degree of contemporaneity toward the end of the mature to late Harappan occupation of Amri IIIC.

This correlation is supported by evidence from two sites in the Makran: Mehi and Sutkagendor, the latter an outpost on the Dasht River,

<sup>1</sup>Vanden Berghe (1959, Pl. 53, 42) noted affinities between the pottery of Tall-i Qal'ah culture and Bampur, but stylistic similarities in the published material seem limited to spiky trees. where recent field-work has confirmed the existence of three periods of Harappan occupation (Dales, 1962, 86-92). Some degree of contact between the settlers and the local population was suggested both by surface finds and by the contents of a small structure (Su.iv.a) cleared by Stein to the southwest of the citadel (cf. Stein, 1931, Pl. 7, Su.iv.a and Bampur No. 353; Su.iv.a.25 and Bampur No. 356). This building of stone masonry similar to that of the defenses, contained typically Harappan material, including some pottery. While most of it was plain, a dark grayware with vertical streak burnishing and two sherds with black-on-gray designs were comparable with the wares of Bampur V.1 Stein noted the resemblance of some of the Sutkagen-dor cups to those in the Khurab graves B.i and E, both burials which can be related to Bampur V (p. 307). Cups of a similar type (Mohenjo-daro G.15) were also common in the late Harappan occupation at Chanhu-daro (Mackay, 1943, Pl. 27, 16), a settlement some 30 kilometers to the east of Amri, and are of relevance in view of the stylistic links between the pottery of that site and Bampur V (see Table 5).

It seems probable that Sutkagen-dor, together with the settlements at Sotka-Koh, near Pasni (Dales, 1962, 91), Bala Kot, Sonmiani (Raikes, 1964, 290), and Pir Shah Jurio, a new site discovered by Abdur Rauf Khan near the mouth of the Hab River, were established during Amri IIIA-B, because its pottery included the highly polished red ware that was largely replaced in Amri IIIC by wares with slips of a different color (Casal, 1964, 88). There are also grounds for thinking that Lothal, in Kathiawar, was founded during Amri IIIB,2 and the stimuli which sparked off the southward expansion of the Harappan empire may well have led to settlement along the Makran coast. It was a time of unrest in Sind and elsewhere. Mohenjodaro was beset by troubles (Casal, 1964, 18); Chanhu-daro was abandoned by Amri IIIC, and the "Harappanization" of the Amri assemblage recorded during that period has

<sup>1</sup>Su.207, a plain dark gray vessel with vertical burnish marks in the Safdar Jang Collections, New Delhi (cf. Stein, 1931, Pl. 6, Su.iv.a.25 and Bampur No. 323; and Pl. 7, Su.iv.a.3 and Bampur Y.114).

<sup>2</sup>Casal, 1964, 67. Desalpur in Kutch was probably

established at the same time and, like Sutkagen-dor, had stone-built defences (Sharma, 1965, 134).

been ascribed to an influx of refugees from the larger town.

While the settlers of Lothal A appear to have lost contact with their homeland during Amri IIIC, the appearance of Amri IIID (Jhukar) elements in the pottery of Lothal B has been interpreted as evidence of a second wave of settlers or possibly refugees (Rao, 1963a, 192). A few motifs common to both the late Harappan and the Jhukar occupations of Amri IIIC-D are found on the pottery of Bampur V. There is, however, no sign at Bampur of the buff-slipped bichrome ware popular on Jhukar sites, and its absence suggests that Bampur V is best related to the latter part of Amri IIIC.

The Amri sequence throws some fresh light on material from several sites in the Makran where close correlations are impossible in the absence of controlled excavations. Parallels quoted in Table 5 have been restricted to the three sites of major importance—Kulli, Mehi, and Shahi Tump.

In referring to the Kulli culture it is necessary to stress the distinction between its early and late stages because of the considerable time span involved. True Kulli-ware, as defined by Piggott, contained elements that place it as partially contemporary not only with Amri IIB, the occupation immediately preceding the Harappan settlement, but with Mundigak IV, 1 as well, and, by inference, Bampur IV, 1.

The later stages of the culture are far from clear. At Mehi, in the Mashkai Valley, Piggott originally recognized several ceramic strains: the early painted Kulli-ware, a plainware of Harappan type, and a hybrid which he designated "Kulli-Mehi" (Piggott, 1950, 99). The site comprised a settlement with cremation burials either inurned or laid directly on the ground. One of these burials, Mehi III.6 (Stein, 1931, 158), contained a nest of conical cups, a copper bowl and a flat disk identifiable either as a plate, a mirror, or possibly a scale pan. Nearby lay a charred skull and three clay goddess figurines. The cups and copper disks have close analogues in Khurab burials B.i, D, and F.i (all relatable to Bampur V). The figurines, with pinched features peering out above multiple necklets, are of a type which end at the waist, and a close parallel was found in Amri IIIC (Casal, 1964, Pl. 30, 14). Mehi also produced bird figurines comparable with those found in the same context at Amri (Casal, 1964, Pl. 30, 8; Stein, 1931,

Pl. 29, Mehi II.5.1 and II.22). The settlement is clearly of more than one period but its relation to the burials cannot be determined on the basis of present evidence.

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A somewhat similar sequence may eventually be revealed in the settlement, later used as a cemetery, at Shahi Tump, where Stein's excavations uncovered masonry of at least two, and possibly three, periods (Stein, 1931, 88-103). The earliest levels yielded Kulli-ware and a large number of bull figurines. Pottery from the higher levels contained painted red wares with designs that ranged from Bampur IV, 2 to V, 1, and another variety with streak-burnish marks and designs of "Kulli-Mehi" typenotably trees with serrated branches and bands of circles—which resemble those of Bampur V, 2. Harappan elements were also present in the shape of shell bangles and long ribbon flakes but may signify nothing more than contact with either Sotka-Koh or Sutkagen-dor. The later funerary pottery of Shahi Tump has no close parallels at Bampur.

In view of the existence of Harappan settlements in the Makran, it is surprising that no objects attributable to that culture were found at Bampur. The only commodities which can be construed as imports resulting from trade along the gulf were some black-on-gray ware

canisters, incised grayware vessels, and two fragments of carved stone vases. One of these (Fig. 44b), carved in a basketweave, is of a type known also from Kish, Susa II, Failaka Island, Tepe Yahya IV in Kerman, and from the lower levels at Mohenjo-daro (Field, 1933, 84-85; Mackay, 1933, 356-357). (I am indebted to Mr. T. G. Bibby and Prof C. C. Lamberg-Karlovsky for information about the examples from Failaka Island and Tepe Yahya respectively.) It was, however, a surface find, but it at least confirms that Bampur was no mere backwoods village with occupants of similar status during or shortly after the period when these vases were in vogue from the end of Early Dynastic II-III. The excavations failed to establish the relation of these stone vases to their ceramic counterparts. The only stratified carved stone vessel (Fig. 45) came from Site Y in a level (11) unlikely to be later than Period IV, 2 when the first incised grayware appeared on Site Z. These early incised ware pots (Figs. 45, 46) were undoubtedly imports, but the source of the Period V examples is open to conjecture. Their distribution through the Makran on such sites as Kulli, Mehi, and Shahi Tump suggests that this ware was brought to Bampur as part of the general range of ceramics used by the Period V newcomers. Whether it was then manufactured locally or still imported remains uncertain.

# BAMPUR V AND VI IN RELATION TO THE CULTURES OF OMAN AND BAHRAIN

Incised pottery comparable in design and shape occurs also in cairn burials of the Umm an-Nar culture in the Oman Peninsula. Its location in the Trucial States is at present limited to the island of Umm an-Nar, off the west coast of the Sheikhdom of Abu Dhabi, to Hili in the Buraimi oasis (Thorvildsen, 1963, Fig. 20; Bibby, 1967, Fig. 12) and to a burial at Bat, near Ibri in the Sultanate of Muscat.<sup>1</sup>

These burials also contained examples of the distinctive black-on-gray ware canisters, decorated with running caprids, which were found in both Bampur V and VI (p. 318).<sup>2</sup> These, too,

<sup>1</sup>I am grateful to Captain Antony Witheridge, XV.XIX The King's Royal Hussars, for allowing me to see the pottery.

<sup>2</sup>Bibby, 1967, Fig. 11, 94. A small vessel with caprids was also found in Cairn I on Umm an-Nar and I am much indebted to Mr. Bibby for this information.

and No. 481 (Fig. 43) in particular, are likely initially to have been imports, but by Period VI the Bampur potters, who were addicted to animal patterns on their red ware, may have begun to copy the style, if not the form, of the canisters, which would account for the globular shape of No. 484 (Fig. 43). The canisters in the Oman graves must almost certainly be regarded as imports because their designs bear no stylistic relation to the associated Umm an-Nar pottery which, except in a few instances, bear purely geometric patterns. One exception, a large jar found in Umm an-Nar Cairn V, was adorned with an elongated bull, and has been compared with the Kulli-ware decorated with cattle (Thorvildsen, 1963, Fig. 23). The resemblance, however, ends with the animal itself as the ancillary design has no parallels in Kulli-ware. It must, however, be noted that pots from both Cairns I and V bore decorations that can be matched in Bampur V, 1 and 2, although not those designs with the strongest affinities to the Kulli-Mehi style.

Whether the graywares came from the Makran or from some other part of Oman remains to be discovered. Cairns of similar type are reported by Witheridge who found an incised sherd and a canister similar in form and decoration to that from Hili in the burial at Bat. Tracks link these localities, with the Buraimi oasis providing the focal point for communications crossing the peninsula and leading north and south. Goods imported either on the east or west coasts could clearly have found their way inland along these routes. No similar burials were noted during the recent survey which I carried out with D. B. Doe in the northern sheikhdoms of Ras al-Khaima and Fujaira, although cairns of different types were found. Their absence is surprising in view of the close relationship which has existed at many periods between these northern territories and Baluchistan.

A fuller discussion of the Umm an-Nar pottery in relation to the wares of Baluchistan is not at present possible. All that can be said is that the Omani culture reflects some of the new elements that appeared in Bampur V, and its resemblance to Baluchi wares could be due either to ethnic movement or to commercial contact.

Dales (1965, 272) has suggested, on the basis of the Oman material, that trade between the gulf and the Harappan seaports was in the hands of Kulli merchants. It may have been so, but Kulli or other Baluchi coastal sites have yet to be discovered. Meanwhile, the existence of Harappan settlements at strategic points on rivers giving access to the interior makes it more likely that Harappan ships were engaged in the coastal trade between such ports as Lothal and the entrepot on Bahrain, probably the Tilmun of the cuneiform tablets (Oppenheim, 1954).1

Evidence of the "India trade" is provided by

<sup>1</sup>Although the location of Meluhha remains uncertain, it is relevant to note that Chau Ju-kua, recording countries trading with China in the thirteenth century A.D., refers in his book, Chu-fan-chĭ, to Malwa as Ma-lo-hua (F. Hirth and W. W. Rockhill, 1911, p. 93). Malwa lies directly to the east of Kathiawar and could have had access to the Gulf of Cambay through such Harappan ports as Lothal or Bhagatrav at the mouth of the Narbada.

seals of a type ultimately derived from the Harappan culture. These have a wide distribution extending from the head of the gulf to Lothal. An example, found on the surface at that site, has been ascribed to the period (Lothal IIIB) when mercantile activities were at their peak—a period, incidentally, likely to have coincided with Amri IIIC and, by inference, Bampur V (Rao, 1963b, 96). Two carbon-14 determinations for Lothal IIIB give consistent dates of  $2005\pm115$  and  $1995\pm125$ , with  $2010\pm115$  B.C. for the end of the phase (Dales, 1965, 277).

A number of these "Indianesque" seals have been found on Bahrain, and recent excavations in the Barbar culture levels at Qala'at al-Bahrain yielded a seal impression similar, but not identical, to one stamped on a tablet in the Yale Babylonian Collection dated to the tenth year of Gungunum, King of Larsa, or ca. 1923 B.C. (Bibby, 1966, Fig. 3, note 1, 152). Because of their uniform style, these seals are thought to have been in use for only a short period during the second half of the twentieth century B.C. (Buchanan, 1967, 106). Their occurrence in Barbar occupation levels both on Bahrain and on Failaka is of relevance to the Bampur sequence since that culture has recently been shown by Peder Mortensen to be partially contemporary with the Umm an-Nar culture of Oman. A few Umm an-Nar sherds appeared in the levels of the Second Barbar Temple and the ware became plentiful in the Third Temple for which carbon-14 dates of 2050±100 and 2080 +100 B.C. have been obtained.

In summary, the evidence outlined suggests some 750 years of occupation at Bampur. If the wheelmade wares in Tal-i-Iblis IV (p. 258) are accepted as likely to predate those of Bampur I, the start of our sequence may be set in the second quarter of the third millennium. Contact with Mundigak IV, 1 is evident from Bampur III, 3-IV, 1, but the link is broken before the appearance of new influences in Bampur IV, 3. These suggest the reorientation of cultural relations and provide a link between Bampur V, Amri IIIC, Lothal IIIB, and the Umm an-Nar culture of Oman. The occupation of Bampur V was of short duration and a date of ca. 1900 B.C. is proposed for Period VI and the end of the Bampur sequence.

TABLE 5 Pottery from Bampur, Compared with that of Other Regions  $^a$ 

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
Site Z			
39;II		Mundigak IV, 1: 262,	
79;II		design on jar	Nazirabad: Pl. 10, Naz.44, design
95:II	Shahr-i-Sokhta: (2), Fig. 13a, b		Q
113:II	•		Nazirabad: Pl. 10, Naz. 37, design
117:II			Nazirabad: Pl. 10, Naz. 32, design
126:III, 3 129:III, 3	Gardan Reg: 37, design Gardan Reg: 57, 75, 76, designs; Fig. 45e, design and form Shahr-i-Sokhta: British Muset No. 195.0104, design on bowl	um	
130:III, 3	Seistan sites: Pl. 1, 15 Gardan Reg: 14, design	Deh Morasi Ghundai: 155, design	
134:III, 3	Near Ramrud: Pl. 114, RR.iii.013		
135:III, 3 136:III, 3	Gardan Reg: 13 design (inverted)	Mundigak IV, 1: 195, form	
137:III, 3	Gardan Reg: 77 and 115, designs		
140:III, 1	Gardan Reg: 102, design		
141:III, 1 143:III, 2	Seistan sites: Pl. 1, 21, design Near Ramrud: Pl. 114, Md. (RR).ii.02, design Seistan sites: Pl. 2, 55, 58, designs (not identical)	Mundigak IV, 1:207, a-b, design (double wing)	
144:III, 1 145:III, 1	Seistan sites: Pl. 1, 14, design	Mundigak IV, 1:237, form and design	
147:III, 3	Near Ramrud: Pl. 114, RR.068, design Gardan Reg: 118 and Fig. 45, designs	Ü	
148:III, 3	Shahr-i-Sokhta: (1) Pl. 114, SS.0105, design		
149:III, 3	Gardan Reg: 107, 118, designs		
151:III, 3	Gardan Reg: 17, design	Mundigak IV, 1:236a, d; 288, designs Deh Morasi Ghundai:106, design	
152:III, 1		Deh Morasi Ghundai: Fig. 18a, form	
153:III, 3	Shahr-i-Sokhta: British Museum No. SS.039, design; (2) Figs. 8c, 9b Near Ramrud: Pl. 114, Md. (RR).ii.021, design Gardan Reg: 24, design		

TABLE 5—(Continued)

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
156:III, 3	Near Ramrud: Pl. 113, RR.iii.03		
159:III, 3		Mundigak IV, 1:236d, base	
163:III, 1	Seistan sites: Pl. 1, 43, design	, , ,	
<b>,</b> -	Gardan Reg: 44, design		
164:III, 3	Kalat-i-Gird: Pl. 114, KG.0137, design	Mundigak IV, 1:208, design	
166:III, 3	Shahr-i-Sokhta: (2) Fig. 16d		
171:III, 3		Mundigak IV, 1:290, design	Jai-damb: Pl. 3, J.D.2, design
			(not identical)
173:IV, 1		Mundigak IV, 1:288, form	
		(but no cordons)	
175:IV, 1		Mundigak IV, 1:288, form	
		(but no cordons)	
178:IV, 1	Shahr-i-Sokhta: (2) Fig. 18a,		
	design		
181:IV, 1		Mundigak IV, 1:290,	Jai-damb: Pl. 3, J.D.2, design
		design in lower register	(not identical)
182:IV, 1		Mundigak IV, 1:289, form	
		(more angular than	
		Bampur)	
183:IV, 1			Khurab: Pl. 13, B.ii.200, part of
			design
184:IV, 1	Seistan sites: Pl. 1, 39, but	Mundigak IV, 1: 198, design	
	design in solid black	is not in panels or solid	
185:IV, 1		Mundigak IV, 1:284, form	
186:IV, 1	Seistan sites: Pl. 1, 43, design	Mundigak IV, 1:257, design	
187:IV, 1		Mundigak IV, 2: 414,	Khurab: Pl. 13, B.ii.199, trees
		design	only
190:IV, 1		Mundigak IV, 1: 283, form	
194:IV, 1		Mundigak IV, 3: 485,	Kulli: Pl. 23, Kul.V.ix. 3, design
		design	
201:IV, 1	Shahr-i-Sokhta: (2) Fig. 13e	Mundigak IV, 2: 381–382,	
		designs	
202:IV, 1		Mundigak IV, 1:221, design	
203:IV, 1		Mundigak IV, 1: 191,	Khurab: Pl. 17, B.ii.178,
		design	design and form
209:IV, 1	Seistan sites: Pl. 1, 28, design		
220:IV, 1			Damin: Pl. 11, B.110a, A.89,
			design and possibly form
226:IV, 1	See No. 153 above		
227:IV, 1	Kalat-i-Gird: Pl. 114, KG.	Mundigak IV, 1: 236a, d,	
	01a, design	designs	
	Gardan Reg: 17; Fig. 45b,		
	g, j, designs		
	Seistan sites: Pl. 2, 56, 57,		
	designs		
000 777 1	Shahr-i-Sokhta: (2) Fig. 8c		
228:IV, 1	Seistan sites: Pl. 1, 3, 5, 6,		
	designs		
	Near Ramrud: Pl. 113,		
000 777 1	RR.xiii.018, design		
229:IV, 1	Gardan Reg: 4, design	D 1 M . C! 1 ! ! ! !	
234:IV, 1		Deh Morasi Ghundai: 113,	
995.777 1	Shahmi Salaht- : /0\	design	
235:IV, 1	Shahr-i-Sokhta: (2)	Mundigak IV, 1:207, design	
239:IV, 1	Fig. 10c		Domin. Dl 19 D D 190
400.10.1			Damin: Pl. 12, Dmn.B.120,

# TABLE 5—(Continued)

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
241:IV, 1	Shahr-i-Sokhta: (1) Pl. 114,		Damin: Pl. 11, 48, A.88, designs
242:IV, 1	SS.0101, 0105, designs Near Ramrud: Pl. 113, RR.iii.018, design reversed Seistan sites: Pl. 1, 18, 20,	Mundigak IV, 1: 253b, design	
243:IV, 1	designs Near Ramrud: Pl. 113, Md.		Damin: Pl. 11, A.62, design
,	(RR).iii.04, design Kalat-i-Gird: Pl. 113, KG.		Khurab: Pl. 16, Bii.158, design
244:IV, 1	055, design Seistan sites: Pl. 1, 23, design		and form
245:IV, 1	Gardan Reg: 38, design		
247:IV, 1	2	Mundigak IV, 1:301, design	
249:IV, 1		3 , , , 3	Tal-i-Pir: Pl. 29, vi.71, design
252:IV, 1		Mundigak IV, 1:256, design	, ,
253:IV, 1	Seistan sites: Pl. 1, 40, 41, designs	Mundigak IV, 1:256, design	Damin: Pl. 11, A.54, A.76, designs
256:IV, 1	Gardan Reg: 63, 135, designs	acough.	Shahi Tump: New Delhi Collections No.Sh.T.29, frieze on a gray bowl of the
257:IV, 1		Mundigak IV, 1:237a, design	same form Damin: Pl. 12, Dmn.A.67, design, and pl. 11, B.110b, step pattern
260:IV, 2			Khurab: Pl. 12, C.236, star motif
262:IV, 2			Damin: Pl. 11, A.75, animal motif Khurab: Pl. 13, B.ii.200,
263:IV, 2			design (partial) Shahr-daraz: Pl. 11, Shd. 5, 7, designs Katukan: Pl. 11, Kat.4, design
264:IV, 2	Shahr-i-Sokhta: (2) Fig. 12b		Khurab: Pl. 17, B.ii.210, design and form Shahi Tump: Pl. 13, Sh.T.iii.6,
266:IV, 2	Shahr-i-Sokhta: (1) Pl. 113, SS.04, animals (not identical)		design not identical
269:IV, 2	,		Khurab: Pl. 16, B.ii.137, design Shahi Tump: New Delhi Collections No.Sh.T.95
270:IV, 2	Shahr-i-Sokhta: British Museum No. 192, design reversed		Damin: Pl. 11, 6, design Katukan: Pl. 11, 22, 28, designs
	Gardan Reg: Fig. 44i, design and form		Panodi: Pl. 4, Pan. 4, design
272:IV, 2 273:IV, 2	WAALA AVAAA		Khurab: Pl. 14, B.ii.133, Damin: Pl. 11, A.64b, B.110a, A.89, designs
290:IV, 3 296:IV, 3	Gardan Reg: Fig. 44n, design		Katukan: Pl. 11, Kat. 24, design Khurab: Pl. 13, B.ii. 199, design Khurab: Pl. 16, B.ii. 153, design and form
	Seistan sites: Pl. 2, 70, design Shahr-i-Sokhta: (2) Fig. 13c		
297:IV, 3	.,,		Khurab: Pl. 16, B.ii.136

# TABLE 5—(Continued)

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
298:IV, 3	Gardan Reg: 116, 117; Fig. 44, 1, designs (not		Khurab: Pl. 14, B.ii.152, design Maula: Pl. 9, Mau. 13, design
300:IV, 3	identical)		Khurab: Pl. 16, B.ii.137, design and form Shahi Tump: New Delhi Collections No.Sh.T.95, frieze on same grayware form
301:IV, 3	C N 90C 1		Khurab: Pl. 16, B.ii. 132, design
304:IV, 3 305:IV, 3	See No. 296 above Near Ramrud: Pl. 114, Md. (RR).ii.027. Also British Museum No. 182. 051, designs and form	Mundigak IV, 1:236b, form	
308:IV, 3	oor, designs and form	Mundigak IV, 1:237c,	Khurab: Pl. 17, B.ii.178, design
310:IV, 3		design	Khurab: Pl. 16, B.ii.142, design Panodi: Pl. 4, Pan. 2, design
313:IV, 3		Mundigak IV, 1:241, design	, , ,
314:IV, 3 315:IV, 3	Gardan Reg: 91, design Shahr-i-Sokhta: (1) Pl. 113, SS.09.048, design Kalat-i-Gird: British Museum	- L	Khurab: Pl. 16, B.ii.149, design Katukan: Pl. 11, Kat. 29 Maula: Pl. 9, Mau. 1
317:IV, 3	No. KG.066, design	Mundigak IV, 1: 326, design	Damin: Pl. 11, 44-46
318:IV, 3	Seistan sites: Pl. 1, 25, design	design.	Katukan: Pl. 11, Kat.25 Khurab: Pl. 13, B.ii.202,
319:IV, 3			design and form Khurab: Pl. 13, B.ii.201, design and form Shahi Tump: Pl. 12, Sh.T.v.3,
323:V, 1			design Khurab: Pl. 16, F.i.268 Shugha culture: Fig. 9
324:V, 1	Gardan Reg: Fig. 440		Sutkagen-dor: Pl. 6, Su.iv.a.25 Damin: Pl. 12, Dmn.B.120, 121
326:V, 1		Mundigak IV, 2: 414 Mundigak IV, 3: 506, 510	Khurab: Pl. 14, B.ii.155
335:V, 1			Shugha culture: Fig. 9
336:V, 1 339:V, 1			Shahi Tump: Pl. 13, Sh.T.iv.1 Umm an-Nar: Cairn 5. Aarhus
340:V, 1			Museum (unpublished) Khurab: Pl. 17, B.ii.174
342:V, 1			Shahi Tump: Pl.12, Sh.T.19 Shugha culture: Fig.9
343:V, 1			Khurab: Pl. 19, Khur. B.ii.229 Sutkagen-dor: New Delhi Collections No. Su.207, grayware, vertically burnished
344:V, 1			Kulli: Pl. 23, Kul.V.ix.1
349:V, 1 350:V, 1			Khurab: Pl. 13, B.ii.200. Shugha culture: Fig. 9

TABLE 5—(Continued)

Chanhu-daro II : Pl. 42, 22, 22	Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
Umm an-Nar: Cairn V, upright below single chevrons. Aarhus Museum   Khurab Pl. 17, Bi.i.206, 207. Stugha culture: Fig. 9   Khurab Pl. 17, Bi.i.205   Bat, Ibri: unpublished   Hill, Buraim: 1966, Fig. 11   Kulli: Pl. 23, Kul. I.viii, 1, forr and part of design   Mundigak IV, 2: 378, design   Mundigak IV, 2: 381   Mundigak IV, 2: 381   Mundigak IV, 2: 381   Mundigak IV, 2: 381   Machi: Pl. 13, RR.III.   Mundigak IV, 2: 381   Mundigak IV, 2: 381   Mundigak IV, 2: 382   Mundigak IV, 2: 384   Mundigak IV, 2: 388   Mundigak IV, 2: 388   Chanhu-daro: Pl. 40, 4; Jhukar levels   Sutkagen-dor: Pl. 7, Su.iv.a. 3   Amri IIIC: 377, 380   Chanhu-daro: Pl. 23, 2; Harappan levels   Mohenjo-daro: (1), Pl. 68, 21, upper levels   Amri IIID: 518   Hill, Buraim: 1966, Fig. 11   Shahi Tump: Pl. 11, Sh.T.ii. 7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.Ii. 7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.Ii. 7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.ii. 7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.v.2   Pl. 28, Mehi Pl. 29, Mehi: Pl. 28, Mehi Pl. 29, Mail: Pl. 30, Mehi III.63   Pl. 30, Mehi III.64   Pl. 30, Me	353:V, 1			uprights below multiple
354:V, 1 357:V, 1 357:V, 1 361:V, 1 361:V, 1 361:V, 1 362:V, 1 362:V, 1 363:V, 2 364:V, 2 Ramrud: Pl. 113, RR.III. 03 365:V, 2 Mundigak IV, 2: 378, design Mundigak IV, 2: 381 Mundigak IV, 2: 381 Mundigak IV, 2: 381 Mundigak IV, 2: 381 Mundigak IV, 2: 384 Mundigak IV, 3: 502 Mundigak IV, 3: 502  370:V, 2 370:				Umm an-Nar: Cairn V, uprights below single chevrons.
357:V, 1 361:V, 1 361:V, 1 362:V, 1 362:V, 1 363:V, 2 Ramrud: Pl. 113, RR.III. 03 365:V, 2 366:V, 2 369:V, 2 370:V, 2 370:V, 2 370:V, 2 378:V, 2 379:V, 2 37	354:V, 1			
361:V, 1  362:V, 1  362:V, 1  364:V, 2  364:V, 2  366:V, 2  366:V, 2  366:V, 2  370:V, 2  376:V, 2  378:V, 2  378:V, 2  379:V,				
Hilli, Buraimi: 1966, Fig. 11   Kulli: Pl. 23, Kull. viii, 1, forr and part of design				
362:V, 1 Sec No. 361 above 364:V, 2 Ramrud: Pl. 113, RR.III. Mundigak IV, 2: 378, design Mundigak IV, 2: 381 365:V, 2 Mundigak IV, 2: 381 366:V, 2 Mundigak IV, 2: 398a Mundigak IV, 3: 502 370:V, 2 Mundigak IV, 3: 502 370:V, 2 Mundigak IV, 3: 502 374:V, 2 Mundigak IV, 3: 502 376:V, 2 Mundigak IV, 3: 502 378:V, 2 Mundigak IV, 3: 502 378:V, 2 Mundigak IV, 3: 502 378:V, 2 Mundigak IV, 3: 502 379:V, 3 Mundigak IV, 3: 502 379:V, 3 Mundigak IV, 3: 502 379:V, 3 Mundigak IV, 3: 502 37	,.			Hili, Buraimi: 1966, Fig. 11 Kulli: Pl. 23, Kul.1.viii, 1, form
364:V, 2 Ramrud: Pl. 113, RR.III. design Mundigak IV, 2: 378, design Mundigak IV, 2: 381 365:V, 2 Mundigak IV, 2: 381 366:V, 2 Mundigak IV, 2: 398a Mundigak IV, 3: 502 370:V, 2 Mundigak IV, 3: 502 370:V, 2 Mundigak IV, 3: 502 376:V, 2 Mundigak IV, 3: 502 376:V, 2 Mundigak IV, 3: 502 378:V, 2 Mundigak IV, 2: 415 379:V, 2 Mundigak IV, 2: 415 382:V, 2 Mundigak IV, 2: 415 382:V, 2 Mundigak IV, 2: 415 387:VI 390:VI Machi: Pl. 113, 010–011 390:VI Machi: Pl. 113, 010–011 410:VI Mundigak IV, 2: 415 425:VI Mundigak IV, 2: 378, Mehi: Pl. 28, Mehi: Pl. 19, Sh.T.vii. (cemetery), but crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii. in grayware Khurab: Pl. 18, Mehi: Pl. 28, Mehi: Pl. 30,	362:V, 1	See No. 361 above		and part of design
Shugha culture   Shug	364:V, 2		design	III.1.3
369: V, 2 370: V, 2 370: V, 2 370: V, 2 376: V, 2 376: V, 2 376: V, 2 378: V, 2 378: V, 2 379: V	365:V, 2		Mundigak IV, 2:381	
370:V, 2  Chanhu-daro: Pl. 40, 4;  Jhukar levels Chanhu-daro: Pl. 38, 28;  Harappan levels Sutkagen-dor: Pl. 7, Su.iv.a.3 Amri IIIC: 377, 380 Chanhu-daro: Pl. 23, 2;  Harappan levels Sutkagen-dor: Pl. 23, 2;  Harappan levels Mohenjo-daro: (1), Pl. 68, 21,  upper levels Amri IIID: 518 Hill, Buraimi: 1966, Fig. 11 Shahi Tump: Pl. 11, Sh.T.ii7 Pl. 12, Sh.T.v.2  Shahi Tump: Pl. 11, Sh.T.ii7 Amri IIIC: 437, spiky trees Maula: Pl. 9, Mau.3+6 Khurab: Pl. 17, Bi, 122, anim Pir-Kunar: Pl. 11, Kun.2 Shahi Tump: Pl. 11, Sh.T.ii7 Pl. 12, Sh.T.v.2, with cordons and ridges Shahi Tump: Pl. 11, Sh.T.ii7 Pl. 12, Sh.T.v.2, with cordons and ridges Shahi Tump: Pl. 17, Sh.T.vii. 1 (cemetery), but crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 Amri IIIC: 431				
Chanhu-daro: Pl. 38, 28;   Harappan levels			Widiaigax I V, 3. 302	
### Harappan levels  \$\frac{374:V, 2}{376:V, 2}				
376:V, 2  Amri ĬIIC: 377, 380 Chanhu-daro: Pl. 23, 2; Harappan levels Mohenjo-daro: (1), Pl. 68, 21, upper levels Amri IIIB: 349 Amri IIID: 518 Hili, Buraimi: 1966, Fig. 11 Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2 Xulli: Pl. 21, Kul.Liv.2. Shahi Tump: Pl. 11, Sht.T.ii.7 Amri IIIC: 437, spiky trees Maula: Pl. 9, Mau.3+6 Khurab: Pl. 17, B.i, 122, anim Pir-Kunar: Pl. 11, Kun.2  Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2, with cordons and ridges Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 Amri IIIC: 431				Harappan levels
Chanhu-daro: Pl. 23, 2;				
Mohenjo-daro: (1), Pl. 68, 21, upper levels   Amri IIIB: 349   Amri IIIB: 349   Amri IIIID: 518   Hili, Buraimi: 1966, Fig. 11   Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2   Kulli: Pl. 21, Kul.Liv.2.   Shahi Tump: Pl. 11, Sh.T.ii.7   Amri IIIC: 437, spiky trees   Maula: Pl. 9, Mau.3+6   Khurab: Pl. 17, B. i, 122, anim   Pir-Kunar: Pl. 11, Kun.2   Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2, with   cordons and ridges   Shahi Tump: Pl. 17, Sh.T.vii.1   (cemetery), but   crosshatched infill   Shahi Tump: Pl. 11, Sh.T.iii.3   in grayware   Khurab: Pl. 16, F.i.267   Mehi: Pl. 28, Mehi 1.4.2;   Pl. 30, Mehi III.63   Amri IIIC: 431   Amri	370: V, Z			Chanhu-daro: Pl. 23, 2;
Amri IIID: 518 Hili, Buraimi: 1966, Fig. 11 Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2 Kulli: Pl. 21, Kul.1.iv.2. Shahi Tump: Pl. 11, Sht.T.ii.7 Amri IIIC: 437, spiky trees Maula: Pl. 9, Mau.3+6 Khurab: Pl. 17, B.i, 122, anim Pir-Kunar: Pl. 11, Kun.2  Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2, with cordons and ridges Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware Khurab: Pl. 16, Fi.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi IIIC: 431				Mohenjo-daro: (1), Pl. 68, 21, upper levels
Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2   Shahi Tump: Pl. 11, Sh.T.ii.7   Shahi Tump: Pl. 11, Sh.T.ii.7   Amri IIIC: 437, spiky trees   Maula: Pl. 9, Mau.3 + 6   Shahi Tump: Pl. 17, B.i, 122, anim   Pir-Kunar: Pl. 11, Kun.2   Pl. 12, Sh.T.v.2, with   cordons and ridges   Shahi Tump: Pl. 11, Sh.T.ii.7   Pl. 12, Sh.T.v.2, with   cordons and ridges   Shahi Tump: Pl. 17, Sh.T.vii.1   (cemetery), but   crosshatched infill   Shahi Tump: Pl. 11, Sh.T.iii.3   in grayware   Shahi Tump: Pl. 11, Sh.T.iii.3   in grayware   Shahi Pl. 18, Mehi 1.4.2;   Pl. 30, Mehi III.63   Amri IIIC: 431   Amri IIIC: 431   Amri IIIC: 431   Pl. 16, F.i.267   Pl. 30, Mehi III.63   Amri IIIC: 431   Pl. 30, Mehi III.63   Amri IIIC: 431   Pl. 415	378:V, 2			Amri IIID: 518
Pl. 12, Sh.T.v.2				Hili, Buraimi: 1966, Fig. 11
Shahi Tump: Pl. 11, Sht.T.ii.7 Amri IIIC: 437, spiky trees Maula: Pl. 9, Mau.3+6 Khurab: Pl. 17, B.i, 122, anim Pir-Kunar: Pl. 11, Kun.2  Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2, with cordons and ridges  Shahi Tump: Pl. 17, Sh.T.vi.1 (cemetery), but crosshatched infill  410:VI  425:VI  Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 Amri IIIC: 431	970 37 0		M 1' . 1 TX7 9 . 415	Pl. 12, Sh.T.v.2
Maula: Pl. 9, Mau.3+6	379:V, 2		Mundigak IV, 2:413	Shahi Tump: Pl. 11, Sht.T.ii.7
387:VI 389b:VI 390:VI Machi: Pl. 113, 010–011 292:VI Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2, with cordons and ridges 404:VI Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill 410:VI Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware 425:VI Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 432:VI Armi IIIC: 431	382:V, 2			
389b:VI 390:VI Machi: Pl. 113, 010–011 292:VI Shahi Tump: Pl. 11, Sh.T.ii.7 Pl. 12, Sh.T.v.2, with cordons and ridges 404:VI Shahi Tump: Pl. 17, Sh.T.vii.1 (cemetery), but crosshatched infill 410:VI Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware 425:VI Khuab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 432:VI Aarri IIIC: 431	387:VI			Khurab: Pl. 17, B.i, 122, animals
292:VI  Shahi Tump: Pl. 11, Sh.T.ii.7  Pl. 12, Sh.T.v.2, with cordons and ridges  Shahi Tump: Pl. 17, Sh.T.vii.1  (cemetery), but crosshatched infill  Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware  Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63  432:VI  Shahi Tump: Pl. 11, Sh.T.iii.3 Amri IIIC: 431		M11. DI 119 010 011		Pir-Kunar: Pl. 11, Kun.2
Cordons and ridges		Machi: Pl. 113, 010-011		Shahi Tump: Pl. 11, Sh.T.ii.7; Pl. 12, Sh.T.v.2, with
crosshatched infill 410:VI Shahi Tump: Pl. 11, Sh.T.iii.3 in grayware 425:VI Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 432:VI Amri IIIC: 431	404:VI			Shahi Tump: Pl. 17, Sh.T.vii. 13.a
425:VI Khurab: Pl. 16, F.i.267 Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 432:VI Amri IIIC: 431	410:VI			crosshatched infill Shahi Tump: Pl. 11, Sh.T.iii.3,
Mehi: Pl. 28, Mehi 1.4.2; Pl. 30, Mehi III.63 432:VI Amri IIIC: 431	495 ·V/I			
432:VI Amri IIIC: 431	14J.VI			Mehi: Pl. 28, Mehi 1.4.2;
	432:VI			Amri IIIC: 431
Sutkagen-dor: Pl. 7, Su.27				Kulli: Pl. 25, Kul.1.viii.3
433:VI Mohenjo-daro: (1) Pl. 54, 19				Mohenjo-daro: (1) Pl. 54, 19
441:VI Khurab: Pl. 34, 4; Pl. 15, D.24 Mehi: Pl. 30, Mehi 17	441:VI			Khurab: Pl. 34, 4; Pl. 15, D.246 Mehi: Pl. 30, Mehi 17

TABLE 5—(Continued)

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
477:VI 478:VI 479:VI			Hili, Buraimi: 1966, Fig. 11 Hili, Buraimi: 1966, Fig. 11 Hili, Buraimi: 1966, Fig. 11
480:VI			Hili, Buraimi: 1966, Fig. 11
481 :VI 482 :VI			Hili, Buraimi: 1966, Fig. 11 Hili, Buraimi: 1966, Fig. 11
483:VI			Bat, Ibri: unpublished
484:VI			Hili, Buraimi: 1966, Fig. 11 Umm an-Nar: Cairn I. Aarhus Museum
Site Y 32:II/III K	alat-i-Gird: Pl. 113,		
, ,	KG.055		
35:IV, 1/2	ardan Reg: 241		Damin: Pl. 11, A.75
36:IV, 1/2			Shahr-daraz: Pl. 11, Shd.7 Khurab: Pl. 13, B.ii.200
37:IV, 1/2			Shahr-daraz: Pl. 11, Shd.1 Khurab: Pl. 16, F.i.266
41:IV, 1/2 47:IV, 1/2		Mundigak IV, 1:290	Khurab: Pl. 15, L.i.278
51:IV, 2/3 52:IV, 2/3			Khurab: Pl. 13, B.ii.200
32.1  V, 2/3			Damin: Pl. 11, A.75 Shahr-daraz: Pl. 11, Shd. 5, 7
54:IV, 2/3 55:IV, 3		Mundigak IV, 3: 501	Khurab: Pl. 16, B.ii. 136
57:IV, 3		Ç ,	Khurab: Pl. 14, B.ii.152 Maula: Pl. 9, Mau. 13
58:IV, 3 62:IV, 3		Mundigak IV, 3:485	Khurab: Pl. 18, B.i.122
63:IV, 3		Mundigak IV, 2: 414, 415 Mundigak IV, 3: 506	,
65:IV, 3 66:IV, 3		Mundigak IV, 2: 402	Khurab: Pl. 17, B.ii.169
70:IV, 3		-	Khurab: Pl. 17, B.ii.210
73:IV, 3 74:IV, 3			Shahr-daraz: Pl. 11, Shd.5 Damin: Pl. 11, 44–46
76:V, 1			Mohenjo-daro: (1) Pl. 69, 21; upper levels
			Shahi Tump: Pl. 12, Sh.T.3 Umm an-Nar: Cairn I. Aarhus Museum
81:V, 1 82:V, 1			Khurab: Pl. 16, B.ii.153 Amri IIID: 539
			Chanhu-daro: Pl. 42, 21; Pl. 46, 33, 34
			Mohenjo-daro: (1) Pl. 68, 24; upper levels
			Mehi: Pl. 29, Mehi 111, 4.3 Shahi Tump: Pl. 12, Sh.T.iii.1;
			Pl. 19, vii.1. a. Umm an-Nar: (2) Cairn V, Fig. 22 and p. 214
83:V, 1			Chanhu-daro: Pl. 42, 23; Jhukar levels
			Jai-Damb: Pl. 3, 15 Shahi Tump: New Delhi
07.77.1			Collections No.Sh.T.99
87:V, 1			Tall-i Shugha: Fig. 9

TABLE 5—(Continued)

Bampur No. and Period	Seistan	Southeastern Afghanistan	Elsewhere
88:V, 1 90:V, 2			Umm an-Nar: (2), Fig. 22 Amri IIIC: 373–375, double scallops on rim. Pl. 87, 424
95:V, 2			Chanhu-daro: Pl. 46, 39 Kulli: Pl. 23, Kul.V.i.6 Shahi Tump: New Delhi Collections; similar type of grayware base
96:V, 2			Umm an-Nar: Cairn V. Aarhus Museum Shahi Tump: Pl. 16, Sh.T.xiv. f.4
99:V, 2			Kulli: New Delhi Collections,
100:V, 2			similar form Khurab: Pl. 14, B.ii.214, bowl
108:V, 2			with birds Damin: Pl. 11, A.60, but without goat and set between hatched triangles point to base at top and
110:V, 2			bottom Amri IIIC: 437 Kulli: Pl. 21, Kul.1.iv.2 Mehi: Pl. 30, II.1.5 Tall-i Shugha: Pl. 53a;
114:V, 2 115:V, 2			Qal'ah culture Sutkagen-dor: Pl. 7, Su.iv.a.3 Umm an-Nar: Cairn I. Aarhus
117:V, 2			Museum Umm an-Nar: (2) Cairn V, Fig. 22, and p. 214, bottom left

<sup>a</sup>References: Amri: Casal, 1964; Chanhu-daro: Mackay, 1943; Damin: Stein, 1937; Deh Morasi Ghundai: Dupree, 1963; Gardan Reg: Fairservis, 1961; Hili, Buraimi: Bibby, 1966, 1967; Jai-damb: Stein, 1931; Kalat-i-Gird: Stein, 1928; Katukan: Stein, 1937; Khuli: Stein, 1931; Machi: Stein, 1928; Maula: Stein, 1937; Mehi: Stein, 1931; Mohenjo-daro: (1) Mackay, 1937–1938; (2) Marshall, 1931; Mundigak: Casal, 1961; Nazirabad: Stein, 1931; Near Ramrud: Stein, 1928; Panodi: Stein, 1931; Pir-Kunar: Stein, 1937; Ramrud (see Near Ramrud); Seistan sites: Andrews, 1925; Shahi Tump: Stein, 1931; Shahr-daraz: Stein, 1937; Shahr-i-Sokhta: (1) Stein, 1928; (2) Tosi, 1968; Shugha culture: Vanden Berghe, 1959; Sutkagen-dor: Stein, 1931; Tal-i-Pir: Stein, 1937; Tall-i Qal'ah: Vanden Berghe, 1959; Tall-i Taimuran: Vanden Berghe, 1959; Umm an-Nar: (1) Bibby, 1966, 1967; (2) Thorvildsen, 1963.

# THE POTTERY INTRODUCTION

As has been explained, the primary object of the excavations was to build up a chronological framework into which the wares of the Bampur Valley and adjacent regions might be fitted. The paucity of small finds and the restricted nature of our trenches made it difficult to reconstruct the broader cultural background, but stylistic continuity in the wares of the first four periods of occupation justify (p. 257) their recognition as part of an assemblage designated the Bampur I–IV culture.

The pottery of this culture was marked by a strong local style. There is, however, no hint of stagnation. Each period reflected some degree of change, both in the shape and decoration of pottery. The appearance of intrusive elements in Period III, which could be traced to Seistan and related to pottery current during the initial phase of Period IV at Mundigak in southeastern Afghanistan, is of particular interest (p. 259). Cultural contact with those regions continued during Bampur IV, but the new elements were quickly assimilated into the local style and do not point, as in Period V, to the arrival in force of newcomers to the district.

The stratigraphy showed that even within the narrow limits of the cuttings, land use changed from period to period. No reliable evaluation can be made of the pottery of Period I which was represented by only a handful of sherds from a debris area. The pottery of Period II, however, came from living quarters and probably provides a representative selection of the forms in use at the time. The wares of the subsequent period are far less adequate. Rubbish survivals may account for the relatively high proportion of good quality sherds in the first two phases of Period III, but the wares of the later phases are best described as "crockery" and suggest some change either in the social status of the occupants or in the use to which this area was put during the latter part of Period III. Similar variations in the sherd count were noted during Period IV. Deductions based on a statistical analysis of material derived from obviously different types of occupation have therefore been avoided as misleading. Where sufficient material was available, a rough assessment was made of the frequency of different forms, but this must be accepted as applying only to the sample examined and would not necessarily obtain if a wider area had been excavated.

The pottery of the Bampur I–IV culture (Fig. 16) was almost wholly wheel thrown in good quality red and gray wares and almost all of it bore some kind of decoration, either plastic, painted, or comb-incised. A conscious attempt was made to record undecorated forms, and the illustrations show how few these were.

The pottery of Period II displayed a subtle harmony of form and design, only equaled on some of the vessels in use at the beginning of Period IV. Regression set in during Phase 2 and new wares of notably poor quality appeared in the third and final phase of Period IV.

The predominance of this technically inferior pottery in Period V points to the submergence of the local inhabitants and suggests that the newcomers were culturally less advanced than the people they conquered. A firmer local style, derived from that of Period V, 2, emerged in Period VI. The cultural affinities of the wares of Periods V and VI, which help to set a terminal date to the Bampur sequence, are discussed above (p. 266).

On Site Y, the occupation levels of the Bampur I–IV culture were relatively unproductive as they represented either working quarters or open spaces lying outside habitations. The pottery is presented separately since it provides a useful visual summary of stylistic development within the Bampur I–IV culture, and the stratigraphy of Site Y has been related to that of Site Z on the basis of the pottery in each level (Table 1, p. 255). The more plentiful material of Periods V and VI has been merged, for purposes of publication, with pottery of these periods from Site Z.

The following description of the wares of each period is preceded in each case by an outline of their more important features. Fabric, form, and decoration are then dealt with in that order under the main divisions of red and gray wares if the quantity of sherds warrant such treatment. Full references to comparative material cited in this section are provided in Table 5, and the significance of the pottery in relation to the chronologies of adjacent regions is discussed above (p. 257).



Fig. 16. Pottery of the Bampur I–IV culture.

# PERIOD I WARES Figure 17

The earliest occupation, represented on Site Z by a scatter of household debris, was overlaid by buildings in Period II, but it is doubtful whether this stratigraphical distinction has any real validity in relation to the pottery. Although the material recovered was scanty, all the Period I wares, most of the forms, and some of the designs continued into Period II. No close parallels for this pottery can at present be cited, although current field-work on sites in Kerman province may eventually throw light on its origins.

With the exception of a few sherds in a coarse ware containing large black grits, the wares of Period I were all wheel thrown. The fabric, generally dense and hardfired, was either red or gray. The red ware contained a fine degraissant visible as white or, less frequently, black specks. It was often thinly slipped in tones of pale cream to light buff, which served as a base for either painted decoration in black or brown paint or wavy comb incising. Some few designs in dark brown were painted on the unslipped red fabric, but this practice did not become common, apparently, until the end of Period IV. Pale to

dark gray wares of notably fine grain were unslipped and bore black, dark brown, or purplish black designs.

The scanty debris of the Period I levels cannot be regarded as representative of the range of forms which probably existed, if the material of the subsequent period is any criterion. Almost all the early forms continued unchanged in Period II, the exception being bowls with simple tapered rims (1-3), which become either more flared or slightly beaked. A large basin (19) with heavy rim is deeper than the corresponding forms of Period II (Fig. 18, 53-59) but has the same rectangular cordon of that period. Shallow comb incising was a form of decoration that persisted throughout this culture. It was usually used on jars or wide bowls in Period II but was found only around the shoulder of a white-slipped jar (8) in Period I.

Several designs (cf. 4 and 14) are of interest since they do not occur later: No. 12 provides a warning that palm frond patterns appear in the repertory of all periods at Bampur. Crosshatched vertical hourglass shapes (1) continued through to Period IV but never became common; No. 15 is of more significance and may be an earlier variant of a motif (cf. Fig. 20, Nos. 82 and 83) which is not found after Period II.

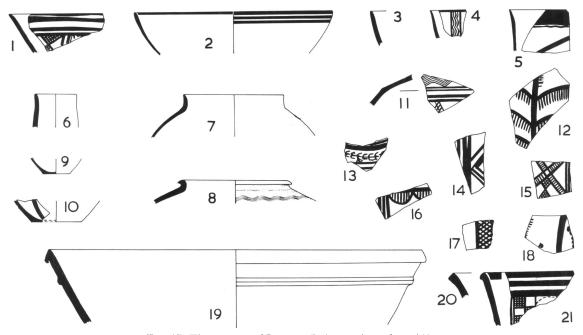


Fig. 17. The pottery of Bampur I. Approximately  $\times 1/4$ .

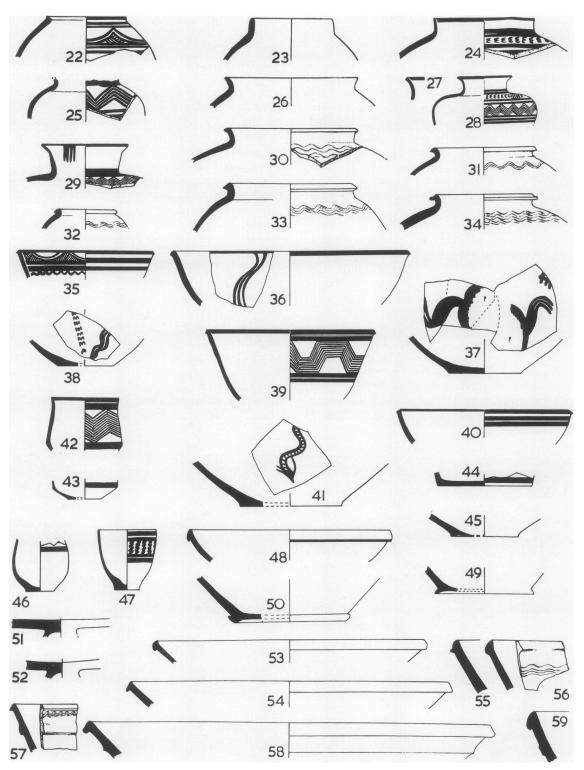


Fig. 18. The pottery of Bampur II. Approximately  $\times 1/4$ .

# PERIOD II WARES Figures 18-21, 30

The pottery of this period was plentiful and came mainly from inside Room A in Levels 69 and 67 and from the debris in the corridor. All the wares described in Period I continued, with the addition of one piece of perforated red ware, the only example occurring before Periods V and VI, possibly a "stray."

Period II forms provide various useful diagnostic features. The over-all impression is of sharp profiles, an effect which is emphasized by beaked and nailhead rims, heavy rectangular cordons, and by carination at shoulder and girth. As in the previous period, most of the pottery is decorated and the wide range of utensils manufactured suggests a settled community, possibly of some affluence.

Grayware makes up about one-fifth of the total, and although clearly a product of the same culture, some convention appears to have restricted its use to certain types of vessels. It has accordingly been described and grouped separately (below, p. 284).

#### RED WARE: FORMS AND DECORATION

The fabric and slip, described in Period I, remained unchanged and require no further comment.

A wide variety of forms—jars, bowls, and deep basins, by far the most common—was recorded.

JARS: Range from an almost neckless ovoid form with beveled rim (22 and 92), through variations on the straight-necked jar of Period I (cf. Fig. 17, No. 7,) to a high-collared vessel with flaring edge (29) which only became common at the start of Period IV. Carinated shoulders of varying sharpness were noted on a number of jars (78 and Fig. 30, Nos. 1, 18). Another particularly distinctive form which remained current until the start of Period IV was a flattened spherical jar with high shoulder (cf. 28 and Fig. 23, No. 182). Decoration is usually well suited to the jar and takes the form of a broad multiple chevron band, set either at, or just below, the shoulder, and bordered by two or three horizontal lines (25). Where two zones of decoration were used, a narrower band of sigmas, sometimes grouped between short vertical lines (Nos. 24, 28, and Fig. 30, Nos. 1, 2) was popular. A few of the jars found on Site Y bear long-horned animals (Fig. 30, Nos. 18, 19, 22) below the chevron band.

Large Storage Jars (61-63): Display a sharpness of profile comparable with their smaller counterparts. Their decoration usually consists of a black or brown band over both edges of the rim with two zones of design ending with either triple bands or a combination of bands and a striped cordon. The upper registers of Nos. 61 and 62 illustrate patterns that were popular in all periods of this culture. The metopic arrangement of diagonally crosshatched checkers set between vertical panel dividers with a fringed edging (61) is of interest because it illustrates two features that continued to the end of Period IV—the fringed edging and an object resembling a large insect of a kind still known at Bampur. The fringed M's (62 and Fig. 30, No. 1) should be compared with the slightly different version of this motif which is set between the meanders of a cordon on jar No. 85; they recall similar designs on the pottery of Susa I. So early a correlation seems unconvincing even allowing that the Bampur Valley may have been something of a cultural backwater. Further field-work is required, particularly in districts to the west of Bampur, to elucidate the origins of the Bampur I-II ceramic style. No exact parallels are known for the effective design in black on the unslipped red surface of No. 63.

SHALLOW WAVY COMB-INCISING: Was restricted to two types of cream-slipped vessel—wide-necked jars (30–34) with beaked rims, which clearly provide a good grip; and wide shallow bowls, with or without cordons (53–59). Jars with this type of decoration continued to the end of Period IV, and rim profiles provide the best clue to the dating of the vessels. The bowls, however, become less common after Period II.

SMALLER BOWLS (35, 36, 39, 40): Usually of medium depth with slightly beaked rims. In very few instances was it possible to relate rims and bases. All that can be said with certainty is that both flat and ring bases were current at that time. As in the case of the jars, the Bampur potter evinced a conservative taste in the decoration of bowls. An obviously popular design consists of three of four sets of triple lines curving down from inside the edge of the rim to join a concentric band, or intersect in the center of the bowl (36, 37). Vertical rows of dashes or sigmas (38) are sometimes set between the wavy lines. The multiple step pattern provides effective decoration on the outside of a rather angular bowl (39). Perhaps the most

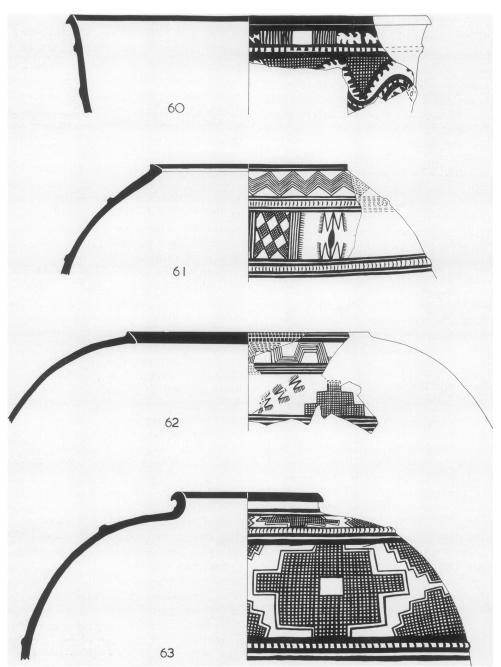


Fig. 19. The pottery of Bampur II. Approximately  $\times 1/4$ .

distinctive design of this period is the neat swag frieze with opposed hatching (35), often placed above a horizontal wavy line. The design was often used on bowls and goblets of this period, particularly in grayware (101, 106–108, 113).

Cups: Are either slightly carinated above a

flat base (42, 43), ovoid with a concave base (46; Fig. 30, No. 10), or curved in to a narrow thickened foot (47). Multiple chevrons are much used on the carinated form which can be compared with examples in the later periods (cf. 42; Fig. 22, No. 145; Fig. 25, No. 254).

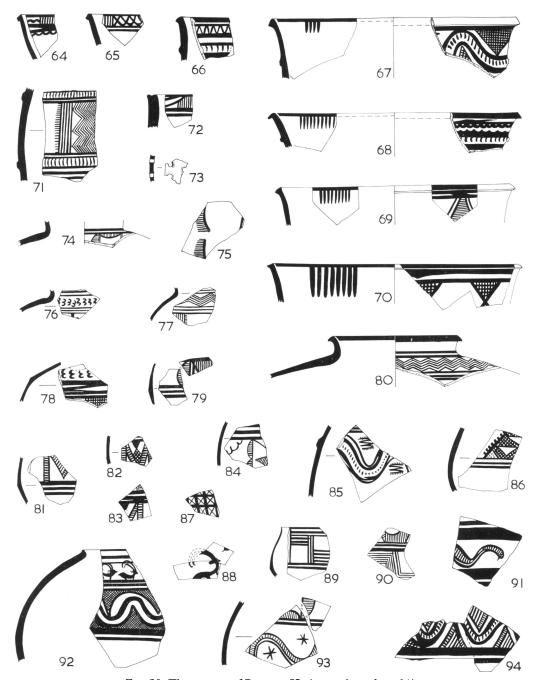


Fig. 20. The pottery of Bampur II. Approximately  $\times 1/4$ .

DISHES ON STANDS: Their presence in this culture is of relatively limited interest because the only two examples (51, 52) are too fragmentary to show whether the stem was high or squat.

DEEP BASINS: Clearly were regarded as necessary household utensils and remained in use from

Period I to IV. They vary little in size and decoration, and are best dated by their shape. The beaked or nailhead rims and rather flared walls of the Period II basins convey the impression of angularity distinctive of that period the effect heightened by the addition of either

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straight (66) or undulating (67) cordons. These cordons were current in all periods, invariably heavily outlined and striped in black when used on painted vessels, but those of Period II can be distinguished by their rectangular section (cf. 67 and Fig. 29, No. 319). Groups of pendant lines inside the rim (67–70) provide another useful diagnostic feature of the period, although caution is required in applying this rule as pendant lines reappear at the end of Period IV and in the subsequent period.

GEOMETRIC DESIGNS: Were predominant, probably because they were so well suited to the forms they adorned. Notable favorites were the multiple chevron and angular stepped pattern. The skill of the Period II potter is particularly well illustrated in his use of these two designs which are adjusted to emphasize the width of a bowl (39) or to sharpen carination (42). Even when two registers are decorated, there is a restraint and sense of balance between the form and its ornament, which is often lacking in the pottery of the later periods.

Other motifs characteristic of this culture include an opposed ladder pattern (cf. 89 and Fig. 29, No. 298); crosshatched triangles divided into three with denticular edging (cf. 86 and Fig. 29, No. 317); looped bands (cf. 66 and Fig. 29, No. 320); and fringed edging on the ubiquitous panel divider (cf. 71 and Fig. 29, No. 303). Naturalistic patterns were limited to the palm fronds noted in Period I. Zoomorphic designs were infrequent but extremely realistic likenesses were achieved in the case of a few snakes (41, 91) and the long-horned animals shown in solid silhouettes (88, 92, and Fig. 30, Nos. 6, 22). Formations of rather heavy-bodied little birds (95-97, 99), placed sideways down a jar or inside a bowl are of interest, if less satisfactory artistically.

Although a basic continuity is apparent in the pottery of Periods I–IV, certain designs do not recur after Period II. These include the hatched M with hourglass in the angle (82, 83, 95, 119) and the birds (95–97, 99). The combination of these designs on No. 95 suggests that both may represent the ingredients of an earlier ceramic tradition. A design for which no parallel was found on Site Z is No. 27 (Fig. 30), and this also may be a survival from an earlier style.

#### GRAYWARE, PERIOD II

The grayware of Period II is often extremely

fine-grained, thin, and hardfired, with a slightly metallic ring when struck. Although unslipped, the ware is pleasingly smooth and ranges in color tone from dove to bluish gray.

With the exception of the unique spouted vessel (125), the range of forms was restricted to goblets and bowls, the latter distinguished from similar red-ware forms by their tapering rims (115, 118). Another feature more apparent on the grayware is decoration on both surfaces (112, 115, 119, 122–124), a less common practice in the later periods. Goblets are usually decorated with some variation of the swagged frieze noted on the red ware. This takes the form of either grouped vertical lines (101, 106, 107), diagonal hatching (108) or, less frequently, opposed hatching (113). This pattern is known on sites near Shahi Tump in Pakistan Makran (above, p. 259) and may eventually provide a useful link with that region.

Animal patterns include both cervids and birds similar to those on the red ware (96, 97, 121). While the birds bear a strong resemblance individually to those of Sialk III, 4–7, their treatment as a design element differs considerably, the Sialk birds always appearing one above the other, when used vertically, and not set side by side as on the Bampur bowls.

# PERIOD III WARES Figures 22, 30

The pottery of Period III, although sparse in comparison with that of the previous period, is of importance, as it provides clear evidence of cultural contact with sites in southern Seistan. It can also be related to material current during the first phase of Mundigak IV and at Deh Morasi Ghundai in southeastern Afghanistan (p. 261). Although there is a hint of these new influences at the start of Period III, their impact does not become marked until Phase 3 when a number of new features in either form or design appear. This link with regions to the northeast continues into Bampur IV. Comparative material for both periods is listed in Table 5.

Despite the fact that it was derived from occupation levels of Period III, the excavated material almost certainly provides an inadequate picture of the range of forms then in use. Whereas Period II survivals may account for the good quality decorated wares in the first

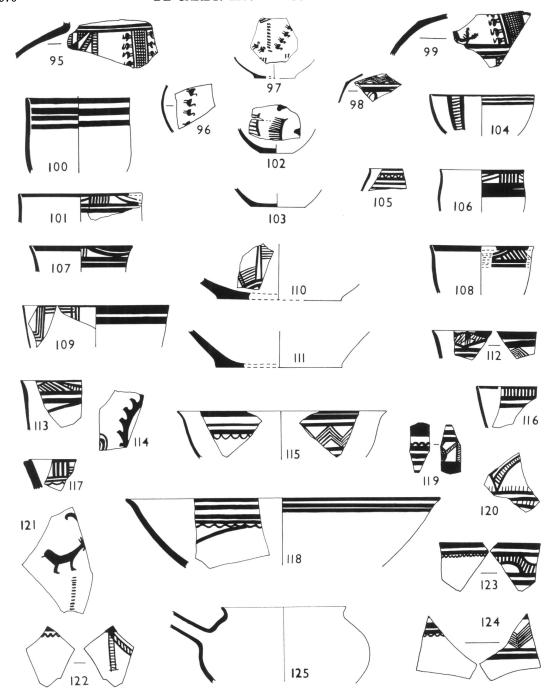


Fig. 21. The pottery of Bampur II. Approximately  $\times 1/3$ .

two phases of Period III, the wares of Phases 3 and 4 are technically inferior and characterized by a somewhat careless style. As the pottery of the subsequent period is comparable in quality to that of Period II, it seems unlikely

that deterioration reflects a major cultural change. The stratigraphy, in fact, suggests some socio-economic change affecting either the use to which this area was put or the status of its occupants during the latter part of Period III

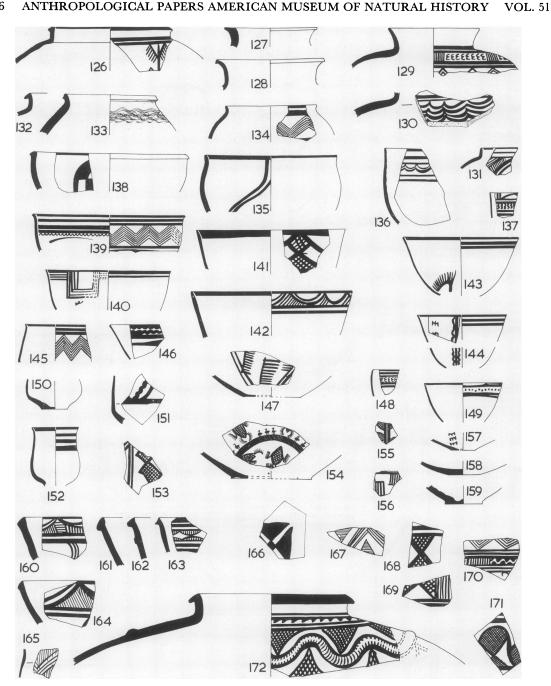


Fig. 22. The pottery of Bampur III. Approximately  $\times 1/4$ .

when it no longer served for living purposes and was more probably an outbuilding of some kind. Put in other terms, the pottery of Phases 1 and 2 can be described as "tableware" but that of Phases 3 and 4 ranks only as "crockery."

Both the gray and the cream-slipped wares of

Period II continued, but red-surfaced vessels, either slipped or plain, became more plentiful. In general, the pottery of Period III is noticeably less angular, with gentler rim profiles and more rounded cordons. This emphasis on a decidedly globular outline is reflected in two new types of bowl (135, 138), the former being a shape also found in Mundigak IV, 1. New types of jars included some with high concave necks (127, 128) and one (129) of more rounded shape than No. 28 (Fig. 18) although decorated in the same way; the design is one which also occurs in Seistan. Two types of storage jar were noted, the handsome cordoned vessel (172) and a plain, ovoid form with heavy-beaded rim (diameter 36 cm., unillustrated).

Another new form introduced during this period is that of a thin-walled conical bowl in grayware (143, 144, 149). Although fundamentally a simple shape, it is quite distinct from the shape of Period II bowls, which usually have slightly flared rims. All the examples illustrated bear designs familiar in Seistan.

Cups also show signs of change. One example (152) may have had either a stem or a short base of the kind found at Deh Morasi Ghundai during Period IIb. Another type of cup has very thin walls above a thicker, bulging girth (150) in contrast to the more ovoid forms of Period II (cf. Fig. 18, No. 46). Almost all the bases of this period are flat as opposed to the ring bases common in Period II. A new feature is the pronounced knop found inside several types of bowl; this type of base also occurs in Mundigak IV, 1.

Comb-incised ware continued in use for jars and large basins, the latter often having rim diameters of up to 40 cm. In most instances incising was applied on a cream or thin buff slip. New variants on the jars current in the previous period are represented by Nos. 132 and 133.

As in Period II, decoration is almost wholly geometric, except for the palm frond motif (126, 147) and a possible leaf pattern (155). Sherds comprising a ring-based bowl (154) with birds and insects come from the build-up immediately below and in the first occupation level of Period III, and are best regarded as rubbish survivals. If many of the new designs are uninspired by the standards of the earlier pottery, some have at least the merit of being sufficiently distinctive to leave no doubt as to their derivation. They include: bands of scalloping (130, 136); a short spiral motif set either wholly or partly within an oval (151) or horizontal S-shape (Fig. 25, No. 227 in Period IV, 1); hatched curvilinear diamonds (153) placed vertically between double lines down the outside of cylindrical vessels, and a repetitive band of crosshatched hourglass shapes filling the curves of a meander (171); single wings (143); and a Maltese cross (166) without the toothed edging found on Period IV examples. All these designs are found on sites in southern Seistan, notably at Shahr-i-Sokhta, Kalat-i-Gird and in the vicinity of Ramrud, and many of them also occur on the pottery of Mundigak IV, 1 (see Table 5).

Also new, but less distinctive, are the dotted frieze (149) which is known in Seistan, and a thinline design of opposed hatched triangles separated by a multiple chevron (165, 167).

# PERIOD IV, PHASE 1 WARES Figures 23–25, 30

Although the stratigraphy indicates major redevelopment within the area of Site Z at the outset of Period IV, the pottery shows conclusively that the builders shared the same cultural background as the former occupants. A number of the Period III forms and designs continued, and a feature of considerable interest is the way in which intrusive designs merged into the local style by Period IV, 1. That phase marked an obvious turning point in both cultural and stylistic development, the two succeeding phases being characterized by pottery which fell short of earlier technical and artistic attainments.

A few sherds of two new graywares, one streak burnished, the other incised, occurred in Phase 2 and anticipated wares that became more common in Period V. Together with designs best ascribed to that period, they indicate the appearance of new cultural influences in the Bampur Valley.

#### RED WARE, PERIOD IV, PHASE 1

In quality, form, and decoration, the red wares produced at the start of Period IV are superior to those in use at the end of the previous era. Cream, gray, and self-slipped red ware occurs in the ratio of about 36:25:19, the rest of the sample being made up of sherds with slips of orange or pink-buff tones.

The forms show a slight reversion to the cleancut profiles of Period II, and where similar decoration occurs, the less pronounced rims and flattened cordons of Period IV are often the only distinguishing features.

The wide range of jars include almost all the forms of Period II, save No. 23 (Fig. 18) with

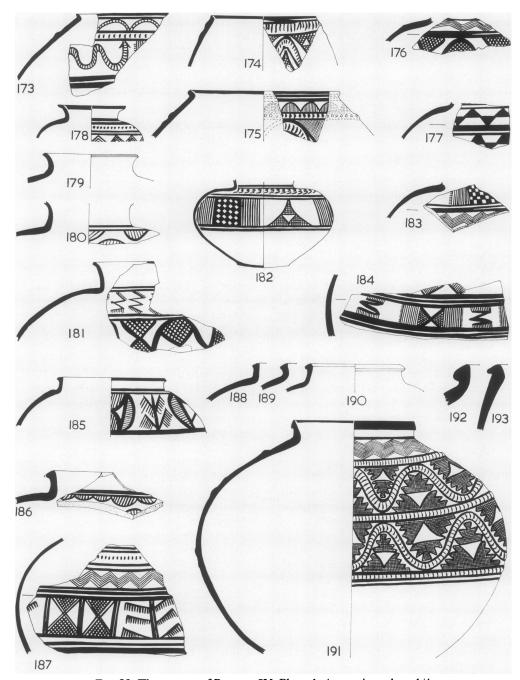


Fig. 23. The pottery of Bampur IV, Phase 1. Approximately  $\times 1/4$ .

slight modifications, usually to the rims. Several jars, including No. 182, and a bowl (251), have sagging bases, a feature not noted in the pottery of other periods. Perhaps the most characteristic form of Period IV, 1, is the high necked jar with

flared edge (181), a type that first appeared in Period II but only became common in Period IV. Collared jars seem to have been equally popular, and No. 185 differs little in either form or decoration from its prototype (Fig. 22, No. 126) and has a number of variants (188-191). Jars such as Nos. 173 and 175 are closely matched in Mundigak IV, 1, but No. 174 is a form not previously encountered. The angular carinated shoulder of many of the earlier jars had virtually disappeared by Period IV although there is a hint of sharpness on one flattened spherical jar with sagging base (Fig. 26; No. 182) a fine example of Phase 1 decoration at its best. The relatively flat space around its shoulder is filled by a traditional sigma band and careful attention has been paid to perspective in the metopic design below, two sides of the triangular motif being slightly concave to suit the curve of the vessel. This jar may be compared with one of somewhat similar, although more exaggerated, shape from Mundigak IV, 1.

In general, rather more than half the body of the jar was decorated in Period IV, 1. The results are often aesthetically less satisfactory than the simpler style of Period II but a few vessels, including No. 191, display the earlier qualities of balance and proportion. Overfiring has resulted in a slip of greenish buff but this has not materially diminished the attractive appearance of this storage jar. The bold design, executed in a surprisingly precise, fine style, fills the space between the flattened cordons and illustrates a new variation on the theme of the divided triangle with denticular edging.

Multiple chevron patterns retained their popularity but were often combined with zones of dots (178, 187). The design may stem either from the grayware bowls of Period III or represent stylistic deterioration, the dots replacing the more usual striped cordon. Solid black checkers, set either straight or diagonally, were introduced, and combined with the familiar panel divider with fringed edging. Surprisingly, checkerboard patterns are not found in Mundigak IV, 1, and occur there only rarely in IV, 2 (Mundigak design 410). Whereas checkers were used in panels and continuous bands during Amri IC, the designs in which they were incorporated bear little relation to those of Bampur IV (cf. 183; Fig. 31, Nos. 51, 52; Casal, 1964, Figs. 56, 57, 59, 61).

Both at Mundigak and Bampur, considerable emphasis was laid on hatched crescent shapes. These were set either singly in bands (175, 186, 237) or opposed on the shoulder of large jars (180). Sometimes they were grouped to form decorative panels (185, 243) or used as a kind of

vertical scalloping on either side of panel dividers (200, 237).

An interesting aspect of Period IV, 1 decoration is the combination of the earlier intrusive elements with the traditional patterns. The process is well illustrated on a jar (181) painted with the fringed M's of Period II set above a curvilinear design that only reached Bampur in the subsequent period. Fringed M's are unknown at Mundigak but the other motif occurred both there and on a site, Jai Damb, in Pakistan Makran.

Superficially, deep basins (219, 224) with either beaded or clubbed rims differ little from their Period II counterparts (Fig. 20, Nos. 67–70) and can only be correctly identified by their outline and the omission of the pendant lines from inside their rims. The flattened V-shaped cordon of this phase provides another useful diagnostic feature. New forms, generally undecorated, include a group of more globular basins (221–223), with either beaded or flattened rims.

Large shallow bowls of the type common in Period II had died out almost completely by Period IV. Fragments of a few coarse handmade vessels were found, including a bowl with overhanging rim (225), so poorly fired that it cracked on exposure. Among the range of smaller bowls, a steep-sided bead rim form (208) is almost the only new addition. It was restricted to Phase 1 although its absence in the later levels of Period IV may be due solely to the relatively scanty material those phases produced. The deterioration of some of the traditional designs is illustrated by the careless execution of the familiar swagged frieze both on the red ware bowls (209-211) and the gray (250). The scorpion bowl (201) is something of an enigma. Its form, beveled rim, and style of decoration, point strongly to Period II, but it is covered with a smeary brown wash not used in that period.

Small cups, still decorated with chevron patterns, varied considerably in shape. Number 203 is closely matched in Mundigak IV, 1, and is one of the few examples of a concave base in this phase of Bampur IV, most other vessels having thick, flat or sagging bases. Number 202 is certainly a new and distinctive form, but whether it should be regarded as a small-based beaker or a stemmed goblet is doubtful; the design is closely paralleled in Mundigak IV, 1.

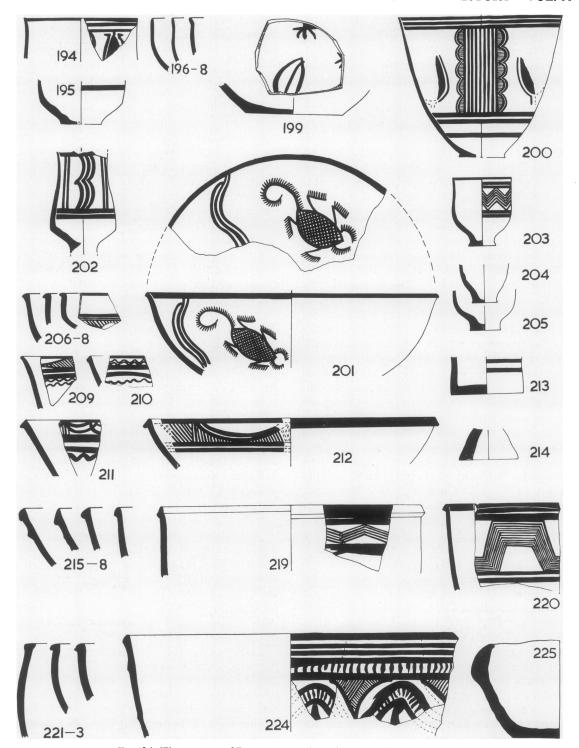


Fig. 24. The pottery of Bampur IV, Phase 1. Approximately  $\times 1/4$ .

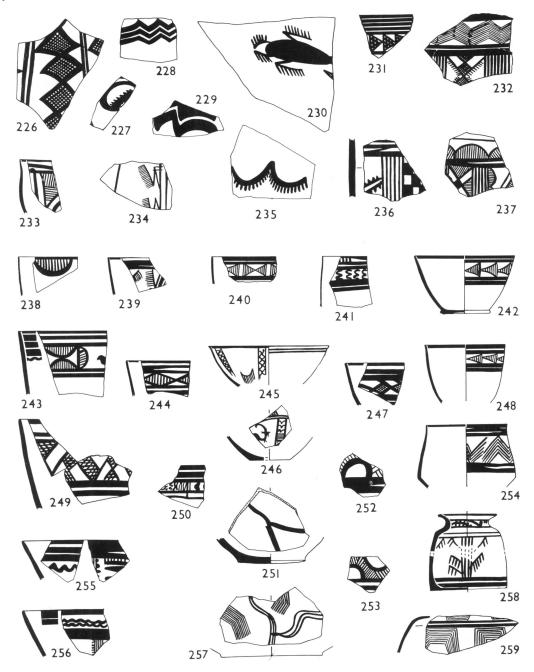


Fig. 25. The pottery of Bampur IV, Phase 1. Approximately  $\times 1/3$ .

Several of the cups and bowls, particularly those in grayware (below, p. 292) are exceptionally thin, and a large bell-shaped beaker (200) is one of the most elegant examples in the red ware.

The use of unslipped red ware increased during Bampur IV, 1, and a measure of its popularity may be reflected in the application of comb-incising to red as well as creamslipped vessels.

#### GRAYWARE, PERIOD IV, PHASE 1

The grayware of Period IV, 1, shows no significant difference from that of the preceding periods in regard to fabric, tone, or firing. It is also of interest to note that the convention dictating its use for bowls and cups continued, and a small, relatively thick-walled canister (258) and a jar with squared shoulder (259) were the only exceptions to this rule.

Some change, however, is perceptible in the form and decoration of the bowls. Whereas the earlier bowls have slightly flared edges, those of Period IV, 1, are straight-sided with tapering rims. The old swagged frieze has lost much of its crispness and is in the process of replacement by new designs, found also on the pottery of Seistan. These include hatched diamonds (244) and triangles set apex to base (242). Designs of this kind were clearly in demand in Phase 1 and the potter produced matching sets of little bowls similar to No. 242 in at least three graduated sizes. Bands of hatched hourglass forms placed horizontally (240) are also common, but the crosshatched spicate pattern (247), which occurs also in Mundigak IV, 1, is relatively rare. The broad meander filled with opposed hatching continued through from Period II (cf. Fig. 21, 123; 253), and its presence in Mundigak IV has less significance than some other motifs because it is a widely distributed design. The multiple stepped pattern retained its popularity (259) and its use in short lengths (257) is matched in Mundigak IV, 1. The chevron pattern on a carinated bowl (254), rather wider than its earlier red-ware prototypes (cf. Fig. 18, No. 42 and Fig. 22, No. 145), illustrates the careless painting on some vessels of this period. The crosshatched design on No. 249 is unusual and is best matched by a design from Tal-i-Pir, Haraj, although the resemblance may have no special significance.

As in the earlier periods, designs are almost wholly geometric, the only exceptions being a few insects (230), caprids (246), and palm fronds (258).

# PERIOD IV, PHASE 2 WARES Figures 28, 30

The pottery of Phase 2 is scanty but sufficient to show not only the deterioration of the earlier style but the introduction of several new elements as well. The relatively high proportion of plain to decorated wares (70:30) is most probably due to some difference in the use to which this area of the site was put during Phase 2. In the subsequent phase, when it clearly served as living quarters, the percentage of painted pottery increased, thus ruling out the idea of any major cultural change.

With the exception of the grayware, the fabric is slightly inferior in quality to that of Phase 1 and several of the pots, including one crudely handmade vessel with a lug (277) are of poor manufacture. A thin whitish slip, which flaked off easily, was used on a fabric more pinkish buff in tone than red, a variation due, probably, to the firing. Levels 41 and 42 produced fragments of a basket-marked jar with overhanging rim (283). Vessels of somewhat similar shape, molded and fired inside a basketry frame, were found in a considerably earlier context during excavations at Anjira in central Kalat (de Cardi, 1965, Fig. 8, 120-122). The ware has a wide distribution extending southward from Kandahar, in Afghanistan, through Kalat and westward to Kharan. In Iran, it is known from surface finds at Qasimabad and Chah Husaini in the Bampur Valley and at Robahok in Saravan. Its discovery in a Bampur IV, 2 association suggests the need for caution in using basket-marked ware alone for dating purposes.

Phase 2 forms include collared (263) and everted rim jars. Bowls range from coarse globular shapes with beaded rims (278–282) to vessels with tapering rims comparable with Phase 1 bowls (e.g. Fig. 24, Nos. 196–198); some are cream slipped on both sides and their rim diameters average about 16 cm. Bases are for the most part flat, and many have the internal knop first noted in Period III.

The designs of Period IV, 2, if uninspired, are not without interest. The stars on the body of a collared jar (260) recall similar motifs on a jar in Khurab Burial C which contained several bowls with decoration reminiscent of Shahi Tump (cf. Stein, 1937, Pl. 12, Khur.C.236).

#### GRAY WARES PERIOD IV, PHASE 2

With four exceptions, which probably represent imported material, the fabric and forms of the Phase 2 grayware show little change from those of the previous occupation. The paste is usually fine and hard, and several of the bowls



Fig. 26. Decorated red ware jar of Period IV, Phase 1 (Z.182).



Fig. 27. Streak-burnished grayware beaker, Period IV, Phase 2 (Z.275) and cup, Period IV, Phase 3 (Z.310).

are notably thin walled (266, 272, 273). The general stylistic degeneration reflected in the pottery of Period IV, 2, is perhaps best illustrated by a single grayware bowl (273), overloaded with three registers of ill-digested ornament, mere relics of the traditional style.

Of rather greater interest are the signs of change in the direction of cultural contacts, which first appeared at this time. Both a jar with everted rim (264) and a small cup (269), unevenly turned and fired, can be matched in the pottery of Shahi Tump. The frieze on the cup, consisting of horned heads, should represent a stage in the devolution of a whole animal pattern, but with the exception of a few sherds in Period II red and gray wares (Fig. 20, No. 92; Fig. 30, Nos. 18, 19, 22), animals do not figure largely in the Bampur I-IV culture. Such animals as occur in Phase 2 are fluid in form and the two-legged silhouettes on No. 266 differ considerably from the Period II style (cf. Fig. 21, No. 121) in the exaggerated curve of the neck and the treatment of the feet. Stylized animals of somewhat similar appearance occur on a few sherds in Seistan (Stein, 1928, Pl. 113, SS.04). It should be noted that the horned-head frieze

common on Togau ware (stage B) in Kalat is entirely different, and together with the basket-marked ware with which it was associated there, belongs to a period (Anjira III) which must be earlier than Bampur IV, 2. The Bampur frieze soon became stylized and examples occurring in the third phase of Period IV (Fig. 29, No. 296) are closely comparable with designs on Emir Gray ware in Seistan (Fairservis, 1961, Fig. 44n)

Other new grayware forms include a small carinated beaker (Fig. 27; Fig. 28, No. 275) and an ovoid pot (274), both made in a new ware of some interest. It is a dark, blackish gray fabric, with vertical streak burnishing, from rim to carination in the case of the beaker. Gray streak-burnished ware of different tone and texture became more common in Period V, but the technique was applied to a strictly limited range of shapes which did not include beakers of this type. The Bampur example is unique and may perhaps be an import.

A few fragments of an incised grayware, described in detail below (p. 320), may have been derived from a similar source as it, too, bears streak-burnish marks.

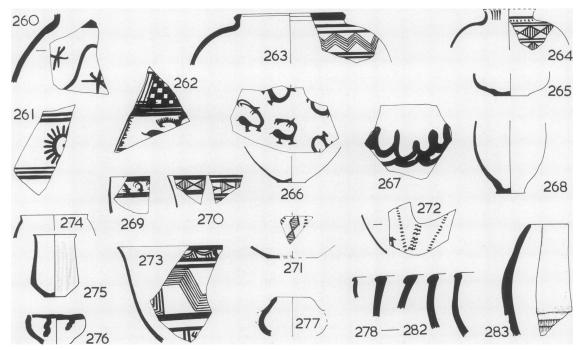


Fig. 28. The pottery of Bampur IV, Phase 2. Approximately  $\times 1/4$ .

## PERIOD IV, PHASE 3 WARES Figures 29, 31

The pottery of Phase 3 is significant chiefly for the evidence it provides of contact with the alien culture which became dominant in Period V. On their own, the new elements in Bampur IV, 3 might be regarded as intruding from the later occupation of Period V, but for the fact that the largest of the Khurab burials, B.ii, contains a similar mixture of old and new wares (see Table 4, p. 265), with some jars identical to those of both Bampur IV, 3 and V, 1, showing conclusively that newcomers had arrived in the Bampur Valley. The growing number of parallels with such sites as Panodi and Shahi Tump, east of the Dasht River in Pakistani Makran, suggests that they may have come from that direction. The inclusion of the foreign pottery among the B.ii grave goods seems to indicate that the invaders did not initially meet with hostility from the local population. Resistance may have developed later, and while there is no evidence in either of the Bampur cuttings to show that the settlement was sacked, it is quite clear that the Phase 3 occupants abandoned their home, leaving several jars and small pots in situ on the floor (Level 34).

#### RED WARES, PERIOD IV, PHASE 3

Most of the Phase 3 material was derived from Level 34. About half of it is undecorated, a small proportion consisting of either buff or cream-slipped bead rim bowls (unillustrated). The rest of the material bears decoration painted directly on the red fabric. As in the previous phase, comb-incising was applied to both cream and unslipped red ware.

Measured against the range of vessels in the Khurab Burial B.ii, the material recovered during Phase 3 provides a far from representative selection of forms. Bowls, basins, beakers, and cups are plentiful but for some reason jars are relatively scarce. Among the few recovered is a short-necked vessel (62), bearing a Period IV, 1, design, and a large buff-slipped jar found upright on the floor in Level 34 that has a height of ca. 38 cm. to the shoulder (its rim is missing) and a base diameter of 18 cm. Its undecorated exterior was crudely finished and bears traces of paring. Numbers 315 and 316 form part of a large, globular flat-based jar in a medium thick pink ware with thin cream slip. From the

dozen sherds recovered it was possible to reconstruct part of a recurring pattern of fringed Maltese crosses set in panels of verticals alternating with checkers. A band of vertically hatched diamonds separated the lower from the upper register, of which only the checkered panel was found. One of the Khurab jars (B.ii.200) is almost identical, except that the crosses occur in the upper zone, with a cruciform motif of a different type below, which is matched by a design in a Period V, 1 level (Fig. 35, No. 349). The hole-mouth jar (289) with bead rim is a new form, of probably alien origin, to judge from its decoration. The same applies to Nos. 290 and 291, which anticipate the style of Period V, both in the zigzag band around the shoulder, the repetitive tree pattern, and the hatched fish.

The globular bead-rim bowls (284-288), which continued into Period V, were probably derived from the forms of Period IV, 2 (Fig. 28, Nos. 278-282); a badly made bowl (302) with crudely painted decoration, has an unusual disk base. One of the Bampur bowls (319) closely resembles a Khurab vessel (B.ii.201) although Stein's illustration does not show whether the striped meander is ridged or flat, and it should be noted that the design is also found at Shahi Tump. Another ridged bowl (318) is also paralleled exactly at Khurab (B.ii.202). From the vessels found both at Bampur and at Khurab it would appear that the opposed hatching, popular in Period IV, 1 (e.g. Fig. 24, No. 224) had almost died out by Phase 3. Several varieties of steep-walled bowls (292-295) were introduced at this time, but No. 293, with a slight carination below a flared rim is unusual. A small cup (Fig. 27, No. 310 is one of a pair, which illustrates a new design, found also at Khurab (B.ii.142), the only difference being the horizontal (rather than vertical) hatching of the triangles on the Bampur example. Much the same design, although more crudely executed, was used as a double band on another vessel (Fig. 31, 72) and this occurs also at Panodi with other Phase 3 motifs.

A large goblet or deep bowl bears two zones of hatched diamonds, a combination much used in the previous phase of Period IV. Smaller cups with flat string-cut bases were still decorated in the traditional style (308), but a new group, destined to replace them (see Fig. 34, Nos. 340, 341), appeared in Phase 3. These

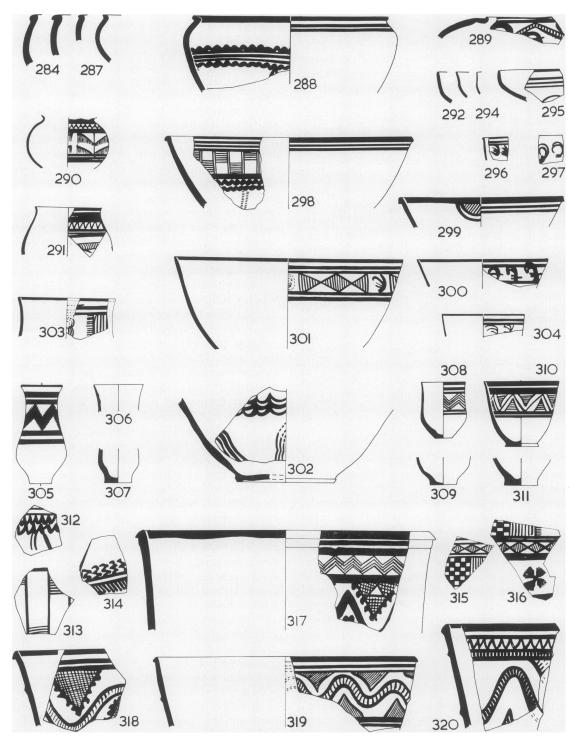


Fig. 29. The pottery of Bampur IV, Phase 3. Approximately  $\times 1/4$ .

cups bear only three or four brown bands painted on the red or cream-slipped body that occasionally shows signs of paring.

A swag-bellied beaker (305) with broad thorn-edged chevron, is of a type known both in Seistan and in Mundigak IV, 1, and goblets with similar decoration were found on a site near Ramrud and at Shahr-i-Sokta, Seistan.

#### GRAYWARE, PERIOD IV, PHASE 3

Grayware is fairly plentiful and includes a few streak-burnished sherds (285) together with the rims of about nine different bowls and cups, some with painted designs decidedly more brown than black, which may be due to faulty firing.

With the exception of a fragmentary canister and a jar with hatched diamonds on the shoulder (both unillustrated), the most usual forms are small and medium-sized bowls with bases often thinner than their walls. Number 301 illustrates a distinctive and obviously popular frieze combining hatched diamonds with a stylized horned head, yet another Khurab pattern. The frieze on Nos. 296 and 297 shows the devolution of the design first noted in Phase 2 (Fig. 28, No. 269); in its Phase 3 style, this pattern occurs both at Khurab and in the Gardan Reg, Seistan.

In addition to the horned frieze, several grayware bowls (unillustrated) bear bands of hatched diamonds or triangles similar to those of Period IV, 1 (Fig. 25, Nos. 242, 248), although in some cases the sides of the triangles are extended beyond the baseline. One flatbased bowl in Level 34 is decorated with part of a frond design comparable with a bowl from Damin, a site on the banks of the Karwander River, and another bears a panel of trees similar to No. 290, also matched at Damin. Multiple stepped patterns of the kind shown on No. 273 (Fig. 28) continued, and in one case dashes set in a vertical line (see Fig. 28, No. 272) were combined with a ladder pattern radiating from the center of a flat-based bowl with base diameter of 4 cm. This design is one that recurred at Bampur from Periods II to V and was also found in Mundigak.

No examples of incised grayware were found in the Phase 3 occupation levels.

## PERIOD V, PHASE 1 WARES Figures 34–36

Period V marked the end of the Bampur I-IV culture and its replacement by a culture of

probably alien origin. It may be purely fortuitous that the close relationship that had existed between the wares of Bampur and Seistan since the middle of Period III also ceased at the close of Period IV. Although it is still possible to point to a few analogues between the pottery of Bampur V and Mundigak IV, 2-3, the comparative material shows clearly that cultural contacts changed direction during Period V when east-west affiliations appeared. The significance of this reorientation in the pattern of external relations is discussed above (p. 266). Some tenuous link not only with the Oal'ah culture of Fars but also with the subsequent Shugha culture of that region is suggested by the pottery of Period V, Phase 1. In Phase 2, however, the evidence points to contact with the Kulli culture at a late stage in its development when its wares reflect Harappan influences. Such Harappan features as occurred in the Bampur pottery suggest that Period V might be related to the later and possibly the Jhukar occupations of settlements in the Indus Valley and to sites along the coasts of western India and the Makran. There are also grounds for suggesting some degree of contemporaneity between Bampur V-VI and the Umm an-Nar culture of the Oman Pensinsula.

The identity of the newcomers who reached the Bampur Valley at this time is unlikely to be established until further field-work in southern Iran and the Makran provides reliable comparative material. Stylistically, their pottery bears little resemblance to that of the Bampur I-IV culture and the almost complete disappearance of the traditional designs points to the virtual submergence of the indigenous inhabitants. The new pottery was technically inferior to the earlier wares and suggests either that the newcomers were culturally less advanced than the people whom they conquered, or that it took them some time to master the idiosyncrasies of the local clays and fuel upon arrival in their new environment.

On both Sites Y and Z the stratigraphy supports the division of Period V into two phases of occupation, both probably of short duration. The relationships of the pottery that characterized these phases is difficult to determine. A few distinctive forms and the technique of streak-burnishing appear in the wares of both phases and confirm the continuity of occupation on the site. Stylistically, however, they have

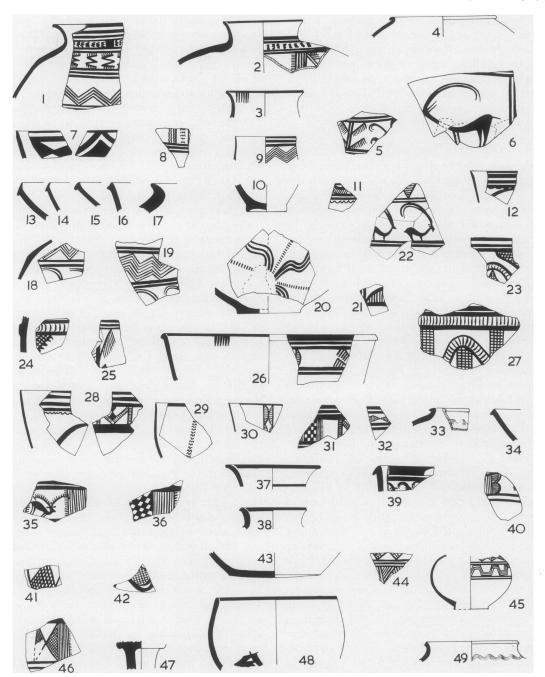


Fig. 30. The pottery of the Bampur I–IV culture from Site Y. Approximately  $\times 1/4$ .

very little in common and it is difficult to regard the designs of Phase 2 as directly derived from those of the earlier phase. It could be that its position on a main route laid Bampur open to occupation by two successive groups of migrants coming, possibly, from the region of the Dasht River, and the Phase 2 designs may reflect events taking place on sites in that area. Trial excava-

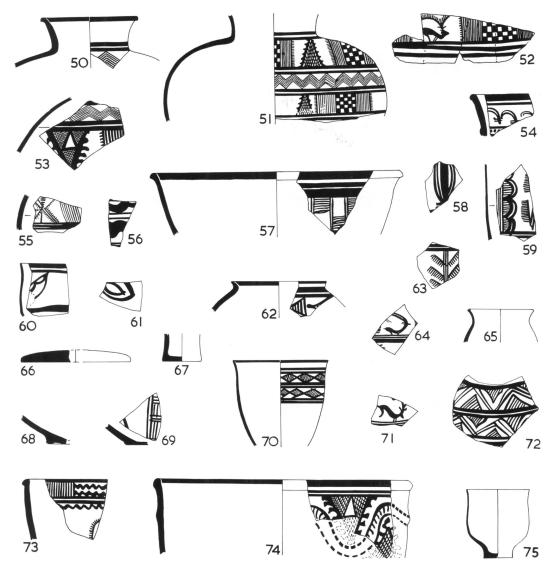


Fig. 31. The pottery of the Bampur I–IV culture from Site Y. Approximately  $\times 1/4$ .

tions in the Kulli levels at Shahi Tump would almost certainly provide the answer to this problem.

#### RED WARES, PERIOD V, PHASE 1

Whereas handmade pottery had been notably scanty in the Bampur I–IV culture, the levels of Period V, 1 produced a number of sherds in poor quality wares. Among these were an orange red ware with large grits, used chiefly for thinwalled vessels, and a coarse, grog-backed pink ware most suitable for heavier pots. In each case the fabric was biscuit brittle.

The paste used for the wheelmade vessels was also technically inferior, poorly mixed, and often contained small air bubbles and impurities. The red ware shows a considerable degree of tonal variation, due probably to inadequate control during firing, and ranges from reddish buff to orange-red, with a plain coarse ware of crushed strawberry tone in which a yellowish white degraissant is visible. Most red-ware pots were either left unslipped or simply wet-hand smoothed, but about half bear a thin, porous

<sup>1</sup>A similar strawberry fabric with yellow pitting occurs at Robahok in Saravan.

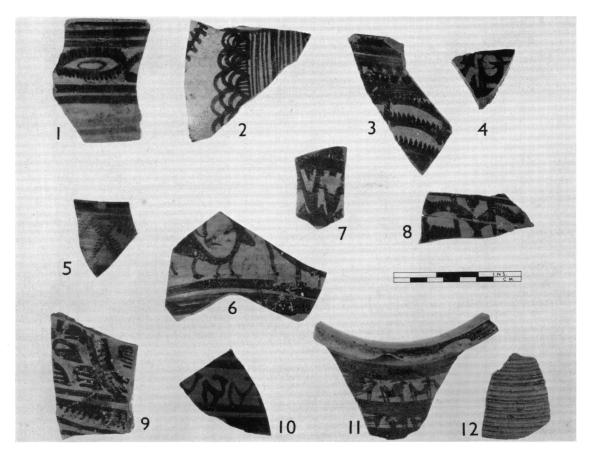


Fig. 32. Decorated and striated wares of Periods V and VI.

slip, more buff than cream in color. Either black or dark brown paint of a markedly fugacious kind was used for decorating the pottery of this period.

In general, the pottery of Phase I was relatively scanty and did not provide an adequate basis for comparison with the earlier forms. Within the range of shapes recorded, bowls predominate. The most common is a medium-sized, globular bead-rim bowl with high shoulder and either flat or slightly dished base (321). Bowls of this type are often pared around the girth and covered with a thin cream slip. A deeper variant (325) is comparable with a form introduced at the end of Period IV (cf. Fig. 29, No. 288). Other types include a shallow bowl (329) and a steep-sided vessel with bead rim (330). A bowl with flared rim (322) anticipates a Phase 2 form and may be either intrusive or transitional. Other new forms (from site Y) include a sinuous sided bowl (79) and a straight-sided, thick-walled vessel with sharply everted rim (84), the latter a type found also in "Kulli-Mehi" ware.

Only two types of basin were found: a large form with heavy clubbed rim above thick straight walls (327); and a smaller vessel (unillustrated) with straight and wavy ridges closely comparable with No. 319 (Fig. 29) of Period IV, 3, although it possesses rather more upright walls.

For some reason, relatively few jars were recorded from either of the cuttings. The large ring-based jar (339) with thin walls and high everted rim flared at the edge is a type found also in Period IV. More characteristic of Period V, 1 are wide-necked jars with either rolled rim (333) or small, impractical necks (334, 337, 338). These, together with a medium-sized ring-based vessel of flattened spherical shape, with short out-turned rim (336), and a high-

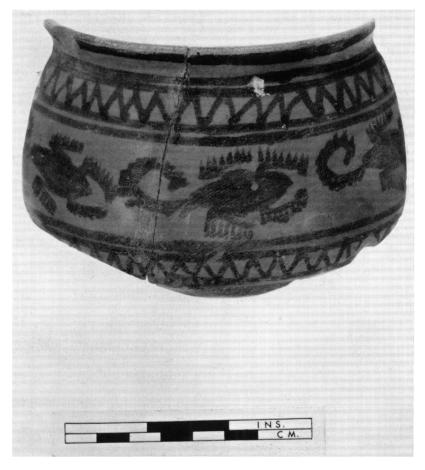


Fig. 33. Bowl with scorpion design, Bampur Period V. Phase 2 (Z.365).

necked pot with sloping shoulders from site Y (85), make up the limited range of jars recovered.

A fragment of a buff-ware canister with carinated shoulder (unillustrated) must be mentioned in this context since the form is one that occurs in Phase 2, although usually in grayware, and a flat base (335) may be part of such a vessel.

Perhaps the most noteworthy new form is a tall cylindrical goblet (342) with thick walls and slightly concave base. Other cylindrical vessels include a flat-based "flower-pot"—a form that continued into Period VI.

Cups are of two types, one with sides sloping outward from the rim to a globular belly above a flat base (340), the other straight-sided with a tapering rim (341). One sherd from site Y (88) is probably part of a small-stemmed vessel; it is heavily grooved internally, and in this respect

it can be said to resemble some Kulli pots.

In contrast to the wares of the Bampur I-IV culture, rather less than half the pottery of Period V, 1 bears painted decoration, usually applied in tones that range from black to faded brown. The hallmark of the Phase 1 style is a single thin chevron set between one or more horizontal lines. This simple but distinctive pattern is introduced at every opportunity in a manner recalling the chevrons of the Shugha culture of Fars (Vanden Berghe, 1959, p. 43, Fig. 9). It adorns both red- and gray-ware vessels and frequently serves as secondary ornament on jars (334, 337, 339). In one instance (339) it is combined with an ornate multiple stepped pattern which had clearly overtaxed the artist's skill, as he was obliged to divert attention from the faulty junction of the design by filling



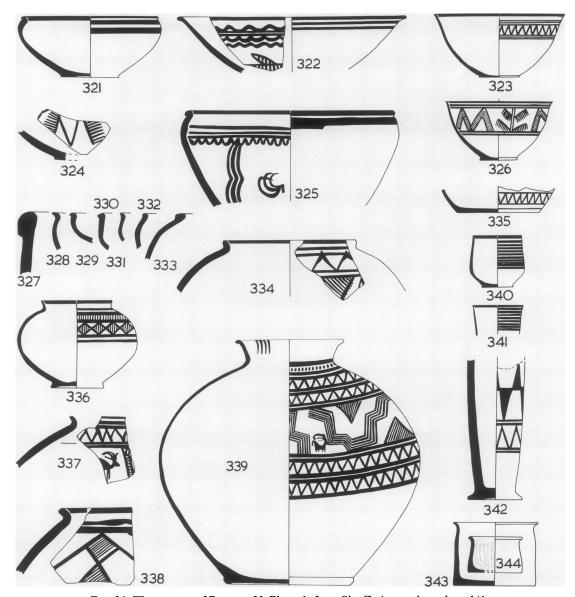


Fig. 34. The pottery of Bampur V, Phase 1, from Site Z. Approximately  $\times 1/4$ .

the gap with a small caprid.¹ In other instances, the chevron band is set above a decadent version of the earlier panel divider with fringed edge (350) or used in conjunction with opposed and solid triangles (342)—another motif found in the Shugha culture. It was most commonly combined with hatched triangles separated either by

<sup>1</sup>A similar stepped design occurs on an unpublished jar from Umm an-Nar (Cairn V), Abu Dhabi, now in Aarhus Museum, Denmark.

thin zigzag lines (334, 358) or striped bands (354).

Occasionally chevrons appear above metopic designs incorporating a curious motif resembling a striped M. This motif, which has no close parallels outside the Bampur Valley, was combined with animals (337; Fig. 36, No. 100), trees (326), and birds (Khurab Burial B.ii.214). It was also used on a large jar, found in the Period VI occupation, which bears a design of

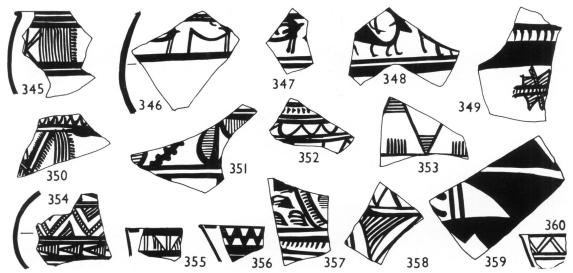


Fig. 35. Designs on the pottery of Bampur V, Phase 1, from Site Z. Approximately  $\times 1/3$ .

palm trees and hatched triangles of the kind current in Period V, 2 (e.g. Fig. 38, No. 362).

A few globular vessels bear designs that may have been inspired by those of the Bampur I–IV culture. These include elongated hatched triangles placed on their sides in a row, point to base (354), and vertical scalloping set against a multilinear panel divider (cf. Fig. 24, No. 200; Fig. 36, No. 83) used with a new motif, a barred diagonal resembling the fruit stalk of the date palm. This motif occurs also with hatched crescents (351) of the kind used in Period IV, 1. The barred, intersecting lines on No. 87 from site Y and the fringed diagonals of Nos. 86 and 350 are motifs found also in the Shugha culture (Vanden Berghe, 1959, Fig. 9).

Several Bampur V, 1 designs can be matched on the pottery from the pre-cemetery levels at Shahi Tump (Stein, 1931, 88–101). On both sites hatched diamonds were used with a striped or dotted band (336) on jars that often bore groups of short pendant lines inside the rim (339)—a feature reminiscent of Period II.

Another motif common to both settlements consists of short dashes set in vertical rows within the angle of a multiple stepped pattern (Fig. 36, No. 82). The design is one that seems to have been widely used; it occurs also on pottery found in a cairn-burial on the island of Umm an-Nar (Abu Dhabi) off the coast of Trucial Oman, and on wares of both the Kulli and the Jhukar cultures of Pakistan (Table 5). The design itself is simple and, on its own, would

have little weight, but combined with other features, it may indicate some degree of cultural contemporaneity, if nothing closer.

A further link with the Jhukar culture is provided by a more unusual design incorporating groups of short upright lines set below the partially barred point of a triangle (353). Upstanding lines of this kind, placed below multiple chevrons are known on some Jhukar vessels overlying the Harappan occupation at Chanhudaro in Sind and in the late Harappan horizon of Amri IIIC. A similar, but not identical design, is found on the Umm an-Nar pottery from Cairn V, the uprights being set between separated V-shapes in a band above hatched triangles on a carinated jar.

The bold design with solid triangular shapes (359) is not in keeping with the Phase 1 style; it may anticipate an effective pattern used on some Phase 2 jars that continued into Period VI (cf. Fig. 39, No. 398; Fig. 40, No. 404).

A few Phase 1 jars bear zoomorphic patterns consisting of crudely painted caprids (346, 347), and one sherd (357), with straight and wavy ridges outlined and striped in black in the style of Period IV, is decorated with horned heads floating in space—a departure from the more usual frieze depicted on No. 81 from site Y.

The general lack of artistry apparent in Phase 1 is perhaps most evident in the decoration of the heavier bowls. These usually bear a dark band over the rim and two on the outside, with a combination of concentric bands and one

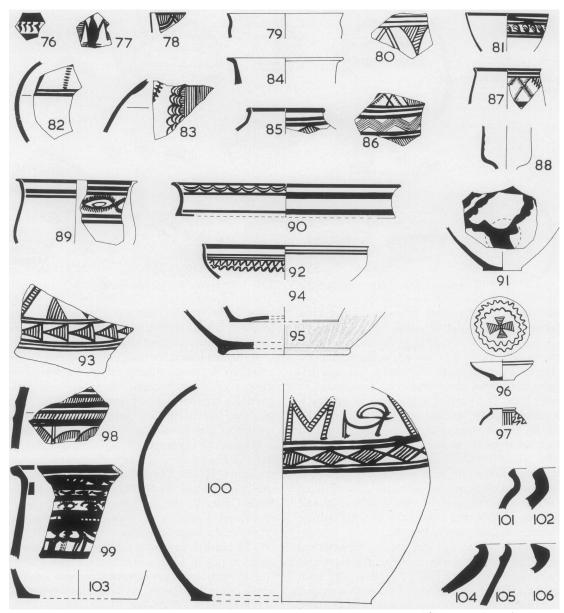


Fig. 36. The pottery of Bampur V, from Site Y: Phase 1 (76-88); Phase 2 (89-106). Approximately ×1/4.

or more wavy lines inside the bowl. Phase 1 produced relatively few plain red-ware vessels with plastic decoration, and where such ridges occur on painted jars or bowls, they are usually flattened, striped, and outlined in dark paint in the style of Period IV, 3 (Fig. 29, Nos. 319, 320).

Cups provide an illustration of the break with the earlier style, the multiple chevron pattern used since Period II being generally replaced by narrow bands extending from rim to girth (340, 341). One small cream-slipped cup bears a design similar to No. 310 (Fig. 29), with the only difference that a double chevron separates triangles with diagonal hatching (unillustrated).

## GRAYWARE, PERIOD V, PHASE 1

The pottery of Period V, 1 falls into three groups, varying in color from pale to slate gray and differing considerably from the grayware of the earlier periods, one group being of a rather

softer fabric, with a rougher texture. This may account for the fact that it was sometimes streak burnished on one or all surfaces, including the base. A comparable ware was also used for incised pots of the kind first noted in Period IV, 2. The third category comprises vessels in a hardfired, dense paste, with painted decoration varying from black to russet red.

The range of forms, which in the Bampur I-IV culture is largely restricted to thin-walled bowls and cups, is extended in Period V, to other types of vessels. In addition to small beakers (87) and thin-walled bowls with tapered (81) or flared rims and disk bases (323, 326), a rather heavier type of flat-based bowl was current (324). Another new shape, used either undecorated or incised, was a small squat receptacle (343, 344) with flat base and sharply everted rim. Similar pots were current in Mundigak IV, 3 and at Sutkagen-dor, a Harappan site on the Dasht River; and alabaster counterparts are known from Seistan (Fairservis, 1961, Fig. 29i-k) and Khurab (burial B.ii.229).

Perhaps because many of the grayware vessels were of small size, they were generally decorated with greater care than were those of red ware. The designs most commonly found around the edge of thin bowls included bands of hatched triangles and diamonds, solid opposed triangles (356) and a stylized band of horned heads (81). Double horns of a rather different type are combined with other motifs on grayware bowls at Shahi Tump, but the stylized version common at Bampur is so far unknown there, although, as mentioned above (p. 264), a whole head frieze was found.

Single chevrons of the kind used on the red ware appear as borders around the base of canisters or jars (335) and as the primary decoration below the rims of small bowls (323); both form and design are closely matched at Sutkagen-dor. Less usual is the double chevron frieze (360), a panel of palm trees in a russet paint (355), and hatched scallops suspended from inside the rim of a thin cup (78). One small sherd is noteworthy, as it illustrates a design (76) found also on pottery from the upper levels at Mohenjo-daro, from Shahi Tump, and in a burial of the Umm an-Nar culture. The fringed M, known since Period II, was used as an independent motif inside flat-based bowls (324, on Khurab B.ii.155 and 157, and on an Emir Gray ware bowl in the Gardan Reg) and as terminals to intersecting rows of dashes on a bowl at Damin (Dmn.B.121).

The absence at Bampur of the swastikas, so common on the pottery from the cemetery at Shahi Tump, is surprising. The nearest parallels to this motif found in the Bampur Valley are the wavy quartering on a bowl in Burial F.iii at Khurab and the triskele or triple wings set in the center of bowls from Damin and Khurab, B.ii, the latter edged with a frieze of stylized horns. The same triskele also occurs on a sherd in the occupation of Bampur VI (unillustrated).

## PERIOD V, PHASE 2 WARES Figures 36–38

The wares of Phase 2 are of particular interest because their Kulli-Mehi traits relate them to the later stages of that culture when Harappan influences can be recognized. The resemblance rests not only on the decorative style but also on the presence of a few identical types of vessel and wares, including ridged and perforated wares that have a distribution extending through southern Baluchistan to the late Harappan sites of western India. In Sind, sites such as Mohenjodaro (upper levels), Chanhu-daro, and Amri IIIC provide some close parallels and the links with the Umm an-Nar culture of Oman (noted above, p. 268) continue.

## RED AND BUFF WARES, PERIOD V, PHASE 2

The fabric of much of the Phase 2 pottery shows little significant difference from that of Phase 1. Both the brittle handmade and the thick crushed strawberry wares continued, and the wheelmade fabric was still marked by small air holes. Nor is there much sign of technical improvement, and some vessels are of such uneven thickness that it is difficult to decide whether they were made by hand or on the wheel.

Analysis of the pottery showed that the proportion of plain cream-slipped to decorated ware was rather higher than in the previous phase. Change was most apparent in the surface treatment of the pottery. Among the more distinctive wares introduced in Phase 2, five wares merit description.

<sup>1</sup>Stein, 1937, Pl. 12, Dmn. B.111. I am indebted to Mrs. Denise Schmandt for information about the unpublished bowls from Khurab B.ii and F.iii in the Peabody Museum, Harvard University.

MAROON-SLIPPED RED WARE: Only a few body sherds were found and these gave no indication as to the shape of the vessel of which they formed a part.

SAND-SLIPPED WARE: The use of this ware seems to have been confined to small ovoid jars (370) in a cream-slipped ware with a lightly sanded surface. A crude pattern was sometimes made by scraping the sand away to expose the body of the pot, a technique common to the sanded ware found on late Harappan and Jhukar pots at Chanhu-daro (Mackay, 1943, Pl. 38, 22; 40, 4).

Perforated Ware: Stein found perforated ware in both the deposits corresponding to our Periods V and VI, but the only examples produced by our excavations came from the later occupation. In view of its Kulli and Harappan connections, however, the absence of perforated ware from the range of Period V, 2 ceramics suggests that it was purely accidental and it seems appropriate to deal with the ware in this section.

Its use was restricted to cylindrical vessels covered with perforations from just below the sharply everted rim. Stein's discovery at Firoz Khan-damb, in the Mashkai Valley, of a jar containing charcoal ash identified these vessels as braziers (Stein, 1931, 130). The ware occurs on sites in the Makran with Kulli-Harappan affinities, including Shahi Tump, Sutkagen-dor, Thale-damb, Kulli, Mehi, and Nindowari in the Ornach Valley (de Cardi, 1964, 26; Casal, 1966). In the Indus Valley it did not appear before the mature Harappan occupation at Kot Diji (Khan, 1965, Fig. 12, 17 and 21), and at Amri it was scanty in Period IIB but increased to 2 per cent of the total sample by Period IIIC. As part of the later Harappan assemblage, it also had a wide distribution appearing in the primary settlements of that culture in the Kathiawad Peninsula at Lothal A, Prabhas I, and Rangpur IIA-B (Rao, 1963a, Pl. 51).

UNPAINTED RIDGED WARE: A few examples of a thick cream-slipped red ware decorated only with horizontal V-shaped ridges, appeared in this phase, when it was used for heavy bowls with rolled rims. Jars with wavy ridges in relief occur in Kulli-ware and a comparable red ware is known at Shahi Tump (Stein, 1931, Pl. 11, Sh.T.ii, 8–9). This ware did not become common at Bampur until Period VI, when both red and gray vessels were manufactured, and it is

best described in relation to the pottery of that period (below, p. 314). Ridges, both straight and wavy, adorn many of the heavier Phase 2 vessels, but are usually combined with painted ornament.

Orange Red Streak-burnished Ware: Although a gray streak burnished ware was current in Period V, 1 it was not until Phase 2 that an orange red ware of distinctive tone appeared. Its use was at first restricted to small ovoid jars with short everted necks (unillustrated), with a rim diameter of about 8 cm., the burnishing having been applied vertically to the body from shoulder to base. These jars are closely comparable in shape with the sanded vessels mentioned above and to a small group of plain buff-surfaced pots.

The occupation of Phase 2 produced a wider range of forms than was noted in Phase 1 and many represented new types. Jars included only one vessel with a really serviceable neck (377), most of the others having notably inadequate rims sometimes strengthened by a slight ridge below the neck (104, 105). One short-necked jar with nailhead rim and ovoid body (101) resembled a Phase 1 vessel, though the latter (unillustrated) had a straighter neck. A thin-walled jar with flat base (100) bears the striped M of Phase 1 and may be a survival.

Parts of several thick storage jars were found in the Phase 2 occupation. These were usually ornamented with straight and wavy V-shaped ridges and painted decoration (98, 379, 383). Ridged wares had been a familiar feature in Period IV but were uncommon in the limited sample derived from Period V, 1.

Some fragments of cylindrical vessels which include a large pot with a repetitive design of palm trees (375) and another vessel (372) with straight sides that bulge outward at the base, were found. A few sherds of what may have been narrow-necked jars or flasks (unillustrated) were also noted.

About four different types of bowl were found. In several cases only the flat, often beaded base and a small portion of the body had survived. A shallow, high-shouldered form (92), resembling Phase 1 bowls, was common, and a wide-necked bowl with globular body (365) may also be compared with vessels of that phase in regard to both shape and decorative style. Among the new forms introduced in Phase 2

was a wide-necked bowl with flared edge and sinuous sides (89, 382).

Basins were uncommon in Phase 2 but they included a conical shape with a slightly clubbed rim (364) and a vessel with everted rim and outward sloping sides. The latter (99) can be matched in Kulli-ware. A band of caprids is painted on a cream slip below what appears to be a frieze of scorpions.

Another new form was a small shallow saucer (96). Two variants were found in the spoil from a pit dug into Period V levels and deposited above the Period VI occupation on Site Z. Both these saucers had rather more incurved rims than the example illustrated but they shared with it a pronounced knop inside the base. Several miniature pots were found in the same disturbed horizon. They had rim diameters of about 6.5 cm., a height of only 3.2 cm., and a flat base 5 cm. in diameter. A small pot (97) and a flattened vessel with a broken lug (371) were unique.

Only a few buff-slipped cups with string-cut bases were recovered from the Phase 2 occupation. Stein, however, noted the similarity of those which he found to examples at Mehi and Sutkagen-dor (Stein, 1931, Pls. 5–7, 28, 29). They are of a type (G.15) which occurred at Mohenjo-daro and were plentiful at Chanhudaro.<sup>1</sup>

The decoration of the Phase 2 pottery is of particular interest both because of its relation to Kulli-ware and because it provides parallels with Harappan motifs. In general, Phase 2 designs fall into three groups: geometric, naturalistic, and zoomorphic. Perhaps the most marked feature of the first group is the almost complete absence of the chevron band so popu-

<sup>1</sup>Mackay, 1937–1938, I, 194; 1943, Pl. 27, 15–17. I am indebted to Mrs. Denise Schmandt for drawing my attention to these parallels.

lar in Phase 1. With the exception of a small jar (365) bearing a design closely comparable with a Shugha culture vase at Tall-i Taimuran in Fars, the chevron seems to have been almost entirely discarded, although Nos. 382 and 116 indicate its combination with new Phase 2 patterns.

A few other Phase 1 designs continued, notably the broad band of opposed hatched triangles separated either by zigzag lines (364) or striped bands (cf. Fig. 35, No. 354 and Fig. 38, No. 373). Narrower bands composed of triangles set sideways (93), lentoids and diamonds (377, 381) also occurred. All these are relatively simple elements; the fact that they were also used on Kulli-ware may have no special significance.

Stein has recorded several instances of "transferred" designs on bowls in the Khurab Burial B.ii, and it was of interest to note that a red-ware basin (364) was painted externally but also bore the "shadow" of a smaller bowl stacked inside it for firing. The design on the exterior is known both in Mundigak IV, 2 and at Mehi, whereas, the "shadow" is a Kulli pattern.

The grouped uprights of Phase 1 (Fig. 35, No. 353) were subsequently replaced by small pendant triangles (114) sometimes ending in a circlet. This design is paralleled at Sutkagen-dor on pottery associated with a grayware sherd closely comparable with No. 323 (Fig. 34), and some long ribbon flakes of Harappan type. A fringed lentoid either enclosing an oval (89) or a dot (376) recalls a motif common on Harappan pottery at Chanhu-daro and in Amri IIIC.

The sherds recovered from Phase 2 were too fragmentary to provide much indication as to the decoration of the medium-sized jars. Some (e.g. 110) certainly combined both animal and leaf patterns of the kind found on the larger

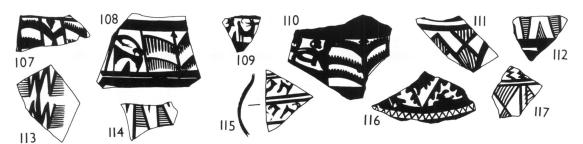


Fig. 37. Designs on the pottery of Bampur V, Phase 2, from Site Y. Approximately  $\times \frac{1}{3}$ .

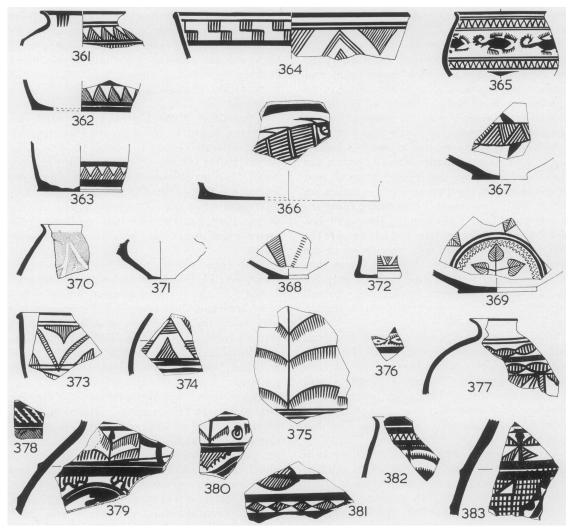


Fig. 38. The pottery of Bampur V, Phase 2, from Site Z. Approximately  $\times 1/4$ .

storage jars. Several of the latter (379, 383) illustrate the flamboyant style in vogue during Phase 2. The lower design zone was often decorated with horizontal V-shaped ridges, well defined in dark brown, and set on either side of a meandering ridge. This wavy ridge necessarily dictated the use of simple triangular motifs within the curves and produced patterns that recall the crosshatched and divided triangles of Period IV (cf. 383 and Fig. 29, No. 317).

The decoration on the upper register is less predictable. It frequently consists of either an arrow-tipped staff, with "sails" radiating from the center (383) or a palm tree surmounted by a similar heart-shaped object. Two species of tree

are depicted, one with drooping fronds (108, 379), the other characterized by branches with a serrated upper edge (107, 110, 382). Trees of the latter type are illustrated in the Qal'ah culture in Fars, but the resemblance may only signify attempts by two different people to portray a tree common to their environment. Rather more attention must be placed on the use of this motif in Kulli-ware, particularly at Mehi, and Nindowari. Both types of tree were either placed alternately (Stein, 1937, Pl. 9, Bampur A.383+176) or separated by non-representational dividers (107, 379) or double rondels (380). Occasionally caprids stand beside the tree (110), sometimes straddling a

small "rock" (108). This device is also used to break up lines of animals (109). Both these trees, complete with arrow tip, are found on Kulliware, but comparable Kulli designs are generally arranged in a continuous band and not in metopes, as on the Bampur pots. At Amri, trees of this kind apparently occurred only in Period IIIC and provide useful confirmation of the relation established on other grounds. They do not appear in the range of Harappan designs on the Kathiawad pottery.

Additional links with both the Harappan and the Kulli cultures are provided by such motifs as fish and pipal leaves. Several Bampur bowls are decorated with large fish, their bodies either striped and banded, or filled with opposed hatched triangles (367). Fish had not figured in the designs of the Bampur I-IV culture and their appearance on both the red and gray wares of Period V, 2 may reflect either contact with the coast or, more probably, the employment of a popular Kulli motif. Pipal leaves of the kind used inside a grayware bowl (369) are usually assumed to imply contact with the Harappan culture, although the motif seems to have had both a wide distribution and a long currency. It was used on the "brandy balloon" goblets of Mundigak IV, 1, and inside bowls in Period IV, 3 on that site. It was common at Nal and appeared at Anjira in Period IV. In Amri IIIA the pipal was used in various ways-grouped in threes, radiating from a central rondel, or hanging in sprays. The leaves appear at Mehi and most of the Makran sites in the form of sprays.

A more detailed comparison with Kulli-ware will be of little practical value until a soundly based sequence is provided by excavation on several Kulli sites. Piggott originally distinguished between the painted pottery which, at Mehi, was succeeded by a ware reflecting Harappan influences. The former constitutes true Kulli-ware. It was usually buff slipped and decorated with designs which included the occasional use of horizontal bands of red paint. There is no trace of red infill on any of the Bampur pottery. Other distinctive features of the earlier stage of Kulli-ware were the elongated bulls with accentuated eyes. These, too, are lacking from the Bampur repertory. Their place is taken by caprids (108,109) depicted with a greater degree of realism than the goats of either Kulli or Mehi, which are closer to the

stylized animals in Amri IIIC (Casal, 1964, Fig. 86, 416, 424a). All that can safely be said at present is that the Bampur V, 2 pottery is related at some stage to the later phases of the Kulli-Mehi culture.

#### GRAYWARE, PERIOD V, PHASE 2

The grayware, which includes the varieties noted in the previous phase (above, p. 304), provides further Kulli-Mehi parallels.

A new shape particularly characteristic of Phase 2 is a flat-bottomed dish with everted rim and concave walls (90, 366). This form became increasingly common in Period VI when it was made in about three different sizes with many variations in the curve and angle of its sides. It was often undecorated, save for streak-burnishing, but when (90) the rim was edged with the double scallop border found on the pottery of Kulli, Mehi, and Amri IIIC. Some dishes (366) were ornamented with large, banded fish in a style found also in Mundigak IV, 2. The occurrence of a "transferred" design under the base of a dish of this type shows that, like the red-ware bowls, they were stacked inside each other during firing.

A new type of jar of considerable interest is a wide-necked canister (361, 362) with flaring rim and sloping shoulder marked by a slight carination. Both in form and decoration, these canisters are closely comparable with Kulli redware vessels (Piggott, 1950, Fig. 6). In both cases the shoulder is decorated with hatched triangles set with one side along a broad black band. The bases of the Bampur canisters usually bear a similar design but the known Kulli examples are encircled by black or red bands with a central zone depicting elongated cattle with caprids in the background. No complete canisters were recovered from Bampur V levels but the occupation of Period VI produced comparable vessels decorated with both geometric (Fig. 43, Nos. 477, 478, 480) and animal patterns (Fig. 43, Nos. 479, 481), the latter possibly a survival from Period V. Vessels of almost identical form and decoration occur in burials of the Umm an-Nar culture in several parts of the Oman Peninsula (Bibby, 1967, Fig. 11) and are discussed more fully below (p. 268). A similar shape, decorated with incised patterns, also occurred in both regions. A small globular jar (115) with two zones of overbalancing caprids is stylistically akin both to

a Bampur VI canister (Fig. 43, No. 479) and to some of the Umm an-Nar vessels.

Among purely geometric patterns, which include Nos. 111 and 112, a band of diagonal lines serrated along one edge must be noted (378). This motif appears on sherds in the Oman burials and comparable versions occur at Shahi Tump and intermittently on the pottery of Amri from Period IIIB to D.

## PERIOD VI WARES Figures 39–41, 43

The style that emerged in Period VI was clearly derived from that of Period V, 2, but its character was significantly different. Relatively few of the original Kulli-Mehi or Harappan elements, apart from the caprids, survived, and the inchoate nature of the earlier style was replaced by superficially elaborate designs which could be reduced, on analysis, to a fairly limited number of standard patterns. These were applied in various combinations to suit the size and shape of the pot they adorned. The effect, individually, was pleasing enough, but the over-all impression—probably heightened by the mass of decorated material recovered—was one of mass production.

It is necessary in this section to vary the method of presentation by distinguishing between certain types of plain and decorated red wares. Streak-burnished wares, both red and gray, will be grouped together; incised ware is discussed fully in a separate section (p. 320), and only the black-on-gray ware will be described as a separate class.

Although Stein's trench was cut through the prolific rubbish layer (5) on Site Y—the equivalent of the layer he found between 6 feet and 7 feet above present-day plain level—the pottery has not previously been described in any detail. A good cross-section of the designs from that horizon was illustrated,¹ but apart from a reference to the occurrence of small jars with diminutive bases, little was said about the general range of forms. The present report aims to remedy this omission, and rather more attention is therefore paid to the shape of the vessels than to their largely standardized decoration.

## RED-WARE FORMS, PERIOD VI

In general the pottery was technically superior to the wares of Period V, both in fabric and form. The paste occasionally contained fine black or white grits but it was usually well mixed and fired.

The ceramic assemblage comprised a fairly wide range of comparatively thick-walled "utility" vessels. Rather more than half consisted of a medium hard red ware, either smoothed with the wet hand or, less frequently, slipped in tones of cream to buff. A high proportion of the pots bear some kind of decoration, either painted or plastic, or a combination of both. Occasionally, the red ware is noticeably orange in tone, the same coloration occurring in the streak-burnished ware that became common during this period. A few examples were found of a coarser pink ware with white grits which was used for both plain and decorated vessels.

One new surface treatment deserves mention. This consists of deep and irregularly spaced horizontal striations on a cream-slipped red ware (433). The sherds recovered were too fragmentary for reconstruction but the thickness of the ware suggests that it was used for large jars or bowls. What appears to be a similar ware was found at Mohenjo-daro (Mackay, 1937–1938, Pl. 54, 19, upper levels).

Both sand-slipped and perforated wares, described above (p. 306), survived into Period VI.

It is evident, from the range of forms recorded, that there was some degree of specialization within the industry, with recognized conventions governing the production of certain types of vessels. Thus, porringers (445) were invariably made in a streak-burnished ware, whereas grayware was used frequently for troughlike dishes (464–469)

In comparison with the quantity of pottery found, the basic range of Period VI forms was limited, although many variations appeared within those limits. About 20 different types of red-ware jars were noted, of which four were particularly common. The first of these is represented by vessels with a small to medium mouth (387). The body of these jars varies from ovoid to a flattened sphere (387b). A type of narrow-mouthed jar with high-flared neck (388b) often has a shoulder marked by a

<sup>&</sup>lt;sup>1</sup>Stein, 1937, Pl. 17. With the exception of A.185, A.392 and C.76, all the sherds can be matched with Period VI designs.

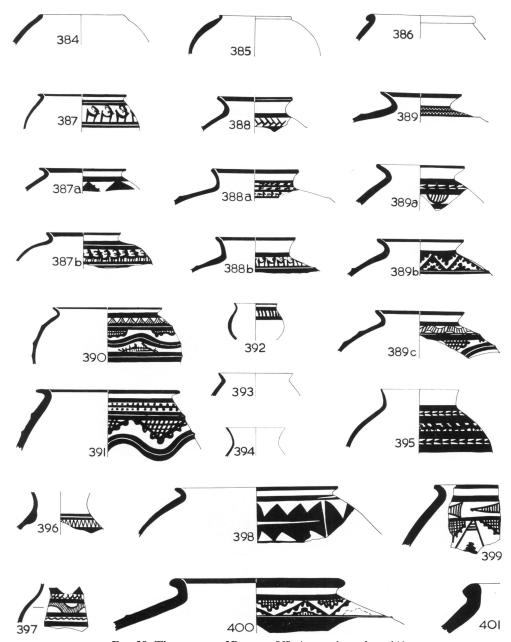


Fig. 39. The pottery of Bampur VI. Approximately  $\times 1/4$ .

straight plastic ridge combined with straight and wavy ridges set at intervals below. A similar variant has a shorter but more sharply everted rim (389) very different from the ineffectual rims of Period V.

The two most usual types of wide-mouthed jars were either spherical (390) or ovoid (391) and each bore plastic decoration. A number of

other types of jar were current, including a high-necked vessel with tapered rim and ovoid body (395), a small, thick-walled globular pot (392), and several rimless (384) or beaded vessels in a pink ware with white grits (385, 386). No complete jars were recovered, and it is not

 $^{1}\mathrm{Stein},~1937,~\mathrm{Pl.}~31,~14.$  The jar illustrated by Stein probably came from a Period V,2 level.

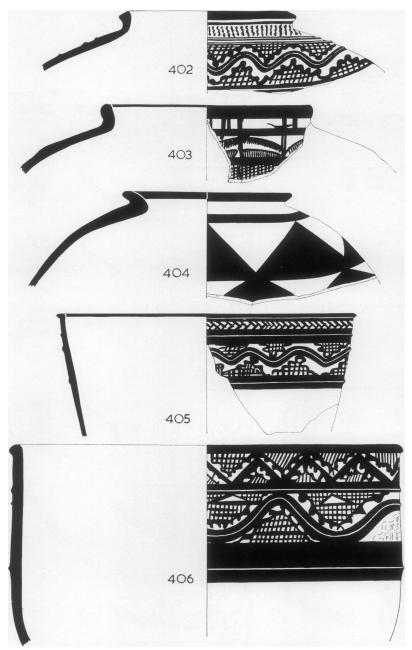


Fig. 40. Storage jars and basins of Bampur VI. Approximately  $\times 1/4$ .

possible to say with certainty whether they were flat or ring-based: a number of large ring bases were found but they could very well have belonged to heavy bowls.

Storage jars, in an orange red ware with either cream or self slip, are comparable with their smaller counterparts and often bear plastic as well as painted decoration. There are short-necked jars with beaked rims (401, 402) whereas two jars with everted necks (398, 404) illustrate the more ovoid shape of ridgeless jars. Rim diameters for this type of vessel range from 24 to 28 cm. From its decoration of double-branched palms and poorly shaped rim, No. 403

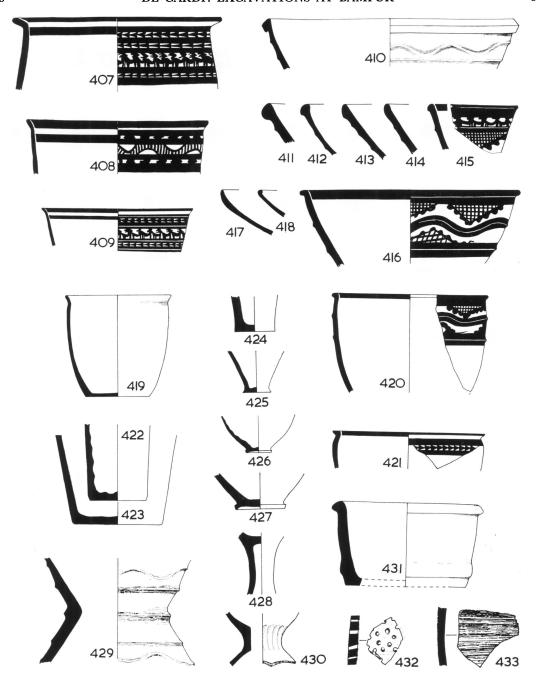


Fig. 41. The pottery of Bampur VI. Approximately  $\times 1/4$ .

appears to be a survival from Period V, 2. Several flasks (394, 397) are comparable with those introduced in Period V, and the decoration on No. 396 suggests that it may in fact have continued in use since that time.

Basins and bowls provide almost as many variant forms as do the jars. A large, widemouthed basin with beaded, clubbed, or beaked rim above plastic and painted decoration is particularly common. Two versions of this form occur, one with slightly inward sloping walls (405), the other with straight, but rather bulging sides (406). Perhaps the most distinctive Period VI vessel is a wide-mouthed basin with sharply everted rim, which ranges from 24 to 32 cm. in diameter above outward sloping sides (407). This type first appeared in Period V and has Kulli parallels. Several medium-sized bowls or basins had straight or inward sloping sides and slightly flared rims (408, 409). Vessels best classed as deep basins (420, 421) illustrate a type that only appeared in Period VI and was characterized by a depth greater than its breadth. Another (419), with straight, flared neck, should be compared with a baggier version, also undecorated (Stein, 1937, Pl. 32, 1).

A wide, shallow bowl (416) with both plastic and painted decoration, has many variants, among which is a convex-sided bowl with clubbed or beaked rim (411–415), having a diameter of 36 to 40 cm. These are described more fully under Plain Ridged ware (below).

In addition to the quantity of decorated pottery recovered from Period VI levels, a few plain red-ware forms can be recognized. These include open bowls (417, 418) and a few flat-based cylindrical vessels (422, 424). Two examples, with base diameters of 7.5 cm., have thick almost vertical sides and one vessel in a coarse textured pink ware (422) is unevenly grooved inside—a feature of some Kulli-ware. Another vessel with more everted sides (423) may represent part of a "flower-pot" of the kind found in the Khurab Burial L (Stein, 1937, Pls. 6 and 33, Khur.L.8.276).

One vessel with small string-cut base (425) bears some relation to the cup or more probably, cover, which. Stein found with red streak-burnished ware in Burial D at Khurab (1937, Pls. 15 and 34, Khur.D.245). This form, as he pointed out, can be matched in the pottery from the Kulli site of Mehi.

Two red-ware stems (428, 430) are of interest: the former appears to have supported a rounded bowl similar to one from Khurab Burial L (Stein, 1937, Pl. 15, Khur.L.i.279) but the "wasp-waisted" stem has no close parallel.

## PLAIN RIDGED WARE, PERIOD VI

The occurrence of a heavy red ware, decorated only with plastic ornament, was first noted in Period V. Its use was generally confined to

wide shallow bowls (410–414) and large cauldrons or storage pots. The bowls were cream or buff slipped and frequently streak-burnished inside. Rims varied from squared (410), heavily beaded (411, 412), to clubbed (413, 414), with diameters of from 24 to 28 cm.

Plastic decoration was applied in various ways. In some cases a straight ridge would be set around the girth of the pot with a wavy ridge below the rim. Alternatively, a single wavy line would be placed between two straight ridges. Groups of as many as four horizontal ridges were used on some basins, and a combination of alternating straight and undulating ridges encircle what was probably a pot stand (429), a unique object.

Plain ridged ware is known from a number of sites in Baluchistan, including Nal and Kulli, but the combination of plastic and painted decoration which characterizes so much of the Bampur VI pottery appears to be a local development. On Kulli vessels—generally bowls and large storage jars—plastic decoration was used in multiple groups, three or four straight ridges set above one or more wavy ridges on an otherwise plain surface. Both red and gray wares were treated in this way at Shahi Tump.

A ridged ware of a rather different kind was current at Anjira in Period IV and used for a wide range of jars and bowls with a black or a red slip (de Cardi, 1965, Figs. 20, 21). Harappa and Mohenjo-daro produced ridged bowls (Wheeler, 1947, Fig. 24, 1; Marshall, 1931, Pl. 83, type Y, 1-2) and both straight ridging and grooving occur in Amri IIIC (Casal, 1964, 395). The later pottery at Rangpur IIC includes some very pronounced grooves but bears little relation to the Bampur material. A ridged ware is also associated with the Barbar culture of Bahrain, which is partially contemporary, but slightly later than the Umm an-Nar culture of Oman. No details are as yet available as to the types of vessel on which it was used.

Its wide distribution, both in time and territory, suggest that this ridged ware should be treated with caution in establishing cultural relationships.

#### STREAK-BURNISHED WARES, PERIOD VI

Streak-burnishing, which was largely restricted to grayware in Period V, was subsequently used on a light orange red ware, and occasionally used on the undecorated surfaces of incised





Fig. 42. Two views of large streak-burnished red ware bowl with painted decoration, Bampur VI, Site Y.

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Both the orange and the gray burnished wares were dense and medium hardfired. The vessel was generally slipped before burnishing, and while no attempt was made at pattern burnishing, the shape of the pot to some extent dictated the direction of the streaks. Thus ovoid pots (450, 461), and small straight-sided receptacles with sharply turned out rims (462, 463) bear vertical burnishing, whereas porringers (441, 445) were streaked diagonally on the inside and horizontally on the outside. Some pots, including incised grayware vases, were even burnished on their bases.

Several new and highly distinctive types of vessel were made exclusively in the orange red ware. The more common forms are a ring-based porringer (445), a shallow flange rim bowl (438, 439), thin-walled bowls with either flared rim (441) or almost vertical tapering rim (448), and small ovoid foot-ring jars (450, 455, 461). A slender stem in the same ware (452) may have formed part of a chalice, but no close parallels can be cited, although the Khurab burial L produced two unpainted red ware vessels with hollow, not solid stems (Stein, 1937, Pl. 32, 9 and 10).

Burnished grayware was generally reserved for different shapes. These included several large ring-based jars (457) and the squat straight-sided pots with sharply everted rims (462, 463) of the type first known in Bampur V, 1; the same form is found with incised decoration and is closely paralleled in Kulli-ware.

Equally distinctive is a wide range of flat-bottomed troughlike dishes (464–468), produced in both orange and gray burnished ware. These were also introduced during Period V, and a similar form, often bearing painted decoration, is known from Kulli sites. These dishes were particularly common in Bampur VI and are clearly derived from such Period V, 2 vessels as No. 90 (Fig. 36). Most of them have tapered, flaring rims and range in depth from about 3 to 7 cm. The shallower dishes have a base diameter of between 20 to 24 cm., the deeper variants being larger (diameter 24–28 cm.). Two other variants have straight or slightly inward sloping walls with flared rims (469).

#### DECORATED RED WARE, PERIOD VI

A large proportion of the pottery of Period VI bears painted decoration which at first glance

appears attractive but extremely elaborate. The design elements can, however, be readily reduced to a manageable state since they consist largely of a few effective motifs combined in a variety of ways, the choice usually dictated by the shape of the pot and the presence or absence of plastic ornament.

Confronted by the need to fill the space between two straight ridges on either side of a gently undulating rib, the potter usually adopted a lacy infill of crosshatched triangles with denticular edging (390, 391, 402, 406). This design extended from the neck or shoulder over the upper half of the vessel, leaving only a small area to be filled with one of eight or nine other patterns. In Period V, 2, this space was generally occupied by heart-tipped palm trees (Fig. 38, No. 379) occasionally flanked by a caprid (Stein, 1937, Pl. 7, A.392); the cream-slipped storage jar (403) with an upper register of trees, may be a survival. By Period VI, the trees had died out but the animals continued and included not only caprids but a few examples of humped cattle, possibly zebu (Fig. 32, 11). Stylization followed rapidly, the caprids becoming either a continuous chain of heads and legs, still recognizable as animals (395), or simply a spicate pattern (388) and irregular dots on either side of a line (391).

Where geometric motifs were preferred to caprids, the choice was between hatched triangles (390) of the kind used on the black-ongray ware canisters; a broad hatched meander reminiscent of a Kulli motif (389c), or a band of vertical spirals (402), another Kulli motif that had appeared in Period V, 2 (Fig. 38, No. 378). Occasionally, a band of hatched triangles separated by a chevron with denticular lower edging was set on the shoulder of large jars (389b, 400, 406). This design can be traced back to Period V, 2 (Fig. 37, No. 116) when, incidentally, its use with the chevron line common in Phase 1 illustrates the continuity of occupation from Period V, 1 to Period VI.

Vessels without plastic ornament offered rather more scope for the artist. The most popular decoration was a combination of processing caprids set between one or more bands of solid elongated triangles, point to base (395, 407, 409). Sometimes the caprids were replaced by a motif used also in Period V, 2 (Fig. 36, No. 99) and possibly intended as a scorpion (Stein, 1937, Pl. 7, A.73, A.74, and A.183). Traces of

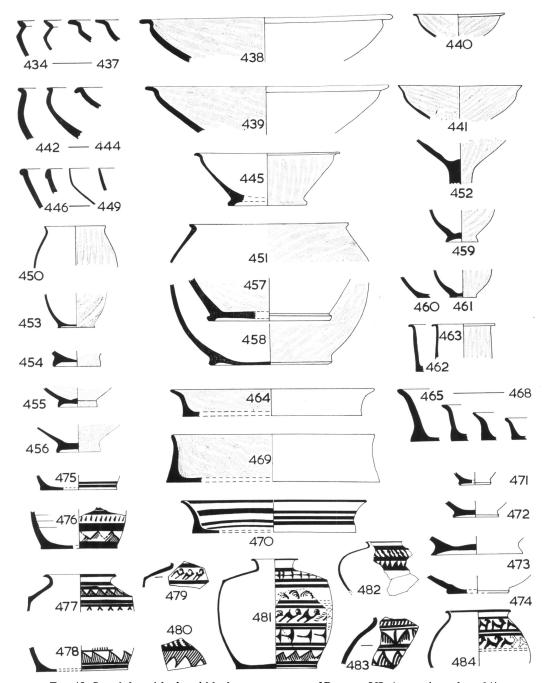


Fig. 43. Streak-burnished and black-on-gray wares of Bampur VI. Approximately  $\times 1/4$ .

the hatching common on Period V triangles survived on some examples in the form of a bar across the base (Stein, 1937, Pl. 7, A.74 and A.183), but frequently Period VI triangles were rendered as a row of cleft sticks. The occurrence

of both the scorpion band and the partially hatched triangles on cream-slipped vessels, which were scarce in Period VI, suggest that they belong more properly to Period V, 2.

A bold pattern of large solid triangles set in

rows was popular on jars of various sizes (387a, 404). A variant (398) may be derived from a Period V, 2 design (cf. Fig. 35, No. 359).

## BLACK-ON-GRAY WARE, PERIOD VI

A few examples of the black-on-gray ware described above (p.309) were found in the occupation of Period VI. It is difficult to decide whether these sherds (475–484) are Period V survivals that remained in use or whether they represent a specialized Period VI product, modeled on an earlier prototype.

One narrow-necked canister (481) can almost certainly be regarded as an heirloom from Period IV, 3. This canister is of considerable interest. The stylized heads below its shoulder closely resemble those on a Bampur IV, 3 vessel (cf. Fig. 29, Nos. 296, 297), and the two panels of curious axlike motifs can be matched on a sherd at Damin, a settlement which, to judge from the published material, did not continue into Period V (Stein, 1937, Pl. 11). Bands of hatched triangles set sideways, point to base, continued from Period V into Period VI when they were rendered in several ways, all different from the "axes" on No. 481. The row

of caprids, caught in full flight, conveys a sense of movement wholly absent from the animals on another black-on-gray ware jar (484) and a buff-slipped vessel of similar, but not identical, shape (387) found in Period VI levels. I would therefore regard No. 481 as a Period IV, 3 import brought possibly from the Makran where similarly shaped vessels occur in the Kulli culture (Stein, 1931, Pl. 23, Kul.I.viii.1).

Both the form of this canister and its caprids are matched on black-on-gray ware vessels from cairn-burials of the Umm an-Nar culture in the Oman Peninsula, and their significance is discussed above (p. 268) (Bibby, 1967, Fig. 11). Other designs common to Bampur and Oman include the combination of hatched triangles set below vertical spirals in one instance (480) and the palm trees on an uncarinated jar (483).

Several wide-mouthed carinated jars with flat bases showed little difference from those of Period V (cf. 477, 478 and Fig. 38, Nos. 361–363).

This ware utilized relatively few of the redware designs, the only motifs common to both wares being hatched lunates and meanders (389a, 408), vertical spirals (392, 402) and some caprids.

## A NOTE ON THE CARVED STONE VASES AND INCISED GRAYWARE

#### E. C. L. DURING CASPERS

RECENT EXCAVATIONS at Bampur and on two sites in the Trucial Oman States, Umm an-Nar (Thorvildsen, 1963, Figs. 20, 21) and Hili, near Buraimi (Bibby, 1967, Fig. 12) have thrown fresh light on the distribution of an interesting group of incised grayware pots with obvious affinities to the carved stone vases known from Sumer, Elam, and elsewhere (Durrani, 1964, 51-96). Examples of this grayware had been found by Stein in various regions—on a mound near Ramrud in Seistan, at Shahi Tump in the Makran, and on sites in the Bampur Valley (Stein, 1928, Pl. 115, RR.VII.015; Pl. 113, RR. VII,01; 1931, Pl. 13, Sh.T.iii.9; 1937, Pls. 6, 8). None of these pots had, however, been found in a firmly stratified context, and their relation to their stone counterparts has been a subject of considerable discussion (Piggott, 1950, 110, 116; Gordon, 1958, 48-50; Durrani, 1964, 51-96).

Both the Mesopotamian stone vases and the Bampur pots bear either geometric patterns or simple representations of contemporary huts with doors and windows. Zoomorphic scenes are presently known only on the stone vases, and no examples have yet been found in Baluchistan, but this cannot be taken as evidence that they did not reach those parts. The few stone vases which have been securely dated range from the later half of the Early Dynastic II period to the end of Early Dynastic III. The grayware pots could either be the poor man's version of a contemporary luxury object or a later product based on a stone prototype. The evidence from Bampur supports the second hypothesis, and it is therefore appropriate to deal first with the stone vases.

#### CARVED STONE VASES

Only one of the three fragments of carved serpentine<sup>1</sup> found at Bampur came from a stratified level (11) on Site Y (Fig. 44A) a

<sup>1</sup>Fragments of both decorated and plain stone vessels found at Bampur have been analyzed by X-ray diffraction which showed that all three samples had a similar composition, being essentially impure magnesium silicate, which could be described as serpentine rock. Dr. A. E. Werner, British Museum Research Laboratory, kindly provided this identification.

horizon best related to Period IV, 2 on Site Z. It formed part of a small straight-sided pyx, with two zones of angular zigzag carving set below a thin, tapered rim defined by two narrow horizontal lines. The carving can be matched on stone vases of the Early Dynastic III period, notably on a vessel from the death pit of Puabi (formerly Shubad) at Ur (Woolley, 1934, vol. 2, Pl. 178, U.10523), from Adab (Delougaz, 1960, Pl. 9c), and from Mari (Parrot, 1956, Pl. 51). A small rim fragment found near Ramrud in Seistan (Stein, 1928, Pl. 113, RR.III.015) with the same simple border above neat vertical spirals is probably stylistically akin to the Bampur vase.

Two other fragments, both of dark green serpentine, were surface finds. One (Fig. 44a) bears a formalized "hut" pattern of a kind with parallels from Tello, Sippar, and Mari, which has been ascribed to the Early Dynastic III period (Delougaz, 1960, 90–95). The other piece (Fig. 44b) was carved in a basket weave of a type exactly paralleled at Kish, Susa, Failaka Island (de Cardi, 1967, 39 note), and by a

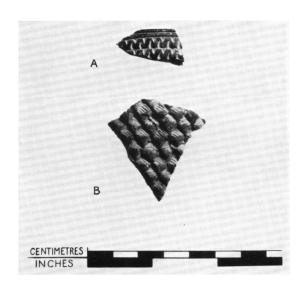


Fig. 44. Fragments of carved serpentine vases from Bampur.

fragment found in the lowest levels at Mohenjodaro (Mackay, 1937–1938, Pl. 142).

320

The location of these basket-weave vases strongly suggests their seaborne distribution down the gulf. The Bampur example could have reached there via routes from the coast (p. 239) or, alternatively, it might have been carried along the southern land route leading eastward through Fars to southeastern Iran. Part of a carved steatite vase was found at Tal-i Qal'ah, northeast of Shiraz, in an Early Dynastic III—Akkadian context (Vanden Berghe, 1954, 395, 403) and is of relevance, as some of the painted pottery of Bampur V, 1 suggests contact with that region.

Within the Bampur Valley, a burial (F) in the cemetery at Khurab, produced a small cylindrical vessel in a dark gray steatite (Stein, 1937, Pl. 6). It was about 11 cm. in height with slightly flared rim and a base of almost equal diameter (rim, 5.1 cm., base 4.4 cm.). Its carved decoration consists of three zones of geometric pattern. The upper and lower registers comprise rows of opposed hatched triangles, with a central zone made up of multilinear triangles. The pottery associated with this burial can be related to wares current at Bampur during the transition from Period IV to V. An unstratified stone vase of a similar shape, although larger, was found at Tepe Giyan (Durrani, 1964, Pl. 1, 8) but its naturalistic decoration of date palms and alternating zones of dots in relief, differentiates it from the Khurab vase and other stone vases of Baluchistan.

Eastward from Bampur, there are routes toward the Dasht River, where a fragment of a stone vase found on the surface bears geometric decoration comparable with that from Puabi's death pit at Ur (Piggott, 1943, 176). Both vessels probably fall within a group of stone vases associated with some phase of the Kulli culture of southern Makran.

Both stone and incised grayware vases (above, p. 235) have been found on Kulli sites. The former include squat cylindrical vessels with flat bases marked by either a protruding foot or beading. These, together with some square vases, are sometimes divided into four compartments. Their decoration is restricted to purely geometric patterns and no true "hut pots," bearing architectural designs, have yet been found on Kulli sites.

Compartmented steatite vases of Kulli type

have been found in the upper levels of Mohenjodaro (Marshall, 1931, Pl. 131) and at Hili, near Buraimi (Bibby, 1967, 94), and together with the incised and painted gray wares from Bampur V/VI (p. 268) provide a stratigraphical link across the gulf. Cairn I, on the island of Umm an-Nar (Abu Dhabi) also yielded a cylindrical steatite vase with undecorated but carefully polished surface.

Plain stone vessels of a similar form are known from the Royal Cemetery at Ur.<sup>1</sup> Part of an undecorated steatite vase was found at Mundigak in a context (IV, ?3)<sup>2</sup> which suggests some degree of contemporaneity with Bampur V, 1, and the related cultures of Umm an-Nar and Kulli.

The occurrence of unfinished stone vases on the Kulli site of Mehi suggests that they were of local manufacture, but the Bampur evidence provides no basis for such an assumption there. Fragments of plain steatite bowls-not cylindrical vessels-were found on the surface but are not necessarily of prehistoric date. Deposits of steatite and serpentine exist within a radius of about 100 km., the nearest at Hichan and at Nikshahr (formerly Geh), both areas located to the southwest,3 but they may not have been accessible to the people of Bampur IV. The obvious substitute for stone would be a hard grayware, and a sherd from Bampur IV, 2, one of the earliest examples of incised grayware found on the site, had in fact been carved in a lithic style (Figs. 45, No. 7; 46, No. 6).

## INCISED GRAYWARE: CHARACTERISTICS AND CONNECTIONS

Incised ware formed only a very small proportion of the pottery of Bampur during Periods IV-VI and, as in the case of the stone vases, there is no indication as to whether it was manufactured on the spot or imported from outside. A few sherds first appeared in Period IV, 2; they increased in quantity in Period V and continued into Period VI. Among the total

<sup>1</sup>Puabi's death pit (PG/800), early Dynastic IIIA; PG/1503, Early Dynastic IIIA; Pit X in a plundered grave PJ/B, Early Dynastic III or possibly early Akkadian because of its indecisive Early Dynastic III context.

<sup>2</sup>Information kindly provided by J-M. Casal (MG.B. N.1)

<sup>3</sup>Information kindly provided by the Institute of Geological Sciences, London.

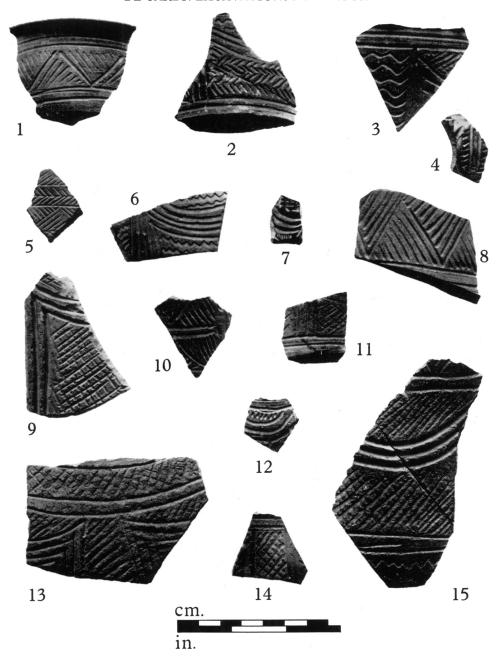


Fig. 45. Incised grayware sherds from Bampur.

of 62 sherds, including surface finds, six different types of vessel could be recognized.<sup>1</sup>

GROUP 1 (Fig. 46, Nos. 2, 5, 6, 9, 10, 12, 17):

<sup>1</sup>The loan of the sherds retained in Iran after the division of the finds was sought in order that a full report might be published. This, however, was not sanctioned and observations relating to sherds now in Teheran are based on field notes and rubbings (B. de C.).

A small flat based pot with thin, straight or slightly oblique walls and everted rim.

This type appeared in Period IV, 2 and continued as the prevailing form to the end of Period VI. The paste was well levigated and fired, and ranged from light to dark gray in tone. The inside of the pot was usually streak-

burnished, but the technique was in some cases extended to the outside of the base and, in the case of one sherd from a Period IV, 2, level, to the outside of the rim. One small fragment (Fig. 46, No. 6) bears a burnish on both surfaces which gives it the appearance of leather. The dimensions of these pots vary, although their general proportions are fairly constant. The smallest has rim and base diameters of 6 cm. and 5 cm. respectively, with a height of 4.3 cm. (Period VI). The largest rim diameter of this group is 12.5 cm. (Periods IV, 2, and VI), whereas the maximum base diameter measures 10 cm. (Period VI; and a superficial level, Z.1). The height of this type of pot is more difficult to establish, but it is unlikely to have exceeded 8-9 cm. The thickness of the pots ranges from 0.2-0.5 cm. according to their over-all dimensions.

GROUP 2a (Fig. 46, No. 13): A flat-based cylindrical pot with thin walls and everted rim.

This type, which is similar to Group 1, is represented by a total of four fragments in Period V–VI levels. The paste is well levigated and fired, and its color ranges from medium to dark gray. The inside of the pot is streakburnished and the thickness is 0.3 cm. The available rim and base diameters measure 10.8 cm. and 11.2 cm. respectively, with one recorded height of 8 cm.

GROUP 2b (Fig. 46, Nos. 8, 16): A possible variant with thicker walls and larger dimensions, found in Period V and superficial levels (Z.1). Only one fragment is streak-burnished (16).

GROUP 3 (Fig. 46, Nos. 1, 19): A squat, flat-based jar with slightly convex walls.

One base fragment of this type (1) came from a Period V level, the other (19) was found on the surface. The complete shape cannot be reconstructed in the absence of adequate rim fragments, but this type of jar may have had a rounded shoulder comparable with No. 7 which may belong to this group. The fabric is similar to that of Group 2 but the jars had not been streak-burnished. They vary in thickness from 0.2–0.5 cm., and base diameters of 6.7 cm. and 8 cm. were noted in the case of both examples respectively.

GROUP 4 (Fig. 46, Nos. 3, 11): A flat-based vessel of "flower-pot" form.

Stein found several sherds, which probably belong to this group (1937, Pl. 8, Bam.A.34, 140–141, 365), but no complete reconstruction is possible in the absence of rim fragments. This

type of pot is represented by fragments of two bases: No. 11 occurred in a Period V level, No. 3 in Period VI. The paste was well levigated and fired, and ranged from light to dark gray in tone. The inside of the pot as well as the outside of the base, were streak-burnished. The dimensions of these pots vary only slightly, the base diameters being 8.3 cm. and 7 cm. in the case of Nos. 3 and 11 respectively, and their thicknesses are 0.5 cm. and 0.3 cm. respectively.

GROUP 5 (Fig. 46, Nos. 14, 15, 21): A wide-mouthed carinated jar with short, everted rim and flat base.

A fine example was found during Stein's excavations (1937, Pl. 6, Bam.A.161). It was of rather squat appearance, its height being equal to the breadth of its shoulder (9.8 cm.). The paste was well levigated and fired in the case of the recent finds but No. 15 was of a more sandy texture than the other sherds. This type of jar varies in thickness from 0.5–0.9 cm. The ascription of No. 21, from a Period V level, to this group is less certain because, unlike the other fragments, it had been burnished on the inside.

GROUP 6 (Fig. 46, No. 20): A tall flat-based jar with almost straight walls converging toward the neck below an everted rim.

Although no complete profiles were recovered from Bampur, No. 20 is comparable in shape, although smaller in size, to a jar of this type from Katukan, to the east of the Bampur Valley (Stein, 1937, Pl. 6, Kat.019 and Pl. 32, 12). The Katukan example had a height of 20.5 cm., and base and rim diameters of 16.3 cm. and 13.7 cm. (below, p. 325). This group was represented at Bampur by only two sherds, one of Period VI (in Teheran Museum), the other from a superficial level. Their over-all thickness ranges from 0.4 cm.-0.8 cm. Both fragments are of a coarser, less well-levigated clay than vessels from the previous groups, and small white particles are visible in the fabric. Streakburnish marks occur on the inside of both jars.

The decoration of this incised grayware falls into two categories. The first consists of architectural representations of small huts, constructed, possibly, of woven reeds or palm leaves, with well-defined doors and windows characterized by sagging lintels. The second category consists of purely geometric patterns composed of one row—seldom two or more—of opposed, hatched triangles covering the total height of the vessel. On a few pots of the first category, including No.

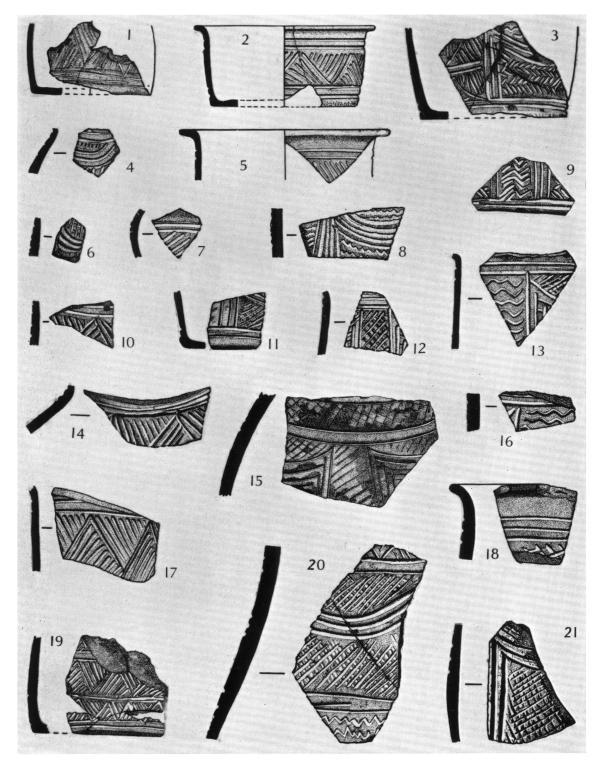


Fig. 46. Incised grayware from Bampur. Approximately  $\times 1/2$ .

20, this geometric pattern has been incorporated into the architectural façade as an upper zone, closing off the main scene. In one instance (3) two zones of hatched triangles form a panel separating two doorways (Period VI). This suggests that the geometric decoration of the second category was also intended to represent some woven substance used for building purposes. The space both above the sagging lintels and between the door posts was either filled with a crisscross pattern (6, 11-13, 15, 20, 21) or with zigzag lines set vertically (3) or horizontally (8, 9, 13, 16). The former may represent a method comparable with the thatching of roofs, in which bundles of reeds are held in position either by a network of ropes or by a crisscross of light rods.1

Although the over-all triangle pattern occurs only on the small cylindrical pots of Group 1, architectural representations are found on vessels of all the other groups.

The total number of incised grayware sherds found at Bampur is too small to provide a satisfactory basis for typological study, but certain differences, both technical and stylistic, are apparent. In the limited sample of Period IV, 2 sherds both architectural and geometric patterns are represented. Two different techniques were noted, one abandoned before the start of Period V, the other remaining in use into Period VI. A sherd (6) with an architectural design, burnished after incision, comes closest to the carved decoration on the stone vases that it was probably meant to imitate. The fact that this effective style did not continue into Period V suggests that stone vases had gone out of circulation by that time and the potter no longer felt constrained to adopt a lithic technique.

From its introduction in Period IV, 2, most of the Bampur grayware was either impressed or incised. Numbers 2, 5, and 7 illustrate the use of a round-topped spatula to impress the lines in the wet clay with a deep downward stroke that tapers into a shallow groove.

Impressed designs of this kind continued throughout Period V and were generally applied to small, straight-walled pots, the technique used for both architectural and geometric patterns.

<sup>1</sup>Miss de Cardi has drawn my attention to this technique which is described by Norman Davey (1961, Figs. 41, 42).

Incising rather than impressing is evident on Nos. 10, 14, and 21 and one sherd of Period V illustrates a technique resembling chip-carving with a sharp-edged outline opposite a sloping face (8).

No significant differences are noted in Period VI when both impressed and incised sherds occurred, the former used mainly on small pots of Group 1, the latter on jars of Group 2. The careless execution of some designs, e.g. Nos. 20 and 21 from Period V and superficial levels is also apparent on an incised fragment of Group 2 from Period VI (in Teheran Museum).

Incised grayware is also known from other sites in the Bampur Valley, including Maula (Stein, 1937, Pl. 9, Mau. 19, 21) and Damin. The decoration on a jar of Group 2 type from Katukan combined architectural and geometric elements of the kind current at Bampur and relates it to the pottery of Bampur V-VI. An interesting detail is the row of impressed dots below the upper lintel of the door. This feature also appears on sherds from Bampur, including one from a Period IV, 2 level (6). Comparable marks are found on some stone vases from Susa,<sup>2</sup> and probably represent timbers used in the construction of huts. These marks are, however, set well above the door lintel in a position appropriate to roof timbers, whereas those on the Bampur examples are unlikely to be functional. This, to some extent, supports the theory that the incised grayware at Bampur was based on a stone prototype.

Outside the Bampur Valley, two sherds of incised ware are known from Ramrud in Seistan, a region closely linked with Bampur during Period IV (Stein, 1928, Pl. 115, RR.VII.015; Pl. 113, RR.VII.01). A survey carried out by the Bampur expedition to the east in the Iranian border district of Saravan yielded a surfacesherd with "hut" pattern from Gabr Maro, an eroded site on the western outskirts of Sib (in Teheran Museum).

Another sherd with traces of an architectural design was found by Stein in the Kulli settlement of Shahi Tump (1931, Pl. 13, Sh.T.iii.9). His excavations in apparently the same area produced painted pottery which could be related to a jar in the Khurab burial, B.ii (Stein, 1937, Pl. 17, B.ii.210), and to pottery in levels from Bampur IV, 2–V, 1.

<sup>2</sup>Musée du Louvre, Paris.

From the Kulli site at Mehi (Piggott, 1950, Fig. 10, top row, right) came a straight-sided pot of incised grayware decorated with zones of opposed, hatched triangles, the flat base edged with a herringbone design. This latter feature occurred also on the Kulli stone vases but is not found on the Bampur pots.

Finally, there is the incised grayware from the Oman burials. One of the two vases from Cairn II on Umm an-Nar (Thorvildsen, 1963, Fig. 20; Bibby, 1967, Fig. 12) is comparable in shape with that from Katukan, and its "hut" pattern, bearing panels between the doorways consisting of groups of horizontal lines, appears on Stein's Bampur vase (Bam.A.161) which falls within Periods V-VI. Another vase from the same cairn, with everted rim and slightly bulging body, belongs typologically to Bampur Group 3, which had a similar time range.

Incised vessels from the Hili burial near Buraimi also fall within the range of forms noted at Bampur and bear similar decoration, including a façade of two stories (cf. Umm an-Nar and Bam.A.365) with herringbone infill above and below the door lintels, and rows of opposed triangles set vertically alongside them. Two-storied buildings are represented on vases from Adab and Sippar (Durrani, 1964, Pl. 4, 1 and 3).

With the exception of a small pot from Susa, ascribed by the excavator to the period of Naram-Sin (de Morgan, 1912, Fig. 116), but most probably belonging to Susa Dd (Le Breton, 1957, 79-124), no closely comparable incised grayware is yet known from Elam or Sumer. The Susa vase bears two zones of geometric decoration and is best related to the vases of Baluchistan.

## CATALOGUE OF INCISED GRAYWARE1

#### Figure 46

No.	Group	Description	Level	No.	Group	Description	Level
1	3 1	Base, unburnished; thin slip externally much flaked. Period V, 1.	Z.18	11	4	Base, diameter 7 cm.; streak-burnished internally and on the	<b>Z.20</b>
2	1	Almost complete vessel; streak-burnished inside and on the base.	<b>Z.</b> 5	12	1	base. Period V, 2. Fragment, streak-burnished internally. Period VI.	Y.5
3	4	Period VI. Base, streak-burnished	<b>Z.</b> 5	13	2	Fragment; streak-burnished internally. Period VI.	Y.5
3	•	internally and on the base. Period VI.	2.3	14	5	Shoulder fragment, unburnished. Superficial.	<b>Z.</b> 1
4	-	Part of a small jar of indeterminate type; polished externally.	Surface	15	5	Shoulder fragment, traces of a thin slip but no streak-burnishing.	Surface
5	1	Streak-burnished internally and on top of the rim.	Y.5	16	2	Fragment, streak-burnished internally. Superficial.	<b>Z.</b> 1
6	1	Period VI. Fragment burnished on	Y.9	17	1	Fragment, streak-burnished internally. Period IV, 2.	<b>Z.4</b> 1
		both surfaces. Period IV, 2.		18	6	Rim, diameter ca. 17 cm., streak-burnished	<b>Z</b> 1
7	3	?Shoulder of a small jar; thin polished slip externally. Period V, 2.	<b>Z.22</b>	19	3	internally. Superficial.  Base, diameter 8 cm., unburnished.	Surface
8	2	Fragment, unburnished. Period V, 2.	Y.6a	20	6	Fragment, streak-burnished internally. Superficial.	<b>Z.</b> 1
9	1	Base, diameter 8.5 cm.; streak-burnished on both surfaces. Period V, 2.	Z.17	21	5	Fragment, streak-burnished internally. Period V, 2.	Y.6a
10	1	Fragment, unburnished. Period V, 2.	<b>Z.20</b>			erds are in London with the examong the material retained in T	

## SMALL FINDS

Figures 47-51

SMALL FINDS discovered during the recent excavations were meager but they extend the equally scanty range of objects resulting from the earlier sondages. Most of them came from levels of the Bampur I–IV culture and from the occupation of Period V on Site Y.

Among clay objects of interest from the earliest level (13) on Site Y was a small double armed object with flat base (Figs. 47, No. 1; 48). It is closely paralleled by objects identified as figurines in Mundigak II, 3–III, 1 and in Hissar IIB. All these figurines are headless and characterized by a slight indentation between the "shoulders" which narrows into a short column ending in a splayed base (Schmidt, 1937, Pl. 27, H.3735; Casal, 1961, Pl. 41, 1).

These objects may be derived ultimately from the double looped "eye-idols" found at Tepe Gawra in the middle to late periods (Gawra XI, XI A and XII)<sup>1</sup> and, to a lesser degree, similar objects at Brak (Mallowan, 1947, Pl. 26, 11).

Two sickle-shaped pendants in an orange-red ware could possibly be pottery counterparts of the silver and copper pendants of Hissar IIIB (Schmidt, 1937, Pl. 69, H.4039 and Pl. 46, H.2810). Alternatively, they may have served as a simple form of hook fastener for clothing. Unlike the Hissar pendants, which were looped

<sup>1</sup>I am indebted to T. C. Mitchell, Department of Western Asiatic Antiquities, British Museum, for his comments on this object. Compare Tobler, 1950, Pl. 86a, 156, 59; 157, 65; 171–173.

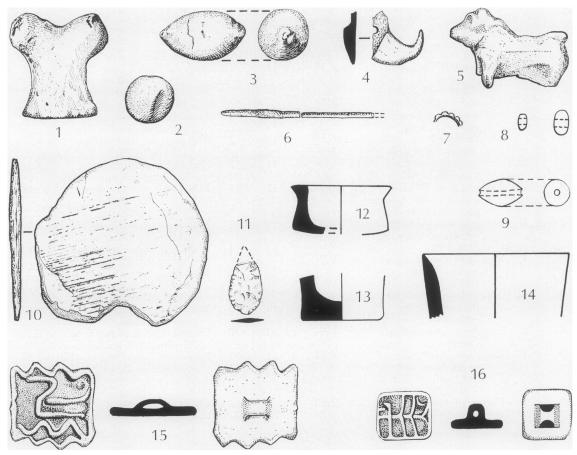


Fig. 47. Small finds. Nos. 8, 9, 15, 16 are actual size; all others  $\times 1/2$ .

at the top, the Bampur examples were pierced through the body. The find (4) came from a Period IV, 3 level on Site Y but part of a somewhat similar pendant (unillustrated) was found in a Period II level on Site Z.

Clay sling pellets were associated only with the Bampur I-IV culture and were not found in the later occupation. Both round (2) and elliptical pellets (3) were found in Level 13 on Site Y, but subsequent levels contained only ovoid missiles. They probably served to bring down small birds when used with a sling. Most shepherds in Baluchistan carry a small goat-hair sling and are competent marksmen even when using a pebble. Similar clay missiles were plentiful in Gawra XIA and XI (Tobler, 1950, Pl. 87b); and they also occurred in Hissar III and in Deh Morasi Ghundai IIc (Schmidt, 1937, Pl. 44, H.1705, but described as a weight; Dupree, 1963, Fig. 21c). The Bampur missiles were not as flattened as the Morasi example that occurred in a horizon contemporary with Mundigak IV, 1.

The only animal figurine (5) came from below the floor in Room A on Site Y. It was crudely modeled and unfired, which suggests that it was made by a child. On the other hand, Stein (1937) recorded the discovery of the head of a bull figurine and since such objects formed part of the Kulli assemblage, their production may have continued down to the later stages of that culture with which the Bampur V pottery had some affinities.

Two sherds (Figs. 49, 50) comprising part of a clay "mousetrap" comparable with those of Mundigak IV, 1 (Casal, 1961, Vol. I, Fig. G), were found in the debris on Level 12 on Site Y. They represent a portion of the grooved rim into which the lid would drop as soon as the bait had been taken. In the Mundigak examples the lid was probably suspended by a cord from a horizontal twig held by two supports. These were kept in position by two extension rings, and an oblong lug on each side of the trap kept the supports firmly upright and prevented it from rolling with the movement of the trapped animal. A flattened base gave added security. Mousetraps of similar size and shape are known from the upper levels of Mohenjo-daro, but they operate on a different principle, relying on a noose, not a lid, to snare the unwary rodent (Mackay, 1937-1938, Pl. 54, 16, 17, 20-22).

Site Y yielded a few scraps of bronze, including part of a small ring with scalloped edge (7) and a badly corroded knife tang of rectangular section (unillustrated). Of greater interest is

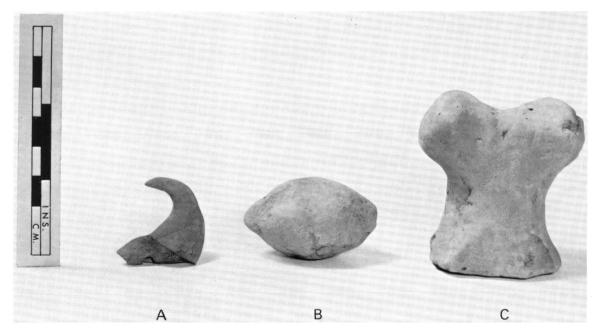


Fig. 48. Clay objects found on Bampur, Site Y.

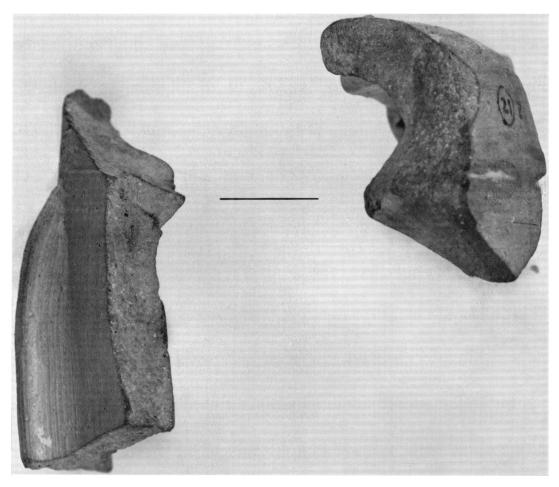


Fig. 49. Sherds comprising part of a "mousetrap," showing grooved rim and side lug, from Bampur, Site Y, Level 12.

a compartmented stamp seal (15) from a level, Y.9a, associated with pottery of Period IV, 2-3. This seal proved on examination to be made of bronze. H. W. M. Hodges, of the University of London Institute of Archaeology, kindly undertook qualitative tests, but the percentage of tin present remains uncertain. Hodges reported that testing was carried out by the solution of a minimal quantity of the metal followed by a reaction with cacotheline solution. As the coloration for each case was intense, the percentage of tin present in the original object was presumably in the order of 5 per cent or more. Lead was also sought by micro-mechanical means but not detected, and if present was presumably less than 1 per cent of the total alloy. Cleaning revealed a design built up of thin

metal strips representing a water fowl floating on the waves.<sup>1</sup>

The design is unparalleled; however, cruciform copper seals with wavy edges of similar type appeared in Mundigak IV, 3 and continued into Period V (Casal, 1961, Pl. 45, B.4, and p. 257). Comparable seals are also known from Hissar III B, Anau III and in Namazga V (Masson, 1968, Pl. 26). Smaller, almost circular seals with spiky edges are probably slightly earlier, one example occurring in Mundigak IV, 1 when the majority of the seals were of stone (Casal, 1961, Pl. 45, l.b), and another came from the Gardan Reg, Seistan (Fairservis, 1961, Fig. 32f). In Baluchistan, several compartmented metal seals were

<sup>&</sup>lt;sup>1</sup>The seal was shown inverted in my paper, 1967, Fig. 2.

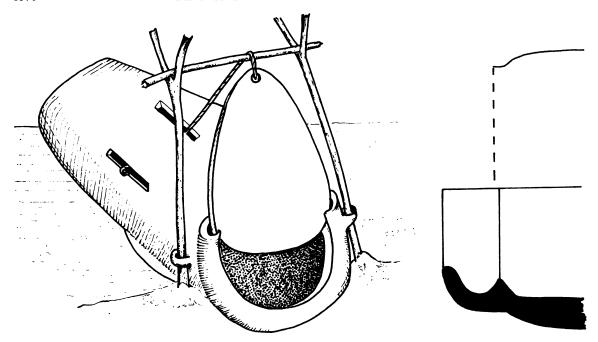


Fig. 50. Part of an animal trap from Site Y, Level 12, with reconstruction (after J-M. Casal, Fouilles de Mundigak, Vol. 1, Fig. G).

found in the post-cemetery levels at Nal (Hargreaves, 1929, Pl. 15d), and five round copper seals accompanied burials unlikely to be earlier than the Kulli-Mehi occupation at Shahi Tump (Stein, 1931, Pl. 14). One of these (Sh.T.ii.20) bore a design matched by a faience seal from the Jhukar occupation of Chanhu-daro (Piggott, 1943, 179–180) and part of a circular stone seal of Jhukar type was found in the occupation of Amri III D (Casal, 1964, Pl. 27, 3).



Fig. 51. Compartmented bronze seal, Bampur, Site Y, Level 9a. × 2.

A small square stamp seal in black stone (16) was found immediately beneath wall I on Site Y (post-Period VI) and has no exact parallels.

Stein's excavations yielded a number of flint arrowheads but we found only two, of which one is illustrated (Fig. 47, No. 11). These came from the Period IV, 1 occupation on Site Z (Level 45a) and from a Period V, 2 level on Site Y. Most of the Bampur arrowheads were lanceolate with rounded butts (Stein, 1931, Pl. 30, 40, 41, 151, 370) and are similar to those which appeared at the start of Mundigak IV and continued into the later periods (Casal, 1961, Fig. 137). A different type, pointed at both ends, was current in the earlier occupation (Mundigak II, 2-IV) and comparable specimens are known from the Burned Building of Hissar IIIB (Schmidt, 1937, Pl. 63, H.1800), from sites in Seistan (Fairservis, 1961, Figs. 30b, 37, 42; Tosi, 1968, 62) and from Maula in the Bampur Valley (Stein, 1937, Pl. 30, Mau. 22). In Baluchistan, similar arrowheads have been found at Sutkagen-dor (Stein, 1931, Pl. 11, Su.5), and on three sites in the north, and several are recorded from Sind.<sup>1</sup>

<sup>1</sup>Fairservis, 1956, Fig. 30d; Khan, 1965, 82. An example illustrated by Khan with Harappan material, Pl. 84a, is not related to its precise stratigraphical context.

Other types of stone implements were notably rare. A knife blade was found in a Period III level (Z.50) (now in Iran) and a scraper (Fig. 47, 10) similar, though shorter than one from the Gardan Reg (Fairservis, 1961, Fig. 31f, from Site 109), came from a level (Z.65) of the same period. Stein recorded a stone blade or scraper and two stone axes, but none has been illustrated. Part of a saddle quern and a pounder were recovered from Levels Z.58 and 45 respectively.

A few fragments of alabaster were found in both cuttings in the occupation of Period IV, 2-3, but, apart from No. 12 (Fig. 47) the profiles were not particularly distinctive. Number 12, a small shallow receptacle with flattened, everted rim, is of a type with analogues in Seistan (Tosi, 1968, Fig. 19f; Fairservis, 1961, Fig. 29i), and in Mundigak V, where a number of alabaster vessels were found (Casal, 1961, Fig. 134, 17). Simple, conical shapes with tapered rims were current in the earlier and in the "Quetta" culture periods but everted rims did not appear until Period IV. Within the Bampur Valley several alabaster bowls were found among the grave goods accompanying burials B.ii, B.i, E, and F at Khurab (Stein, 1937, Pls. 19 and 32, Khur.B.ii.229; Pl. 32, B.i.129; Pl. 34, Khur.Ei. 252 and Pl. 32, Khur.Fi.262). These vessels, which could be related to Bampur IV, 3-V by the associated pottery, have a pronounced

carination below the neck which is not found on the Mundigak and Seistan forms. It is probably significant that in the later burials alabaster vessels were replaced by metal bowls.

Stein (1937, 109) recorded the discovery of glass bangles both at Bampur and at Sutkagendor, Shahi Tump, Kulli, and in Seistan. These apparently came from his Trench A at Bampur which contained later burials as well as prehistoric material. Other fragments, found elsewhere, also came from disturbed ground. They were fairly plentiful on the surface of the site but none were recovered from a stratified context during the recent excavations. They are unlikely to be earlier than the Arabic period and some of them, if not all, may be comparatively modern.<sup>1</sup>

The debris overlying the Period VI occupation on Site Y produced one oblong faience bead (9) similar to that found in the earlier excavations (Stein, 1937, Pl. 10, Bam.A.422), and fragments of more than a dozen small globular beads of the same material in graduated sizes which probably formed part of a necklet.<sup>2</sup> The small beads vary slightly in shape, some being rather deeper than broad, but they all

<sup>&</sup>lt;sup>2</sup>Mackay, 1943, Pl. 83, 19; these Harappan beads from Chanhu-daro are similar but may have no special significance.





Fig. 52. Two views of artifact made from a shell of Spondylus exilis Sowerby, Bampur V, Phase 2, Site Y, Level 6a.

<sup>&</sup>lt;sup>1</sup>I am indebted to Dr. D. B. Harden, London Museum, for his comments.

seem to have been pierced to a uniform width (8).

Finally, reference must be made to a marine shell (*Spondylus exilis* Sowerby) found in a Period V, 2 level on Site Y. This had been pierced at the umbo and may have been worn on a cord as an amulet (Fig. 52; p. 333).

A fragment of ore found in a Period V, 1

context (Level Z.23) was shown by X-ray diffraction to be galena, that is, native lead sulphide. A point of interest about this specimen was that spectrographic analysis showed that it also contained bismuth. (I am much indebted to Dr. A. E. Werner, Keeper of the British Museum Research Laboratory, for identifying this ore and the fragmentary stone vases.)

## LIST OF SMALL FINDS Figure 47

- 1. Double-armed object of unbaked clay with flat, roughly oval base. Both the projecting arms bear traces of small, partially pierced holes. Site Y, Level 13 (See also Fig. 48).
- 2. Rounded clay sling pellet, grooved on one side. Site Y, Level 13.
- 3. Ovoid clay sling pellet. Y.2, Level 10 (See also Fig. 48). Other examples, both smaller and larger, were found in Levels 9 to 11, and 9a on Site Y.2.
- 4. Sickle-shaped pendant in orange red ware. One face concave, the other flat, with a small hole pierced for suspension. Y.2, Level 10. (See also Fig. 48). Part of a similar object, pierced with two holes close together, was found in Level Z.67.
- 5. Animal figurine of unbaked clay, crudely modeled, perhaps to represent a zebu; broken in two pieces. From Room A below Floor 5, Y.2, Level 9.
- 6. Bronze pin, much corroded. Only two out of four fragments survive. Z, Level 34.
- 7. Part of a metal ring with gadrooned edge. Y.2, Level 9.
- 8. Two of about 18 small globular beads in faience, off-white in tone externally but pale duck egg blue where fractured. The examples illustrated (whole size) represent the smallest

and largest beads found intact of what was clearly a graduated necklet. Y.2, Level 4.

- 9. Oblong bead in creamy white faience pierced longitudinally. Y.2, Level 4. A similar bead was found in the previous excavation (Stein, 1937, Pl. 10, Bam. A. 422).
- 10. Scraper in shaly stone, grooved at the base. Z, Level 65.
- 11. Stone arrowhead, point missing, rounded butt. Z, Level 45a. Another example occurred in Y.2, Level 6a.
- 12. Miniature alabaster vessel with flat, everted rim. Brown vein at rim and base, with white stone between. Y.2, Level 9a.
- 13. Base of cylindrical alabaster cup. Z, Level 34.
- 14. Part of an alabaster cup with upright walls and tapering rim. Z, Level 43.
- 15. Rectangular compartmented bronze stamp seal, the back loop damaged. Y.2, Level 9a (See also Fig. 51).
- 16. Small square stamp seal in black stone with carved design, found beneath Wall I in Y.2, Level 3b.

## Figures 49, 50

Grooved rim with elongated side lug, part of a trap for mice or small animals, in well-fired buff slipped ware. Y.2, Level 12.

## LOCAL FAUNA

Animal remains were very scanty. A few fragmentary bones were found in the earliest occupation debris (Level Z.70a) and some unidentified teeth and charred bones were noted in the debris (Level Z.60) filling the corridor between the Period II buildings on Site Z, and in a Period III, 3 hearth (Level Z.51).

While it must be borne in mind that the Iranian fauna of the third millennium could have differed quite significantly from that of the present day, some information can occasionally be deduced from the decoration of the pottery, although in the case of highly stylized designs only a tentative identification can be suggested.

Animals identifiable either as wild goat or ibex were illustrated from Period II onward. The identity of the deer in Figs. 28, No. 262; 30, No. 35; 31, No. 52) is uncertain. They might be Persian fallow deer (*Dama mesopotamica*) or ibex, the upright spikes exaggerating the ribs on the front of the horns.

Examples of domesticated animals do not appear until Period V when lop-eared goats are a frequent motif (Figs. 37, No. 115; 41, No. 407; 42, Nos. 479, 481). The only sherds illustrating zebu (*Bos indicus*) also come from Period V or later levels (Stein, 1937, Pl. 7, A.4000).

Heavy-bodied birds of two distinct species are shown on the pottery of Periods II–III. Those with a short beak (Figs. 26, Nos. 96, 97; 22, No. 154) might be geese whereas Nos. 95 and 99 (Fig. 21) may represent pelicans.

Several kinds of insects were depicted.<sup>2</sup> Possibly Nos. 154 (Fig. 22) and 230 (Fig. 25) repre-

<sup>1</sup>I am indebted to G. B. Corbet, British Museum (Nat. Hist.), and to Ian Cornwall, University of London Institute of Archaeology, for their help in identifying the animals represented on the pottery.

<sup>2</sup>I am much indebted to David R. Ragge, British Museum (Nat. Hist.) in consultation with S. H. Hodjat of Ahwaz Agricultural College, Iran, for their views on the insects.

sent a large water bug, *Belostama*, which is common in present-day Iran and often attracts attention by flying toward lights after dark. The pattern shown on the body in No. 154 could be based on the arrangement of veins on the forewings, which are flexed over the abdomen of the insect when it is not flying. However, No. 365 (Fig. 38), in which the arrangement of legs differs significantly from that on Nos. 154 and 230, almost certainly represents a scorpion.

More baffling are Nos. 61 (Fig. 19) and 113 (Fig. 37); the former could be based on the arrangement of the raptorial forelegs of a praying mantis, repeated to form a symmetrical pattern. The latter, is not symmetrical and is perhaps more reminiscent of a frog.

Although our excavations took place during March to April when relatively few snakes were in evidence, we killed one krait, two vipers, and two unidentified snakes in our cuttings. Although Bampur artists give insufficient detail to allow accurate identification, the snake on No. 41 (Fig. 18) is probably a Persian horned viper, Vipera persicus (Bibron and Duméril), the only horned snake occurring in southeastern Iran today. It is just possible, however, that other horned snakes lived there in the past. The curved line below the head may represent a curved erectile fang, typical of the vipers.

More difficult to identify is No. 91 (Fig. 20). The short line beneath the head possibly depicts a straight, fixed fang, typical of the Elapidae (cobras) and the Hydrophidae (sea snakes). The banded back and plain belly are common in the Hydrophidae but unusual in Asian elapids. The drawing is, however, so vague that any resemblance to a sea snake is probably no more than a coincidence.<sup>3</sup>

<sup>3</sup>Information kindly provided by A. F. Stimson, British Museum (Nat. Hist.).

# REPORT ON MOLLUSKS COLLECTED BY THE EXPEDITION TO BAMPUR

THE REV. H. E. J. BIGGS, F.L.S.

The mollusks reported on in the present paper were found at Bampur, a settlement of the third millennium B.C., and consist of both fresh-water and marine shells. The fresh-water species were surface finds of recent shells and of no interest archeologically, but the presence of one specimen of *Vivipara* cf. hilmendensis Kobelt is an extension of the range of this species in a westerly direction probably not recorded before. Many examples of *Melanoides tuberculata* Müller were also found but these are a very well-known species in south Persia.

The marine species are, however, of considerable interest as they were brought to the site from the coast, probably the Makran coast, for a specific purpose, by man—for decoration or for some magico-religious reason. All the species enumerated below are well-known species of the Indo-Pacific Region.

#### GASTROPODA

Architectonica perspectiva (Linné): one juvenile example among shells found on the surface.

Polynices mammilla (Linné): one example from a Period IV, 1 level (Z.45), three from disturbed levels containing Period V material (Z.8 and Z.3) and four unstratified examples. There are also four damaged shells collected from the surface.

The example from Level Z.8 bears distinct marks of scratching where it has been rubbed down on a rough, hard surface, thus producing a large hole on the body whorl. Most of the others are also holed on the body whorl but in such a way as to suggest that the hole was caused by battering on a beach; all these were probably used for decoration. Two examples were unholed.

A similar species occurred at Jericho (Biggs, 1963, Fig. 2e, 1, 2) which was holed in the same position on the body whorl. I would suggest that the roundness and smoothness of shells belonging to this family must have appealed to men of this period for use as necklaces.

Cypraea turdus Lamarck: one worn example from Y, (Level 4), a disturbed level overlying the Period VI occupation. This kind of cowrie, worn on the dorsal surface of the shell, is com-

mon on many archeological sites in the Near East, including Jericho (Biggs, 1963, fig. 2d). It is thought they had some significance as fertility charms. There are also some fragments present in the shells from Bampur, one from Site Y (Level 4), and two unstratified.

Cassis rufa Linné: very large shapeless fragment from Z.10, a disturbed level, but probably of Period V. I can make no suggestion at present as to the purpose the men of the period had in mind for this fragment. It is very strong and was taken from near the mouth of the shell. This species has not yet been recorded from the Makran coast but is known from Aden, East Africa, the Seychelles, to mention only a few localities.

Oliva bulbosa Röding: two damaged shells, one unstratified, the other from Site Y (Level 13), Period II.

#### PELECYPODA

Arca (Scapharca) inaequivalvis Bruguiére: one slightly damaged valve from Level Z.42 of Period IV, Phase 2, and another unstratified fragment. This species is known from Muscat and Bombay where it is reported by Melville and Standen (1907) to be "common and fine." Although shells of the species of Arca are nearly always included in collections from archeological sites, and it is thought they may have been used as fertility charms, the largest of those referred to above could have been used as a spoon or a ladle.

Spondylus exilis Sowerby: Perhaps the most interesting shell in the collection from Bampur is the disk-shaped fragment of the above species from Site Y (Level 6A), Period V, 2. The species is well-known from the gulf and Karachi and probably came from the Makran coast where one would expect to find it, but whence it has not yet been reported.

The example measures 3.33 cm. in diameter; the edges are worn smooth and there is a large hole at the umbo (Fig. 52). The hole could have been the work of a predator but to the best of my knowledge predators normally bore at points where the shell is thinner and more easily penetrated; one such hole is seen in the

illustration. The smoothness of the outer edge of the shell could be accounted for by wear from rolling on the beach. But the hole in the umbo is smooth inside and such a circumstance is not characteristic of the work of a predator or erosion by wave action. I suggest smoothness of the hole is due to friction from a cord or some sort of thread when the shell was worn as an amulet or decoration, and that we have here a fragment of a shell worn by man in the third millennium. To suggest that the disk shape and the reddish color may have had some significance to a sun worshiper may, perhaps, be pressing speculation too far, but the idea should not be completely ignored. We can only hope that similar artifacts will be found on sites excavated in the future and workers should be on the lookout for them.

#### CATALOGUE OF THE POTTERY

The pottery of Periods I to IV is presented as two groups, one derived from Site Z and numbered 1–320, the other illustrated in Figs. 30 and 31, numbered 1–75. The material from Sites Z and Y has been combined to show the full range of types in Periods V and VI, the former illustrated in Figs. 34–38, the latter in Figs. 39–41 and 43.

An asterisk against the left-hand column denotes those sherds listed in Table 5, (p. 270). Comment is restricted to points not apparent from the illustrations. Level numbers relate to the stratigraphy and are shown on the sections.

The Iranian Government generously allowed me

to retain about half the pottery excavated. The material from Site Y has been presented to the Museum of Archaeology and Ethnology, Cambridge, England, as a study collection covering the full ceramic sequence. Other collections have been given to Birmingham City Museum and Art Gallery, the American Museum of Natural History, New York, and I have retained a small proportion for comparative purposes in London. Sherds deposited in these centers are indicated in the Location column by the letters C, B, A, L, respectively, whereas material remaining in Iran is so listed.

No.	Fabric	SLIP	Remarks	Level	Location			
	Site Z							
1	Gray	Gray	Two black bands externally (cf. No. 70)	70	L			
2	$\mathbf{Red}^{'}$	$\mathbf{Red}^{'}$	Dark brown bands	70	A and L			
3	Red	Red	Undecorated	70	L			
4	Red	Red	Design also occurs inside black-on-gray bowls; it was not found after Period I	70	Α			
5	Gray	Gray	Black design internally; thin band over rim edge	70	Α			
6	$\mathbf{Red}^{'}$	Cream	Undecorated	70	L			
7	$\mathbf{Red}$	Unslipped	Gritty surface; same form in Level 60	70	A			
8	Red	Cream	Four lines of shallow wavy comb incising; similar form and decoration in Level 69	70	L			
9	Gray	Gray	_	70	Α			
10	Gray	Gray	Black design internally	70	L			
11	Red	Unslipped	Form and design common in Period II	70	L			
12	Gray	Gray	Black design inside pale gray bowl	70	Α			
13	Red	Buff	Dark brown sigmas on shoulder of jar	70	L			
14	Red	Unslipped	Dark brown on outside of medium thick	70	L			
			straight-sided bowl, motif not found in the later levels		_			
15	Red	Unslipped	Brown design on jar (cf. Period II variants, Nos. 82, 83)	70	L			
16	$\mathbf{Red}$	Unslipped	Black on jar or bowl, externally	70	L			
17	Gray	Gray	Black inside flat open bowl	70	Α			
18	Gray	Gray	Black inside a bowl	70	Α			
19	$\mathbf{Red}$	Red	Undecorated, save for rectangular cordon	70	Α			
20	$\mathbf{Red}$	$\mathbf{Red}$	Undecorated	70	Iran			
21	Red	Red	Rust brown externally on basin, rim diameter 32 cm.; design not found later	70	L			
22	$\mathbf{Red}$	Cream	Dark brown design	66	В			
23	$\mathbf{Red}$	Cream	Undecorated	60	L			
24	$\mathbf{Red}$	Buff	Sigmas in dark brown	60	В			
25	$\mathbf{Red}$	$\mathbf{Red}$	Black design	60	В			
26	Red	Buff	Undecorated	69	L			
27	$\mathbf{Red}$	Cream	Dark band over rim; ?neck of flask or jar	66	Iran			
28	Gray	Pink-red	Black on thin, hardfired jar, shoulder slightly thickened; band of nine sigmas and four vertical lines repeated around the shoulder	67	Iran			
29	$\mathbf{Red}$	Cream	Black design externally; pendants inside the rim	69	L			
30	$\mathbf{Red}$	Cream	Triple wavy comb incising	69	L			
31	$\mathbf{Red}$	Cream	Triple wavy comb incising	69	Α			
32	Red	Cream	Triple wavy comb incising, smallest type of vessel with this decoration	69	L			
33	Buff	Buff	Two sets of quadruple wavy comb incising	66	В			

No.	Fabric	SLIP	REMARKS	Level	Location
34	Red	Cream	Same as No. 33, similar form in Level 66 but with slightly less grooved rim and undecorated	67 d	В
35	Red	Buff	Dark brown design	58	В
36	Red	Red	Black wavy lines are also found on bowls in Levels 66 and 64	67	L
37	Red	Red	Faded brown	69	L
38	Red	Red	Black design; similar pattern on rather shallower bowl in Level 58	60	L
*39	Red	Red	Rather uneven thickness, same design in Level 69; same form, cream slipped, in Level 66	66	L
40	Red	Cream	Dark brown bands	58	Iran
41	Red	Cream	Faded brown snake motif internally	69	L
42	Red	Cream	Same form in Level 69; a narrower, more globular cup with two bands at rim above the same design occurred in Level 66	60	В
43	$\mathbf{Red}$	Unslipped	Black/brown band at girth	60	L
44	Red	Cream	Unevenly fired; black band above base	60	L
45	Red	Buff	Slight foot ring	66	L
46	Red	Cream	Concave base	58	Iran
47			No details available	58	Iran
48	Red	Cream	Brown band along edge of rim; unusual	67	L
49	Red	Red	—	69	$\overline{\mathtt{L}}$
50	Red	Red	Beaded foot ring base; unusual	58	$\overline{ extsf{L}}$
51	Red	Cream	Flat dish-on-stand	60	$\overline{\mathbf{L}}$
52	Red	Cream	Slightly concave dish-on-stand	60	Iran
53	Red	Cream	Undecorated	60	Iran
54	Red	Cream	Undecorated	69	Α
55	Red	Brownish	Comb-incising externally; rim diameter 36 cm.	66	Iran
56	Red	?Cream	Wavy comb incising externally. Same form with double rows of incising in Level 55	58	L
57	Red	Cream	Comb incised above a flattened cordon; same form with more V-shaped cordon in Level 66	69	В
58	Red	Orange-red	Earliest example of a straight V-shaped ridge on a wide basin	60	L
59	$\mathbf{Red}$	Cream	Flattened rectangular cordon	66	Iran
60	Red	Red	Black painted design; rectangular cordons, the upper, straight, the lower, undulating; both black striped; similar forms, though not so sharply beaked, in Levels 69 and 67	66	В
61	Pink-buff	Cream	Unevenly fired. ?fragments of the same jar in Level 69; black/brown decoration	67	В
62	Red	Cream	Dark brown design; other sherds with stepped pattern in Levels 65 and 67	66	L
63	Red	Red	Black striped D-shaped cordons badly applied and coming apart from the body	67	В
64	$\mathbf{Red}$	m ?Red	Black frieze internally	69	A
65	Red	Red-brown	Bowl, rim diameter 26 cm., black band over rim and design internally	67	L
66	Red	$\mathbf{Red}$	<u> </u>	66	Ĺ
67	Red	Red	Same design on a basin in pinkish/buff ware, rim diameter 36 cm., in Level 67	67	L -
68	Red	Red	Black-brown design; straight rectangular cordon	60	В
69	$\mathbf{Red}$	Cream	Dark brown design	58	L
70	$\mathbf{Red}$	Cream-buff	Dark brown design	58	L
71	Red	Buff	Multiple chevron patterns used vertically were uncommon; parts of same jar in Levels 66 and 58	67	L
72	Red	Cream	Angle of rim uncertain as edge is very worn; similar grooved rim in overfired grayware in Level 60	60	В
73	Red	Red	Perforated ware: possibly intrusive	67	L
74	Red	Red	Black design	67	L

No.	Fabric	SLIP	Remarks	Level	Location
75	$\mathbf{Red}$	Red		69	L
76	$\mathbf{Red}$	Buff	Black design externally; another sherd in Level 67	58	Α
77	$\mathbf{Red}$	Cream	Dark brown design externally	58	L
78	Red	Cream	Dark brown design on carinated jar	69	Ļ
*79	Red	Buff	Black-brown externally; carinated bowl or jar	66	A
80	Red	Red	Faded brown design	60	L
81	Red	Buff	Brown design on carinated bowl or jar	66	L
82	Red	Buff	Black design; similar pattern on carinated vessel in Level 51	66	L
83	Red	Pink-buff	Black design externally	67	L
84	Red	Cream	Dark brown design externally on a bowl	67	L B
85	Buff	Buff	Jar with undulating cordon and dark brown design	60	
86	Red	Russet	Brown design externally	66 66	L
87	Red	Cream	Design in brown, also in Levels 65 and 67	66 66	Iran
88	Red	Red	Long-horned cervid in dark brown inside a bowl; similar animals in Levels 69 and 67	66	В
89	Red	Cream	Design in dark brown (cf. No. 41)	69	Iran
90	Red	Buff	Black design on jar	69	Iran
91	Red	Buff	Black snake on globular jar of same thickness as No. 80	66	Iran
92	${f Red}$	Cream	Unusual design in black, externally	67	В
93	Red	Buff	Russet design; lower, wavy band may represent a snake	67	L
94	Red	Buff	Bowl of medium thickness with brown striped cordon externally	66	L
*95	Red	Cream	Unusual bird and geometric design in dark brown-black externally	67	L
96	Gray	Gray	Brown birds internally	60	В
97	Gray	Gray	Black birds internally; very thin-walled bowl	60	Iran
98	$\mathbf{Red}$	Cream	Black-brown design externally	60	В
99	Buff	Cream	Brown birds and a horned animal with geometric pattern on carinated jar	67	L
100	Gray	Gray	Black bands	60	L
101	Gray	Gray	Black frieze of swags and grouped lines; common in Period II	60	В
102	Gray	Gray	?Comb motif in black internally on a small bowl	58	L
103	Gray	Gray	Undecorated fragment	69	Α
104	Gray	Gray	Black design	69	L
105	$\mathbf{Red}$	Orange-red	Black design externally	66	A
106	Gray	Gray	Black design externally and on rim edge	58	Ļ
107	Gray	Gray	Black design	60	Iran
108	Gray	Gray	Black design	60	В
109	Gray	Gray	Also in Level 64	69	A
110	Gray	Gray	The design is found from Period II–IV	67	L
111	Gray	Gray	Undecorated	60	A
112 113	Gray Gray	Gray Gray	Designs in black on both surfaces Black design internally; triple bands on	66 60	A A
114	Gray	Gray	outside Black design internally on a bowl	69	В
115	Gray	Gray	(cf. No. 139 in Period III)	66	${f L}$
116	Gray	Gray	Black design externally on cup; rim diameter 6 cm.	60	Iran
117	Gray	Gray	Overfired bowl with grooved rim, triple bands externally (cf. No. 68)	60	L
118	Gray	Gray	Black design internally	60	В
119	Gray	Gray	Black design on both surfaces of a straight-sided	<b>6</b> 9	L
120	Gray	Gray	cup or small bowl Partly fired; black design internally on shallow bowl	58	L
121	Gray	Gray	Black animal pattern internally; thin-walled,	66	В
			gently curved bowl		

No.	Fabric	SLIP	Remarks	LEVEL	LOCATION
157	Gray	Gray	(cf. No. 141)	64	L
158	Red	Red	Form appears in Period III	65	L
*159	$\mathbf{Red}$	Cream	Base with knop inside, a new feature	54	L
160	Red		Dark brown design inside bowl; triple bands externally	50	L
161	$\mathbf{Red}$	Cream	Rim diameter 32 cm.	50	L
162	Red	Red	Rim diameter 44 cm., squared cordon	50	L
*163	Red	$\mathbf{Red}$	Black design internally	50	L
*164	Buff	Buff	Brown design internally	50	Ĺ
165	Red	<del></del>	Thin black line design similar in style to No. 167	64	L
*166	Red	Red	Black Maltese cross inside bowl	54	Ĺ
167	Red	Cream	Thin line design on outside of jar	52	Ļ
168	Red	Cream	Russet design on jar or bowl externally	54	Ĺ
169	Red	Buff	Dark brown design on jar externally	54	Ĺ
170	Red	Reddish	Brown design on jar or bowl externally	51	Ĺ
*171	Red	Red	Black design on jar externally	50	L
172	Red	Reddish-buff	Rather worn surface; cordon more rounded than those of Period II	65	В
*173	Gray-brown		Overfired jar, rim diameter 20 cm.; ?snake motif in black; rounded cordon	43	Iran -
174	Red	Buff	Dark brown design, with flattened cordons, one straight, the other wavy	45a	В
*175	Orange-buff	Red	Brown design; flattened straight and wavy striped cordons	45a	В
176	$\mathbf{Red}$	Cream	Combination of new and traditional motifs	46	L
177	Red	$\mathbf{Red}$	Design in black; unusual	45	L
*178	Red	Buff	Brown design	48	Iran
179	Red	Pink-buff	Undecorated	46	Ļ
180	Red	Cream	Black design	45a	Ĺ
*181	Red	Buff	Thin slip; russet brown design combines old and new motifs	45a	В
*182	Red	_	Black-brown design, with sigmas at shoulder and metopic pattern in lower zone. Slightly sagging base	45a	L
*183	$\mathbf{Red}$		Black design	43	В
*184	Red	Cream	Black design on flaking slip. Part of a jar with flat base, diameter 16 cm.	45	L
*185	Red	$\mathbf{Red}$	Compare No. 121 in Period III	45a	L
*186	$\mathbf{Red}$	Red	Smeary slip; black design	43	L
*187	$\mathbf{Red}$		Dark brown design	43	В
188	$\mathbf{Red}$	Cream	<u> </u>	43	L
189	$\mathbf{Red}$	Cream	_	43	L
*190	${f Red}$	Cream	Overfired to grayish	45a	L
191	Gray	Gray	Overfired, greenish tinge; roughly finished but design well executed in black	45a	L
192	Red	Cream	<del>-</del>	43	Iran
193	Red	Cream		43	L
*194	Buff	Buff	Brown design	45	В
195	Red	Cream	Brown band	46	Ļ
196	Red	Cream	Rim diameter 16 cm.	43	L
197	Red	Cream	Rim diameter 12 cm.	43	Ĺ
198	Red	Cream	Rim diameter 16 cm.	43	Ļ
199	Red	Cream	Poorly levigated; dark brown design	43	L
200	Red		Black design (cf. No. 194)	43	В
*201	Red	Brown	Smeary slip on both sides. Rim similar to Period III bowls (cf. Nos. 134 and design on No. 149)	46	L
*202	Red	Cream	Grooved internally; dark brown design	45a	В
*203	Red	Red	Whole cup with slightly concave base; brown design	45	Iran
204	$\mathbf{Red}$	Cream	Cup with flat, string-cut base	45a	L
205	Red	Cream	Slip over upper part of cup; string-cut base	43	L

No.	FABRIC	SLIP	Remarks	LEVEL	LOCATION
206	$\mathbf{Red}$	Cream	<del>_</del>	43	L
207	Red	Cream	Brown band on rim edge	43	$\bar{\overline{\mathbf{L}}}$
208	Red	Red-buff		45a	Ĺ
	Red	Red-bull	Triple brown bands externally	45	Ĺ
*209		_	Overfired; design on both surfaces; outer surface too worn to identify		
210	Red	_	Brown design internally; double bands outside	45a	L
211	Red	Cream	Thin slip externally	43	В
212	$\mathbf{Red}$	Buff	Light brown design; also in Level 45a (L)	45	L
213	$\mathbf{Red}$	Cream	Dark brown bands	45	L
214	Buff	Cream	Handmade gritty ware	45a	L
215	Red	Cream	Slipped externally; rim diameter 36 cm.; V-shaped ridge	43	L
216	$\mathbf{Red}$	$\mathbf{Red}$	Quadruple wavy comb incising	43	L
217	Red	$\mathbf{Red}$	Slipped both sides	43	L
218	Red	Cream	Black band on rim edge	43	L
219	Red	Cream	Slight grooving inside rim; brown design	45	B
			carelessly executed		
*220	Red	Buff	Smeary slip; black design. Similar design on bowl with more curved profile in Level 45	43	L -
221	$\mathbf{Red}$	Cream	Bowl slipped externally; rim diameter 36 cm.	46	$\mathbf L$
222	$\mathbf{Red}$	Cream	Slipped both sides	43	L
223	$\mathbf{Red}$	Cream	Slipped externally; brown band on rim	43	L
224	Red	Buff-pink	Black/brown design; V-shaped straight and wavy ridges	43	В
225	Orange		Handmade bowl with overhanging rim. Coarse, gritty ware	45a	L
*226	Red	Buff	Dark brown on outside of canister or goblet; girth diameter ca. 6 cm.	45	В
*227	$\mathbf{Red}$	Buff	Dark brown design externally	46	${f L}$
*228	$\mathbf{Red}$	Cream	Bowl with design internally	45a	$\mathbf L$
*229	Red	Cream	Bowl with design internally	45a	L
230	Red	Red	Thick-walled bowl, slipped externally; black design internally	43	$\overline{\mathbf{B}}$
231	$\mathbf{Red}$	Cream	Shoulder of slightly carinated jar	45a	L
232	Red	Cream	Black design on shoulder of medium thick jar; slip has flaked off in parts	43	$\overline{\mathbf{B}}$
233	$\mathbf{Red}$		Brown design externally	45a	L
*234	Red		Black design on a globular jar	46	$\tilde{\mathtt{L}}$
*235	Red	Cream	Curved wall bowl of medium thickness, slipped internally; brown design	45a	Ĺ
236	$\mathbf{Red}$	Self-slip	Bowl with black design externally	43	L
237		Sch-shp	No details available	43	Iran
				45	L
238	Gray	<del>-</del>	Very thin-walled bowl; black design internally	45	Ĺ
*239	Gray		Black design externally		
240	Gray	<del></del>	Cup with new design in brown externally	45a	Ļ
*241	Gray		Black design internally	45	Iran
*242	Gray		New design in black externally	45	В
*243	Gray	_	Brown design externally; triple bands and wavy line inside	45	L
*244	Gray	_	Black design externally	45a	L
*245	Gray		Slightly uneven rim and walls	45	В
246	Gray		Black design internally	45	В
*247	Gray		Light wash; black design externally	45a	$\mathbf{L}$
248	Gray		<u> </u>	43	Α
*249	Gray	_	Black design externally; triple bands and wavy line internally	43	L
250	Gray	_	Bowl or cup similar to No. 244 with black design externally; band over rim edge	45	L
251	Gray	_	Bowl with sagging base; black design internally	45	L
*252	Gray		——————————————————————————————————————	45	$\overline{\mathbf{A}}$
*253	Gray	_	Black design	45	L
_00	,				_

No.	FABRIC	SLIP	Remarks	LEVEL	Location
254	Gray		Black design	43	В
255	Gray		Compare design on No. 184	45a	$ar{ extbf{L}}$
*256	Gray		Black design internally	45	$\overline{\mathbf{B}}$
*257	Gray		Black design internally	45	Iran
258	Gray		Form unique; black design, pendants inside rim	45	Iran
259	Gray		Same design on a carinated jar in Level 46	45	В
*260	Red	Cream	Dark brown design; similar "star" in Level 35	40	Ĺ
261	Red	Cream	Brown design on jar similar to No. 260	41	$\tilde{ extsf{L}}$
*262	Red	Buff	Dark brown design on jar	40	Ĺ
*263	Red	Dun	Overfired; worn surface	41	Ĺ
*264	Gray		Russet brown design	41	Ĺ
265	Red		Traces of black design	41	Ĺ
*266	Gray		Very thin ware; pared externally; black design	41	Iran
267	Red	Red	Thick bowl with faded brown design internally	42	L
268	Red	Cream	Uneven walls; knop inside; string-cut base	41	Ĺ
*269		Gream		41	Ĺ
	Red-gray		Fired gray internally; red outside, with new design in brown		
*270	Gray	_	Black design on both surfaces, inner may be "transfer"	41	L
271	Gray		Black design internally	41	L
*272	Gray		Thin-walled bowl; black design internally	41	L
*273	Gray	_	Black design internally; triple bands around the rim externally	41	L
274	Gray		Vertical streak-burnishing externally	40	L
275	Gray		Unusual form with knop inside the base; vertical streak-burnishing	41	L
276	$\mathbf{Red}$	Cream	Coarse, handmade miniature pot; brown	42	L
977	Dad	Cmaama	design	41	L
$\begin{array}{c} 277 \\ 278 \end{array}$	Red	Cream	Small pot with traces of a lug	40	Ĺ
270	Red	Cream	Bead rim bowl, rim diameter 20 cm.; slipped on both sides, brown band over rim and externally. A popular form	40	L
279	$\mathbf{Red}$	_	Brown band on flattened rim	41	L
280	$\mathbf{Red}$	_	Rim diameter 24 cm.; brown band on rim	40	L
281	$\mathbf{Red}$	Cream	Dark brown band on rim, diameter 26 cm.	41	$\mathbf L$
282	$\mathbf{Red}$		Overfired; grayish externally	41	L
283	Buff-red	_	Handmade overhanging rim jar; basket marked below the rim	41	L
284	$\mathbf{Red}$	Buff	_	34	${f L}$
285	Gray	_	Bowl, rim diameter 24 cm.; streak-burnished	34	$\overline{ extbf{L}}$
206	р. Ј		on both sides	34	Iran
286	Red		Bead-rim bowl		
287	Red	C 1C 1'		34 34	Iran
288	Red	Self-slip	Black design		L L
289	Red	Self-slip	Hole mouth jar with twisted rim, deeply grooved inside the neck	39	
*290	Red-gray	-	Overfired; fine line design in black-dark brown (new style anticipating Period V wares)	34	В
291	Orange-der		Apricot tone inside; dark brown design with fish motif in style of Period V	34	L
292	$\mathbf{Red}$	Buff-cream	· <del>_</del>	34	L
293	Orange-red	_	New form	34	Iran
294	Red	_	Very fine ware	34	L
295	$\mathbf{Red}$	_	Black design internally	38	Iran
*296	Gray		Black design externally; differs from No. 269 of Period IV, 2	34	Iran
*297	Gray		Black design on cup or bowl	34	L
*298	Red	-	(cf. motif on Nos. 89, Y.57)	34	Iran
299	Red	_	Faded brown design	34	L
*300	Gray		Black design	34	$\overline{\mathbf{L}}$
*301	Gray		Black design	34	L
302	Red	Buff	Poorly made and unevenly pared externally	34	L
			•		

No.	Fabric	SLIP	Remarks	Level	Location
303	Red	Cream	Dark brown design	39	L
*304	Gray		Brown design	38	Iran
*305	Red	Cream	Dark brown design	38	Iran
306	Red	<del>-</del>	Grooved internally	38	L
307	Red	Cream	——————————————————————————————————————	38	Ĺ
*308	Red	Cream	<u> </u>	38	Îran
309	Red	Buff	String-cut base	34	L
*310	Red	Dun -	Dark brown, one of a pair; slight knop inside	34	Ĺ
			base		
311	Red	D C	String-cut base with internal knop	38	Iran
312	Red	Buff	Thick bowl with design internally	34	L
*313	Red	Buff	Medium thick bowl or jar with black design on external slip	34	L
*314	Red	Buff	Cylindrical vessel with dark brown design externally	34	L
*315 \ 316 }	Red	Cream	Two sherds from a large jar with dark brown design in three zones	39	B & L
*317	$\mathbf{Red}$	Buff	Flattened cordon below rim; black design carelessly painted	38	L
*318	Red	_	Basin with V-shaped wavy ridge; dark brown design externally	34	L
*319	Red	Apricot	V-shaped wavy ridge; dark brown design	34	Iran
320	Orange-red	<u>—</u>	Rim diameter 42 cm.; straight and wavy V-shaped ridges, black design	34	Ĺ
321	Red	_	Bead rim bowl with dark brown bands	23	В
322	Orange-red	Cream	Cream slip externally; black design	18	Iran
322	Orange-rea	Gream	representing the dorsal fin of a fish	10	11411
*323	Grey		Black design externally. Same chevron frieze is also placed immediately below rim border on another sherd in the same level	23	Iran
*324	Gray	Gray	Bowl with black design internally	23a	L
325	Buff-red	Giay	? handmade, poorly levigated and thrown;	23a 23	B
323	Dun-rea	_	dark brown design; same form, but thinner, in Level 23a	23	Б
*326	Gray	_	Bowl with black band at rim and two internally	23	L
327	Red	Cream	Fabric of crushed strawberry tone with white specks	23a	L
328	Red	_	Bowl with dark brown concentric bands on both sides	23	L
329	Red	Buff	Bowl with rim diameter 16 cm. and brown	23	L
330	Red		bands on both sides Bowl with dark brown band on rim edge and	23	L
331	Red		two bands externally  Bowl with dark brown band on top of rim and	23	L
332	Red	_	one internally Thick jar with brown band over rim and two	23	L
333	Red		below Coarse ware jar with flattened rim, diameter	23	L
		-	14 cm.		
334	Red		Jar, fired to buff-red externally, dark brown design externally	23a	L
*335	Gray		Black design around the base	23	В
*336	Red	?Unslipped	Brown design externally; same design and form, though larger, on a jar of rim diameter 12 cm. in the same level	20c	L
337	Buff	Buff	Poorly made	30	L
338	Red	Thin buff	Crudely painted design in dark brown; similar design on an overfired jar in reddish brown paint combined with an upper zone of chevrons in Level 20a	23	Ĺ

No.	Fabric	SLIP	Remarks	Level	Location
*339	Orange-red		Design in black; four sets of vertical pendant lines inside the rim; animal is used to fill space left where the design failed to join	23	Iran
*340	Buff-red		Cup with faded brown bands	30	L
341	Red		White specks in paste; dark brown bands on cup	23a	L
*342	Orange-red		Thin black paint	26a	L
*343	Gray		—	23	Iran
*344	Gray		Streak-burnished internally	18	L
345	Buff-pink	_	Thin wash on bead rim bowl with dark brown design externally	30	$\overline{\mathbf{L}}$
346	Orange-red	_	Globular bowl or jar, unslipped, with black design externally	18	Iran
347	Red	Self-slip	Thin-walled vessel of uneven thickness with faded brown design externally	23	L
348	Gray	—	Bowl in dove gray with animal design in black externally; bands and wavy lines internally; thin ware	23	В
*349	Red	Cream	Thin slip externally; smeary brown paint; flattened ridge with stripes	23	L
*350	$\mathbf{Red}$	_	Part of a jar with brown design externally	23	L
351	$\mathbf{R}\mathrm{ed}$	_	Globular jar with dark brown externally	20c	L
352	Red-buff	-	Dark brown design around shoulder externally	23	В
*353	Gray-buff	_	Jar or bowl with black design externally	23	В
*354	Red		Globular jar with dark brown design externally	23	В
355	Gray	_	Cup with black band over inside of rim. Similar shape and design, in orange- russet not black, in the same level	23	В
*356	Gray		Bowl with black design externally	23	${f L}$
*357	Red	_	Dark brown design externally, slight ridge with faded stripes	23a	В
358	$\mathbf{Red}$	Cream	Jar, medium tĥick ware, dark brown design	23a	В
359	$\mathbf{Red}$	Cream	Thick ware with black design	23a	L
360	Brown	_	Design in orange-russet band extending over the rim	23	L
*361	Gray		Rim and carinated shoulder of black-on-gray canister, grooved internally	17	Iran -
*362	Gray		Base of black-on-gray canister	20	В
363	Gray	_	Black design	17	Iran
*364	Red		Faded black internally (could be the shadow of a design on another bowl fired inside); same design occurs in Level 5 but in brown on a cream slip	20a	L
*365	$\mathbf{Red}$	Buff	Dark brown design	22a	L
*366	Gray	_	Black-on-gray platter on flat based dish	17	$\overline{\mathbf{B}}$
367	Red	Buff	Bowl with fish design internally (fish are used on bowls in a thinner ware in the same level)	17	Iran
368	Gray		Black inside a bowl (same design occurs in Level 20)	17	Iran
*369	Gray		Pale tone on surface; faded brown design	20	Iran
*370	Red	Cream	Reserved design on lightly sanded surface below neck (uncommon but continued into Period VI)	22	L
371	$\mathbf{Red}$		Small vessel with broken lug	20	L
372	$\mathbf{Red}$		White specks in paste; dark brown design	22	L
373	Buff-red	Cream	Fabric contained small cavities; slip flaked off; dark brown design externally	17	L
*374	$\mathbf{Red}$	Buff	Black design	22	L
375	Red	Cream	Cylindrical vessel with black design externally (also in Period VI)	20a	L
*376	Red	_	Design in brown, found under Wall 9 in a mixed level. ?Period V, 2 or VI	20	Iran
377	Red	_	Design in faded brown	17	L

No.	Fabric	SLIP	Remarks	LEVEL	LOCATION
*378	Gray	_	Medium thin ware jar or bowl with black design externally	22a	L
*379	Red		Part of a large jar in ridged ware with black- brown paint, straight and wavy ridges, and	22	В
380	Gray	_	a design incorporating arrow tipped tree Part of large jar with flattened straight and wavy ridges, design in black	22	L
381	Red	_	Medium large jar with design in brown; Post-Period VI, but the same design occurred in Period V, 2 and in Period VI (in Iran)	3	L
*382	Red	Cream	Slipped externally	17	В
*383	Red		Dark brown design, straight and wavy ridges	22	В
384	Pink	_	White grits in paste	Z.5	L
385	Pink		White grits in paste, showing on lower part of body externally	<b>Z.</b> 5	L
386	Pink	White	· —	Z.5	Iran
*387	Buff	Buff	Fugacious brown paint, animals similar to Khurab B.i.122	<b>Z.</b> 5	Iran
387a	$\mathbf{Red}$	Buff	Dark brown paint	Y.5	$\mathbf{C}$
387b	$\mathbf{Red}$		Dark brown paint	Z.5	Iran
388	$\operatorname{Red}$	_	Dark brown paint	Y.5	Iran
388a	Red	Buff	Dark brown paint	Y.5	$\mathbf{C}$
388b	Red	Cream	Thin wash with dark brown design; straight ridge on shoulder	Y.5	С
389	$\mathbf{R}\mathbf{e}\mathbf{d}$	Cream	Form and design, in dark brown, are uncommon	Y.5	$\mathbf{C}$
	Red		Black design (similar form in Level 17)	$\mathbf{Z}.5$	Iran
*389b		Buff	Brown design	Z.5	L
	Red	Self-slip	Dark brown design	Y.5	Ç
*390	Red	Buff	Vessel with two straight and one wavy ridge; black design	Z.5	L
391	Red	_	Sharply everted rim with straight and wavy ridges; black paint	Z.5	Iran -
392	Red	$\mathbf{R}\mathrm{ed}$	Brown design	Z.5	Iran
393	$\mathbf{Red}$	<del></del>	Same form occurs in sanded ware in Z.3	Z.5	Ļ
394	Red	White	Slipped externally	Z.5	Iran
395	Orange-red	_	Brown paint	Z.5	Iran
396	Buff	_	Period V design in dark brown	Y.5	Ç
397	Red	_	Dark brown design	Y.5	Iran
398	Red	Cream	Black grits in paste, thin slip	Y.5	C
399	Orange-red	Buff	Diameter 14 to 16 cm.; brown paint	Z.5	Iran
400	Orange-red	_	Thick ware with brown paint; Level 3 produced jar with similar design	Z.5	Iran
401	Red	Cream	Black grits in paste, thin slip; rim diameter 22 cm.	Y.5	Ļ
402 *403	Red Red	Buff ?Buff	Brown band on top of rim edge but not inside Storage jar with slightly beaded rim above a short neck and high shoulder marked by a flattened ridge; dark brown paint externally; similar designs on four other jars in the same level; two cream slipped,	Z.5 Z.5	L L
404	Orange-buff	_	with beaded rims diameter 24 to 28 cm. Black-dark brown design. Same design in Period	<b>Z.</b> 5	В
405	Orange-red	_	V, 1, level 18 (unillustrated) Brown design; two straight, one wavy ridge.	<b>Z.</b> 5	В
406	Orange-red	_	Streak-burnished externally Almost complete basin, dark brown design.	<b>Z.</b> 5	L
407	Red	Orange-buff	Streak-burnished internally Brown design, baluster motif with cordons and ridges	<b>Z.</b> 5	Iran
408	Red		Brown design	<b>Z</b> .5	L
408	Buff	Orange-red	Brown design	Z.5 Z.5	Iran
*410	Red-buff	—	Straight and wavy ridges	Z.5	L
411	Red-buil	_	Ridged basin, streak-burnished on both surfaces	Y.5	Iran
	2004		220500 bushi, burous burnished on both sulfaces	1.0	11411

No.	Fabric	Slip	Remarks	Level	LOCATION
412 413	$egin{array}{c} \mathbf{Red} \\ \mathbf{Red} \end{array}$	Buff Cream-buff	See No. 411 above Two straight and one wavy ridges; streak-	Z.5 Z.5	L Iran
			burnished internally		
414	$\mathbf{Red}$		Ridged vessel	Z.5	В
415	Red	Cream	Vessel with straight ridge, brown paint and rim diameter of 16 cm.	<b>Z.</b> 5	L
416	$\mathbf{Red}$		Black-brown paint, streak-burnished internally	<b>Z.</b> 5	Iran
417	$\mathbf{Red}$		Bowl	Y.5	$\mathbf{C}$
418	$\mathbf{Red}$		White grits in paste	Y.5	$\mathbf{C}$
419	Red			Y.5	$\mathbf{C}$
420	$\mathbf{Red}$		Dark brown paint; also in Z.17, Period V.2	Y.5	В
421	Red	_	Dark brown design back to front; streak- burnished internally	Y.5	$\mathbf{C}$
422	Pink	_	Badly levigated paste; uneven grooving internally (from Pit)	Y.7	$\mathbf{C}$
423	Red	Cream	Micaceous paste with white grits, slipped externally	<b>Z.</b> 5	Iran
424	Red		Undecorated	Y.5	$\mathbf{C}$
*425	Red	Dark red	String-cut base (?a lid)	Y.5	$\tilde{\mathbf{C}}$
426	Red	_	Vessel grooved internally, slightly concave disk base with squared edge	Y.5	Ĺ
427	Red-pink		Undecorated	<b>Z.</b> 5	L
428	Red-pillk Red	Dark red	?Offering-stand crowned by rounded bowl	Y.5	$\ddot{\mathbf{c}}$
429	Red	Orange-buff	Straight and wavy ridges (unique); ?a pot stand	Z.10	Ĺ
430	Buff-red		Unsmoothed surface with vertical molding, possibly a funnel or neck of a large flask	Y.5	Ċ
401	D' 1		(unique)	7.5	-
431	Pink		Coarse gritty shallow bowl	Z.5	Iran
*432	Red	_	Perforated ware, holes roughly pierced at varying angles and distances apart (two sherds)	Y.5	C
*433	$\mathbf{Red}$	Cream	Deeply striated on outer surface	Y.5	$\mathbf{C}$
434	Red	-	Sharply carinated bowl with everted rim and high shoulder (new form)	Y.5	C
435	$\mathbf{Red}$		Plain carinated bowl	Y.5	$\mathbf{C}$
436	Red		Rim diameter 14 cm.	Z.5	L & A
437	Red		Rim diameter 14 cm.	Z.5	Iran
438	Red		Rim diameter 14 cm.	Z.5	L
439	Red		Rim diameter 14 cm.	Z.5	$\tilde{ t L}$
440	Orange-red		Rim diameter 14 cm.	Z.5	$\overline{ ilde{ ilde{L}}}$
*441	Orange-red		Bowl with everted rim and convex sides; streak-burnished on both surfaces	Y.5	B
442	$\mathbf{Red}$		Streak-burnished internally	<b>Z.</b> 5	В
443	Red		Streak-burnished internally	Z.5	B
444	Red		Bowl with rim diameter of 14 cm.	Z.5	Ĺ
445	Orange-red	_	Porringer (the only complete section of this type of vessel), streak-burnished horizontally on the outside but diagonally inside; ring-base added to bowl and badly luted	Z.3a	В
446	$\mathbf{Red}$	_	Streak-burnished on both sides	Y.5	$\mathbf{C}$
447	Red	_	Streak-burnished on both sides	Y.5	$\mathbf{C}$
448	$\mathbf{Red}$		Vertical rim bowl in very thin ware	Y.5	$\mathbf{C}$
449			Straight-sided bowl, rim diameter of 6 to 8 cm.	<b>Z.</b> 5	Iran
450	Orange-red		Vertical streak burnishing externally	<b>Z.</b> 5	L
451	Gray		Streak-burnished jar	Z.5	 Iran
452	Orange-red		Stem, streak-burnished externally, possibly also on the inside	Y.5	C
453	Gray	-	Streak-burnished cup with ring or low pedestal base	<b>Z.</b> 5	L
454			?Foot-ring	Y.5	Iran
455	Orange -red	_	Foot-ring bowl, streak-burnished inside	<b>Z.</b> 5	L

No.	Fabric	SLIP	Remarks	Level	Location
456			<u>—</u>	<b>Z.</b> 5	Iran
457			Streak-burnished internally	<b>Z.</b> 5	Iran
458	Gray			<b>Z.</b> 5	L
459	Red			Y.5	C
460	Red	_	Flat base, streak-burnished on both sides	Y.5	Č
461	Orange-red		Slightly concave base of a cup, streak-burnished	Z.5	B
	-		externally and vertically (similar form in grayware)		
462	Gray		Vertically streak-burnished externally	Y.5	$\mathbf{C}$
463	Gray	_	Vertically streak-burnished externally (same form in incised grayware)	Y.5	C
464	Red	_	Streak-burnished	$\mathbf{Z}.5$	L
465	$\mathbf{R}\mathrm{ed}$		Dish, rim diameter, 18 cm.	Z.5	В
466	Gray		Dish, rim diameter, 12 cm.	Z.5	L
467	Gray		Dish, rim diameter, 10 cm.	Z.5	L
468	Gray		Dish, rim diameter, 12 cm.	$\mathbf{Z}.5$	В
469	Red		Dish with inverted sides (?slipped over burnish)	$\mathbf{Z}.5$	L
470	Gray		Dish, with slight streak burnishing and dark brown design	<b>Z.</b> 5	L
471	Gray	-	Cup	Y.5	L
472	Gray	-	Cup	Y.5	L
473	Gray	_	Bowl	Y.5	L
474	Gray	_	Bowl	Y.5	L
475	Gray	_	Bowl with black paint	Y.5	Iran
476	Gray		Bowl grooved internally	Z.5	L
*477	Gray	_	Part of a carinated canister, black-on-gray ware	Z.5	B & L
*478	Gray		Possibly base of No. 477; same ware	$\mathbf{Z}.5$	Iran
*479	Gray		Rim of carinated jar; black design externally	<b>Z.</b> 5	L
*480	Gray		Black-on-grey design externally	<b>Z.</b> 5	L
*481	Gray		Hard, thin-walled canister with carinated shoulder and narrow flaring neck (same form in Period V, 2)	Y.5	C & Iran
*482	Gray	_	Hard, fine ware with a rough texture; black design externally; form unusual; rim diameter 6 cm.	Y.5	L
*483	Gray		Jar or bowl; black design externally	Z.5	$\mathbf{C}$
*484	Gray		Part of a jar with dark brown design (similar sherd in Level Y.6a of Period V, 2 Fig. 26, No. 115)	Y.5	В
			SITE Y		
1	Orange-red	Cream	Jar with slightly carinated shoulder; design in black	Y.13	C
2	Red	Cream	Dark brown design	Y.13	C
3	Red	Cream	Dark brown pendant lines inside the rim (cf. No. 27)	Y.13	С
4	Reddish buff		Undecorated bead rim jar; same form in Level Y.11	Y.13	C
5	Orange-red	Cream	Black design externally	Y.13	C
6	Orange-red	Cream	Black design on the outside of a thick-walled jar (animals of this style were not found on the pottery of Site Z)	Y.13	С
7	Red		Smeary surface with black design on both sides (design not found on Site Z)	Y.13	$\mathbf{C}$
8	Orange-red	Cream	Black design externally (similar design in Level Y.12 and cf. No. 38)	Y.13	С
9	Red	_	Black design externally	Y.13	$\mathbf{C}$
10	Red	Cream	Ring base in thick ware; no parallel on Site Z but ring bases occurred in Period II	Y.13	$\mathbf{C}$
11	Gray	_	Black design inside bowl; three bands around rim externally (cf. Nos. 35 and 119)	Y.13	Iran

No.	Fabric	SLIP	Remarks	Level	LOCATION
12	Gray	_	Black design internally (cf. Period II form and design on No. 64)	Y.13	$\mathbf{C}$
13	Red	Cream	Rim diameter 44 cm.	Y.13	$\mathbf{C}$
14	Orange-red	Cream	Undecorated bowl (cf. No. 54)	Y.13	$\tilde{\mathbf{c}}$
15	Orange-red	Cream	Undecorated bowl	Y.13	č
16		Cream	Very thin slip externally (cf. No. 66 and No. 158	Y.13	č
	Orange-red	Cream	of Period III)		
17	Red		Rim of a storage jar	Y.13	$\mathbf{c}$
18	Gray	Gray	Overfired; jar with slightly carinated shoulder (cf. No. 74)	Y.12	C
19	Gray	Cream	Overfired; jar with black design externally	Y.12	Iran
20	Red		Design in brown internally	Y.12	C
21	Red	Cream	Design in faded dark brown on outside of medium thick-walled jar	Y.12	С
22	$\mathbf{Red}$	_	Black design on outside of jar or bowl	Y.12	$\mathbf{C}$
23	Orange-red	_	Black design with striped cordon externally (cf. No. 65)	Y.12	C
24	$\mathbf{Red}$	Buff	Black design externally on jar or basin with	Y.12	$\mathbf{C}$
			rectangular cordon (cf. Period II for square		
			cordons and No. 82 for hatched denticular		
			edged triangle)		
25	Red		Black design externally	Y.12	Iran
26	Orange-red	Cream	Design in dark brown; pendants inside rim	Y.12	C
27	Orange-red	Cream	Black design externally; heavy striped cordons,	Y.12	Iran
۷,	Orange red		one straight, the other wavy (no similar design found on Site Z)	1.12	11411
28	Gray		Black design on both surfaces (cf. Nos. 78 and 79)	Y.12	Iran
29	Gray		Black design internally (cf. Nos. 68 and 133)	Y.12	C
30	Gray		Black design internally; triple lines externally	Y.12	$\tilde{\mathbf{c}}$
30	Gray		(cf. No. 158)	1.12	G
31	Gray	_	Black design externally (cf. No. 344)	Y.12	$\mathbf{C}$
*32	Gray		Black design externally on straight-sided bowl	Y.12	č
32	Glay		or cup (first appearance on Site Y of this design which is common in Period IV, 1;	1.12	ŭ
			cf. No. 241)		
33	$\mathbf{Red}$		Jar with wavy comb incising on the shoulder	Y.12	$\mathbf{C}$
34	$\mathbf{Red}$	Cream	Badly fired; bowl slipped externally with wavy	Y.12	$\mathbf{C}$
			comb incising below the rim		
*35	Red	Cream	Black design on the outside of a globular jar (design occurred in Period IV, 2 on Site Z)	Y.11	C
*36	Red		Black design on a jar externally (cf. No. 176)	Y.11	$\mathbf{C}$
37	Red		Dark brown design externally (cf. No. 123)	Y.11	$\check{\mathbf{c}}$
38	Red		Dark brown design	Y.11	$\check{\mathbf{c}}$
39	Red		Black design	Y.11	$\widetilde{\mathbf{c}}$
40	Red	Cream	Dark brown design on the outside of a cup	Y.11	$\tilde{\mathbf{c}}$
*41	Red	_	(cf. No. 195) Dark brown design (cf. No. 175)	Y.11	Iran
42			Dark brown design (cl. No. 173)	Y.11	C
	Red Red		Dark brown design externally	Y.11	Č
43 44	$f Red \ Red$		Sagging base Black design externally	Y.11	Č
45	Gray	_	Black design externally	Y.11	Č
		Croom	Black design on the shoulder of a medium thick	Y.11	Č
46	Red	Cream	jar (cf. No. 178)		
*47	Red		Part of a dish or cup-on-stand or stemmed goblet made in two parts	Y.11	C
48	$\mathbf{Red}$	Cream	Dark brown design inside a rather clumsy bowl	Y.11	$\mathbf{C}$
49	$\mathbf{Red}$		Jar with wavy comb incising on the shoulder	Y.11	Iran
50	Red	Cream	Dark brown design (Period IV, 1 shape; cf. No. 175)	Y.10	С
*51	Orange-red	_	White specks in paste; dark brown design (similar though smaller scale design on another jar in the same level)	Y.10	С

No.	Fabric	SLIP	REMARKS	LEVEL	Location
*52	Red		White specks in paste; black design on a globular jar	Y.10	$\mathbf{C}$
53	Red		White specks in paste; black design on a jar	Y.10	$\mathbf{C}$
*54	Red		—	Y.10	Iran
*55	Red		Black design on the outside of a jar	Y.9	C
56	Red	Buff	Dark brown design externally	Y.9	Č
*57	Red	Cream	(cf. No. 291)	Y.9	$reve{\mathbf{c}}$
*58	Orange-red	<u>—</u>	Black design externally	Y.9	Iran
*59	Red	Cream	Dark brown design on the outside of a tall goblet (cf. No. 296)	Y.9	C
60	Red	Cream	Overfired; black design externally	Y.9	$\mathbf{C}$
61	Red	Cream	Dark brown design externally	Y.9	$\breve{\mathbf{c}}$
*62	Red	Gray-buff	Overfired; dark brown design	Y.9	$\check{\mathbf{c}}$
*63	Red	?Cream	Dark brown design externally	Y.9	č
64	Buff	Buff	Overfired; black design externally	Y.9	Iran
*65	Red	- Duli	Undecorated	Y.9	Iran
*66	Red	Cream	Lid; another, rather thinner, in the same level	Y.9	C
67	Red	Cream	String-cut base	Y.9	Č
68	Red	Buff	Edge of base pinched up into a ring-base	Y.9	Iran
			(cf. No. 295)		
69	Red	Cream	Dark brown design inside a thinly slipped bowl	Y.9	C
*70	Red	Cream	Dark brown design (also occurs in a more globular form in Level 8)	Y.9a	C
71	Red	_	Black design on the outside of a thick-walled vessel	Y.9a	С
72	Orange-red	Cream	Black design externally (cf. Nos. 161 and 303)	Y.9a	Iran
<b>*</b> 73	Orange-red		Black design internally; triple bands externally	Y.9a	Iran
*74	Red		Dark brown design; rather flattened V-shaped wavy ridge, striped (similar form and design in Level 8)	Y.9a	Iran
75	Red		Plain cup with string-cut base (also in buff ware, heavily grooved internally, in Level 9a)	Y.9	Iran
*76	Gray	_	Black design	Y.8	Iran
77	Gray		Brown design inside a bowl (?bird or insect)	Y.8	C
78	Gray		Black design inside a cup	Y.8	č
79	Red	Cream	Undecorated bowl, thinly slipped (new design)	Y.8	$\breve{\mathbf{c}}$
80		—	New design	Y.8	Iran
*81	Gray		Dark brown border	Y.8	C
*82	Red	Buff-cream	Dark brown design on a jar	Y.8	$\ddot{\mathbf{c}}$
*83	Red	Cream	Dark brown design on a jar	Y.8	$\ddot{\mathbf{c}}$
84	Red	Cream	New form, thinly slipped	Y.8	$\ddot{\mathbf{c}}$
85	Grayish-red	Cream	Overfired; black-brown paint	Y.8	č
86	Orange-red	Cicam	Black design on a jar	Y.8	Iran
*87	Red	Cream	Overfired; black design	Y.8	C
*88	Red	Cream	Small cup on stand or stem	Y.8	Č
89	Red	<u>—</u>	Bowl (two horizontal bands may be from the design on another bowl fired at the same time)	Y.6b	Ğ
*90	Gray	_	Black-on-gray ware trough or shallow platter (this form is usually streak-burnished and plain in Period VI); concentric band	Y.6b	С
91	$\mathbf{Red}$		internally and in the base Unevenly fired to gray in the core; grooved	Y.6b	$\mathbf{C}$
92	Red	Buff	internally with faint design in dark brown Dark brown design	Y.6a	C
93	Red		Design on shoulder of large jar of about the	Y.6a	Iran
33	Red	_	same size as No. 100 but with a slightly concave base; relatively thin walled for its size; base diameter 17 cm.; rim missing	1.0a	IIan
94	Gray		Slightly concave base	Y.6a	$\mathbf{C}$
*95	Gray		Streak-burnished on both sides, the marks	Y.6a	Ğ
	· ···/		applied vertically on the outside		

No.	Fabric	SLIP	Remarks	Level	Location
*96	Orange-red	-	Black design internally on a saucer	Y.6a	Iran
97	Red	_	Dark brown design externally on a miniature pot	Y.6a	C
98	Buff-red		Brown with straight striped ridges	Y.6b	$\mathbf{C}$
*99	Red	Cream	Basin of Kulli form, with black design of scorpions and caprids	Y.6b	C
*100	Red		Dark brown design, roughly executed, with recurring band of caprids between striped M dividers; rim missing; traces of a crystalline deposit inside	Y.6a	C
101	Red		<del>-</del>	Y.6a	$\mathbf{C}$
102	Red	Cream	Black design	Y.6a	Iran
103	Gray		Flat-based cylindrical vessel	Y.6a	$\mathbf{C}$
104	Pink-red	?cream	Black specks in paste	Y.6b	$\mathbf{C}$
105	Red	?cream	Black and white specks in paste; horizontal V-shaped ridge below rim	Y.6b	C
106	Red		<u> </u>	Y.6a	$\mathbf{C}$
107	Red	-	Cylindrical vessel in medium thick ware with dark brown band at neck internally	Y.6a	$\mathbf{C}$
*108	Orange-red		Ridged ware with black design (sherd is from a Period VI pit into Period V levels but the same design occurred in Level Y.6a of Period V, 2)	Y.7	Iran
109	Pink-red	Buff	Black specks in paste; dark brown design externally; note "rock" between animals	Y.6a	$\mathbf{C}$
*110	Red	Cream	Medium thick jar, thin slip with faded brown paint externally	Y.6a	В
111	Red	Cream	Jar with thin slip and dark brown design externally	Y.6a	$\mathbf{C}$
112	Red	—	Part of bowl or jar with dark brown design externally	Y.6a	$\mathbf{C}$
113	Gray		Bowl with black design internally	Y.6a	C
*114	Red	_	Thin-walled vessel with dark brown design	Y.6a	$\mathbf{C}$
			externally (another sherd of the same design in the same level)		-
*115	Gray		Faded black design on the outside; striated externally	Y.6b	$\mathbf{C}$
116	Pink-red	_	Jar with faded brown design externally	Y.6a	$\mathbf{C}$
*117	$\mathbf{Red}$		Faded brown design externally	Y.6a	Iran

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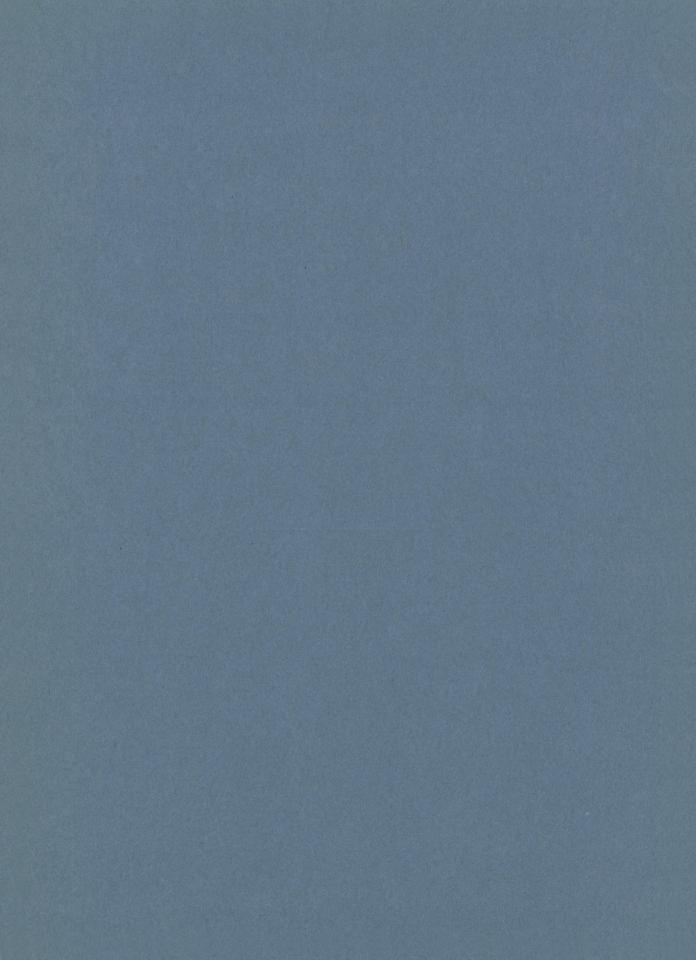
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