THE BACTRIA-MARGIANA ARCHAEOLOGICAL COMPLEX AND THE GREATER INDUS VALLEY

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This paper will review the principal data for the cultural interaction between Central Asia and the Greater Indus Valley in the Chalcolithic and Bronze Ages (Figure 30. Sites and geographical places mentioned in the text). It is in most respects a preliminary survey that will presents the highlights of the data documenting this interaction, and is not an in-depth study.

THE BEGINNINGS OF INTERACTION

The first hints of significant interaction between Central Asia and northwestern South Asia came with the discovery of the typological parallels between certain Central Asian ceramics and the so-called "Quetta Ware." There is a small body of literature on the origins of this ceramic: Tosi (1969: 283-86; Masson and Sarianidi 1972: 94-6; Biscione 1973; Jarrige 1988; and Gupta 1979: Vol. 2, 122-23 (Figure 31. Quetta Ware and Central Asian ceramics, figurines and seals. After Masson, but from Biscione 1973: 112). There is unanimous agreement among them that this pottery had its origins in Central Asia, which may well be the case, but there is room for reservation on the matter. Masson and Sarianidi have noted that the formal comparisons of the painted motifs on certain Central Asian ceramics and those of Quetta Ware are very close, sometimes identical. However, it is also true that while the painted motifs are genuinely comparable the fabrics of the pottery are very different. The Central Asian ceramics are medium to coarse wares, and by and large hand made. The Quetta ceramic is a fine ware and by and large wheel made. There are also significant differences in vessel forms. From this it is clear that the close coincidence in design motifs results from the potter's sense of a painting style, not the actual movement of ceramics, at least for the most part.

These analogies are not limited to painted pottery, but are also found in the small anthropomorphic figurines, certain metal artifacts, stamp seals and finally in similar types of burials.

We find collective burials in rectangular chambers, similar to those found in Geoksyur II, Altyn-depe and Ulug-depe. It is worth noting that collective burials in tholi in southern Turkmenia date back to the fourth-third millennia BC, which means that they carry much older traditions than their equivalent in southern Afghanistan. In other words, there are clear-cut analogies in such conservative and lasting traditions as funeral rites, which can hardly be dismissed as accidental.

All this provides evidence to support the hypothesis that the Quetta complex formed under the influence of south-east Turkmenian cultures (Masson and Sarianidi 1972: 94-5).

However, since there is little or no information on prehistoric burials in the Quetta Valley, or Central Baluchistan, however, the burial information from Mehrgarh, not available in 1972, would tend to support Masson's and Sarianidi's argument.

Raffaele Biscione has stated his position in the following way:

...Soviet scholars, chiefly Professor Masson, Dr. Sarianidi and Dr. Hlopin, succeeded in showing the continuity of the pottery tradition throughout the Chalcolithic period (Sarianidi 1965: 28-9; Hlopin 1963: 22, 1969: 49-50). They have clearly demonstrated that the Quetta Ware was the logical continuation of ceramic styles of periods Namazga I and II, Early and Middle Chalcolithic (Sarianidi 1965: 28-9). We must therefore conclude that the birthplace of Quetta Ware was Southern Turkmenia, and that its spreading over so wide an area was a later phenomenon (Masson 1961: 213; Sarianidi 1965: 50) (Biscione 1973: 105).

Biscione's observations are correct and the Soviet's study of their ceramics do indicate continuity in vessel form, decoration and ceramic technology. But the same is true for the ceramics of the Quetta Valley, based on Walter Fairservis' original study (1956) and my own work with this body of material. It can be concluded, to paraphrase Biscione, that Quetta Ware was the logical outgrowth of ceramic development from Kili Ghul Mohammad III to Damb Sadaat II.

The idea that both Central Baluchistan and Central Asia have data to support the positions just stated is viable. There is sound internal evidence for the development of the Quetta Ware in both regions, and the burial traditions are similar. If this is the case it suggests that the problem may have been incorrectly formulated or misunderstood. There is an implicit assumption that there must have been a "donor-receptor" relationship between Central Baluchistan and Central Asia and that diffusion from one region or the other must have been the mechanism for the transfer of Quetta Ware, the figurines and the rest.

The alternative to this model, and one which satisfies the evidence for the development of Quetta Ware, is to rid it of the donor-receptor relationship and restate it in terms of mutual interaction, as in an example of an interaction sphere as proposed by Joseph Caldwell many years ago (Caldwell 1964). The peoples of Central Baluchistan, Central Asia, and the intervening areas as well, established an enduring relationship, probably a series of them, and part of this involved the manufacture of ceramics, figurines and seals, which developed side by side in the area encompassed by the interaction sphere.

The mechanisms that fueled the interaction were probably based on the physical movement of peoples within the sphere: a shared set of activities, with some peoples from all or most of the settlements participating. The movement itself was based in part on ecology and the diverse activities of pastoral nomads in their own diversity of form, but other motives would have propelled it, too: trade, traveling bards and entertainers, tinkers, systems of exchange and gift giving, even the human propensity for travel and adventure should be considered a part of the instrumentality.

This set of relationships linking Central Asia to Baluchistan, extending down on to the Kachi Plain, reaching Mundigak and Shahr-i Sokhta, also seems to have been based more on peaceful processes than on war and antagonism. The durability of the interaction sphere, and a lack of signs of large scale conflict in the

archaeological record suggest this. It does not mean that these peoples were all happy, eager to please and help their neighbors. There must have been a variety of human values and feelings, some of which may have been antagonistic, even resulting in outbreaks of violence. Yet these emotions seem to have been held in check, or compromised by mechanisms such as mutual self-interest so that the strength of the interaction sphere had an enduring quality. Since the interaction lasted well into the second millennium, a period exceeding a thousand years, one has to believe that the social and cultural mechanisms on which it rested were strong and positive. There were probably, for example, marriages and an exchange of people among these communities. This interaction would have a tendency to homogenize the biological properties of the populations, and add yet another mechanism that kept peoples in movement---visiting relatives.

In the end, good evidence for significant interaction between Central Asia and Baluchistan begins in the fourth millennium BC. Whatever the mechanisms of this interaction there is archaeological documentation that it was a relatively regular, sustained activity until the early second millennium, c. 1700 BC. Thus, we can situate the BMAC material as simply another manifestation of an enduring pattern of interaction between these regions, not something new or out of the ordinary.

BMAC MATERIAL IN THE GREATER INDUS REGION

Introduction

There is a good deal of BMAC material in the Greater Indus Valley. The following will be a site by site review of the more significant finds.

Kulli

Sir Aurel Stein discovered and excavated the site of Kulli, or Kulli Damb, during his 1927-28 exploration of southern Baluchistan and Makran (Figure 32. Plan of Kulli. After Stein 1931: Plan 9). He worked at the mound itself between March 5th and 11th 1928 (Stein 1931: 118-27). Kulli, like Harappa, has become the type site for an entire archaeological complex, or culture, that existed in the highlands of Kalat and the Makran during the second half of the third millennium BC. Kulli is one of the most important archaeological sites in Pakistan.

Stein excavated four trenches, given as I, II, IV and V on the plan. It is important to note that Stein did not take his trenches at Kulli below what I think of as the uppermost, intact, occupational stratum of the ancient settlement. At no point did he even approach virgin soil. The mound rises nine meters above the valley floor and his excavation did not, on the whole, go deeper than a meter or two. What lies below the Kulli occupation is therefore open to speculation. Trench I, also called Structure I, was the most productive, at least it received the dominant amount of attention in Stein's report (Figure 33. Plan and section of Structure I at Kulli. After Stein 1931: Plan 9; Figure 34. Photograph of room VII, Structure I at Kulli. After Stein 1931: Figure 40).

As seen in Figure 33, Structure I is a very well made stone structure, probably of two stories. Room ix has two platforms. A BMAC miniature column of reddish marble was found there (Figure 35. Miniature BMAC column from Structure 1, room ix at Kulli. After Stein 1931: 124 and Plate XXIII, Kul. I.ix.1). Stein describes the find as:

Apart from a coarsely made jar, 1' 3" high and 10" in diameter at the bottom, , which stood near the west wall at the foot of the southern platform, the only object found was the fine grinder of reddish marble, I.ix.1 (Plate XXIII) which lay near the wall on the same platform. It is 8" high and 4" in diameter at its foot. Its shape and smooth surface attest superior workmanship (Stein 1931: 124).

Stein was, of course, incorrect about the function of the stone column, but virtually nothing was known of Central Asia at that time. Second, this solitary BMAC artifact seems to have been incorporated into the life of a Kulli settlement as an individual artifact, and not a part of a larger assemblage. The same may not be true for the BMAC finds at Mehi, just outside the village of Jebri, c. 120 kilometers to the northeast of Kulli.

Mehi

On March 26, 1928 Sir Aurel Stein pitched camp in a palm grove north of Mehi Damb in the Mashkai Valley. The next day, with a labor force of some ninety diggers, he set out to explore the site (Stein 1931: 153). Stein (1931: 153-63) notes that the foundations of buildings could be seen on the surface of the ground, just as at Kulli. But the Mehi walls were of undressed stone set in a matrix of mud and mud brick, not finely laid, dressed materials.

Stein opened four trenches on the northwestern slope of the site, none of which reached virgin soil. Three of the trenches (I, II and III) were contiguous and form a large 'T.' Trench I received the most attention in Stein's short report on his work there. Separate Trench IV was the only place he excavated where he exposed buildings with domestic artifacts much like those from Kulli (Stein 1931: 160). Fig.36.

The three contiguous excavation areas (I, II, III) were what amounts to a gigantic crematorium, and this is where the BMAC artifacts come from at the site (Figure 37. BMAC artifacts from Mehi. After Stein 1931: 158 and Plates XXVIII and XXXII). Stein sets the tone for the deposits in the Trench I area as "...the slope of this outlying portion of the mound is here covered by a thick layer of debris in which the remains of cremated human bodies were buried during a period approximately co-eval with the prehistoric occupation of the mound." (1931: 155). He describes one part of this area as:

Burial deposit in III.6. It was different with the instructive burial deposit unearthed in III. 6. Here at a depth of 2 ? feet and overlain by a mass of pottery debris there were first found three large conical cups of uniform size (111.6.2, Pl. XXX), stuck together and embedded amidst plentiful ashes and remains of charred wood. Within the middle cup lay the small copper bowl, III.6.4 (Pl. XXXII). Close to the cups were found the thin copper disc, probably used as a mirror, III.6.5 (Pl. XXXII) and two copper bangles, III.6.6 7, with the fragment of a third. A small neatly decorated bone stud or seal, III.6.18 (Pl. XXXI) was also found here.

Close behind these objects and on the same level there was found a partially burnt skull lying in a broken condition amidst ashes and fragments of charred wood with which were mixed small bone fragments. On the top of these lay three terracotta figurines of the 'goddess' of the usual type; also a copper hairpin, III.6.9 (Pl. XXXII), 4 ?" long, with a lapis lazuli bead stuck on its head. Below the skull and bone fragments there was a layer of burnt earth and ashes about one foot thick. Everything pointed to the body having been cremated at this spot and the cups and other objects having

subsequently been placed near what remained of it. It was of interest to observe that several small fragments of painted pottery were also contained in the earth mixed up with ashes. From this it may safely be concluded that the ground was already covered with potsherds at the time when the cremation anal burial took place (Stein 1931: 158).

It seems that the BMAC materials at Mehi are in the upper strata of the site, and not necessarily integrated into the Kulli occupation. But, the context seems to be funerary, and probably cremation.

It is prudent for us to think of Stein's observations at Kulli and Mehi not to be taken as anything other than preliminary remarks, indicative of the fact that there are BMAC materials there. What is really needed is a full scale, proper investigation at these sites, before anything too definitive is said.

	One footed cup in gold.
	Two bull pendants in gold (*Bos tarus*, not the Indian *zebu*)
	Hundreds of small gold beads
	Four miniature columns in alabaster with tops and bottoms grooved (white, pink and black stone, between 18 and 37 centimeters high)
	One grooved disc in alabaster, with Hissar III parallels
	Three soft grey stone shafts or scepters. One is barrel-shaped and 1.53 meters in length. The other two are elongated, conical shapes with the larger end carved in a way that suggests the hoof of an animal. The longest is 2.42 meters.
	Three alabaster vases
	Two footed alabaster goblets
	The lower portion of a soft grey stone statuette dressed in a kaunake
	One carnelian eye stone pendant set in a gold sheet folded up, around the edges
	One agate eye stone, violet in color, the edge of which had originally been plated in gold
	Two copper/bronze spatulas with twisted hilts
	Three copper/bronze disks, which may be mirrors
	One copper/bronze bar celt
	One copper/bronze pedestal led brazier
	One large copper/bronze point (chisel)
	One perforated object of lead with crudely embossed sides
	One cubical die in ivory
	Several ivory rods, square in cross section, incised with circles; usually thought of as dice
	Five circular ivory plaques with incised triangles and circles
	Several ceramic vessels
	Six plain ware ceramic goblets
	One copper/bronze pot with as in Marshall 1931 (Pl. CXL, 18)
	Conical pawns in stone
	Small balls in stone or frit
	Beads in faience
	Steatite inlay pieces in cruciform and trefoil shapes, sometimes filled with red color

The Quetta Treasury

On March 19, 1985 a contractor excavating a pit in connection with the construction of the Serena Hotel in Quetta City uncovered a grave and associated funerary objects that date to the BMAC period (Jarrige and Hassan 1989; Jarrige 1987). (Figure 38. Map of the Quetta Valley). The burial had been disturbed before archaeologists first examined it. The interment was deep, at minus 3.9 meters, in hard, compact clay without habitat ional layers. There was one skeleton, which had been disrupted by the contractor's work, near a large copper vessel and ceramic pots. Approximately three meters to the northwest of the skeleton, was a rich suite of grave goods. An inventory of the principal finds includes the following (tabl. 1).

The footed gold cup has four animals in the upper register (Figure 39. The gold cup from the Quetta Treasury. After Jarrige 1991: 101). The animals have bushy tails but the rough of the Asiatic lion. The snout is short, rather lion-like, and not what might be expected in an animal with a bushy tail, such as a fox, or the breed of dog suggested by other body features. The animal is either a composite, possibly mythological beast, or a rendering of an animal by an artist who, for whatever reason, did not quite capture the realism of the beast he or she was charged with portraying.

Figure 40 is an illustration of a number of the finds from the Quetta Treasury which have clear BMAC parallels (Figure 10. Objects from the Quetta Treasury. After Jarrige 1991).

The steatite inlay pieces in cruciform and trefoil shapes, noted in the list, are associated with red. This is interesting because they recall the trefoils on the garment of the so-called "Priest-King" of Mohenjo-daro. E. J. H. Mackay observed of this small bust that: "The interiors of the roundels and trefoils on the robe have been left slightly roughened, in order that the red paste used for filling them might adhere more firmly to the stone" (1931: 357). In fact, trefoils in the Indus context are always associated with the color red, be they etched carnelian beads, sandstone stands or the robe of the Priest-King. The occurrence of trefoils with red coloring in the Quetta Treasury only serves to reinforce the notion that the peoples of the BMAC, and the peoples of the Indus Civilization share many motifs and the Priest-King of Mohenjo-daro may well represent a Bactrian (Ardeleanu-Jansen 1991, Possehl 2002: 115-117).

Mehrgarh South Cemetery

In the late 1970s and early 80s M. Santoini supervised the excavation of a series of graves in an area of Mehrgarh that has come to be called the "South Cemetery" (Santoni 1984, Jarrige et al. 1995). The interments consist of rectangular graves, some only cenotaphs, others with one or more skeletons and grave goods (Figure 41. A cenotaph from the Mehrgarh South Cemetery. After Jarrige et al. 1995: 271). (Figure 42. A grave from the Mehrgarh South Cemetery. After Jarrige et al. 1995: 270). The artifacts consist of pottery, bronze vessels, toilet objects, or jewelry, small limestone and mother-of-pearl ornaments and pottery (Figure 43. BAMC Pottery from the Mehrgarh South Cemetery. After Santoni 1984: 55). This suite of artifacts is well known from Bactria, Margiana and southern Turkmenistan (Santoni 1984: 52).

In a separate area about 200 meters to the west of the grave yard of the Mehrgarh South Cemetery are more funerary deposits. All of these seem to be related to cremation, since burned surfaces were found everywhere. Four types of interments, or deposits, were found there:

1. Cenotaphs that were completely empty (2 in number)

2. Cenotaphs with grave only goods (4 in number)

3. Alongside the cenotaphs were deposits of large, isolated pots, or groups of 2-3 pots, sometimes pottery associated with bronze objects. In one case beads of various semi-precious stones and a terracotta rattle were found near the pottery.

4. Large, coarse ware (shred tempered) jars turned upside down, sometimes covering a small goblet or associated with small pots.

Once again the suite of artifacts from this area is well known from Bactria, Margiana and southern Turkmenistan (Santoni 1984: 53-54).

These two parts of the Mehrgarh South Cemetery provide evidence for the funerary practices of what appear to have been BMAC peoples in the Kachi area. They also recall the funerary evidence found at Mehi, mentioned above.

Sibri

Sibri is located to the south of the Main Mound of Mehrgarh, close to the Harappan site of Nausharo, on the flat, cultivated Kachi plain (Santoni 1983, 1988; Jarrige 1985). It is at least one hectare in area. Excavation there was conducted by J.-F. Jarrige and M. Santoni for three seasons, from 1978-79, 1980-81 and 1981-82. The site has been badly eroded, but consists of architecture and other habitation remains as well as burials.

There are at least two architectural levels at Sibri, the top-most being heavily degraded (Figure 44. Architecture at Sibri. After Jarrige et al. 1995: 409). No complete building plans are available but the finds include platforms and work areas with kilns and a furnace used in metallurgy (Santoni 1984: 56). Traces of walls were visible in the upper level architecture, in the southeastern area. Broken jars, pots, and figurines were found between them, resting on a layer of charcoal and ashes. The second layer contained better preserved remains. In the same southeastern area was exposed a wall with a niche the inner surfaces of which were burnt. Associated with this niche was a deposit of potsherds (from at least ten pots) and some small objects (bones, mother-of-pearl).

Two types of seals were found: compartmented and cylinder. Compartmented seals in bronze or stone were the most common with three triangular examples. A terracotta cake was found with several imprints of a square, cruciform seal Figure 45. Terracotta cake with seal imprints. After Jarrige et al. 1995: 360). A black steatite cylinder seal with a knob (Figure 46. Sibri cylinder seal with a zebu and lion facing one another. After Jarrige et al. 1995: 412). A scorpion was engraved on the base. There is another cylinder seal with a zebu and lion, but including a human "hunter" as well (Figure 47. Sibri Cylinder seal with a zebu, lion and hunter. After Jarrige et al. 1995: 412). The cylinder seal is similar to seals found in Margiana, at the site of Taip, one of which has the representation of a zebu.

A BMAC type bronze shaft hole axe-adze was found (Santini 1984: 1984: 53), comparable to a well known example coming from Mohenjo-daro (Mackay 1937-38: Plate CXXII, no. 12). There were also several bronze or copper pins.

Fragments of several stone vases made from both alabaster and chlorite were discovered. These were generally from small vases, one having an incised rim, another a beak. Large numbers of querns, pestles, polishing stones and sling balls were unearthed.

A small stone column of the type found at Kulli was on the surface. It was badly damaged by erosion or was unfinished.

Terracotta pawns, wheels, spindle whorls, rattles, sling-balls and discs formed from potsherds were found. One of the rattles has circular impressions on its surface and is similar to another specimen from Period VII at Mehrgarh. Finally, another terracotta object has incised signs and dots that might be numbers.

Terracotta figurines, all of which had been made from sherd tempered clay were found in large numbers. The principal type was the "violin-shaped" female figurine. The eyes and breasts are formed from applique, as is the hair in some cases. Necklaces and ornaments are represented by incised holes. The sex is indicated by applique breasts and incised dots marking the pubic area and the armpits. The violin shaped figurine has parallel with examples from sites in the lower Murghab Delta and from later contexts at Pirak.

The excavators of Sibri offer the following statement about the nature of the site:

There is little doubt that Sibri needs further investigation, but it is already obvious that we do not have there merely a camping place for semi-nomadic Central Asian invaders. Even at this preliminary stage of research, the faunal and floral analyses suggest agriculture at Sibri of a kind similar to what we know from Mehrgarh. The discovery of a vented furnace, half cut by a water channel, is also of great importance, because it is quite likely that this industrial feature was not an isolated phenomenon but part of a larger complex that has been washed away by channel-cutting activities of a large river bed joining the Sibri River (Jarrige et al. 1995: 329).

More material like that found at the South Cemetery and Sibli has been found at the low mound of Damboli, on the Kachi Plain. (Jarrige et al. 1995: 328

Gudar-i Shah

While it is not in the Greater Indus Valley, Gudar-i Shah, in southwestern Afghanistan, on the borders of Seistan, is also a place with an abundance of BMAC related material. This site was reported by G. Dales in 1977. It is actually a modern Muslim cemetery, where many of the graves have been covered with stones, some of which are BMAC artifacts (Figure 48. The graves at Gudar-i Shah. From the Archives of the University of Pennsylvania Museum). Dales was unable to locate the archaeological site from which these artifacts originated.

The Seals and Seal Impressions from Ahar Banas Sites

The 2002-2003 the joint excavation team at the Ahar-Banas Complex site of Gilund, to the east of the Aravalli Mountains in southern Rajasthan discovered a bin with over 100 seal impressions (Possehl, Shinde and Ameri 2004; Shinde and Possehl 2005, Shinde, Possehl and Ameri 2005). This bin was in the foundations of a large building with four parallel walls, which dates to c. 2200-1700 BC (Figure 49. The building with parallel walls from Gilund; Figure 50. Building with parallel walls at Gilund). We have inferred that the building with the parallel walls was a magazine type storage structure or warehouse. The goods seem to have been lined-up in the corridors of the building.

The impressions were made from seals both round and rectilinear. None of the seal impressions were made from the well known stamp seals of the Indus Civilization, with a device below a line of script. In fact, no suggestion of any writing of any sort has been found on them. Indus script has yet been detected.

The full functional study of the objects to which the Gilund seal impressions were affixed, has yet to be completed. But some of them appear to have been used to secure doors, employing the so-called "peg-on-wall" device, also documented at the Indus site of Lothal (Frenze and Tosi 2005:73) (Figure 51. Peg-on-wall door securing technique. After Frangapani 2004: 84). This may not be the only use for the Gilund seal impressions, but does suggest that the seal/sealing administration at the site was a part of the local, Gilund economy and was not necessarily linked to long distance trade. In fact, there is very little material from Gilund suggesting long distance trade. There are fewer than a dozen sherds of Sorath Harappan pottery, and less Malwa ware. Nothing from the Indus Civilization has been found there.

The design motifs of the Gilund seals and seal impressions are generally quite simple and have wide ranging parallels from sites in Sindh and Baluchistan: Chanhu-daro the Jhukar levels (Mackay 1943: Plate XLIX, Nos. 5 & 6, Plate L, Nos. 5, 7 & 13), Pirak Periods I and II (Enault 1979: Figure 96, Nos. 650-652, Figure 97, Nos. 662, 663 & 668, Figure 98, Nos. 667 & 668), Kot Diji (Shah and Parpola 1991: 397, No. Kd-6) and Nindowari (Shah and Parpola 1991: 410, No. Nd-3). There are also parallels with seals from the BMAC (Sarianidi 1998: seal numbers 410, 506, 540, 551, 653, 782, 784, 812, 817, 819, 1250, 1650.4 & 1797). (Figure 52. Seal impressions from Gilund; Figure 53. More seal impressions from Gilund; Figure 54. Seals from Chanhu-daro. After Mackay 1943; Figure 55. Seals and seal impressions from Pirak. After Enault 1979; Figure 56. An impression of the seal from Nindowari and the seal from Kot Diji. After Shah and Parpola 1991).

There are also small, terracotta BMAC type boxes from Gilund.

Since the discovery of the seal impressions in the bin at Gilund, a few more o. them have been recovered from occupational debris. We have also found several seals, including a well made stepped cross, with many parallels in the Greater Indus Valley and Central Asia (Figure 57. Stepped cross seal from Gilund) as well as a star shaped example also with parallels in Central Asia (Sarianidi 1998: 643, 649, 650) (Figure 58. Star seal from Gilund).

The Ahar-Banas Complex site of Ahar, in the eastern suburbs of Udaipur, Rajasthan (Sankalia, Deo and Ansari 1969) also has produced a set of seals. These were recovered by the excavations at the site conducted by the Rajasthan State

Mohenjo-daro, one side of a bullae with a seal impression of a BMAC eagle	Mackay 1937-38: Plate CII, no. 15
Mohenjo-daro, animal headed pins	Mackay 1937-38: Plate CI, nos. 3 and 10
Mohenjo-daro, criss-cross seal motif as in Figure 20, no.7 in this paper	Marshall 1931: Plate CXIV, nos. 524-526 and 528
Harappa, BMAC eagle seal	Vats 1940: Plate XCI, no. 255
Harappa, animal headed pin	Vats 1940: Plate CXXV, no. 34 & 36
Dabar Kot, possible head for a "kaukane figure"	Stein 1929: Plate XVI, no. D.N. vi.3
Periano Ghundai, trumpet shaped, red slipped bowls as found at Mehi and BMAC sites	Collections of the British Museum

Department of Archaeology and Museums in 1954-55 (Indian Archaeology, A review 1954-55: 14-15).

Other BMAC Finds in the Greater Indus Valley

It is not a goal of this paper to create a comprehensive inventory of BMAC materials in the Greater Indus Valley, since this is worthy of a full monograph length study. Some of the more obvious artifacts are given in Table 1.

THE CONTEXT OF THE BMAC FINDS IN THE GREATER INDUS VALLEY

There seem to be three general contexts for BMAC materials in the Greater Indus Valley.

1. Habitation as at Sibri and Damboli.
2. Funerary, as at Sibri, the South Cemetery at Mehrgarh, the Quetta Treasury and possibly Mehi.
3. Individual objects, or BMAC objects unassociated with one another from a single site, as at Kulli, Nindowari, Kot Diji or the finds from Mohenjo-daro and Harappa.
4. Objects with parallels in motifs found on some objects found in BMAC contexts as at Gilund and Chanhu-daro.

The entire suite of BMAC objects has not been found in the Greater Indus Valley. For example none of the elaborate axes have turned-up. Metal seals are rare, thus far coming only from Pirak and then only geometric seals. Missing are the seals with humans and/or animals, which are an important component of BMAC iconography.

The BMAC-related seals and seal impressions from Gilund and Ahar are made of clay or terracotta, as are those from Chanhu-daro, although the latter has stone seals too, but no metal. The seals from Pirak are both metal and terracotta, but predominantly the latter and not including anthropomorphic or zoomorphic examples.

The "peg-in-wall" seal operation was used to regulate access to goods in the magazine type storage structure at Gilund. This indicates that the context for this administration is the workings of a local economy, not just long distance trade, or even long distance trade at all, since there is so little material from Gilund or Ahar that suggests contacts with surrounding peoples, especially the Indus Civilization.

There is evidence for BMAC peoples living, and dieing, in the Greater Indus Valley. The BMAC-like material from the Ahar-Banas Complex does not suggest this sort of direct interaction, it is just too distant and incomplete as a suite of material culture. In fact, the seals and seal impressions appear to have been more "derived from" some of the notions that the BMAC peoples used for some of their seals, than to have used them as models. But, the formal typological similarities are many, and there appears to me to have been a sharing of ideas among the peoples of the Greater Indus Valley and Central Asia at the end of the third millennium and the beginning of the second. This sharing of ideas has deep historical roots, beginning at least as early as the middle of the fourth millennium, so the later evidence is simple a manifestation of an enduring pattern of relationships.

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MARGIANA AND BEYOND

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COMPLEX SOCIETY: AN AEGEAN ANALOGY

The bronze age civilisations of the Aegean, like those of Turkmenistan and the Iranian Plateau, were not based upon the great rivers: the Nile, the Tigris and Euphrates, the Indus. Those of Central Asia have been described as 'oasis civilisations'. This, while not accurate, does describe the pattern of intense centres of cultivation and settlement, spread out and lying between arid lands of low population density. In the Aegean case the urban or palatial centres were on islands or near coasts, separated by sea. So far as the analogy works, the seaways and the desert ways played comparable roles. There has often been the temptation to take a diffusionist or 'world system' view of these complex societies and to see them as somehow 'peripheral' to the early urban 'centres' of Mesopotamia, Egypt or the Indus. But I think it is appropriate to consider them first essentially in their own terms.

The palaces of Crete around 1800 BC were ritual and administrative centres following a well defined architectural model, based upon a central court surrounded by 'royal' apartments situated on the piano nobile, with storerooms and workrooms beneath. The richest finds relate to ritual equipment. These palatial centres were preceded in the mid third millennium BC by a period of exchange activity among the not-yet-urban centres of the Early Bronze Age (including Troy II), in which the trade in metals appears to have played a significant role. The emergence of civilisation in the Aegean can certainly be discussed in essentially autonomous terms, despite those contacts which did undoubtedly exist with Western Asia and the Levant, although scholars since the time of V.G. Childe have frequently viewed this as a 'secondary civilisation'. I hope to explore during my visit the extent to which