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HARAPPA: NEW DISCOVERIES ON ITS ORIGINS AND GROWTH

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Introduction

The Indus Valley Civilization has been the focus of research for over 100 years, beginning with its discovery in 1873 at the site of Harappa (Cunningham 1875). Since that time strategies for recovering more information on this culture have progressed through several cycles of intensive excavation at both large and small sites, and regional surveys have been carried out through much of the northwestern portion of the South Asian subcontinent. Excavations at the sites of Harappa and Mohenjo-daro in the 1920s and 1930s (Marshall 1931; Mackay 1938; Vats 1940) were followed by regional surveys that revealed the presence of numerous Indus related sites throughout what are now Pakistan and western India (references in Shaffer 1992). Additional sites with links to the Indus region were discovered in Afghanistan as well as in Oman and even as far away as Mesopotamia.

At present, archaeologists studying the Indus Valley Civilization have access to a wide range of data from excavations at both large and small settlements as well as from regional surveys. However, differences in survey and excavation strategies combined with the long time period over which these data have been collected often makes it difficult to evaluate and compare the material collected. In an attempt to address this problem, surface surveys and systematic excavations were begun at the type site of Harappa in 1986 by George F. Dales and J. Mark Kenoyer in collaboration with the Department of Archaeology and Museums, Government of Pakistan (Figure 1 and 2) (Dales and Kenoyer 1991). Since 1992 the Harappa Archaeological Research Project has been working under the joint direction of Drs. R.H. Meadow and J.M. Kenoyer, along with Dr. Rita Wright (Meadow 1991; Meadow and Kenoyer 1997). During the same time period surveys and excavations at other smaller settlements have been conducted in the regions around Harappa by the Department of Archaeology, Government of Pakistan. More recently, a program of systematic surface surveys and small-scale excavations has been implemented at sites in the hinterland around Harappa. This research has been carried out under the direction of Dr. Rita Wright in collaboration with Dr. Joseph Schuldenrein, Dr. M. Rafique Mughal, and Mr. Afzal Khan (Meadow, Kenoyer, and Wright 1996, 1998, 1999). Initial results of these complementary research strategies are changing our understanding of the nature of Indus urbanism in the Punjab and have implications for the overall structure of the Indus Civilization.

Table 1. Harappa Chronology (Meadow, Kenoyer, and Wright 1999)

| | | |
|-----------|-----------------------------------|----------------------------|
| Period 1 | Ravi aspect of the Hakra Phase* | > 3300 BC - c. 2800 BC |
| Period 2 | Kot Diji (Early Harappa) Phase | c. 2800 BC - c. 2600 BC |
| Period 3A | Harappa Phase A | c. 2600 BC - c. 2450 BC |
| Period 3B | Harappa Phase B | c. 2450 BC - c. 2200 BC |
| Period 3C | Harappa Phase C | c. 2200 BC - c. 1900 BC |
| Period 4 | Harappa/Late Harappa Transitional | c. 1900 BC - c. 1800 BC(?) |
| Period 5 | Late Harappa Phase** | c. 1800 BC(?) - < 1300 BC |

*also called the "Ravi Phase" below

**at Harappa, a radiocarbon date of c. 1700 BC has been obtained for an early level of Period 5.

Major points

1. *The Ravi Phase*

The chronology for the development and spread of the Indus culture can now be modified to include a period of early agro-pastoral settlements in the Indus Valley beginning around 3300 BC or even earlier (Table 1) (Kenoyer and Meadow 1999). The initial discovery of these settlements was the result of regional surveys by M.R. Mughal along the dried bed of the Hakra river in Cholistan (Mughal 1990). Generally referred to as belonging to the Hakra Phase (Mughal 1974, 1997), detailed features of these early settlements have now been revealed through excavations at Harappa. Due to presence of regional variations in pottery and other artifacts, this early occupation at Harappa is referred to as the Ravi Aspect of the Hakra Phase (following the protocol of Shaffer 1992) and called the "Ravi Phase" for short. During the Ravi phase, the discovery of marine shell, copper objects and various types of exotic stone beads, such as amazonite, carnelian and lapis lazuli, indicate that expansive trade networks were established between Harappa and distant resource areas (Figure 1).

The earliest cultural deposits discovered so far at Harappa have been found underlying the northern portion of Mound AB. These are assigned to Period 1 in the Harappa chronology. It is important to note that the way Period 1 at Harappa was defined before the 1996 season is different from the way it has been defined after that season. The cultural affiliation of Period 1 was initially based on observations of ceramics from the Northwest corner of Mound E and from small exposures in other areas. These ceramics are identical to examples reported from the Early Harappan levels at Kot Diji (Khan 1965; Mughal 1970), Jalilpur II (Mughal 1974), and Rehman Dheri II (Durrani 1988; Durrani, Ali, and Erdosy 1991). Now, after two seasons of excavations on the north side of Mound AB (1996 and 1998), a large assemblage of ceramics permits the division of Period 1 at Harappa into two parts, Period 1A and Period 1B. Period 1A ceramics include polychrome painted vessels as well as heavy

cooking pots similar to what have been reported from Jalilpur I (Mughal 1974). Mughal associates these ceramics with the Hakra Wares culture (Mughal 1997: 63-68). The Period 1A ceramics from Harappa are all hand-built. Only in Period 1B is the potter's wheel introduced. During Period 1B, the pottery develops into that commonly known as "Kot Dijian", which is the typical pottery of Harappa Period 2 as now defined.

The ceramics found in Period 1A at Harappa are distinguished by the fact that all of the pottery is hand built. Of the decorative motifs from this earliest sub-period, perhaps the most significant are the intersecting circle design painted in polychrome and the fish scale motif painted in light red-brown on buff (Figure 3). Whereas the other Ravi motifs all disappear by Period 2, the intersecting circle and fish scale motifs continue to be used, but they come to be executed in black paint on a red slip. Intersecting circle and fish scale motifs on pottery have been reported from other early sites such as Amri, Kot Diji, Mehrgarh, Nausharo, Jalilpur, and Rehman Dheri, but invariably they occur on wheel-made vessels, whereas at Harappa they occur first on hand-built pottery.

Another important development in Period 1A was the use of post-firing signs or symbols engraved on pottery vessels ("graffiti") and geometric button seals (Figure 3). These attest to the development of forms of communication that were to become standard features of the later phases of urban development in northwestern South Asia. Also during the Ravi phase, the range of materials represented in the artifactual assemblage indicates the existence of far-flung trading networks between Harappa and distant resource areas.

The earliest radiocarbon date so far obtained for the Ravi levels at Harappa, from a hearth just above natural sediment in Trench 39S excavated in 1996, falls between 3336 and 2885 BC (calibrated, 2-sigma range). The earlier end of the range seems to fit best with other dates from stratigraphically later hearths in the same trench and with dates from Period 1 levels on Mound E (Kenoyer 1991; Meadow, Kenoyer, and Wright 1996; Kenoyer and Meadow 1999).

2. *The Kot Dijian Phase*

A period of early urban development generally referred to as the Early Harappan or Kot Dijian Phase can now be defined from around 2800 BC to 2600 BC (Harappa Period 2). The early urban character of the Kot Dijian Phase was initially proposed on the basis of regional surveys conducted by M.R. Mughal in Cholistan and other regions in Pakistan. Details of the nature of Kot Dijian urbanism have been further elaborated through excavations at several sites including Harappa. During this phase, key elements associated with later Indus urbanism become more refined. These developments, as revealed by the recent excavations at Harappa, include the use of an Early Indus script on pottery and seals, the use of seals to impress clay tags (presumably to seal bundles

of goods or doorways), and the use of standardized cubical stone weights (Figure 4) (Meadow, Kenoyer and Wright 1998).

3. *The Harappan Phase*

The period of urban expansion and integration commonly referred to as the Harappan Phase or more generally, the Indus Valley Civilization, dates from around 2600 to 1900 BC. At least three sub-phases can be defined on the basis of changes in ceramic and other artifact styles, in seals and writing, and in architectural configurations. During the 700 years of the Harappan Phase, the socio-political organization of Harappa and presumably other comparable sites such as Mohenjo-daro did not remain static and uniform. Excavations indicate numerous phases of urban growth, decay, and renewal that probably reflect complex and dynamic political, ideological, and economic processes. It is unlikely that any single political structure was maintained for the 700 years of the Indus Civilization.

4. *Interpretive Models*

Various attempts to fit the data from the Indus cities into traditional models of centralized states or other forms of complex society have not been satisfactory. More complex models that take into account the presence of multiple levels of socio-economic and ideological interaction are necessary in order to characterize the nature of Indus political organization (Kenoyer 1994, 1995).

On the one hand, regional survey data do not provide the details needed to confirm the presence or absence of direct political or economic control by elite persons nor the specific nature of political relationships between elite individuals from different sites. On the other hand, although excavations at numerous sites do provide information on some details of economic and political organization including the existence of some degree of control of production and distribution, these data are not sufficient to confirm the existence of any particular form of political domination. Thus, in our work at Harappa we have tried to identify and take into account multiple concurrent forms of economic and political interaction.

The geographical settings and internal organizations of the various Harappan Phase cities, together with specific patterns of artifacts, seem to indicate that the Indus cities were most likely independent polities perhaps similar to city-states (Kenoyer 1997). During much of their existence they would have had direct political control only over nearby settlements and lands. Nevertheless, at one level of interaction, encompassing the whole geographical area covered by the Indus Civilization, we have evidence for strong links between literate elites. These individuals or groups shared a common ideology and specific economic mechanisms that are reflected in the styles of seals,

ornaments, and specific kinds of ceramics. They also had a common script and a common system of weights. Because of the multiple occupational specialties present in the Indus cities, it is possible that the cities were more rigidly stratified and segregated than small rural settlements, which may have included more homogeneous communities of farmers, pastoralists, fishers, miners, hunters and gatherers. The construction of massive fortification walls at Harappa (Kenoyer 1991; Meadow and Kenoyer 1997) and other settlements such as Sutkagendor (Dales and Lipo 1992), Surkotada Joshi 1973), Dholavira (Bisht 1990) may have been constructed for defensive purposes and would therefore imply periodic conflict, but not on the scale seen in other world regions at this same time.

Regional surveys have begun to identify these different kinds of sites, such as pastoral camps, resource processing areas, and middle place settlements (Mughal 1997; Mughal 1997). Nevertheless, it should be noted that upon excavation even relatively small settlements have yielded a wide range of "elite" Harappan artifacts. Examples include Allahdino (Fairservis 1982), Balakot (Dales 1979), Amri (Casal 1964), Kot Diji (Khan 1965), and Nausharo (Jarrige 1986, 1988), all of which are between two and five hectares in size. It is likely that such sites included individuals from a range of different occupational specialties, and that such individuals were not confined to the cities alone. Given the great geographical distances between the large cities, many of the smaller communities, and distant resource areas, the small sites may have interacted only occasionally with the large centers. Nevertheless, they played a crucial role in the maintenance of trade networks and of the urban populations.

Many aspects of the socio-political organization of the Indus Civilization remain to be investigated. The recent work at Harappa clearly demonstrates that through a combination of excavation at both urban and rural sites and regional surveys it is possible to make inferences about the nature of social, economic, and ideological aspects of this society even without the aid of written texts.

Illustrations

- Figure 1. Major Sites of the Indus Valley Civilization and Ravi Phase Interaction networks.
- Figure 2. Harappa Excavations 1999. Site map and excavation areas.
- Figure 3. Ravi Phase Pottery, Inscriptions and Bone Button Seal from Harappa.
1. H98-3853/8514-10, Post firing inscribed on rim.
 2. H98/8484-87, Post firing inscribed on exterior body.
 3. H98/8440-195, Post firing inscribed on exterior body.
 4. H98/8440-202, Post firing inscribed on interior body.
 5. H98-3718/8526-8, Post firing inscribed on rim.
 6. Polychrome pot, intersecting circle motif, H96/7509-502.

7. Pot with fish scale design, H96/7515-503.
8. H98-3503/8514-07, Bone button seal fragment.
Geometric/swastika? design.

Figure 4. Kot Diji Phase Button Seals, Sealing and Early Indus Script from Harappa.

1. H96-2740/7469-01, Button Seal, glazed steatite.
2. H96/7458-01, Button Seal, glazed steatite.
3. H98-3453/8301-01, Button seal, fired steatite.
4. H98-3493/8314-01, Button Seal, fired steatite.
5. H96-2743/ 7402-90, Button Seal unfired steatite.
6. H98-3485/8437-01, Terracotta sealing.
7. H98-3827/8447-1, Limestone cubical weight.
8. Single sign, post-firing inscriptions on Period 2
(Kot Diji Phase) pottery.
9. Multiple sign, post-firing inscriptions on Period 2
(Kot Diji Phase) pottery.
10. Multiple sign, pre-firing inscription on Period 2
(Kot Diji Phase) pottery.

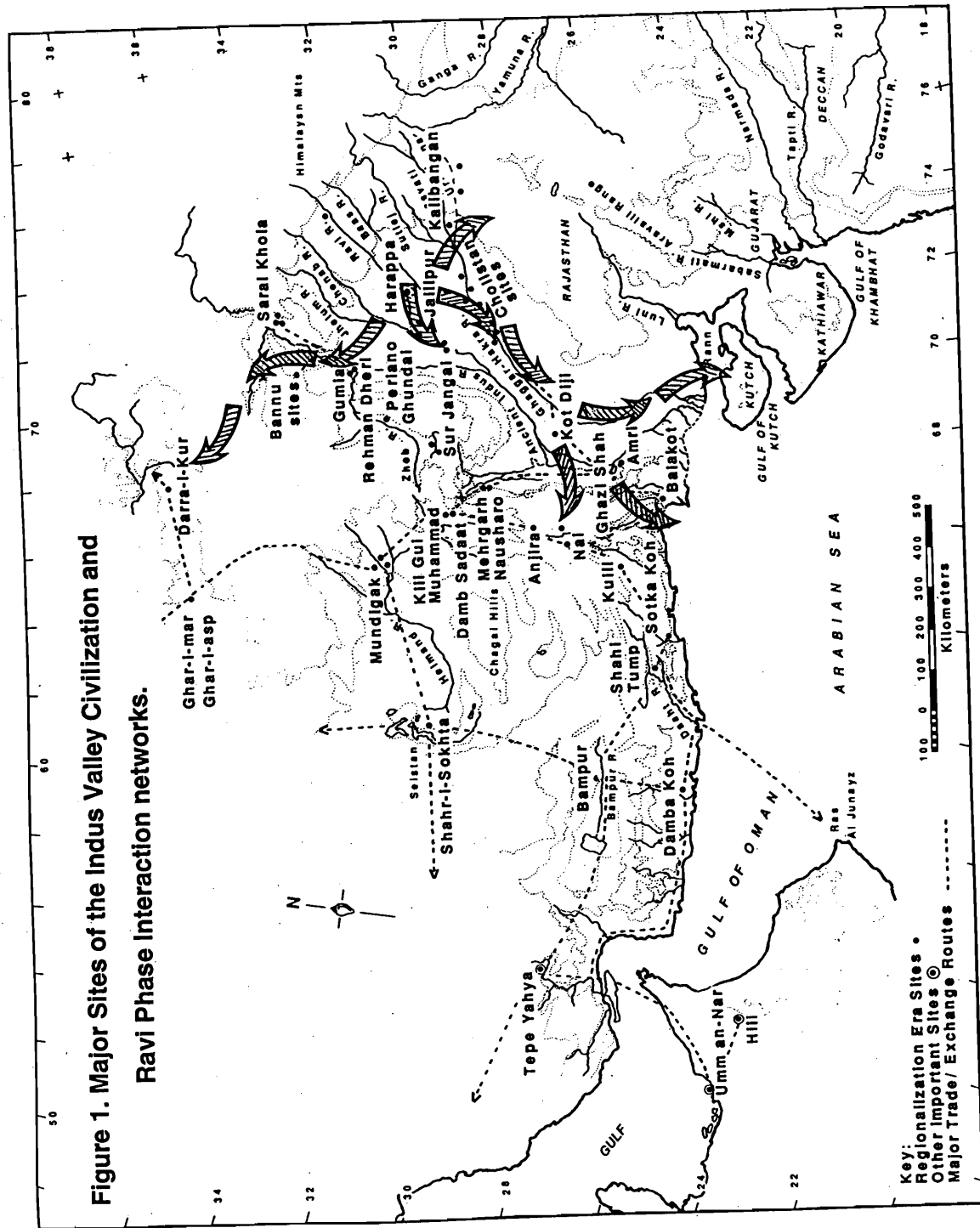


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Figure 1. Major Sites of the Indus Valley Civilization and Ravi Phase Interaction networks.



Key:
 Regionalization Era Sites •
 Other Important Sites ©
 Major Trade/Exchange Routes - - - - -

Figure 2. Harappa Excavations 1999.

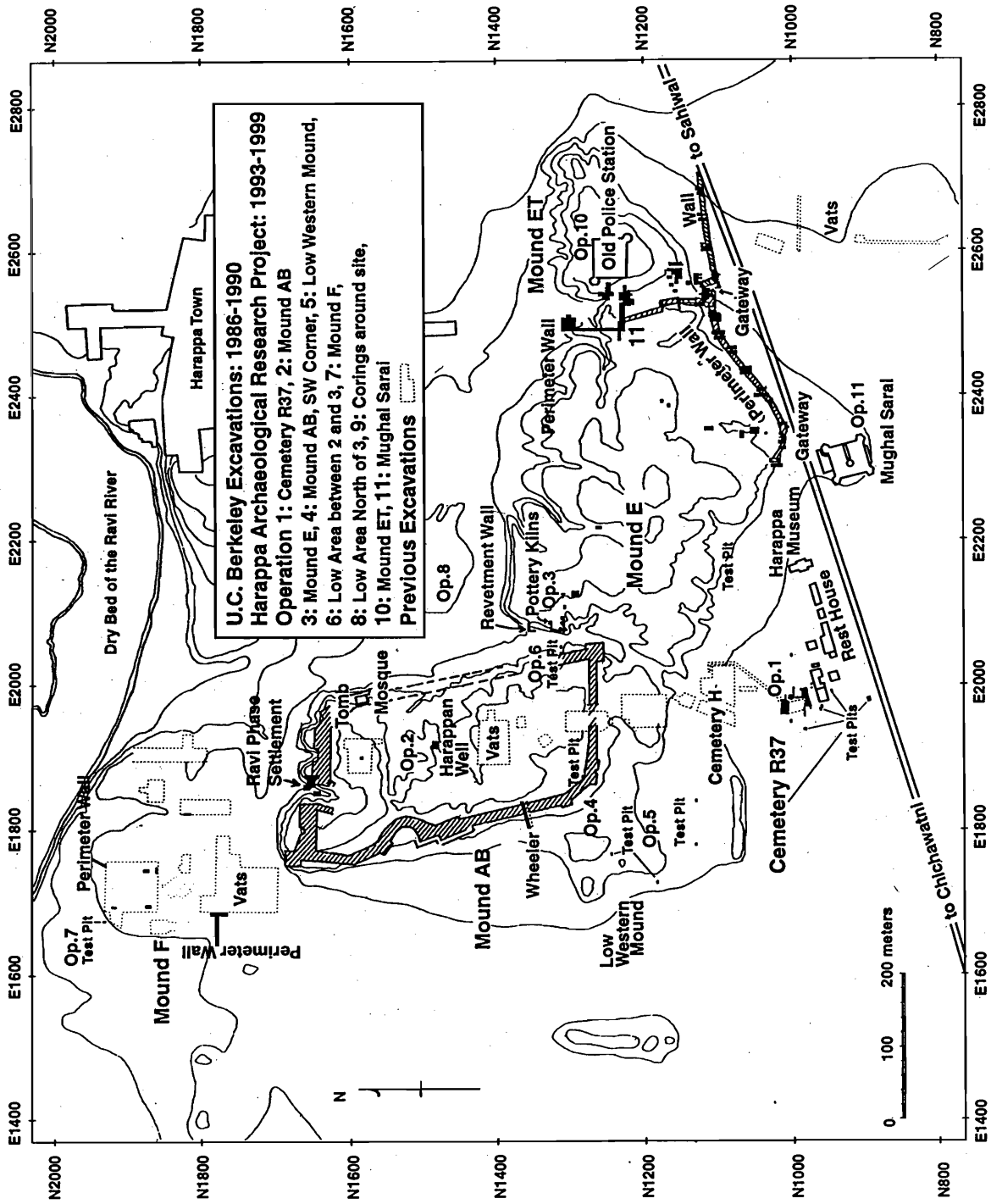


Figure 3. Ravi Phase Pottery, Inscriptions and Bone Button Seal from Harappa.

