

CONNECTIONS AND COMPLEXITY

New Approaches to the Archaeology
of South Asia



Edited by
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Walnut Creek, California



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Preface

This collection is a testament to the lasting influence of the late Dr. Gregory L. Possehl, Professor Emeritus of Anthropology at the University of Pennsylvania and former curator of the Asian collections at the Museum of Archaeology and Anthropology. The project grew out of a day-long symposium at the 2009 annual meeting of the Society for American Archaeology, which we organized upon his retirement to celebrate Greg's long and successful career as one of the foremost scholars of South Asian archaeology. By bringing together many of Greg's US colleagues and students, it was also a way to acknowledge the extent of his impact on the field. But with Greg's sudden passing on October 8th, 2011, at the age of 70, this volume has taken on additional significance. It has now become a means by which to honor a remarkable person and a remarkable career that spanned nearly four decades. From his early work on beads in Cambay, to his excavations in Rojdi and Gilund, to his most recent project in Oman highlighting the connections between Bronze Age South, Central, and Southwest Asia, we view this volume as a small reflection of all the many ways that Greg's scholarship helped to shape the future of South Asian archaeology.

A man of few words in person, Greg was nevertheless incredibly prolific in print. Over 14 books and 101 articles and book chapters are ample testament to his passion for and commitment to the discipline. It was a passion perhaps matched only by his love of puns and of new technology. As soon as a new gadget or software program hit the market, his colleagues and students could be sure to find it in Greg's office. In fact, it was probably his early and enthusiastic adoption of new software that made Greg's research databases so rapidly, widely, and easily available. All of Greg's students remember, throughout the 1990s, having contributed to the organizational databases that eventually led to the creation of his online gazetteer of sites and radiocarbon dates. It was this kind of diligent, tireless collection and management of primary data that

enabled Greg to do something at which he excelled and for which he is justifiably well-known. To this day, his syntheses of enormous quantities of material data related to early South Asia remains an indispensable resource for all his colleagues.

Greg's legacy also endures from his role as an advisor and mentor, which extended well beyond his students at the University of Pennsylvania (from where all four editors received their doctoral degrees). He served as an external examiner for numerous students of South Asian archaeology all over the world, and was particularly attentive to students from the subcontinent. Always generous with his support, his advice, and his data, there are few in our field who have not benefitted from knowing Greg, either as a scholar or as a friend.

Our thanks go to each of the authors in this book for their contributions and for their willingness to work with our vision. The volume benefitted from the comments of three blind reviewers; we offer our gratitude for their time, effort, and insights. Bringing any such project to completion also requires the concerted effort of many individuals behind the scenes, and this one is no exception. Early in this process, Emma Prichard at the University of New Hampshire provided much needed editorial work. Our work as editors was made much easier under the guidance of our acquisitions editor, Caryn Berg, and with the cheerful, efficient support of our copyeditor, Jerryll Moreno. Also from Left Coast Press, Ryan Harris and Pilar Hastings-Smith supported us at key points throughout the process; we thank them for their patience and quick replies. And of course, none of this would have been possible without the keen eye and unwavering support of the publisher, Mitch Allen.

We also acknowledge the support granted to us by all of our home institutions, St. Lawrence University, Rhode Island College, Kennesaw State University, and Pratt Institute, as well as the contributions of our alma mater, the University of Pennsylvania. Finally, as coeditors, we have each recognized during this process that, aside from the immensely large shoes he would expect us to fill, Greg also left us—his students—one more lasting gift: one another. And for that, we can never thank him enough.

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Regional Diversity in the Harappan World: The Evidence of the Seals

Marta Ameri

During the second half of the 3rd millennium BC, the Harappan Civilization covered an area of over one million square kilometers in South Asia, extending from the Afghan highlands to western India. Excavations at large urban sites like Harappa, Mohenjo-daro, and Dholavira, as well as at smaller production sites, such as Lothal and Chanhu-daro, have shed much light on this impressive civilization, whose expansion seems to have been based on its extensive trade networks and shared ideologies (Possehl 1998). Although the Harappan sites of the Indus Valley and beyond have been the subject of intensive investigation for over 80 years, some aspects of this exceptional culture, particularly the lack of a readable script, have left us with more questions than answers. Because of the difficulty in comprehending a society that spans such a large area—without the help of written texts—studies have tended to focus on small-scale issues, like the local organization of craft production (Bhan *et al.* 2002; Bhan *et al.* 2003; Kenoyer and Meadow 1997) or on overarching cultural trends, such as whether the Harappan Civilization could be considered a state (Possehl 1998; Shaffer and Lichtenstein 1989). With the exception of a few studies, regional variations within the system are rarely discussed.

The Question of Regional Variation

The recognition of regional variation within the Greater Indus Valley¹ has been one of Gregory Possehl's greatest contributions to the study of

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the Harappan culture. His work in Gujarat highlighted the differences between what he termed “classical” Sindhi Harappan sites, such as Dholavira and Lothal, and the local (but equally distinctive) Sorath Harappan sites like Rojdi (Possehl and Raval *et al.* 1989). Possehl’s division of the Harappan Realm into five domains has allowed scholars to recognize and characterize regional differences within the material culture of the Harappan culture. While work in Gujarat and Balochistan has greatly benefited from this increased awareness of regionalized cultures, the delineation of regional styles within the Harappan realm remains in its early stages in other areas.

Studies of pottery, burials, and other aspects of material culture have shown a fast-paced progression from a period of clear regional diversity in the pre-Harappan and Early Harappan to a period of overarching homogeneity during the Mature Harappan. In discussing this phenomenon, Kenoyer and Meadow (1997) have referred to the veneer of the Indus Civilization—that is, those cultural elements that, when found in specific archaeological contexts, define them as Harappan. These cultural characteristics include a system of standardized weights (see Miller, this volume, for a discussion of the possible variability in Harappan weights), pottery with distinctive shapes and decorations, luxury goods such as etched carnelian beads and other ornaments, architectural features such as extensive waterworks and baked-brick construction, a unique script, and intaglio seals. Kenoyer and Meadow believe that the diverse regional cultures that existed in the pre-Harappan period adopted these elements as they became “Harappan.” This concept of a veneer suggests that although there is much similarity in the material culture of Mature Harappan sites, there also exists an underlying regional and cultural diversity that is reflective of the “agricultural and pastoral life that had developed throughout the region in previous millennia” (Kenoyer and Meadow 1997, 139). In fact, studies at Nausharo, a site with both a pre- and post-Harappan occupation, have shown that after the end of the Mature Harappan period (the time when the corpus of cultural elements found at the site are distinctly Harappan), there is a return to a material culture that is in fact very similar to what existed in the pre-Harappan phases (Jarrige 1997).²

How and why different regions, whose material culture had previously been unique, adopted the “uniform” material culture of the Mature Harappan period remains unexplained. Also important, however, is the question of whether the markers that define this veneer are actually as uniform as they appear at first glance. In the past, archaeologists have tended to view material belonging to the Mature Harappan period as a single homogeneous unit. In one article describing the Mature Harappan

finds at Kalibangan, B.K Thapar went so far as to state that “the finds obtained from the occupation of this period (per. II) were all characteristic of the Indus Civilization and need not be listed individually” (Thapar 1975, 28). More recent work, on the other hand, has started to identify regional features even in material culture that could be viewed as part of the classical Mature Harappan assemblage. In discussing the pottery found at the site of Farmana in Haryana, for example, Shinde *et al.* (2008, 112) state that the “Mature Harappan ceramic assemblage found in this region differs drastically from that found at the sites of Harappa and Mohenjo-daro. This is identified as one of the characteristic regional variations of the Harappan Civilization in the Ghaggar Basin.” Thus we are faced with the question of whether this homogenous veneer is a reality of the past or a construct of modern archaeological interpretation. If it is, in fact, a modern construct, are there variations within these standard expressions of Harappan identity over the spatial, and chronological, expanse of the Greater Indus Valley? And can these differences be defined and utilized to better understand the ways in which the Harappan sociocultural system developed and functioned?

The Role of Seals

One important component of the Harappan veneer is the corpus of inscribed glazed steatite stamp seals found at sites throughout the Greater Indus Valley. These seals are viewed as clear markers of a Mature Harappan occupation at any given site, but the analysis often stops there. For example, Bisht and Asthana (1977, 230) describe the finds from the small site of Banawali in District Hissar, Haryana, and lists the inscribed seals as “the final item showing uniformity in the overall cultural milieu” and notes that they have “writing and animal motifs almost similar to those found at other Harappan sites”. Recent excavation reports have provided more detailed descriptions of excavated seals, but researchers still pay little attention to the stylistic and iconographic variation present in seals found at different sites. Yet, seals may have served as markers of identity and would most likely have belonged to elite groups within the society (Frenez and Tosi 2005); thus, they may be able to provide vital information about the diverse ethnic and/or social groups inhabiting different regions of the Harappan world. Similarly, their role in the economy can provide insight into the directions and management of trade, aiding in the reconstruction of the functioning of the Harappan system as a whole.

This chapter provides an approach that utilizes some of the art historical methodologies that have long been used in the study of ancient

Near Eastern glyptic, particularly the stylistic and iconographic study of seals and seal impressions, within a field that has traditionally been dominated by anthropologists. I examine seals from several geographically dispersed sites in the Greater Indus Valley with an eye toward identifying stylistic and iconographic differences in the glyptic art from different regions. The existence of regional trends provides an important clue as to the ways in which existing local traditions were incorporated into the classic Harappan, possibly resulting in distinct regional iterations of the classic Harappan material culture.

The Study of Harappan Seals

To date, two in-depth studies of Harappan glyptic have been published. Both focus primarily on the seals with the unicorn motif (see also Kenoyer, this volume). Franke-Vogt's detailed study of the inscribed material from Mohenjo-daro focused on its find spots in an attempt to determine both the social and temporal stratification of the material from that site (Franke-Vogt 1991, 1992). Rissman (1989), on the other hand, examined unicorn seals from throughout the Greater Indus Valley in an attempt to identify and classify different styles and the areas where they were created. Franke-Vogt and Rissman identified groupings of particular features found in the unicorn seals. These features included details, such as the articulation of the head and neck of the animals, as well as the shape of the standard placed in front of them. Rissman's study is especially interesting because it shows that specific articulations of the unicorn's appear to be associated with distinct geographical areas, suggesting the presence of seal-cutting workshops in different regions rather than a system of centralized seal production. It is also possible that the different markings on the unicorns have a deeper significance that could eventually enable us to identify the geographic origin of the owners of the seals, if not more specific aspects of their identities (without ever deciphering the Harappan writing system). Ongoing doctoral studies (Jamison, forthcoming; Green, forthcoming) are continuing the work begun by Rissman while focusing on the processes of seal production at various sites.

Aside from these detailed studies of the unicorn seals, the iconographic studies that have been conducted on the Harappan seals have, for the most part, focused on seals with narrative iconography that may provide insight into the mythological or religious ideology of the Harappan world (Parpola 1992; Possehl 2008; Wright 2010). Still other studies have focused on Harappan seals found abroad (Gadd 1932; Parpola 1994) or foreign seals found in the Greater Indus Valley (During Caspers

1994). The role that the iconography of the seals may have played as a marker of identity, whether based on kinship or socioeconomic affiliation, was addressed by Fairservis (1986), Ratnagar (1991) and, most recently, by Vidale (2005). In his study, Vidale suggests that the round seals with the short-horned bull found outside the Greater Indus Valley may have functioned as the emblem of a group of families involved in foreign trade; while the standard square seals with the same iconography would have been used by branches of the same families located in the homeland.

The Iconography of Seals from the Harappan Heartland

Building on earlier work, this chapter more closely examines the stylistic and iconographic differences between the square stamp seals from different regions within the Greater Indus Valley. Although most other studies have focused either on narrative scenes or on the unicorn seals, this chapter turns attention to the many other iconographic types found within the corpus of Harappan seals. To investigate the question of regional diversity, I examine the square stamp seals from six different sites within the Greater Indus Valley. The seals from Harappa and Mohenjo-daro, the two large urban sites where the greatest number of seals were found, are taken as a control group to provide a basic view of the distribution of iconographic types. These sites are particularly important because it is the material found there that defines the material culture of the classical Harappan Civilization. To further define the classical Harappan corpus, I also examine the seals from two smaller sites that belong to what Possehl considers the “Sindhi Harappan” realm—the small production site of Chanhudaro and the site of Lothal in Gujarat. The analysis of the seals from this last site is also useful in approaching the question of the function of the Harappan seals. Finally, this chapter analyzes the seals from Kalibangan and Banawali, two sites located far to the north and east of the Harappan heartland in what Possehl terms the *Eastern Domain*. The material examined in this paper is only what was published in Volumes 1 and 2 of the *Corpus of Seals and Inscriptions* (Joshi and Parpola 1987; Shah and Parpola 1991). In the case of Banawali, I have also included the seals that were published in *Indian Archaeology: A Review* (1986–1987) after the publication of the *Corpus*.

The decoration on the standard square stamp seals found at Harappan sites usually consists of a single animal facing left (on the seal) and a line of inscription above its head. The animals, which represent the diversity of the natural fauna of the Greater Indus Valley, generally stand before a standard or trough. By far, the most common iconographic

motif is the so-called unicorn. This creature, which is almost always represented with only one horn and wearing a heart-shaped harness, is the central element on more than 60% of the stamp seals found in the Greater Indus Valley.³ Kenoyer (this volume) argues that the unicorn is an intentional representation of a mythological animal with a single horn that plays an important role in Indus ideology. The unicorn faces a vertical stand that is made up of a rectangular element placed above a semicircular one. This object is generally referred to as a standard or brazier, but it has also been suggested that it may represent the press used to make soma, a hallucinogenic drink known from later Vedic texts (Mahadevan 1984).

A quick overview of the iconographic distribution of the seals found at Harappa and Mohenjo-daro (Table 19.1, Figure 19.1), the two major excavated urban sites of the Harappan culture, shows that the unicorn seals make up about 80% of the square stamp seals, with bison and elephants making up the next largest groups. At Chanhudaro, a much smaller site about 200km southeast of Mohenjo-daro, the distribution of seals is also similar (Table 19.1), with about 80% of the corpus consisting of unicorns and a variety of other iconographic types making up the remaining 20%.⁴ As a site, Chanhudaro seems to be an expression of the classical Harappan on a small scale (Possehl 2002). It has no pre-Harappan occupation, and its architecture reflects all the elements seen at Mohenjo-daro, with baked-brick buildings, paved bathrooms, and extensive drainage systems. Like some sites in Gujarat, Chanhudaro seems to have been dedicated largely to craft production during the Mature Harappan period. The presence of areas identified as bead and seal-making workshops as well as the extensive scatters of debris from crafts activity confirm this interpretation (Mackay 1943). While the site is also characterized by an extensive and well-documented post urban occupation, the iconographic distribution of the standard Harappan seals seems to confirm its place within the classical expression of the Mature Harappan period.

Seal Iconography at Lothal

The last classical Harappan site considered in this paper differs from the others in that it is not located in the Harappan heartland but rather far to the southeast in Gujarat. Greg Possehl (1992) sees Lothal, along with Dholavira, as a Sindhi Harappan site established in the plains of Gujarat primarily to serve as a sort of entrepôt for trade and production. For him, these sites served as commercial hubs to mediate trade relations between the native, Sorath Harappan populations of the area and the larger Sindhi Harappan cities to the north. Lothal's possible role in trade is also

Table 19.1 Distribution of iconographic elements in the glyptic of sites discussed in the text (based on figures in CISI I and CISI II).

	Mohenjo- daro	Harappa	Chanhu- daro	Lothal	Kalibangan	Banawali
Unicorn	633	75	21	42	26	3
Urus	4				1 (no standard)	2
Bison	43	7	1	3	3	
Zebu	33	4			1	
Water Buffalo	10	1			1	2
Makhor	2				2	2
Goat	2		1 (very bad)	1	1	5
Rhinoceros	12	1			1	1
Elephant	31	5			1	
Tiger	9	1	1	1	1	
Horned Tiger	1					1
Gharial	2					2
Hare		1				
Bird				1		
Multiple Animals	1					
Joined Animals	5		1		1	
Composite Animal	10	1				1
Master of Animals	4					
Yogic Figure	3				1	
Fig in Tree and Tiger	4		1		1	
Action Scenes	2		1- two human figures (hunters) before goat		1 cyl seal / human animal composite and 2 figs w/ spears	
Composite Human and Animal ???	3				1	
Total Seals	802	96	26	49	43	19
Seal Impressions				92	12	

suggested by the presence of a large brick-lined basin, which the excavator, Rao (1979), believed functioned as a dockyard or harbor and which led him to label the site a Harappan port town. As at Chanhu-daro, there is no evidence of a pre- or Early Harappan occupation at the site.

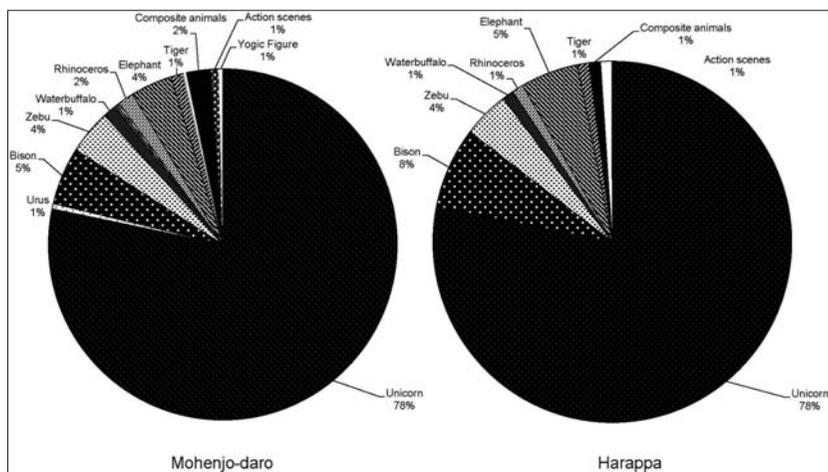


Figure 19.1 Distribution of seal iconography at Mohenjo-daro and Harappa.

The corpus of seals from Lothal seems to conform to the standards of Harappa, Mohenjo-daro and Chanu-daro in terms of iconography, but it also includes one round Persian Gulf seal (Rao 1979, pl. CLXI, B) and a copper seal that has parallels at the Persian Gulf site of Ras al-Jinz (Frenz and Tosi 2005). The corpus at Lothal also includes a number of square stamp seals made out of terracotta rather than steatite (Rao 1979, pl. CLIX, B, C1–2, 4–5), most of which date to the later part of the Harappan period. As at the classical sites, the unicorn seals make up the majority of the corpus at Lothal. However, the percentage of unicorn seals found here, 89%, is even higher than that found at Harappa and Mohenjo-daro (Figure 19.2). Furthermore, the seals outside the unicorn group depict only four other subjects: bison, goat, tiger, and bird. Curiously, many of the impressed sealings found at Lothal were impressed by a seal with an elephant—a motif that was absent from the excavated corpus of the site but is common at Harappa and Mohenjo-daro. If we see the varied iconography of the seals as representative of different groups within elite society as suggested by Dittmann (1986) and Frenz and Tosi (2005), this may suggest that only a limited number of these groups were present at Lothal.

Additionally, the usage of the seals at Lothal seems to differ significantly from what is known from Harappa, Mohenjo-daro, and Chanhu-daro. Although this evidence is now changing, a far larger number of administrative sealings were found at Lothal than at any other Harappan site. It may be suggested that this difference is

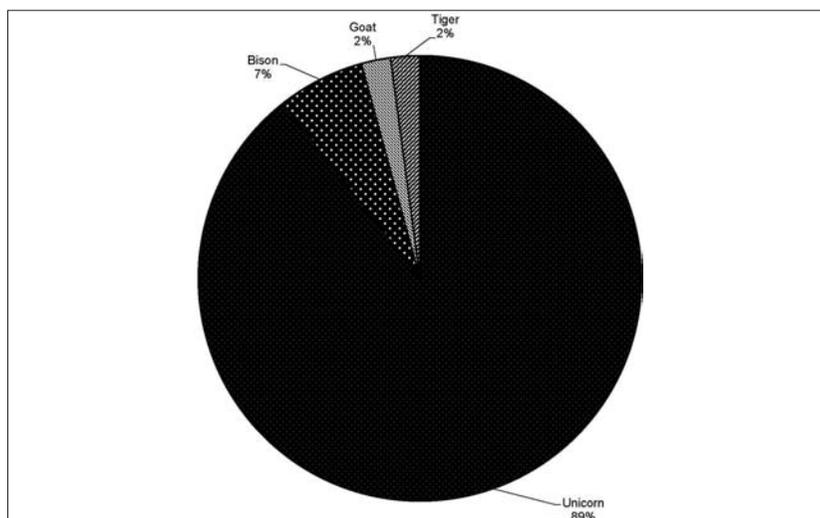


Figure 19.2 Distribution of seal iconography at Lothal.

connected to the city's role in external trade, particularly with countries in the Gulf and beyond, where administrative sealing may have been more common. Based on the material currently available, it seems that the Harappan sites with the greatest evidence for the use of sealing in administration are those on the edges of the Greater Indus Valley. In addition to Lothal, administrative sealings were also found at Kalibangan, Banawali, and at the site of Ghola Doro/Bagasra in Gujarat. The two sites, Lothal and Kalibangan, where large numbers of impressions were found are both located on the outskirts of the Harappan heartland. Their involvement in external trade may account for the presence of this administrative tool.

Seal Iconography in the Eastern Domain

In the corpus from Lothal we already begin to see some differences in the distribution of seal types and iconographies outside of the Harappan heartland. These variations are even clearer when examining the distribution of seal types found at sites in the Ghaggar-Hakra basin. Kalibangan, a small site in northern Rajasthan, was a well established fortified settlement with its own distinct material assemblage even in the pre-Harappan period. While there is no evidence of an overlap between the earlier and later phases at the site, Thapar does note the presence of pottery belonging to the period I (Sothi-Siswal) assemblage in the earliest

layers of the period II (Mature Harappan) occupation and suggests that there is some continuity between the two periods (Lal 2003a, 2003b; Thapar 1975).

In terms of iconography, the seals from Kalibangan show far more variation than the seals from Lothal, Harappa or Mohenjo-daro. The site has the smallest percentage of unicorn seals of any of the corpora examined thus far. While at Harappa, Mohenjo-daro, Lothal and Chanhudaro, the unicorn seals make up about 80% of the figural assemblage, at Kalibangan they are only 63%. The remaining 37% of the seals encompass almost all of the iconographic types (Table 19.1, Figure 19.3). Yet there is no other figure that replaces the unicorn in frequency..

A close analysis of the seals from Kalibangan shows that, unlike the seals from Lothal which fit fairly well with the basic iconographic distribution found at Mohenjo-daro and Harappa, these have a number of unusual features,. For example, two small stamp seals from Kalibangan (Joshi and Parpola 1987, K-34 and K-37) depict a goat (or a makhor) with no inscription. Instead, they have a fish in the space in front of icon that is generally reserved for a standard or feeding trough in the standard Harappan animal seals (Figure 19.4). This representation seems to be unique to the seals from this site, though a broken seal from Banawali (Joshi and Parpola 1987, B-14) may have a similar motif.

A second feature, which is common to the seals from Kalibangan but unusual elsewhere, can also be seen in these two small seals. While as a

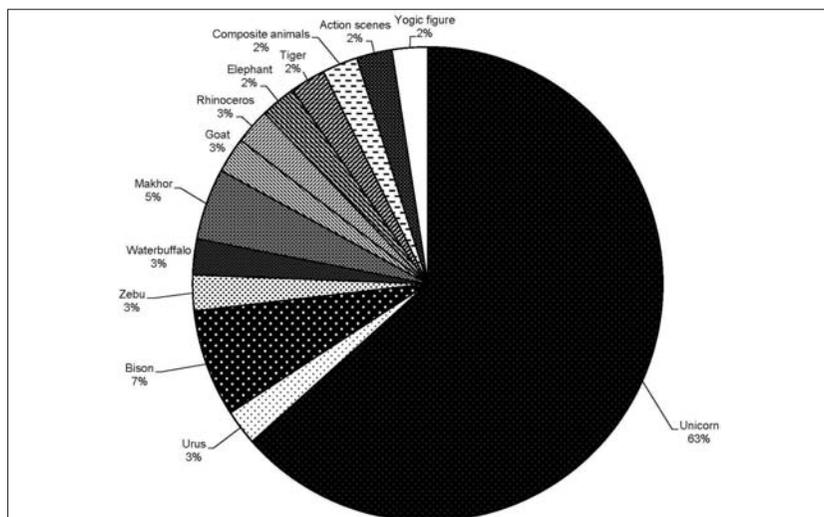


Figure 19.3 Distribution of seal iconography at Kalibangan.

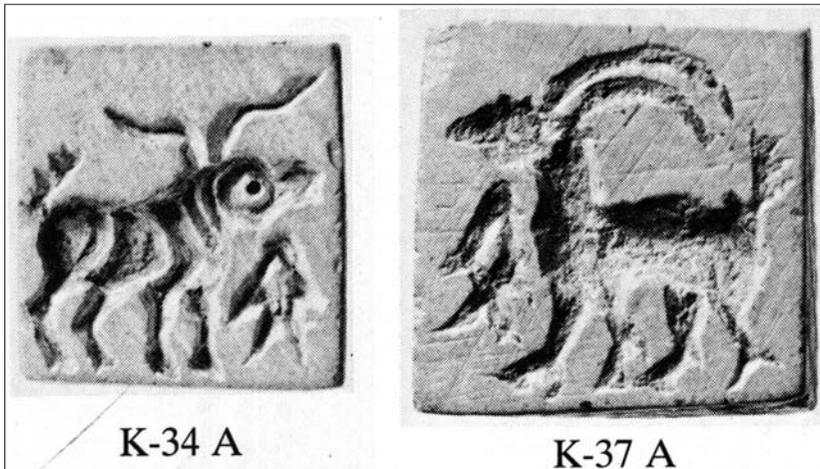


Figure 19.4 Goat and Fish seals from Kalibangan (from Joshi and Parpola 1987).

general rule the animal figure in Harappan seals is shown facing left on the seal itself (this is true in all the seals from Lothal), about 25% of the seals from Kalibangan have animals facing right. In spite of the reversal of the animal figure, however, the inscription itself does not seem to be reversed.

Also from Kalibangan is one of the nine cylinder seals found in the Greater Indus Valley. This seal belongs to the small subset of narrative seals found in the Harappan corpus and is without a doubt the most interesting of the cylinders found in this region. While the form of this seal is Mesopotamian, its iconography is purely Harappan. It depicts two nude human figures—with spears—who appear to be fighting over a skirted figure standing between them. A composite human animal figure looks on from the right. This centaur figure is found on two other seals, both of which are standard square stamps. The first is also from Kalibangan while the second was found at Nausharo, far to the west.

The cylinder seal found at Kalibangan illustrates the final difference between the seals from Kalibangan and those from small classical Harappan sites like Lothal and Chanhu-daro. While the glyptic repertoire at these last two sites is limited to unicorns and a number of other standard animal seals, the seals from Kalibangan are distinguished by their many depictions of mythological themes (see Figure 19.5 for some examples). These include the centaur figure seen in the cylinder seal discussed above and in seal K-50, a scene depicting a human figure (probably female) in a tree with a tiger looking back towards it (K-49),

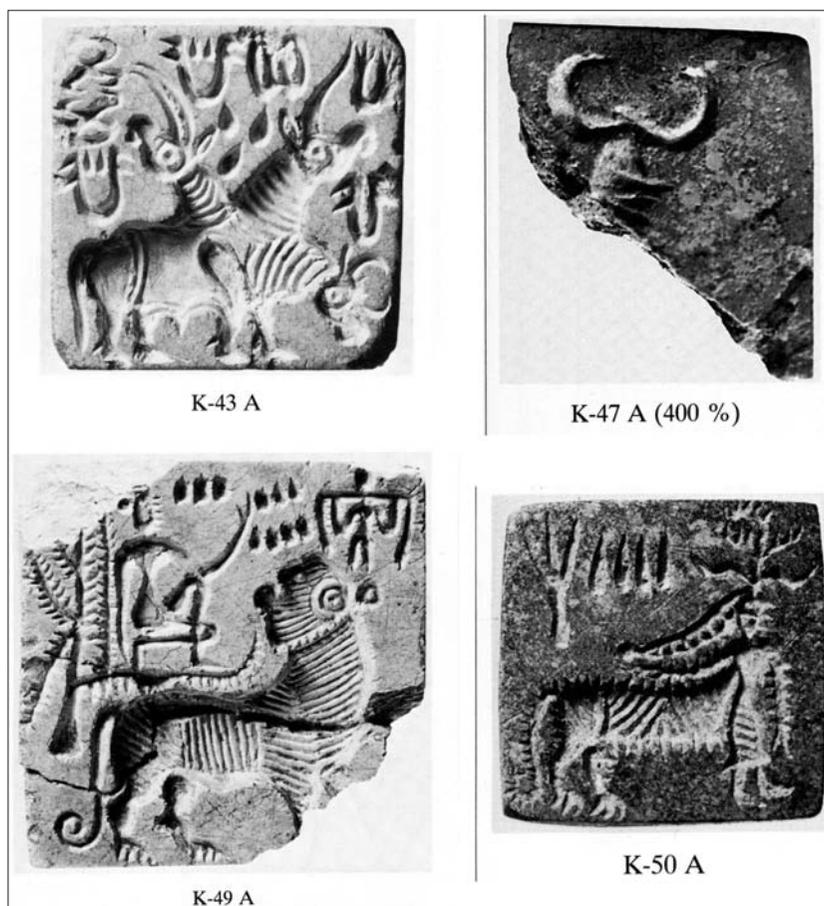


Figure 19.5 Mythological seals from Kalibangan (from Joshi and Parpola 1987).

and a fragment of a horned human figure (K-47). Even the sealings from Kalibangan are impressed with a very unusual seal that seems to depict a horned elephant. On the other hand, none of the seals or sealings found at Lothal depict mythological subjects.⁵

In order to place the seals from Kalibangan into their wider geographical context, it may be useful to look at the seals from the site of Banawali, slightly to the north. Banawali, like Kalibangan, also had a significant pre-Harappan settlement as well as a transitional phase (Bisht 1982; Lal 2003b). Both sites are located in what Gregory Possehl refers to as the Eastern Domain, an area that was characterized by the Sothi-Siswal ceramic tradition in the pre-Harappan period (Possehl 2002). The pottery from the early phases at Banawali matches the wares

found at Kalibangan, as does the size ratio of the bricks used in the period I walls. The transitional phase at Banawali combines Harappan elements, such as the complete rebuilding of the town with bricks with a 4:2:1 ratio, with a continuing local Sothi pottery tradition (Bisht 1982; Lal 2003b).

An analysis of the excavated seals, all of which were found in large houses in the lower town rather than in the citadel area (Bisht 1982), shows that Banawali has a very unusual distribution of iconographic types in its glyptic assemblage (Table 19.1, Figure 19.6). Only 17% of the seals from Banawali depict unicorns, while 53.3% depict goats, makhors, and urus (aurochs). In addition, all but two of the seals from Banawali show the animal figure facing right rather than left. The single sealing found at the site (Joshi and Parpola 1987, B-23) was impressed with a seal showing a human figure facing a unicorn and a goat with curly horns.. The human figure's raised arm suggests that he or she is addressing the animals, possibly in a shamanistic gesture.

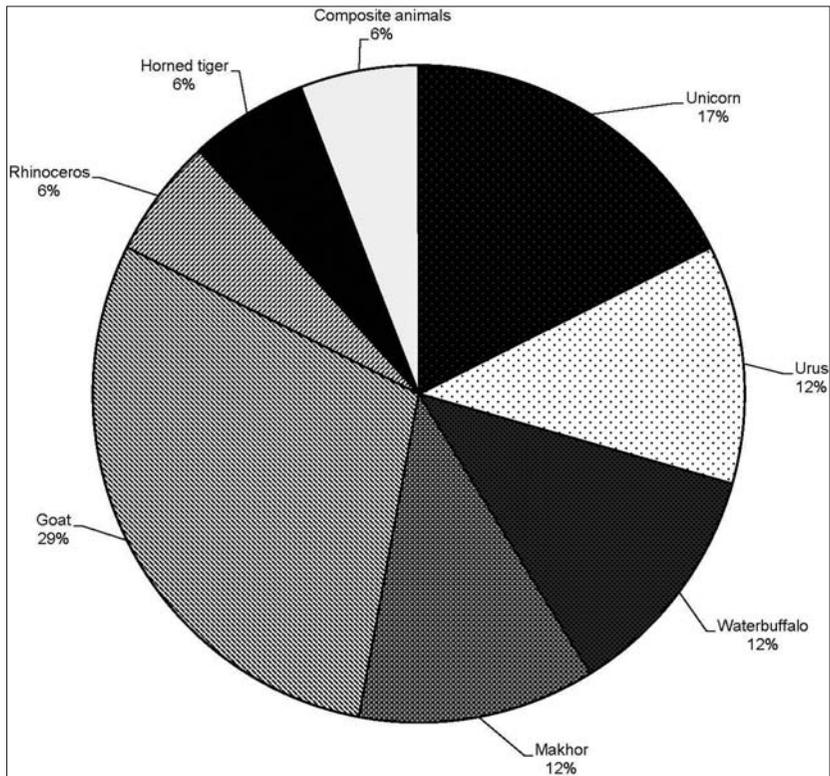


Figure 19.6 Distribution of seal iconography at Banawali.

A similar gesture is used by the figure in a tree looking at the tiger found on seals and tablets from seal from Kalibangan and elsewhere (Possehl 2008).

Some Regional Aspects of Seal Style

The preceding analysis has demonstrated some significant iconographic differences between the sites that can be considered classically Harappan and those of the Eastern Domain. A stylistic analysis of seals from two of the sites considered above, Lothal and Kalibangan, also shows a number of important differences. As a general rule, it can be observed that the seals from Lothal seem to be of poorer quality. While this can be blamed, in part, on the fact that the Lothal seals may have been used extensively, there are also significant differences in the carving of the figures themselves. For example, many of the unicorn seals from Lothal seem to have been carved very hastily, with attention only being paid to the most vital details. This is especially clear in the terracotta seals found at the site. Many of the animals' bodies lack the fleshiness and depth found in almost all the seals from Kalibangan (Figure 19.7). In addition, the bodies of the unicorns on the Lothal seals tend to be longer and leaner. Those on the Kalibangan seals can be described as short and stout. It should also be noted that the reversed unicorn seals from Kalibangan are, for the most part, carved in a flatter style than those facing to the right.

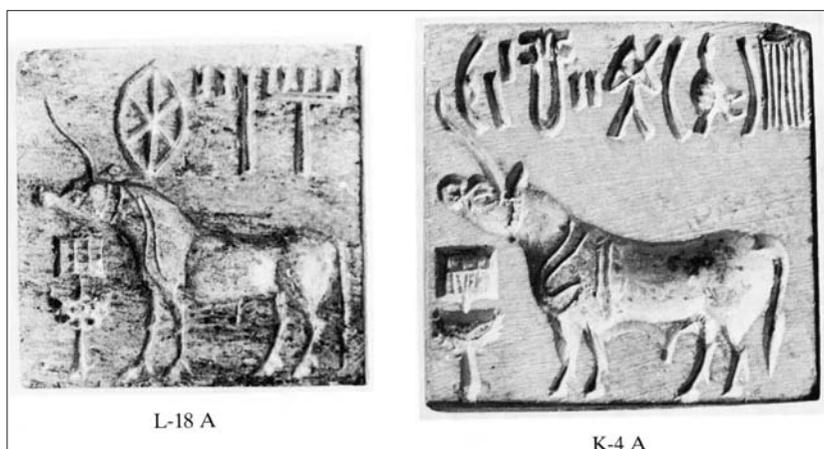


Figure 19.7 Unicorn seals from Lothal (left) and Kalibangan (right) (from Joshi and Parpola 1987).

Further examination also shows that 16 of the 24 unicorn seals (66%) with preserved necks from Kalibangan have “hatched necks.” This feature is only present in 7 of the 34 unicorns (21%) with preserved necks from Lothal. These 7 seals are among the worst carved from Lothal; while the unicorns with hatched neck from Kalibangan are some of the best examples of Harappan glyptic from the site (Figure 19.8). This may suggest that this particular unicorn representation is typical of the eastern part of the Harappan realm, and was copied unsuccessfully in the south. The association of specific neck and face articulations with different regions is something that had already been noted by Paul Rissman (1989).

Using the Style and Iconography of Seals to Identify Regional Patterns

In this short chapter, I have attempted to show that in spite of the perceived uniformity of Harappan seals, the corpora of seals from different sites, and particularly from different regions, can be distinguished in terms of style and iconography. Of all the typical Harappan artifacts, the seals are the ones that can provide insight into some of the most important social unifiers in ancient societies: economy, religious ideology, and identity. The differences in iconography between the seals found at sites in the northeast, such as Kalibangan and Banawali, and those at both large and small sites in the Harappan heartland are perhaps the most striking. Greg Possehl’s studies in Gujarat and Balochistan demonstrated the coexistence of peoples with distinctly different

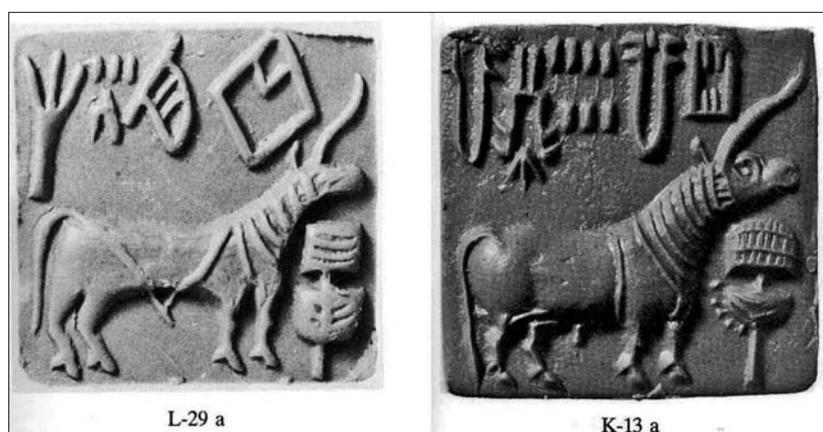


Figure 19.8 Hatched neck unicorns from Lothal (left) and Kalibangan (right) (from Joshi and Parpola 1987).

material cultures during the Mature Harappan period. I suggest that the differences in iconography between the sites of the Eastern Domain and those of the Harappan mainland may be related to the continued influence of the underlying Sothi-Siswal culture that existed in the Early Harappan period. The variability in the iconographic distribution and the style of the seals seems to imply that at least some markers identified by Meadow and Kenoyer as indicative of the veneer of the Harappan Civilization are not as uniform as they seem at first glance. While objects, like the square stamp seals, do clearly signify a Harappan identity, there are differences embedded within these markers that may also point to specific regional identities. If we accept that different iconographies are representative of specific individuals or groups of individuals, this variability may suggest that the elites of Kalibangan and Banawali belonged to a different social, ethnic, or economic group than those of the cities of the Harappan heartland.

The stylistic differences noted between seals found at Lothal and those found elsewhere in the Greater Indus Valley, on the other hand, may relate to the role of the site within the greater Harappan system and the function of the seals there rather than to the identity of the seals' owners. Lothal's possible role in external trade suggests that sealings may have played a larger role in the administration of the site than elsewhere. As such, there may have been a greater emphasis on the functionality of the seals than on their aesthetic properties. This may explain the poor quality of many of the seals at the site, as well as the presence of terracotta seals.

Heather Miller's study of Indus weights (this volume), though greatly hampered by the lack of published material, also takes important steps to address this question of regional variation in the important markers of Harappan identity. Miller finds that while there are a few examples of weights that do not conform to the standard Harappan weight system, the large majority of the published examples do. This suggests that there is in fact a strong transregional authority defining a standardized system of measurement that can be used for internal trade or taxation, and that this system is not as open to local variation as are the seals.

There is little doubt that the material culture of the Mature Harappan period spread quickly over a large area, yet careful analyses of materials, such as pottery (Possehl 1989 and Raval *et al.*; Shinde *et al.* 2008), seals, and weights (Miller, this volume) show that regional variation does exist. Significantly, the degree of variation differs between classes of material, suggesting that it was more important for certain types of artifacts, for example weights, to be uniform than others. The question of production then also comes into play. Studies conducted by

G. Jamison and A. Green suggest that seals were produced in different workshops throughout the Greater Indus Valley, and there is little doubt that much Harappan pottery was also locally produced. Yet the evidence from Chanhu-daro (Miller, this volume) suggests that weights were centrally produced at this site, implying that the uniformity of this class of material was more important for maintaining Harappan identity. These studies provide a fascinating glimpse into the nature of the relationship between Harappan identity and material culture, but they are just the beginning. More detailed studies of particular classes of materials within this veneer, including architecture, need to be conducted in order to recognize and clarify the differences and to better understand the nature of the Harappan horizon.

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The completion of this manuscript and this volume is an incredibly bittersweet moment for all of us who worked with Greg Possehl and gathered to celebrate his life and his accomplishments in Atlanta in 2009. I owe Greg an infinite debt for giving me the opportunity to work on the material from Gilund as well as for the help and advice that he constantly provided over the fifteen years I was fortunate enough to work with him. He is deeply missed. I would like to thank Shinu Abraham, Praveena Gullapalli, Teresa Raczek, and Uzma Rizvi both for organizing the SAA sessions in honor of Greg and for editing this volume. This paper was first presented at the 37th Annual Conference on South Asia at the University of Wisconsin, Madison, and I would like to thank everyone who commented and offered suggestions on my paper then, particularly Brad Chase, Heather Miller, and Jonathan Mark Kenoyer. I would also like to thank Christopher Thornton for reading and commenting on this chapter.

Notes

1. The term Greater Indus Valley is used to refer the geographic area defined by the presence of material culture associated with the Mature Harappan period and is meant to include the Indus and Ghaggar-Hakra basins as well as Balochistan and Gujarat.
2. The possibility that non-Harappan materials continued to be produced through the Mature Harappan period, but were generally ignored by excavators focused on finding Harappan artifacts, also needs to be taken into account.
3. This figure is based on the iconography represented in the seals reproduced in Parpola's *Corpus of Indus Seals and Inscriptions*. Possehl states that the unicorn makes up over 90% of the seal corpus, but this calculation, based on Madehvan's concordance, does not seem to take into account seals with nonstandard iconography, such as geometric designs or narrative scenes.

4. It should be noted that many of the seals found at Chanhu-daro are not illustrated in the Corpus of Indus Seals and Inscriptions because they are in the collection of the Museum of Fine Arts in Boston.
5. While Kenoyer argues, probably correctly, that the unicorn is a mythological creature, the frequency with which it is depicted requires that it be considered independently of other mythological motifs.

References

- Indian archaeology: A Review*. 1986–1987. Excavation at Banawali, District Hissar. *Indian Archaeology: A Review* 1986–1987: 32–4.
- Bhan, K. K., Sonawane, B. H., Ajithprasad, P., Krishnan, K., Prathapachandran, S., Majumdar, A., Patel, A. K., and Menon, J. 2003. Excavations at Bagasra, 1996–2003: A preliminary report. *Man and Environment* 28(2): 21–50.
- Bhan, K. K., Vidale, M., and Kenoyer, J. M. 2002. Some important aspects of the Harappan technological tradition. In S. Settar and R. Korisettar, (eds.), *Protohistory: Archaeology of the Harappan Civilization*, 223–71. *Indian Archaeology in Retrospect*, vol. 2. New Delhi, Indian Council of Historical Research and Manohar Publishers & Distributors.
- Bisht, R. S. 1982. Excavations at Banawali: 1974–1977. In G. L. Possehl (ed.), *Harappan Civilization: A Contemporary Perspective*, 113–24. New Delhi, Oxford and IBH.
- Bisht, R. S. and Asthana, S. 1977. Banawali and some other recently excavated Harappan sites in India. In M. Taddei (ed.), *South Asian Archaeology*, 223–40. Naples, Istituto Universitario Orientale.
- Dittmann, R. 1986. Seals, sealings and tablets: Thoughts on the changing pattern of administrative control from the Late Uruk to the Proto-Elamite Period at Susa. In U. Finkbeiner and W. Pollig (eds.), *Gamdat Nasr: Period or Regional Style*, 332–66. Wiesbaden, Reichert.
- During Caspers, E. 1994. Non-Indus glyptic in a Harappan context. *Iranica Antiqua* XXIX: 83–106.
- Fairservis Jr, W. A. 1986. Cattle and the Harappan chiefdoms in the Indus Valley. *Expedition* 28 (2): 43–50.
- Franke-Vogt, U. 1991. *Die Glyptik aus Mohenjo-Daro: Uniformität und Variabilität in der Induskultur : Untersuchungen zur Typologie, Ikonographie und räumlichen Verteilung, Baghdader Forschungen; Bd. 13*. Mainz am Rhein, Philipp von Zabern.
- Franke-Vogt, Ute. 1992. Inscribed objects from Mohenjo-daro: Some remarks on Stylistic variability and distribution patterns. In J.-F. Jarrige (ed.), *South Asian Archaeology 1989*, 103–112. Madison, Prehistory Press.
- Frenez, D. and Tosi, M. 2005. The Lothal sealings: Records from an Indus civilization town at the eastern end of the maritime circuits across the Arabian Sea. In M. Perna (ed.), *Studi in Onore di Enrica Fiandra: Contributi di Archeologia Egea e Vicinorientale*, 65–103. Napoli, Diffusion de Boccard.
- Gadd, C. J. 1932. Seals of ancient Indian style found at Ur. *Proceedings of the British Academy*, 1932 18: 191–210.
- Green, Adam. Forthcoming. Operational Sequences, Style, and Seals: Approaching Communities of Practice in the Indus Civilization. In Ameri et al. (eds.) *Small Windows New Approaches to the Study of Seals and Sealing as Tools of Identity, Political Organization and Administration in the Ancient World*.
- Jamison, Gregg M. Forthcoming. Understanding Indus Seal Carving Traditions: a stylistic and metric approach. In Ameri et al. (eds.) *Small Windows New Approaches to the Study of Seals and Sealing as Tools of Identity, Political Organization and Administration in the Ancient World*.

- Jarrige, J. F. 1997. From Nausharo to Pirak: Continuity and change in the Kachi/Bolan region from the 3rd to the 2nd millennium BC. In R. Allchin and B. Allchin (eds.), *South Asian Archaeology 1995*, 11–32. Oxford, Oxford University Press and IBH.
- Joshi, J. P. and Parpola, A. 1987. *1. Collections in India, Corpus of Indus Seals and Inscriptions*. Helsinki, Soumalainen Tiedeakatemia.
- Kenoyer, J. M., and Meadow, R. 1997. Excavations at Harappa 1994–1995: New perspectives on the Indus script, craft activities, and city organization. In R. Allchin and B. Allchin (eds.), *South Asian Archaeology 1995*, 139–73. New Delhi, Oxford & IBH.
- Lal, B. B. 2003a. Chronology of the Early Harappan settlement. In B. B. Lal, J. P. Joshi, B. K. Thapar, and M. Bala (eds.), *Excavations at Kalibangan, the Early Harappans, 1960–1969*, 25–26. New Delhi, Archaeological Survey of India.
- . 2003b. The Early Harappan culture complex of Kalibangan in its wider setting. In B. B. Lal, J. P. Joshi, B. K. Thapar, and M. Bala (eds.), *Excavations at Kalibangan, the Early Harappans, 1960–1969*, 27–32. New Delhi, Archaeological Survey of India.
- Mackay, E. J. H. 1943. *Chanhu-Daro Excavations, 1935–1936*. New Haven, CT, American Oriental Society.
- Mahadevan, I. 1984. The cult on unicorn seals: a sacred filter? *Puratattva* 13–14: 165–86.
- Parpola, A. 1992. The “fig deity seal” from Mohenjo-daro: Its iconography and inscription. In C. Jarrige (ed.), *South Asian Archaeology 1989*, 227–36. Madison, Wisconsin, Prehistory Press.
- Parpola, A. 1994. Harappan Inscriptions: An analytical catalogue of the Indus inscriptions in the Near East. In P. Mortensen (ed.), *Qual'at Al-Babrein. Volume 1. The Northern City Wall and the Islamic Fortress*, 304–492. Aarhus, Jutland Archaeological Society.
- Possehl, G. L. and Raval, M. H. 1989. *Harappan Civilization and Rojdi*. New Delhi, Oxford & IBH Publishing Co. and American Institute of Indian Studies.
- Possehl, G. L. 1992. The Harappan Civilization in Gujarat: The Sorath and Sindhi Harappans. *The Eastern Anthropologist* 45(1–2): 117–54.
- . 1998. Sociocultural complexity without the state. In J. Marcus and G. M. Feinman (eds.), *Archaic States*, 261–91. Santa Fe, School of American Research Press.
- . 2002. *The Indus Civilization: A Contemporary Perspective*. Walnut Creek, Altamira Press.
- . 2008. Indus folklore: An unknown story on some Harappan objects. In E. Olijdam and R. H. Spoor (eds.), *Intercultural Relations between South and Southwest Asia: Studies in Commemoration of E.C.L. During-Capers (1934–1996)*, 140–144. Oxford, Archaeopress.
- Rao, S. R. 1979. *Lothal, a Harappan port town (1955–62)*. 2 vols, *Memoirs of the Archaeological Survey of India*, no. 78. New Delhi, Archaeological Survey of India.
- Ratnagar, S. 1991. *Enquiries into the political organization of Harappan societies*. Pune, Ravish Publishers.
- Rissman, P. C. 1989. The organization of seal production in the Harappan Civilization. In J. M. Kenoyer (ed.), *Old Problems and New Perspectives in the Archaeology of South Asia*, 159–70. Madison, Wisconsin, Wisconsin Archaeological Reports.
- Shaffer, J. G. and Lichtenstein, D. A. 1989. Ethnicity and change in the Indus Valley cultural tradition. In J. M. Kenoyer (ed.), *Old Problems and New Perspectives in the Archaeology of South Asia*, 117–26. Madison, WI, Wisconsin Archaeological Reports.
- Shah, S. G. M. and Parpola, A. 1991. *Corpus of Indus seals and inscriptions. 2. Collections in Pakistan*. Memoirs of the Department of Archaeology and Museums, Government of Pakistan, vol. 5, Helsinki, Soumalainen Tiedeakatemia.

- Shinde, V., Osada, T., Uesugi, A., and Kumar, M. 2008. A report on the excavations at Farmana 2007–2008. In T. Osada (ed.), *Linguistics, Archaeology and the Human Past, Occasional Paper 6*. Kyoto, Research Institute for Humanity and Nature.
- Thapar, B. K. 1975. Kalibangan: A Harappan metropolis beyond the Indus Valley. *Expedition* 17(2): 19–32
- Vidale, M. 2005. The short-horned bull on the Indus seals: A symbol of families in the western trade? In U. Franke-Vogt and H.-J. Weisshaar (eds.), *South Asian Archaeology 2003*, 147–58. Aachen, Linden Soft.
- Wright, R. 2010. *The Ancient Indus: Urbanism, Economy and Society, Case Studies in Early Societies*. Cambridge, Cambridge University Press.