

The Geographical Extent of the Indus Civilization During the Early, Mature and Late Harappan Times

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Introduction

As a result of extensive explorations in the Greater Indus Valley, the Harappan territorial boundaries now stretch from the Arabian Sea coast to the Swat valley and eastwards to the Yamuna River. Although the intervening area in northern Punjab and parts of the frontier region remain to be explored adequately, a general outline of the spatial distribution of the Harappan sites is clear. The territory covered by the Harappan Civilization is undoubtedly immense and also unparalleled in the history of world civilizations (Figure 1) when considered together with the Harappan colony at Shortugai on the Russo-Afghan border and the presence of characteristically Harappan materials across the Arabian side of the Gulf and in southern Mesopotamia. Regarding the extent of the Harappan Civilization in the Greater Indus Valley, it was realized some time ago that:

The distribution of the Harappan sites, at first gives an impression of an Indus "Empire" encompassing Pakistan and the western part of modern India. Such an impression would be erroneous because we have yet to determine how many Harappan settlements were contemporary with each other at one specific time (Mughal 1973: 9).

The study of chronologically undifferentiated sites, or special emphasis on the cities and towns of the mature Harappan period, has led to several approaches to understanding the vast geographical extent of the Harappan Civilization. S.R. Rao (1973: Figure 1), saw four

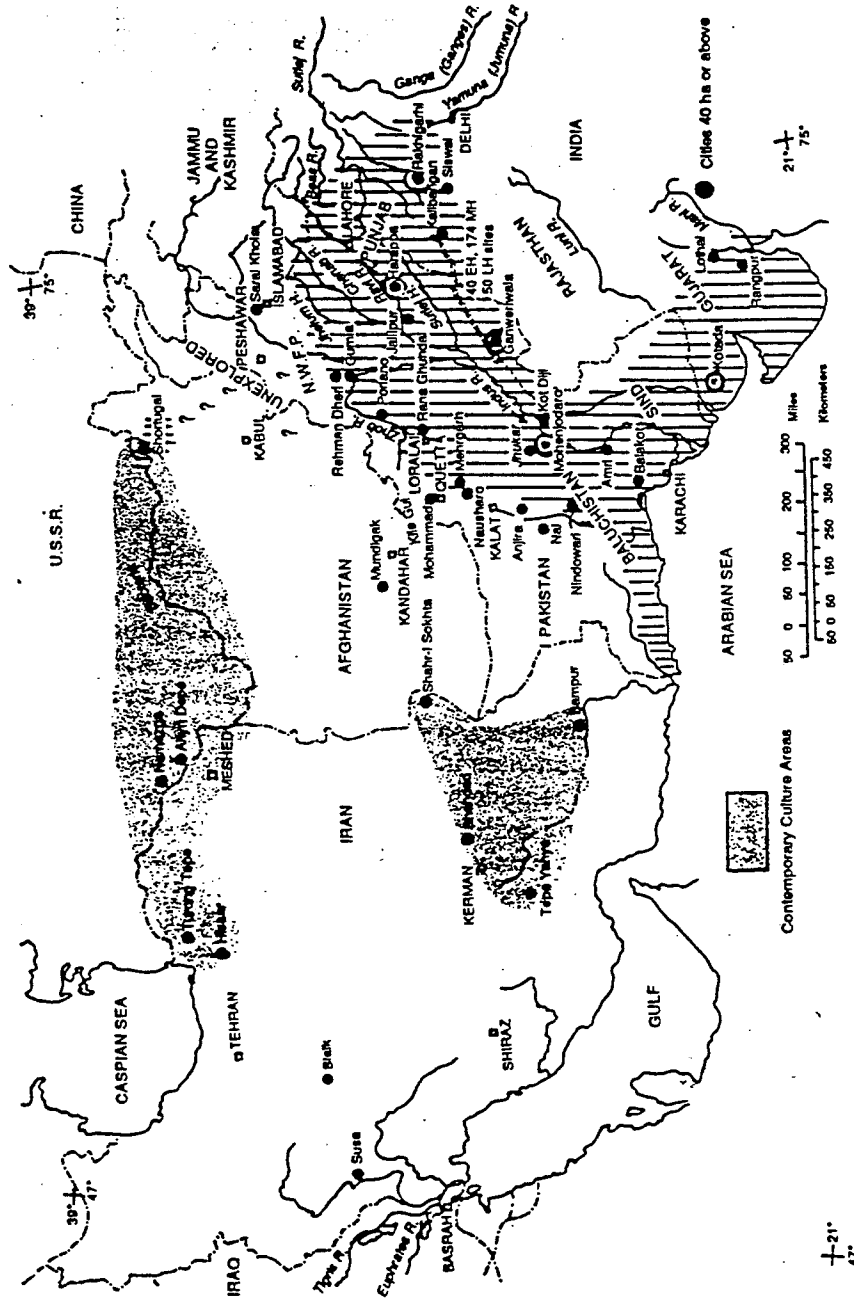


Figure 1: An Overall Extent of the Indus Civilization Between Circa 3500 and 1500 B.C.;

provinces of the Harappan "Empire." His Eastern Province consists of eastern Punjab, Haryana, and northern Rajasthan; the Central Province includes the entire Gujarat Region (Kutch and Saurashtra), and the Western Province covers the southern and eastern half of Baluchistan down to the Arabian Sea coast. Apparently, he presupposed the existence of a vast cultural area with contemporaneous settlements subdivided into four administrative units of the Harappan "Empire." Marcia Fentress (1976: 77) saw the two principal cities, Mohenjo-daro and Harappa, lying within their own but overlapping regional resource zones. Gregory L. Possehl (1982) elaborated on these concepts further and substituted the label "domains." He redefined Rao's Central Province by subdividing it into three domains apparently on the basis of larger cities in each, namely Harappa, Mohenjo-daro, and newly discovered Ganweriwala. Like Fentress, he viewed these three cities in their own "circles" of influence or jurisdiction, interacting with each other. Such divisions of the Harappan site map into "province," "domains," or "circles" do not seem to take into account the distributional patterns of the early, mature, and late settlements of the Indus Civilization. In a recent locational study of the major cities of the mature Harappan period, it has become evident that: "just like a high degree of standardization maintained in most other forms and expressions of the Harappan culture, the cities of forty hectares size and above also followed a standard system of equidistant location throughout the Greater Indus Valley" (Mughal 1990e: 158). Such an equidistant or other pattern of cities has not yet been worked out for the early and late Harappan settlements. The functions of the major cities or towns in the Indus-Hakra plains, along the sea coast, and in the hilly regions of Baluchistan have not yet been defined adequately and convincingly. Neither are the areas or regions under the administrative or economic control, or any other organizational structure of each major city specified; nor is the real nature of inter-city and inter-regional relationships known at present.

The field work carried out in Pakistan and parts of India since 1970 has been done, for the most part, at sites of the third millennium BC and/or earlier periods, with special emphasis on the Indus Civilization. The accumulated data now enable us to demarcate, with reasonable accuracy, the areas of concentration of the early, mature, and late Harappan sites in the Greater Indus Valley. The picture that emerges from delineating the geographical extent of the contemporary sites in each period reveals important information on the spatial distribution of the Harappan settlements through time and their changing configurations. The distinction and separation of sites according to their early, mature and late periods automatically corrects the impression of an Indus "Empire" created in the general literature.

The present paper attempts to define and delineate the geographical extent of the early, mature, and late Harappan sites on the basis of available evidence.

The Early Harappan Extent

The assemblages of the early Harappan period consist of an overwhelming number of the Kot Dijian sites (Figure 2) and occurrence of Kot Dijian materials at contemporary sites named Amrian and Sothi. In southwestern Sind, the Amrian wares known from the type-site of Amri (Majumdar 1934; Casal 1964) are represented at 29 sites, of which 22 were recorded by Louis Flam (1981). Three Kot Dijian sites are located in the same area. Kot Dijian contacts with Amrian sites are indicated but despite extensive field work carried out during the 1970s, the Amrian materials have not yet been found east of the Indus River, thus confirming the earlier observations of the present writer (Mughal 1970: 97). The Amrian settlements seem to have remained confined to the Indus Kohistan and Kirthar mountain region. Their contacts with Kalat (Anjira), the Quetta Valley (Kechi Beg), and Afghanistan (Mundigak), as suggested earlier (Mughal 1970: 169, Figure 10), now stand revised because no characteristic Amrian ware is found outside the southwestern Sind region. Only the bichrome painting tradition is noticeable at other sites but the pottery forms at those sites are different from the Amrian ware. The calibrated radiocarbon dates would place Amri IB (second from virgin soil) between 3660 and 3365 BC and the IC Period above between 3375 and 3020 BC.¹ It would follow that the Amrian occupation IA at the type-site might have begun sometime during the first half of fourth millennium BC (Mughal 1990a: 186). It is significant that the wheelmade red globular vessels with wide black painting on the neck so characteristic of Kot Dijian ceramics were found in the earliest Period IA at Amri.

The Sothi wares of northern Rajasthan, which were recognized at the small mound of Sothi by A. Ghosh (1953) and further investigated by Dalal (1980) and Dikshit (1984), received redefinition and elaboration by the excavation of early Harappan settlement at Kalibangan. These are now named after that site as Kalibangan I wares, although Sothi is still current as well (Lal 1979; Thapar 1973). These wares have been found in east Punjab and Haryana (Bhan 1975; Bhan and Shaffer 1978; Shaffer 1986), but are essentially confined to the territory originally drained by the Chautang and Ghaggar (Hakra) Rivers. The Sothi or Kalibangan I "Fabrics A to F" are reportedly found extending to the Chenab River near Akhnoor in Jammu and at other sites (Joshi and Bala 1982). Among nine radiocarbon dates, the oldest one from the early Harappan Kalibangan I levels falls between 2980 and 2655 BC. In these levels, the characteristic Kot Dijian pottery is found along

with "Periano Wet" and "Quetta Wet" wares of northern Baluchistan (personal observations). The published Indian list of early Harappan sites consists of 136 entries: 103 in Haryana, 24 in Punjab, 8 in Rajasthan, and 1 in Jammu (Joshi et al. 1984). It covers a large territory but it is not certain whether all the sites are culturally equated with Kalibangan I or Sothi, or the list also includes those sites where only few Sothi-related potsherds were found. On the present evidence, the main focus of the Sothi appears to be northern Rajasthan and Haryana.

The Kot Dijian cultural assemblages (Khan 1965) named after the type site and found at a large number of sites throughout the Greater Indus Valley have been delineated and defined as early Harappan, representing an early form of the Harappan Civilization (Mughal 1970, 1983, 1988 and 1990a). In 1970, information was available from four excavated sites and from the surface of others in the Indus Valley. Since then, extensive work has been done at two sites in the Gommal Valley, four in the Bannu Basin (Khan et al. 1988), and three in the Taxila Valley, Jalilpur in the Punjab; work is currently in progress at Harappa (Dales and Kenoyer 1990a, 1990b), as summarized very recently by the present author (Mughal 1990a, with further bibliography). Moreover, at least half a dozen sites of the Early Harappan period have also been excavated on a limited or large scale in India. The new information has enabled us to indicate the maximum extent of the Kot Dijian materials. A series of radiocarbon dates now provide the basis to point out the core area where the early form of the Harappan culture, designated as Kot Dijian, originated, developed and spread further, before reaching its climax. So far, the early Harappan (Kot Dijian related) materials have been identified at 63 sites in Pakistan, among which 40 are located in Cholistan (Mughal 1982, 1990a, 1990b, 1990c). The calibrated dates of the Kot Dijian levels at the citadel of Kot Diji fall between 3370–2190 BC (two layers above the virgin soil) and 2660–2190 BC. The occupation containing Kot Dijian materials at Rahman Dheri Period I (Durrani 1988), is dated between 3380–3040 and 2920–2775 BC. Similarly, Gumla (Dani 1970–71) provided calibrated dates falling between 3040 and 3840 BC. In the Taxila Valley, the early Harappan occupation at Sarai Khola II (Halim 1970–71, 1972) is assigned to 2905–2315 BC. The sequence of calibrated dates from Kalibangan I begins from 2980–2655 BC. The early dates of the Kot Dijian occupations indicate the area encompassed by these settlements which constituted the core for the origin of the Harappa Civilization, the early stage of which already existed between 3300 and 3000 BC in the Indus Valley. Some other sites in the Taxila Valley and Bannu Basin have given late dates falling in the second half of the third millennium BC. Also the Kalibangan I occupation lingered well into

the late third millennium BC. Thus, it is evident that the early Harappan cultural tradition as represented essentially by the Kot Dijian assemblages persisted in some areas. Their settlements were neither abandoned nor destroyed by the middle of the third millennium, or around 2500 BC, when the Harappan Civilization matured, became fully urbanized, and absorbed most of the core area of the early Harappan and extended to the Arabian Sea coast and also northward to Afghanistan.

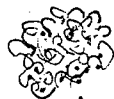
The Mature Harappan Extent

The maturity or climax of the Harappan Civilization, which took place according to the calibrated radiocarbon dates about 2500 BC, or within a short period between 2550 and 2500 BC, is marked by the Harappan access or expansion to the Arabian Sea coast. While discussing this change of emphasis, the present author has observed:

The evidence shows that during the Mature Harappan period, there was a major shift in cultural interaction with the Greater Indus Valley from the northern to southern parts of Baluchistan. This shift of mutual interaction coincides with a heavy concentration of population at some settlements, emergence of large cities surrounded by small settlements, and a uniformity or artifactual material in the Greater Indus Valley. At the same time and later, an expansion of Mature Harappan culture along the Arabian Sea Coast is noticeable. Toward the southeast, Mature Harappan remains extended up to the Gulf of Cambay (India), while towards the west, the entire Makran coast within the present Pakistan border contains Harappan settlements. In the hill valley of southern Baluchistan, a very strong influence of the Mature Harappan culture is demonstrated by its hilly variant, popularly known as the "Kulli culture."

The spread of Mature Harappan culture along the coast of the Arabian Sea and strong influence on the hill populations of "Kulli culture" is related to the intensification rather than beginning of the East-West contacts during the second half of the third millennium BC. The evidence shows that contacts with the western regions of Iran and Mesopotamia did not begin with the rise of Mohenjo-daro and Harappa as large cities, but existed during the Early Harappan period, many centuries before the growth of the Harappan cities

The same contacts apparently persisted during the following Mature Harappan period. The significance of contacts with western regions in the first half of third millennium BC is further emphasized by the fact that it was after such contacts



that large cities emerged during the second half of third millennium BC. The material equipment as found in the Harappan cities, reflecting a highly stratified society, then dominated the entire plain of the Greater Indus Valley. It is in this context of intensification of contacts with southern and eastern Iran and Mesopotamia during the Mature Harappan period that the presence of Mature Harappan remains and strong Harappan influence on the hill culture of southern Baluchistan can be explained. The phenomenon of shift of contacts from northern to southern Baluchistan with the Greater Indus Valley during the Mature Harappan period should also be seen in the light of intensification of East-West contacts of trade by the southern routes (Mughal 1970: 368-371).

The maps of the early and mature Harappan sites (Figures 2 and 3) vividly illustrate a marked shift to the sea coast. Nilofer Shaikh has also discussed this feature (1989) but did not clarify whether the full urbanization in the Indus Valley was a result of expansion towards the sea, or the change in emphasis took place as a consequence of urbanization. The (upper) mature Harappan coastal settlement of Bala Kot with calibrated dates of 2890-2870 BC demonstrates a major shift to the marine resources for subsistence (Dales 1979, 1981, 1986; Meadow 1979, 1986: 46), as distinct from the subsistence economy of the early settlement, which was mainly dependent on cattle, goats, and sheep. Concomitant with full urbanization in the Indus Valley, a major shift to the coastal region and exploitation of marine resources for food had apparently taken place as compared to the preceding early Harappan period when the orientation was towards north and north-west (Mughal 1970: Figure 16). The settlements which were contemporary with each other after the beginning of the Mature Harappan or at least by 2500 BC were Bala Kot, Nausharo (Jarrige 1990) (2825-2525 BC), Harappa (2675-2155 BC), Mohenjo-daro (2650-2520 BC), and Kalibangan (2875-2530 BC). These sites constituted the core where the change from early to mature Harappan first took place (Figure 3). It is likely that Shortugai on the Oxus River (Francfort 1989) was established about the same time (2835-2535 BC), when Bala Kot on the shore and the sites in Kutch were established.

The shift in orientation from the northern Indus Valley to the sea was the most significant change in the life of the Harappan Civilization since it marks the beginning of sea trade with other regions. For the purpose of maintaining an uninterrupted flow of the sea trade, an absolute control over the entire coastline was essential. It would also explain the reasons for establishing forts of Sutkagen-dor (Stein 1931: 40) and Sotka Koh (Dales 1962) in a very barren and climatically

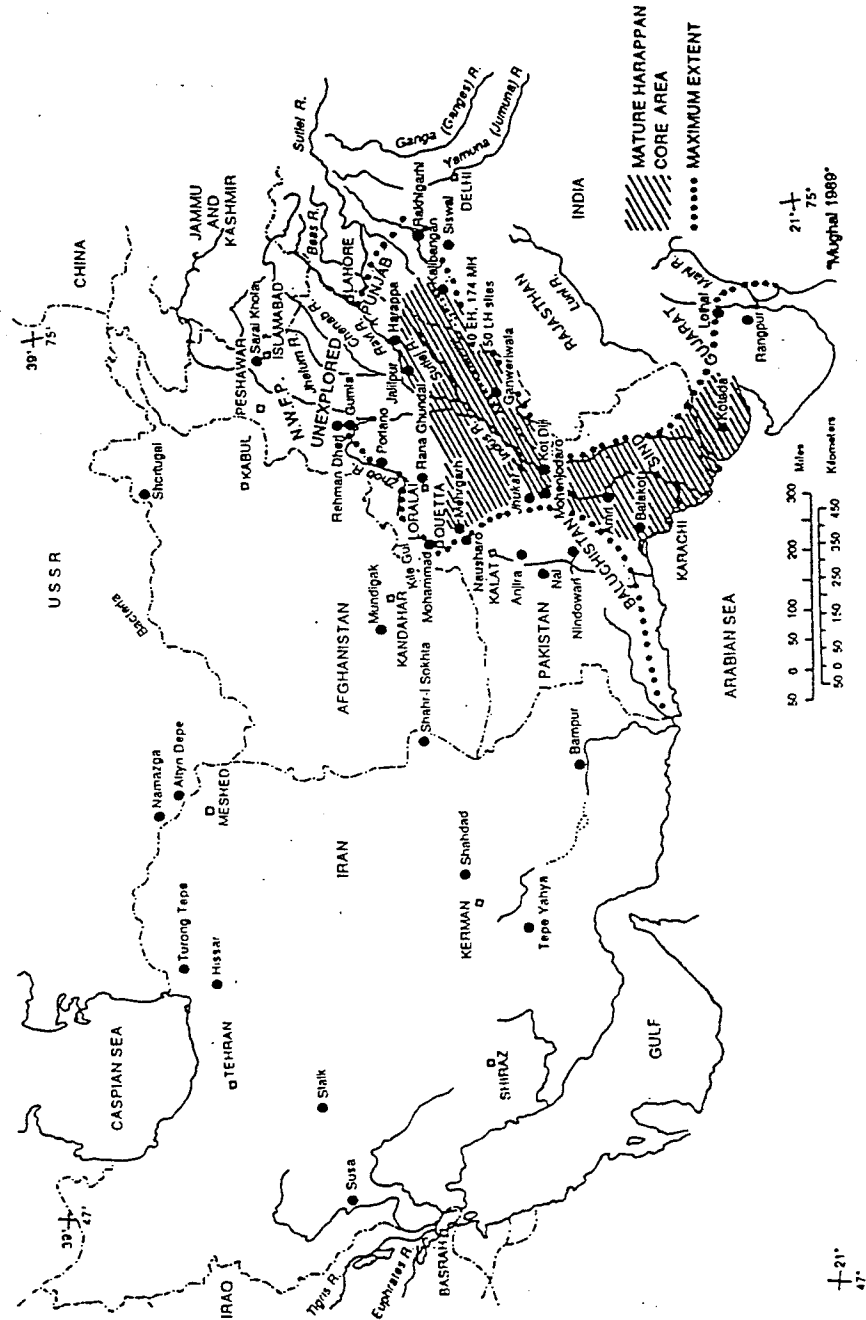


Figure 3: The Extent of the Mature Harappan Sites (After Mughal 1990a)

inhospitable terrain of Makran and on an island at Kotada (Dholavira) in the Rann of Kutch as pointed out very recently (Mughal 1990e). Even the small sites in Kutch such as Dasalpur and Surkotada (Joshi 1972) were fortified. On the present evidence, it would appear that the Arabian Sea route came to be used in the beginning of the mature Harappan period. In the lower Indus Valley, the fortified mature Harappan sites are few and those which existed are located in the Kirthar and Kohistan mountains. It seems reasonable to suggest that expansion of the Indus Civilization starting most probably at the beginning of the mature period 2500 BC was necessitated by the full and effective control over the coast of Makran and Kutch and, later on, of Saurashtra. On the Makran coast, for example, there was nothing of economic advantage to capture and exploit except the fish but still, a chain of at least three sites existed there. In the Rann of Kutch, the island fort of Dholavira (Kotada) with double fortifications was established. The Rann must have been wider than it is today some five thousand years ago. Moreover, it is difficult to establish that the Harappan presence in Gujarat was a result of colonization process by the people of the lower Indus Valley who are thought to have moved out due to overpopulation and in search of new grounds. These concepts seem to have developed for explaining an expansive civilization such as the Harappan and for the location of its settlements in Gujarat only.

Within the Indus and Hakra River systems, the core area of the mature Harappan is precisely within the boundaries of the early Harappan core area. However, it is pointed out that more than half of the upper Indus Valley, especially on the north and northeast, remains blank for want of information. There are strong indicators that the greater part of the northern half of the Punjab, which was not yet been explored fully, was included in the mature Harappan core area because Harappan occupation is found at Manda at the foot of Pir Panjal Range in Jammu. Further northward, Harappan painted pottery is reported from the Swat Valley. With an exception of the Harappan access to the sea coast, the concentration of the mature Harappan sites within the geographical limits already defined in the early Harappan period was identical.

The Late Harappan Extent

Near the end of the third millennium BC, the Harappan cultural integration as witnessed in the Greater Indus Valley had apparently weakened and changes in the material culture, settlement location, and population densities in particular took place, but several features of the Harappan cultural tradition continued to persist in three principal areas or regions (Figure 4; Mughal 1980: 96; 1982: 92; 1990d).

Each of the three regions is marked by the appearance of new traits which, though labelled differently, represent the later history of the Harappan Civilization or what is generally called the "late Harappan period".

In the upper Indus Valley, the late Harappan period was initially defined by funerary ceramics found in Cemetery H and on top of Mound AB, both at Harappa. Identical pottery was discovered a long time ago at Chak Purbane Syal (Vats 1940). To the north, Stacul (1985) has discovered red wares painted with designs of Cemetery H origin in the Swat Valley.

Cemetery H ceramics have also been recorded at 50 sites in Cholistan (Mughal 1982, 1990a, 1990b, 1990c, 1990d). The Cemetery H materials include mature Harappan pottery forms or their derivatives. The sites are mostly concentrated to the northeast of Derawar Fort, an area which was mainly fed by a channel from the Sutlej River. In Cholistan, there are four functional categories of sites in the mature Harappan: settlements, settlements with kilns, industrial sites containing kilns only, and camp sites of temporary or seasonal occupation. All of these categories of settlement persisted in the late Harappan period. Likewise, a four-tiered hierarchy of settlements was maintained in the late Harappan period, despite changes in their location and reduction in number (Mughal 1990a, Table 3; 1990d). Kudwala, though smaller in size (38.1 hectares) than the mature Harappan city of Ganweriwala (81.5 hectares), dominated the Hakra plain. In the Indian Punjab, northern Rajasthan, Haryana, and western Uttar Pradesh, 563 late Harappan sites are reported, although it is not clear if all the sites precisely compare with the late Harappan in Cholistan. The spatial distribution of the sites clearly indicates that the Punjab and the areas beyond were not abandoned but, contrary to the views of Possehl (Possehl and Raval 1989: 26) and Allchin (1990: 28), remained densely populated.

The evidence for the late Harappan in the lower Indus Valley was first recognized at Jhukar and named after that site where it was stratigraphically above the mature Harappan (Majumdar 1934: 5-15). Jhukar pottery was also documented at Lohumjo-daro (Majumdar 1934: 48-58), Chanhu-daro (Mackay 1943), Amri IIID (Casal 1964), and the upper levels of Mohenjo-daro.² The sites with Jhukar ceramics seem to be mainly distributed, if not concentrated, in central Sind between the Hakra-Nara River on the east and the Kirthar mountains (Figure 4). Further elaboration and confirmation of Jhukar being a late Harappan phenomenon came from the stratified materials obtained through excavations at Jhukar during 1973 and 1974 (Mughal—in press, 1990d). The stratigraphical evidence at Jhukar established that "Jhukar" was

occupations along the ancient communication routes passing through the Gomal, Zhob, Loralai, and Quetta Valleys (Dani 1970-71; Mughal 1972). These contacts were intensified towards the end of the third and early in the second millennium BC, and further enlarged to constitute a large sphere of interaction consisting of southern Bactria, Margiana, Seistan, Baluchistan, and Kachi plain of northwestern Sind (Santoni, 1983; Jarriage and Hassan 1989; Mughal 1990d). This distribution extended further to Shahdad and Bampur in Iran, but all of these areas fall within the late Harappan (Jhukar) horizon (Mughal 1989). The Kulli pottery forms, including the carinated vessels with painted animal, plant, and other designs, extend westwards to Bampur Basin in southern Iran and across the Gulf to the United Arab Emirates, where they are dated around the end of the third millennium BC, almost contemporaneous with the Kulli occupation at Niai Buthi in Las Bela (Fairservis, 1975: 189-194) and at Nindowari in the Ornach Valley (Casal 1966). The Harappan contacts with Ras Al-Khaimah, UAE (De Cardi 1989), Ras al-Junayz in Oman, and Bahrain are well documented as summarized by Cleuziou and Tosi (1989: 40). The Kulli or what is called "complex A" sites contain certain pottery shapes and painted designs which can be compared with those of Jhukar and upper levels of Amri IIIC and IIID, suggesting more than casual interaction between southern Baluchistan and Sind during the late Harappan period.³ Kulli pottery is also reported at Lohumjo-daro, Ghazi Shah, Pandi Wahi, and Shajo-Kotiro.⁴ Moreover, the pedestalled bowls, beakers, and perforated wares from the Kulli sites recall parallels with those from the (late Harappan) south Cemetery at Mehrgarh and Sibri and, together with channel spouted cups from the latter sites, can be compared with similar pottery types from Dabar Kot in the Loralai Valley of Baluchistan (Mughal 1972: Figure 38; 13) and other sites in Bactria and South Turkmenia.

The time-range covered by the late Harappan cultural phenomena in the Greater Indus Valley or in each area of concentration is not yet very clear. In the lower Indus Valley, a single C-14 date from the upper or late Jhukar levels of Mohenjo-daro falls between 2165 and 1860 BC. The date of the Cemetery H related sites in the upper Indus Valley is not known with any accuracy because the terminal date of Harappa is not yet known. The mature Harappan occupation at Kalibangan II falls between 1540 and 1240 BC, and at Banawali II (Bisht 1982, 1987), it is dated between 2555-2285 and 1700-1415 BC. The date of the Cemetery H occupation at Bara I ranges between 1585-1330 BC and 1980-1690 BC, with an upper limit falling between 2330-1975 BC and 2335-1885 BC. The late Harappan levels at Sanghol are dated between 2175-1715 BC and 1785-1560 BC. Like the terminal

coastal belt having common interests to carry on trade or exchange by sea until at least the second millennium BC.

NOTES

1. All radiocarbon dates given in this paper are according to the MASCA calibrations as compiled by G.L. Possehl (1989).
2. Dales 1982; Dales and Kenoyer 1986: Figure 13, 1 and Plate 18f; Figure 63, 1; and Figure 86, 1-7.
3. Casal 1964: Figure 86, 416; Figures 455-456; Figure 45, 514-516 and 518,
4. Majumdar 1934: respectively Plate XXII, 28; Plate XXVI, 32; Plate XXVIII, 43; and Plate XXXII, 39.

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