

GENESIS OF THE INDUS VALLEY CIVILIZATION*

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South Asia's first civilization known as the Harappan or Indus Civilization was already flourishing by the middle of third millennium B.C. within the vast area of the Greater Indus Valley drained by the Ghaggar-Hakra and Indus river systems of Pakistan. Best known from its extensively excavated two principal urban centres at Harappa on the Ravi River where it was first discovered and recognized, and at Mohenjodaro on the bank of the Indus, it is marked by many a unique and distinct feature among its contemporaneous civilizations of the Nile and Tigris-Euphrates Valleys. An astonishing aspect of the Indus Civilization is its geographical extent much beyond the core region in the central Indus Valley where Mohenjodaro, Harappa and the third unexcavated urban centre of Ganweriwala are located. It reached as far north as Badakhshan in northern Afghanistan and southwards along the Arabian Sea coast of Pakistan and Western India. Such a political domination or cultural expansion over a large territory had not been ever achieved by any other oriental civilization of the ancient world. Equally outstanding feature is the town planning as at Mohenjodaro which is divided by streets and lanes and lined with public and private buildings with an elaborate drainage system. The long life span of the Harappan cities and towns, their growth and proliferation mostly in the flood plain, clearly demonstrate availability of sufficient economic resources and surplus which were mobilized to construct huge fortifications and public buildings on artificially raised platforms of earth, and technology for effective utilization of the riparian environment to support growing numbers of permanently settled human population and inducing the rise and development of inter-related socio-economic, political and religious institutions. A network of inter-settlement trade of exchange existed within the Greater Indus Valley and with neighbouring regions for the procurement and supply of raw materials and distributions of finished articles. Possessing the essential elements of full urbanization, the Harappan society was sharply stratified as would be evident from the varying size of private houses and differences in their grave furniture and modes of burials. Specialised crafts activities involved manufacturing of shell, faience and terracotta bangles, flint knapping, beads, pottery, seal cuttings and gravings, melting of copper and manufacture of metal utensils. The glyptic and representational arts were well developed and numerous cultic objects are indicative of formal role of religion. The mass production of different kinds and their occurrence throughout the Greater Indus Valley requires a high technological level, an elaborate means of communication and an effective political or administrative system controlling a vast territory which induced a sort of Pan-Indus cultural integration not achieved elsewhere in the ancient world.

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Old Concepts.

Ever since the discovery and extensive excavations at the principal cities of the Indus Civilization, its origins or genesis in the Greater Indus Valley has been one of the most fundamental and vital questions to which no satisfactory answer was available for a long time. The picture which emerged from the known evidence presented a fully urbanized, matured and developed stage of the Harappan culture dating to the second half of the third millennium B.C. The rise and development of civilization in the Indus Valley was commonly viewed in terms of developments in Western Asia (Mesopotamia and Iran) and therefore, the origins of the Indus Civilization was thought to be a result of colonization or stimulus diffusion from the West. This idea of foreign origin of the Indus Civilization or at least its inspiration from the Western Asiatic centres implicitly rejected indigenous origins of the Indus Civilization as it ignored inherently favourable ecological conditions in the Indus Valley proper for permanent human settlements inducing the rise and development of civilization such as the Harappan.

The impact of general uniformity as demonstrated by the Harappan architectural and artefactual remains, suggestive of possible uniform administrative, political, socio-economic structures throughout the Greater Indus Valley was very profound and therefore much emphasized in the archaeological literature. All cultural developments during the third millennium B.C. were viewed and interpreted with reference to the Harappan culture and its chronology. Some settlements which yielded evidence lying stratigraphically below the Harappan materials and were dated to be chronologically earlier than the mature Harappan culture were regarded "Pre-Harappan". The Harappan cultural traits such as town planning, fortification, script, ceramics, metallurgy and tools, if found to be present at the early settlements of early third or fourth millennium B.C. were also regarded as "Pre-Harappan" or their presence at the early sites was thought to be due to influence from the major cities like Mohenjodaro and Harappa. Thus, in the dichotomy of "Harappan" and "pre-Harappan" terminologies and the varying concepts, the true identification and definition of early Harappan stage of cultural development remained obscured.

New conceptual framework

Amidst considerable theorising on the origins of Indus Civilization, a significant breakthrough took place in mid-1950's as a result of excavations at Kot Diji located opposite Mohenjodaro on the left bank of the Indus.¹ At that site, underneath the cultural materials of mature Harappa period, a thick cultural deposit yielded certain forms and decorative designs and other elements such as clay cart-frames and wheels, cones, animal figurines, triangular "cakes" and even fortification which were previously attributed to the mature phase of the Indus Civilization (see Appendix). These early materials coming from the stratified layers gave the (calibrated) Radiocarbon dates of 3370 and 2655 B.C. The associated materials which were initially called Kot Dijjan after the site-name, showed their distinctive

character but typologically related to those found in 1946 under the defence wall of Harappa. At that time, due to lack of comparable evidence, such early materials were thought to represent a village community "alien" to the Harappan culture.² In southwestern Sind, the site of Amri revealed an early settlement below the mature Harappan remains. In its earliest levels grouped under Amri IA, characteristic Kot Dijian globular vessels with short rim were found. The levels above, Amri IB, were dated between 3660 and 3360 B.C. (calibrated), thus raising the possibility of dating the Kot Dijian pottery found in the Amrian IA levels to the beginning of fourth millennium B.C. Identical ceramic evidence from Jalilpur near Harappa, Kalepar or Bhoot in Cholistan and eastwards at Kalibangan provided valuable clues to the existence of a cultural phenomenon which were wide-spread between Harappa, Kot Diji and Amri and eastwards up to the fringes of the Thar desert. However, the most vital evidence was that the early occupation at Kot Diji was not only eight centuries or more earlier than the succeeding mature Harappan phase at Kot Diji and elsewhere in the Indus Valley but it also contained the earliest known elements of the Harappan culture.

Associated with the early cultural assemblage at Kot Diji were some distinctive pottery types such a globular vessels with short rim with plain or slipped surface, or with horizontally drawn multiple grooved lines. The shoulder is generally painted with wide band near the neck. The other recurrent pottery type was the flanged vessels, often painted black on red or rarely buff slip. These two pottery types together with bowls and cups are now used for identification, comparisons and spatial distribution of the Kot Dijian ceramics in the Indus Valley. It was significant that the associated ceramics also contained those pottery types which were otherwise thought to be characteristic of the mature Harappan phase, namely (i) offering-stands of tall and squat types; (ii) pans with incurved rim and treated with slip internally and some having wide band painted below the rim; (iii) storage jars; (iv) ringstands; (v) cylindrical vases some having carination near base; and (vi) red-slipped, thin-bodied vases with padestalled base. These pottery types continue to occur in the succeeding mature Harappan period during the second half to the third millennium B.C. all over the Indus Valley. Moreover, an unusual wide-shouldered vessel painted with horned diety motif as found at Kot Diji and other contemporary sites resemble those found from the mature Harappan levels of Mohenjodaro.

The evidence of other categories of materials from Kot Diji is consistent with that of pottery in demonstrating cultural continuity from the late fourth to the mid-third millennium B.C. The entire data from stratigraphical contexts when analysed statistically, brought out clearly that most categories of materials from the early Kot Dijian levels are generally similar to those found in the later mature Harappan occupation for example, terracotta 'cakes', cones, toy-cart frames and wheels, bangles of red and grey colour, parallel-sided chert blades and cores. Some variations in the size of tools are discernable suggesting a separate tool making industry but the tradition persisted through the lower (Kot Dijian) and upper (mature Harappan) levels for more than thousand years. The cult of Mother-

Goddess is also present throughout, though a change in the style of representation was introduced in the mature Harappan period. Similarly, humped bull figurines with large horns of the early period became stylized gradually. Other objects of copper/bronze, and semi-precious stones also occur throughout in the early and mature Harappan periods. The only exceptions are the steatite seals, cubic weights and Indus script which emerged or developed with the full urbanized phase of the Indus Civilization.

The entire ceramic and other evidence led to one logical conclusion that the assemblages from the lower Kot Dijian to the upper mature Harappan levels were intimately related as products of one continuous cultural process. Therefore, the cultural assemblages revealed in the early levels of Kot Dijji and the comparable finds from other sites represented both chronologically and culturally, an *Early Harappan*, development, formative or early urban stage of the Indus Civilization. Thus, it became evident that many complex and inter-related cultural processes leading to urbanization in the Greater Indus Valley had begun sometime during the fourth millennium B.C. Mohenjodaro and Harappa represented the culmination of such processes in the middle of third millennium. The delineation and definition of an Early Harappan stage by the present writer in 1970 was a major change in the conceptual frameworks so far presented since the discovery of the Indus Civilization in 1920's.³

Further field works

Since the presentation of new theoretical framework on the genesis of the Indus Civilization in 1970, an overwhelming amount of new archaeological data has been revealed through intensive excavations at numerous sites and extensive surveys of the Greater Indus Valley. Their results have further elaborated on the Early Harappan cultural development and fully substantiated its recognition as representing the early formative or early urban phase of the Indus Civilization. The new evidence comes mostly from Pakistan. In the upper Indus Valley, explorations conducted between the Sulaiman range and the Indus River in 1970's revealed four important Early Harappan sites among which Gumla⁴ and Rahman Dheri⁵ were excavated. The entire Gumla sequence falls within early third millennium B.C. while that of Rahman Dheri starts from second half of fourth millennium. Although both Rahman Dheri and Gumla have Kot Dijji—related materials but the first settlement at Rahman Dheri shows strong influence from northern Baluchistan. To its north in the Bannu Basin, a succession of sites of the Early Harappan period have been located among which Lewan⁶ and Tarkai Qila⁷ were excavated in late 1970's. A third site, Sheri Khan Tarakai is being investigated which seems to push the cultural sequence back to fifth millennium B.C.⁸ In the Taxila Valley, Sarai Kohla⁹ (Pl. 17 & 18), Jhang and Hathial¹⁰ (Pl. 19) were excavated in addition to the discovery of their contemporary Early Harappan sites. The Swat Valley, too, was influenced by the cultural developments of the Indus Valley where at Ghalagai,¹¹ Kot Dijian type of pottery has been found in levels dated to about 3000 B.C. Near Harappa, the site of Jalilpur¹² was excavated in 1971 and 1976. Comparable Kot Dijji-

related materials were found at forty settlements in the Cholistan desert in course of extensive surveys conducted during 1974 to 1977.¹³ Further southwards, the areas of Indus Kohistan and Kirthar piedmont were intensively surveyed between 1975 and 1977 where a large number of Kot Dijian, Amrian and mature Harappan sites are located.¹⁴ In the Kachi plain of Baluchistan which is physiographically a part of Greater Indus Valley, the site of Mehrgarh has yielded an astonishingly long cultural sequence starting about seventh millennium B.C.¹⁵ Enccompassing the previously known Neolithic horizon of the Quetta and Loralai valleys and later cultural developments of the Baluchistan plateau in its early periods I to III, the Early Harappan phase is represented by Mehrgarh IV, V and VI.

In the neighbouring Indian territory originally drained by the Ghaggar–Hakra River and its tributaries in northern Rajasthan, East Punjab and Haryana, a large number of Kot Diji-related sites have also been located among which Kalibangan,¹⁶ Siswal,¹⁷ Banewali,¹⁸ Mandā¹⁹ and few others have been excavated.

Significant features of Early Urbanization

Intensive field reseaches carried out since 1970, have produced an impressive map of the Early Harappan settlements showing greatest density in the central Indus Valley especially along the old Ghaggar-Hakra river in Cholistan desert of Bahawalpur. Considering all the discoveries so far made, the distributional pattern of the early Harappan settlements almost duplicates that of the mature Harappan, suggesting full adaptation of the early communities within the same very ecological niche at least eight hundred years before the rise of large urban centres of Harappa and Mohenjodaro. The exceptions are the coastal areas and the outposts like Shortaghai.

It is significant to note that most of the essential traits of urbanization which later on characterized the mature phase of the Harappan Civilization as exemplified by the major urabn centres, had already appeared or developed by the later half of fourth millennium B.C. Serveral ceramic forms and decorative designs of the Early Harappan phase continued to remain in use, as already pointed out, along with new pottery and decorative designs introduced during the mature period. The wide distribution of early Harappan materials suggests intensive interaction and sharing of technical knowledge among the early communities of the Greater Indus Valley and even beyond. Their uniformity in style over a large area is indicative of standarization and craft specialization already established by the beginning of the third millennium B.C.

General regularities in the lay-out and refinement of the building and also their progressive complexity noted in the Early Harappan settlements, reflect well organized and stable communities inhabiting the vast Indus river plain. The huge fortifications of mud bricks at Kot Diji and associated with the early Kot Dijian levels at Harappa are indicative of economic and social changes that were taking place in the fourth millennium B.C. as the

construction of monumental buildings like fortification involves mobilization of labour and economic resources on a substantial and organized scales. Implicit in such activities is the availability of economic surplus which in turn is related to the emergence of stratified society and technological capability for effective utilization of land resources in the riverine environment and marginal areas economically. Human adaptation to the environments of the piedmont plain and valley floors had already taken place in the Bannu Basin, the Derajats and the Kachi plain. It seems that cultural developments in various ecological niches ultimately coalesced into a form which is manifested by a uniformity of cultural traits spreading all over the Indus Valley by the middle of fourth millennium B.C. This crucial state in time may mark the beginning of the Indus Civilization. Such a beginning seems to have occurred after the time represented by Mehrgarh period III ending around the close of fifth millennium B.C.

Another criterion of urbanization is the existence of long distance trade or exchange with outside regions. Such an exchange or trade had already been established during the early Harappan period. Items like lapis lazuli originated from its principal source in north Afghanistan have been found in abundance at Rehman Dheri and Gumla in the Gomal Valley, Sarai Khola in the Taxila Valley, Jalilpur in the Central Punjab, at Kot Diji, Mehrgarh and other contemporary sites. The objects of copper discovered in the early third millennium B.C. contexts indicate access and availability of this important metal through exchange from sources in Baluchistan and Rajasthan. Contacts with southern Iran, the Gulf including eastern Arabia and southern Mesopotamia are attested by occurrence of carved steatite vessel in the early level of Mohenjodaro dated to the early 3rd millennium B.C. It is thus clear that the Greater Indus Valley constituted an integral part of a large interaction sphere in which inter-regional ties were already established during the Early Harappan period. This pattern of long distance trade or exchange was intensified and further enlarged in the later period as demonstrated by the location of mature Harappan sites all along the Arabian Sea Coast, near the sources of lapis lazuli in Badkshan and the presence of mature Harappan materials in Oman, Abu Dhabi, Bahrain and Kuwait.

A high level of craft specialization is demonstrated by the artefacts of the Early Harappan period. Some sites of craft activities are located near the sources of chert where tools in the form of blades were manufactured. During the subsequent mature Harappan period, the Rohri Hills were the major centre of tool making and distribution to various towns and cities of the Indus Civilization. Kilns for firing small objects have been found at numerous Early Harappan sites in Cholistan. The shape of the kilns is precisely similar to those found at Mohenjodaro and Harappa.

The representation of terracotta female figurines of identical form and painted motif of horned deity are reported from several Early Harappan sites namely, Sarai Kohla, Rahman Dheri, the sites in the Bannu Basin, at Kalibangan and Manda. This evidence suggests common religious beliefs or rites throughout the Indus Valley which received further

emphasis and elaboration in the succeeding mature Harappan period.

The early form of Indus script is still not fairly known due to insufficient evidence. However, simple marks or signs engraved or incised on pottery of the Early Harappan period appear to represent the beginning of writing. Small seals with Indus signs have been found at Rahman Dheri which could be stylistically compared with those excavated at Mound F at Harappa. Graffiti on the Early Harappan pottery particularly shows a large number of marks or signs. The signs on the small seals and graffiti marks seem to suggest early attempts of writing from which the enigmatic Indus script might have developed.

In brief, an overwhelming evidence pertaining to the fourth and early third millennia B.C., leads to the conclusion that a wide-spread cultural phenomenon with remarkable uniformity in material culture had set a permanent pattern of essential elements of urbanization which were assimilated and further developed during the mature phase of the Indus Civilization. Mohenjodaro and Harappa in fact, represent a logical culmination of various complex and inter-related socio-economic, religious and political processes which were already underway at least eight hundred years before their climax into full urbanization about 2500 B.C. As a result of these processes, a degree of Pan-Indus cultural integration was already achieved before the emergence of large cities by the mid-third millennium B.C. The Indus Civilization in its mature form, therefore, grew out of the early cultural phenomenon defined as Early Harappan which constituted an early formative or early urban stage of the Indus Civilization. The genesis of South Asia's first civilization took place on the Indus soil independent of other civilizations. The process of cultural development and change was continuous from the fourth to the middle of third millennium B.C. This continuity of culture persisted until the decline of Civilization in the Indus Valley during the early second millennium B.C.

LAYERS ↓	STONE						TERRACOTTAS						METALS			SHELLS							
	Balls	Chert Blades	Chert Cores	Grinding Stone	Pestles	Gaming Discs	Cakes x	Cones x	Bangles	Animal Figurines	Female Figurines	Cart Frames x	Cart Wheels x	Beads	Beads	Rings	Misc.	Mother-of-Pearl	Bangles	Combs	Beads	Steatite Seals	
KOT DIJI II	1	14	132	31	4	1	1	5	20	123	11		10	4	15			1	3	14	1	3	3
	1A		4		1			1	7	31				1						1			
	1B	36	45	15		1	1	10	21	71	7	1	8	3	15			2	11		4		
	1C	3	6	6				2	22	10	1		2		1		1	2	3				
	1D		3						1										1				
	2	36	139	38	2	2	1	26	46	247	11	3	20	10	35	1	2	2	6	19		1	
	2A	8	45	12	2	2		7	1	84	5		2		8			2	7				
	2B	5	49	9				2	4	31	4	1	2	1	8		2		3				
	2C	1						1		9				1	5				1				
	2D	1	3	2				2		7					1				1				
"Burnt Level"	3	4	25	3	2	2	1	3		26	1		1	4				7	5				
	3A	4	19	3	1			1	2	29			2	1	13				2				
	3B		4							7													
3C	2	5	3	1			1		4				3							1			
KOT DIJI IB	4	7	29	11				5	5	55	3		2	9				1	5		2	2	
	4A	2	26	6		1	1	2	1	25	3		2	2	2				4				
	4B	1	20	6		1	1	3	4	15	1			1					2		1		
	5	1	26	1	1			3	16	2				1					1				
	5A	11	1	1						10				1									
	6	1	46	3	1	1	1	2	2	37			2	3					3				
	6B	1	8	2	2	1				6			1				1		2				
	7	1	8					2		6											2		
KOT DIJI IA	8		11	1						5				1									
	9	1	12	5						5			2	2									
	10									1													
	11			1																			
	12	1	6											1									
	13																						
	14		2										3										
	14A		2																				
15																							
16																							

DISTRIBUTION OF SMALL FINDS AS REVEALED AT KOT DIJI, MOUND A SHOWING CONTINUITY OF ARTEFACTUAL REMAINS FROM THE EARLY TO MATURE HARAPPAN LEVELS

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