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Late Regionalization Era: A Birth of Urban Settlements in Indus Civilization

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Abstract
Indus valley civilization is unique in its nature, complexity and setup. The theories models and concepts have been applied to understand the insights of development and change. The general accepted begins with the Early Food Producing Era of 6500 BCE, followed by the Regionalization Era of 4000-2600 BCE following the Integration Era 2600 to 1900 BCE in which Indus cities boomed. Was it a sudden and rapid boom or a gradual growth. Was it the result of External diffusion from Mesopotamia; Hydraulic despotism and Militaristic municipal formation. This debate centers on important changes in settlement organization and sociopolitical development occurred around 4000 to 2600 BCE of the Regionalization Era.
In present paper, the latter part of the Regionalization Era is explored and hence termed as the "Late Regionalization Era (LRE)". The proposed dates for this era have been assigned as 2800-2600 BCE. This particular phase paralleled with Kot Dijian "B" which is a time when all preconditions for cultural developments and changes were fulfilled and cities boomed in Indus Valley. Thus, present paper explores how the urbanism in reality grew and expended throughout Indus Valley.
Key Words: Regionalization, Preconditions, Urbanism, Sociopolitical, development, Indus Civilization

Introduction

The origin and formation of states in the Indus Valley is one of the most widely discussed issues in current literature. Debates over this issue have continued more than two decades. The present study partakes in this debate, the issue is examined in light of the models provide and proposed by Kenoyer (1991, 1994). and Shaffer (1992). The main focus of the debate centers on the period prior to the urbanization Mughal (1970, 1990, 1991), Possehl (1991), Shaffer (1992), and Kenoyer (1991, 1992, 1994), and Xu Chaolong (1994) provide major contributions to this discussion in regard of initial origin and formation of state with the Indus Valley.
Constructing a processual explanation of Indus state formation and urban emergence by integrating three major scholarly perspectives (a) Preconditions for complexity (Kenoyer) (b) Cultural process of regionalization (Shaffer) and (c) Archaeological evidence for early urban growth in the Kot Diji phase (Mughal) create a strong, defensible framework for explaining how the Indus Civilization moved from village societies to urban states.
Hence, the arguing is that Indus state formation and urbanism were gradual, regionally rooted processes that began during the Early Harappan (Kot Diji) phase, shaped by increasing socio-economic complexity and interregional integration rather than sudden political centralization.

This is fully consistent with Indus scholarship for instance, Preconditions for Complexity Kenoyer provides the foundations as that Indus civilization had diversified subsistence and surplus; increasing interaction networks; complex technological capacity and strong social differentiation which could explain why complex society could emerge.

After that Jim G. Shaffer illustrated on the Regionalization Process and Shaffer's model describes the cultural-historical trajectory that early village traditions diversify regionally; local cultural styles develop; interaction increases across regions and integration precedes urbanism. This describe how cultural complexity developed over time.

Shaffer famously divides Indus development into three segments and called as (1) Regionalization Era (Early Harappan) (2) Integration Era (Mature Harappan) and (3) Localization Era (Late Harappan). Within this dichotomy, the present paper argument focuses on the transition from Regionalization into Integration phase.

Archaeological evidence of early urban growth as observed by Muhammad Rafique Mughal in the Cholistan and Kot Diji traditions provides the empirical foundation as existence of large settlements in the Kot Diji phase of 2800–2600 BCE; fortified towns; craft production centers; expanding settlement hierarchies and pervasiveness regional interaction. This shows when and where proto-urbanism actually occurred.

The focus of the present study centers on three factors; (1) the geographical distribution of significant cultural traditions such as the Baluchistan tradition and Indus Valley tradition during the Late Regionalization era. (2) The strong interaction and the great organization of these traditions; this includes: (a) habitational organization (b) subsistence patterns (c) craft technologies and (d) trade networks. (3) The complexity in the organization and the bases of formation of state. These issues combine factors such as sociopolitical organization, economic control and ideological influence. As mentioned earlier, these complicated factors will be examined using two models. The first model proposed by Mark Kenoyer (1991), suggests four sets of preconditions necessary for the development of socio-economic complexity and the rise of urbanism. The second model, proposed by Shaffer (1992) focuses on the spread of traditions and the consequent interactions between Baluchistan and Indus Valley Traditions through space and time. On the basis of these models the available data is reanalyzed to support the argument that there are strong evidences of existence of an early urban phase and developing State level organization during the Late Regionalization Era.

Area of The Study

The regionalization era of the Indus Valley tradition is marked by new infra-structure which emerged during the period from 3000-2600 BC and recorded in terms of the well developed phases such as Balakot phase, Amri phase, Hakra phase, and Kot Diji phase (Shaffer 1992). The late regionalization period has lump together various regions such as Bannu Basin, Gomal Valley, Texila Valley, and the river plains of Punjab and Sindh (Mughal 1990). In this grouping, I would venture to include the Kutch and Saurashtra regions where early Harappan period sites have also been reported. In other words, my study area includes the greater Indus and Ghaggar-Hakra Valleys. It's geographical extant includes the Himalayan Highlands in the north to Karachi and Kutch coastal zones in the west to the Aravalli hills in the east and the Gangetic plains in the northeast. This ecologically diverse region consists of perennial river system, springs, lakes, land for agriculture and pasturage, and marine resources (Kenoyer, 1991). On a large scale, the main river systems, such as the Indus and Hakra rivers in the Indus plains and Desert margins and the

Gangetic river system in the Gangetic plain provided diverse resources and the best possible opportunity for indigenous populations to establish huge urban centers.

Background Perspectives

The emergence of state-level organization in the Indus Valley represents a long-term indigenous trajectory rooted in the Early Harappan period rather than a sudden urban revolution. According to Mark Kenoyer (1991, 1998), the rise of urbanism required interrelated preconditions, including diversified subsistence systems capable of producing surplus, expanding socio-economic interaction networks across major ecological zones, technological innovations to support dense populations, and increasing differentiation in access to essential resources. These structural developments correspond to what Jim G. Shaffer (1992) terms the Regionalization Era, during which culturally distinct communities intensified local production while maintaining interregional exchange networks that laid the foundations for later political integration.

Archaeological evidence from the Kot Diji phase (ca. 2800–2600 BCE), emphasized by Muhammad Rafique Mughal (1990), demonstrates the emergence of fortified settlements, expanding craft specialization, and hierarchical settlement patterns, particularly in the Cholistan region. Comparable developments at sites such as Kot Diji, Rehman Dheri, and Kalibangan indicate increasing socio-political complexity prior to the Mature Harappan Integration Era.

Scholars including Gregory Possehl (2002) and Rita P. Wright (2010) argue that these transformations reflect expanding economic integration, craft intensification, and administrative standardization rather than the rise of centralized kingship or militaristic expansion.

Zooarchaeological and agricultural studies by Richard H. Meadow (1991) further underscore the importance of mixed farming and pastoral economies in sustaining growing populations, while Shereen Ratnagar (2004) highlights the role of long-distance trade networks linking the Indus region with Oman and Mesopotamia.

Taken together, these perspectives support the interpretation that Indus state formation emerged through the progressive integration of regional cultural traditions, economic specialization, and interaction spheres during the Early Harappan period, culminating in the highly organized urban system of the Mature Harappan phase without clear evidence for centralized monarchy or coercive state apparatus.

Kenoyer providing Preconditions for Socio-Economic Complexity and Urbanism

The emergence of urbanism and state-level organization in the Indus Valley has been interpreted as the outcome of a set of structural preconditions rather than a sudden transformation. Mark Kenoyer (1991, 1998) argues that the development of major urban centers required a diversified subsistence base capable of generating reliable surplus, supported by mixed agriculture and pastoralism across varied ecological zones. This economic foundation enabled the growth of craft specialization and technological innovation, including metallurgy, ceramic standardization, bead production, and urban infrastructure, which in turn sustained dense populations and complex economies. Kenoyer further emphasizes the importance of extensive socio-economic interaction networks linking riverine plains, highland resource zones, and coastal areas, facilitating the circulation of raw materials, finished goods, and ideas. Finally, increasing differentiation in access to critical resources and specialized knowledge contributed to emerging social hierarchies, although these were not expressed through overt kingship or monumental elite display.

Archaeological evidence from major centers such as Harappa and Mohenjo-Daro demonstrates highly organized urban planning, standardized weights and measures, and large-scale craft production,

supporting the interpretation that Indus urbanism developed through integrated economic and social processes rather than coercive political centralization (Kenoyer, 1998; Wright, 2010). This model has become central to understanding the distinctive trajectory of Indus state formation, which differs markedly from contemporary civilizations characterized by monumental kingship and militarized expansion.

Shaffer elaborating on Regionalization and the Early Cultural Foundations

Complementing this structural perspective, Jim G. Shaffer (1992) conceptualizes the Early Harappan period as a "Regionalization Era," during which culturally diverse communities across the greater Indus region developed distinctive local traditions while maintaining long-distance interaction networks. Rather than viewing urbanism as an abrupt break from earlier village life, Shaffer argues that the Mature Harappan civilization emerged from the progressive integration of these regional cultural systems. During this period, settlement expansion, agricultural intensification, and localized craft production increased substantially, producing a mosaic of interacting societies across Baluchistan, Sindh, Punjab, and adjacent regions. Evidence from sites such as Kot Diji, Kalibangan, and Rehman Dheri indicates the emergence of fortified settlements, planned layouts, and specialized production prior to the fully urban phase. Scholars including Gregory Possehl (2002) and Rita P. Wright (2010) similarly emphasize that increasing regional interaction and economic integration during the Early Harappan period laid the groundwork for the subsequent Integration Era, when standardized material culture, administrative technologies, and large urban centers spread across the Indus domain. Shaffer's framework thus highlights continuity rather than rupture, underscoring that Indus state formation was rooted in long-term processes of regional development, interaction, and cultural synthesis.

Mughal brought in the Proto-Urbanism idea and The Kot Diji Phase

The Kot Diji phase of 2800–2600 BCE, represents the earliest expression of urbanizing processes in the Indus Valley, marking the transition from village-based communities to more complex settlement hierarchies. Muhammad Rafique Mughal (1990) identifies fortified settlements, planned street layouts, and emerging craft specialization as defining features of this period. Sites such as Kot Diji, Rehman Dheri, and Kalibangan exhibit evidence of defensive walls, granaries, and distinct residential and craft areas, suggesting centralized planning and organized resource management. Mughal emphasizes that these settlements reflect increasing socio-economic integration and the consolidation of interregional exchange networks, which created the structural and organizational prerequisites for the later Mature Harappan urban centers. This phase, therefore, provides crucial archaeological evidence of **proto-urbanism**, demonstrating that Indus urbanism emerged gradually from local innovations and regional interactions rather than through sudden imposition or external diffusion.

Proposed Chronology for Early Urbanism of LRE

The general chronology for the Indus Valley tradition begins with the Early Food Producing Era (c. 6500 BC), followed by the Regionalization Era (4000-2600 BC) with complete urbanization occurring during the Integration Era (2600 to 1900 BC) (Shaffer 1991, Kenoyer 1991). It is argued here that there was a gradual change happening among the communities of Indus Valley during later part of the Regionalization Era of 4000-2600 BCE leading to the formation of early urbanism. Further more, this process of change set the foundation for mature urbanism around 2600 BC. This latter part of the Regionalization Era is termed as the "Late Regionalization Era" (LRE) and the proposed dates for this early urbanism process can be

assigned 2800-2600 BC. Just before fully development of the Urban centers. The proposed Late Regionalization Era is generally known as the Early Harappan or Kot Dijian "B" (Mughal 1990). Rafique Mughal (1990) has divided the Kot Dijian period further into three phases such as (1) Phase A 3500-3000 BC; (2) Phase B 3000-2500 BC; (3) Phase C 2500-2100 BC. According to this classification, the Kot Dijian phase "B" dated as 3000-2500 BC is significant because this is when important changes in the cultural and socio-economic system seems to be happening.

Above suggested chronology provided by Mughal needed to be modified, however, present research allows one to suggest a new date for Regionalization Era. Which further proposed into a simple three partitive early, middle, and late scheme; as (1) The Early Regionalization Era 4500-3300; (2) Middle Regionalization Era 3300-2800; and (3) Late Regionalization Era 2800-2600 BCE. Consequently, it is suggested that during 2800-2600 BCE some towns grew and achieved the levels of the incipient urban centers. My approximation of the date is one hundred years earlier than what Mughal (1990) has proposed (3000-2500 BCE) and is based on more recent work by Kenoyer at Harappa (Kenoyer 1997). Those towns are for instance Rehman Dheri, Mehrgarh, Amri, Kot Dijian, Harappa, and Kalibangan. There might be some other centers which archaeologists still do not know and further research is required in this regard.

Precondition Model for Early Urbanism

As mentioned earlier that during the Early and the Middle Regionalization Eras; the people of the Indus Valley underwent many cultural changes for example, food production, craft technology, ideology and others. Consequently, during Late Regionalization Era, phenomena became more complex in which essential preconditions were fulfilled necessary for the development of urban centers. Looking at the complexity, Kenoyer (1994) has proposed a set of four preconditions indispensable for urban centers of the Indus land. A set of those four preconditions are discussed below:

Precondition 1.	Diversity of the Subsistence Base and resource Variability which have the potential Production of surplus
Precondition 2	The development of Social and Economic Interaction Networks between Major Ecosystem and resource areas.
Precondition 3	Technological capability to fill specific needs of urban and state-level society
Precondition 4	Differentiation in status on the basis of access to essential resources.

Recent studies of archaeological sites have provided evidence to support the existence of these preconditions which resulted in the re-organization and strong interactions among the various communities in the highlands and lowlands of the Indus valley. For instance, the sites of Mehrgarh, Kalibangan and Jalilpur have provided evidences which suggest multiple crop systems and heavy reliance on domesticated animals primarily cattle (Meadow 1989, Costantini 1981, and Mughal 1990). Many other sites show evidence for agricultural practices and domestication of animals. Various niches allowed and provided for the diversity of subsistence patterns in each area of the late regionalization era of the Indus Valley tradition.

The wide spread of technology and extensive interactions is reflected through the presence of non local material such as shell, and other stone objects at the site of Mehrgarh; lapis lazuli, carnelian, agate, shell,

and steatite at Amri; and pervasive presence of Kot Dijian pottery at all of the sites. Furthermore, only one copper bead is discovered from the Kot Dijian settlement which suggested that, if nothing else but the reach of material as an example of the interaction phenomenon. However, the exploitation of the above mentioned resources recommend complexity of the interaction networks between the settlements and those various distant resource areas. It is obvious that these major sites are located far from each other as well as from source areas. Shell came from coastal areas such as Makran, Karachi, and Khambhat. Lapis lazuli came from Badakshan which is Northeast of Afghanistan, Chagai Hills, Southern Baluchistan. Steatite was coming from Baluchistan and the Aravalli hill range of Southern India. The closer lazuli resource areas were locating closer to the Rehman Dheri site than to the Kot Diji site. However, shell was located closer to the Kot Diji than to Rehman Dheri Site. Then the question arises as (1) locating the exact resource area used in exploitation (e.g. was steatite coming from Baluchistan or the Central Asia as well as the Aravalli hill range; (2) who controlled those resources and (3) who was involved in manufacturing and the distribution of finished and or produced items. To answer these questions, (a) trace element studies are needed to locate exact exploitation of the raw material; (b) dental and bone analysis is required to understand mobility of peoples; and (c) microware analysis of stone, shell and metal objects is required to find out use and manufacturing process which further might indicated the patterns of distributions and spread of technology. Hence, opinion is put forward that these types of studies will support comprehension of the presence of socio-economic networks and hierarchies required for the rise of urban centers. This phenomenon indicates not only strong interactions between distant communities existed but also reflects the importance of "commodity" in and of itself. These factors resulted in the organization of social hierarchies and the pervasive use of symbols that reflected a shared ideology during the Late Regionalization Era.

Networks of interaction were not based solely on the exploitation of distant commodities but also involved local and internal relationships between communities. It is evident that the mass production of ceramics and terra cotta objects was present at ever settlement. In the late regionalization ear there is evidence to suggest that potters began using marks which signifies personal identification. This indicates three things (1) competition among potter groups; (2) the control and assurance of production; and the (3) kin-relationship of p0otter folks. Widespread painted motifs include fish scales, horn deity, and intersecting circles. These motifs are considered to be ceramic characteristics of the Late Regionalization (Kot Diji "B") phase. The pots with painted motifs that carried significance are believed to have been a part of competition among the manufacturer on the one hand and trader on the other hand. More important to mention is that the possible origins of some signs used in the later Indus script have been in the shape of potter's mark discovered from Rehman Dheri (Durrani 1982, Durrani and Erdosy 1995) and recently from Harappa (Meadow and Kenoyer 1996). Furthermore, the end result of competition was complex interaction networks and socio-economic inequality.

During the Late Regionalization Era, social differentiation became more defined. This is evident through the possession of exotic items which were produced at the site by craft specialists of brought in through trade from distant areas. These objects include various kinds of beads and bangles which were considered to be items marking one's status. Ceramic objects like figurines and painted pots can be assumed to have been used as ritual items used in the greater ideological system. Apparently these artifacts reflected the growth of computational phenomenon, including control of major of major commodities, and the possession of exotic goods by high status people. Potter's marks as a symbol of identity may have played a vital role in recognizing and realizing the importance of the quality of the item and its ownership. This symbolic identity may have set the foundation for the bureaucratic system of the

integration Era that is reflected in the seals of the Indus period. (Kenoyer 1994). In this situation, ideological factors seem strong and therefore, were able to integrate the entire system.

Settlements such as the Harappa, Kot Diji, Amri, Mehrgarh, Rehman Dheri, Kalibangan sites in Cholistan, grew larger and most of them consisted of two mounds existing side by side. Architecture was increased in scale and thick walls were constructed around the settlements. However, the settlement pattern studies are not complete that mi9ght urge to reconsider present issue of growth of urbanism and clear the confusion which is present among the scholars of Indus Valley. At present, Possehl (1990) assumes that there is no multi-tiered pattern. By following, Fairservis (1975), Possehl thinks of villages with two tiered settlement hierarchy during LRE. However, on the other hand, Mughal (1981,1983) argues that there is a multi-tiered settlement pattern as seen through the Cholistan survey (Mughal 1983). Mughal has discovered three tiered hierarchy by the presence of larger towns which were the incipient urban centers of LRE. Additionally, my own research in the upper part of the Thar Desert supports multi-tiered model (Mallah 1994). The recent research at the Harappa and Rehman Dheri also supports the notion of growth of the urban centers at first place (Kenoyer 1996, Durrani and Erdosy 1995). These studies as done by Kenoyer (1991, 1994, 1996; Mughal 1993); Jarrige (1992); and Mallah (1994) has supported the notion of indigenous growth of early urban centers by gradual processes of development. Forthcoming results of the gradual growth were agglomerations of population at one place, thus requiring as organization to maintain law and order situation among the society. In other works, true urban centers like the Harappa and Mohenjo-Daro existed.

Early Urbanism in the Indus Plains and Baluchistan Highlands

It is obvious that the communities of these regions were not isolated but rather they fulfilled four preconditions model and maintained a network of inter-related connections based on factors such as environment, subsistence, technology, trade networks, ideology, and social organization (Kenoyer 1991). Furthermore, Kenoyer is of the opinion that "these factors [which] are closely inter-related and together, provided the necessary foundation for the development of urbanism and state level society" (Kenoyer 1991: 342). Kenoyer also feels that this occurred only after 2600 BC Where as the present archaeological research has provided enough data to improve our understanding about the LRE. The more recent data from the Harappa (Kenoyer 1997, Mehrgarh (Jarrige 1991), Rehman Dheri (Durrani and Erdosy 1995), Cholistan (Mughal 1997) and Kot Diji have suggested that all four preconditions were fulfilled during the LRE and consequent result is the growth of incipient urban centers.

Ecological setting of the Indus Valley and Baluchistan highlands have played a substantial role in the growth and establishment of urban settlements, for instance the river plains are very different from the highlands. As mentioned earlier, that the river plains located in-between the Himalayan mountains at the northern end, the Arabian sea at the southern end, the highlands and plateaus of Baluchistan to the west, and the Thar Desert, Rann of Kutch and Aravilli hills southeast. This is vast region encompass the home area of Late Regionalization Era where many settlements grew its urban status. These urban centers of 2800-2600 BC include the Rehman Dheri, Mehrgarh, Kot Diji, Harappa, Jalil Pur, Kalibangan, and many other settlements scattered all over the Valley which are still unknown to archaeologists. We have to wait until the comprehensive documentation of these sites is completed.

In the above mentioned home land of Late Regionalization Era (LRE), at the times of c. 2800-2600 BC. There were two separate rivers- the Indus (on the west) and Ghaggar-Hakra (on the east) flowed. Ghaggar-Hakra is now dry, and Indus is still alive which gets dry or very little water during winter season

at the lower reach beyond Kotri barrage. Both river ran parallel to each other finally merging together into the Arabian sea. Their flood plains provided vast attractive areas for highland people to bring in the herds during winter season when it was difficult to find the suitable grasslands for their animals, and this need was satisfied at the river plains. On the other hand, these two river were the major source of *salibi* and multi-crop agriculture and fishing as well. This diversity, abundance and availability of resources consequently resulted huge metropolitan cities on the river plains.

In these flood regions during the LRE culture became highly developed and complex. There were many so called "cultural groups" as Shaffer (1992) has called them as phases. The consequent phases are discussed below which are very important because (a) these phases hold their separate identity; (b) show gradual development to the level of the incipient urban centers and beyond; and (c) they are integrated in the pervasive social, economic, and ideological system of LRE. Here, the same categorization of Phases as suggested by Shaffer (1992) is followed, however, this categorization also needs to be revised in the future investigations. The phases are explained in terms of their geographical location as the Amri comes in the very south and moving ahead towards north to the Kot Diji itself by taking river flood plains. In addition to this the situation in Baluchistan during the LRE is discussed. The entire discussion would further clearly depict the scenario of the LRE at larger scale.

Amrian Settlements During LRE

Amri phase is one of the early phases which has encompassed many settlements in and around and is very important because it has participated in the interaction of the LRE. Amri phase sites are located primarily in the lower Indus river valley. The Khirthar foot hills and Kohistan regions have the densest distribution of Amrian villages (flam 1986). This phase shows strong relationships with Mehrgarh, Kili Gul Mohammad in Baluchisatn, Kachi, and in Balakot in coastal areas. Amri IA and Kot Diji maintained identifiable quantities of interaction during the Kot Diji phase at the Amri. Mughal (1972) believes that this phase should be known as the Hakra phase. However, I am of the opinion that evidence is not in favor of a Hakra phase but rather the Kot Diji phase. The excavation of Hakra phase sites may clarify this problem.

The economy was based on fishing, agriculture, and pastoral life. Cattle were the major domesticated animals, along with lesser quantities of sheep and goats. The hunted species included pigs, rhinoceros, gazelles, deer, and turtles (Shaffer 1991, Meadow 1989). Craft specialization is suggested by the presence of metal and semiprecious stones such as lapis lazuli, carnelian, agate, steatite and shell (Kenoyer 1983). Other artifacts include pottery, terra-cotta bangles, humped bovid figurines, and triangular terra-cotta cakes. Comparative ceramic studies has provided evidence for the relationship between Amri and the people of Kot Diji (Xu Chaolong 1994).

The significance of the Amrian phase settlements are that perhaps these were the people who supplied shell (i.e. Balakot) to the northern communities (i.e. Mehrgarh) and brought semi-precious stones with them. This supply of specific commodity (i.e. shell) further suggests that the Amrian did not lived as an isolated group rather equally shared and absorbed newly dominating cultural traits of the LRE of the Indus Valley.

KOT DIJIAN SETTLEMENTS DURING LRE

The Kot Dijian phase developed in upper Sindh and are named after the type site of the Kot Diji which may not be representative of the Late Regionalization Era. However, for better understanding, it is necessary to review knowledge about the Kot Diji site itself.

The Kot Diji site is situated 25 km south of Khairpur under the shadow of a medieval fort built on a rocky hillock of the Rohri hills. The excavation was conducted by F.A. Khan in 1955-57. The mound consists of two parts- the citadel and the lower city.

Of the structural remains, the so called "defensive wall" consisting mud bricks and lime stone blocks as foundations is one of the most important feature.

Inside the citadel, structural remains were also found to be of mud bricks that were erected on stone foundations as well as missive walls of sun dried bricks. Community ovens with mud brick lining appear to be are common and a kiln has also been reported.

The general characteristics of the wheel turned pottery common in the Indus Valley are fine thin body, short everted rim, and a black band around the neck. Noteworthy motifs include fish scales, intersecting circles, horizontal and wavy lines. On full pot-a squat globular jar-is worth mentioning here as it carries the so-called "horn-deity" design. The horns encircle sunflowers shape and the eyes are indicated by black dots.

Other artifacts include bull figurine, stone balls, tolls, bone, and shell objects sickle blades and grinding stones and a copper bead. The Kot Diji site itself is not the center of the representative of the Late Regionalization Era but the ceramic style is taken as exemplary for the distribution and consolidation of the Kot Dijian phase. Therefore, the term Late Regionalization Era as representative of the early urban phase is favored.

The Kot Dijian settlements are found at Bahawalpur, Harappa, Gumla II-IV, JalilpurII Kalibangan I, Rehman Dheri I-III, SaraikholalA-II, Siswal sites and Sawat valley (Shaffer1992). The present condcentration of sites in central and north-central Indus valley, may mean that except for ceramics; the material items such as lapis lazuli, turquoise, steatite, shell and copper were not locally available. Obviously Kot dijian groups were participating an interaction system responsible for the distribution of such materials as well as for other types and of cultural information.

The extent and intensity of this participation is indicated by the findings of objects related to this phase throughout Sindh, Kashmir, Baluchistan and Southern Afghanistan (Shaffer 1991).

The situation in Baluchistan was different. The Baluchi settlements were part of great interaction networks, and pervasive ideological systems. However, for some reason larger settlements or urban centers did not rise in Baluchistan. Using the four preconditions models, future research oriented in this direction might prove helpful for a clear understanding. What was the situation in Baluchistan during the LRE. is discussed below.

Highland Settlements of the Baluchistan During LRE

Baluchistan area itself consists of several Northeast-Southwest mountain ranges which are separated by narrow alluvial valleys. The Khirthar and Suleiman ranges are famous, where the narrow alluvial valleys (like Makran, Kharan, Las Bela, Zhob, Loralai, Queeta, and Pishin) are characterized by sources of riverine, springs, perennial wells (Fairservis, 1979), and torrents such as nais (Flam, 1986) and Karez (Pastner and Pastner, 1982). There are 15 known sites in the Khirthar mountains alone. Of these 15 sites, 11 sites lie close to nais (a torrent) and four sites are located near springs (Flam, 1986).

Evidence indicates that interaction between the inhabitants of the highlands and those in he plains was essential to the development of civilization. The Baluchistan tradition has a long developmental sequence, marked by many by many cultural phases (Shaffer 1991). Mehrgarh is an example (Jarrige 1991). It is believed that the phases most closely related with the Late Regionalization Era includes the Kechi Beg, Nal, Kulli, Perino and Bampur phases. Shaffer (1991) and Fairservis (1972) has

labeled then as separate "ethnic groups". However, this illustration is skeptical of present interpretation and is not appropriate here in this discussion.

Nonetheless, it is important to understand that the Baluchistan phase could not have produced huge urban settlements during the integration period. It is because the rocky environment conditions did not allow them to establish cities like Mohen-Jo-Daro and Harappa. However, highland communities did maintain their separate identity and interacted with other surroundings communities including low land communities of the Indus flood plains.

Agglomerative Interactions

The formation of state-level organization and urbanism in the Indus Valley can be understood as a cumulative, long-term process shaped by structural, regional, and archaeological dynamics. Mark Kenoyer (1991, 1998) argues that urban centers required fulfillment of fundamental necessities as diversified subsistence systems capable of generating surplus, craft specialization and technological innovations, extensive socio-economic interaction networks, and increasing differentiation in access to critical resources. These structural foundations were mirrored in Shaffer's (1992) concept of the Regionalization Era, during which culturally distinct communities developed localized production systems and long-distance exchange networks, creating the social and economic interconnections necessary for later integration. Archaeological evidence from the Kot Diji phase (ca. 2800–2600 BCE), highlighted by Muhammad Rafique Mughal (1990), demonstrates the emergence of fortified settlements, planned layouts, and specialized craft production across sites such as Kot Diji, Rehman Dheri, and Kalibangan. These settlements indicate the early integration of socio-economic and interregional networks, providing a proto-urban framework that ultimately facilitated the Mature Harappan urban system. Scholars including Possehl (2002) and Wright (2010) argue that this process reflects economic and social integration rather than centralized kingship, highlighting the distinctive character of Indus urbanism, which emerged through cumulative regional development, craft specialization, and inter-community exchange networks rather than coercive political centralization.

The emergence of state-level organization in the Indus Valley is best understood as a gradual, indigenous process, rooted in Kot Dijian cultural developments and culminating in the Mature Harappan urban system. According to Mark Kenoyer (1991, 1998), urbanism required a set of interdependent structural preconditions, including diversified subsistence systems capable of producing surplus, craft specialization and technological innovation, extensive socio-economic interaction networks, and differentiation in access to critical resources. Complementing this structural perspective, Jim G. Shaffer (1992) emphasizes the Regionalization Era, when culturally distinct communities across Baluchistan, Sindh, Punjab, and adjacent regions intensified local production while maintaining long-distance exchange networks, laying the social and economic foundations for later integration. Archaeological evidence from the Kot Diji phase (ca. 2800–2600 BCE), documented extensively by Muhammad Rafique Mughal (1990), indicates the emergence of fortified settlements, planned layouts, granaries, and specialized craft areas across sites such as Kot Diji, Kalibangan, and Rehman Dheri, providing concrete evidence of proto-urban organization. Scholars such as Gregory Possehl (2002) and Rita P. Wright (2010) interpret these developments as the outcome of cumulative economic integration, craft intensification, and standardized urban planning rather than centralized kingship or militarized expansion. This trajectory aligns with anthropological theories of state formation: Service's (1975) evolutionary model emphasizes the accumulation of surplus and social differentiation as drivers of political complexity; Fried (1967) highlights the role of hierarchical control over resources in producing early states; and Yoffee (2005) argues that cities can emerge through heterarchical networks and corporate governance, rather

than through autocratic rulers. The Indus case exemplifies this heterarchical pathway, where regional integration, economic interdependence, technological innovation, and shared ideological practices collectively facilitated urbanism without evidence of overt monarchy or coercive authority, demonstrating that state-like complexity can develop through cumulative, networked processes rather than centralized conquest or despotic rule.

In all likelihood, the process of integration began during the Late Regionalization Era or Kot Dijian "B" of 2800-2600 BCE period which was the result of agglomeration and interactions among the communities of the Indus Valley. It is possible that during these four hundred years, at least twelve generations might have lived; similarly, Kenoyer counts twelve generations for the integration Era (urban period). These people might have intensified and shared their ideological and technological ideas, thereby integrating and unifying the whole cultural system. For instance, a symbolic motif of the "horn deity" (as well as other motifs as discussed below) and over all pottery styles supports the notion of unification, integration and pervasiveness of such ideas. During this unification period, some settlements achieved urban characteristics.

During and Erdosy (1995:84-85) has discussed the question of relationships between the center and periphery in terms of exploitation of the resources. In this regard, a detailed study of what was available where? is suggested for future research. During and Erdosy have argued that Rehman Dheri was one of the core centers in the northern Pakistan and had peripheral regions as was the Mehrgarh another center in the Kachi plains of Baluchistan. Amri in the south and the Kot Diji, sites in Cholistan and Harappa in clockwise pattern (Durrani and Erdosy 1995:84-85). Nevertheless, the present state of research suggests that the people of the Late Regionalization Era associated with all these centers, were perhaps not bounded in the core/periphery relationships, however such relationship could be argued for the Integration Era when sociopolitical situation was highly complex in bureaucratic sense of control.

Evidences for the greater interaction has been recorded at 226 sites throughout the Indus Valley on the basis of surface collection as excavation of 18 of these sites (Mughal 1990). The Kot Dijian pottery types and wide range of other artifacts are being used to define the wide spread "cultural Phenomenon". The ceramic style is characterized by a simple everted-or beaded rim, short neck and sharp swelling body (XU Chaolong 1994). This style is further characterized by bands on the plain surface. These are usually painted below the neck and complemented with intersecting circles, fish scales, "horn deity" and floral papal leaves. All motif are painted in black, brown, or red slip patterns (Mughal 1990, Shaffer 1991). A study of the trace elements of clay properties are required in order to understand the production and locate centers of pottery distributions.

Moreover, interaction networks supported ideological pervasiveness which is also reflected from symbolic terra-cotta objects that include triangular cakes, bangles, beads, balls, as well as animals and human figurines. Were either seated with frontal extended or bent legs, or standing with a flat stylized torso. They have abstract facial features and arms raised or extended to the front (Shaffer 1991). The decorative elements on ceramic vessels, and the ornamental objects (for example the beads and bangles and figurines) indicated their ideological system (Kenoyer 1994). The burials may be considered as a part of the ideological system.

That LRE culture has strong organizational elements is reflected through important factors such as architecture, subsistence pattern (i.e. domestication of Plants and animals) technology and burials. These factors can shed light on a very complex system made up of social organization and society's ideology as discussed below separately in the following sections of the present paper.

Furthermore, each variable's general perspective is described in order to understand the cultural development and social organization of LRE villages and urban centers in the Baluchistan uplands and the Indus Valley river plains.

Habitational Organization of Late Regionalization Era

The habitational organization of late regionalization era (here after LRE) includes living arrangements, subsistence patterns and burial systems. All these variables are seen well developed and as described below:

The archaeological excavation shows that during middle of the fourth millennium BC. Villages developed. This development can be seen at Mehrgarh IV-V and Kechi Beg traditions where small houses with multi rooms mud brick was the main material of construction and rough stone were used for foundation. No pise construction is reported.

The villages of Damb Sadaat phase and Mehrgarh VI-VII and Amri became more sedentary and larger in size. The houses were well-made mud brick consisting on several rooms, some were small as 2x3 meter and some larger as 2x7 meter. The prepared slab of limestone was used in wall foundation frequently. The houses were provided with community oven and storage jars (Fairservis 1972). The sites are often separated into two distinct sectors which at one time were referred to by Flam (1986) as "acro-sacnctum" and lower town, but in fact this functional distinction is not supported by subsequent excavations (Flam personal communication).

The Kot Diji and Kulli phases showed further development of architecture. The houses were built on platforms and clear divisions of citadel and lower city. Some settlements had fortification walls as at Kot Diji. The community ovens and storage jars continued. Architectural remains as evidence of socio political system have been discussed in terms of massive enclosures. The sites with massive enclosure occurred during LRE (Kot Dijian phase) The purpose of these massive walls as indicator besides the political organization of ranked society was defensive or type of regional trade center. This concept is elaborately seen during the mature Harappan times with city gates (Kenoyer 1997).

Subsistence Pattern

The earliest evidences for subsistence pattern comes from aceramic Neolithic levels at Mehrgarh (Costantini1981, Meadow 1989). The subsistence economy was depending on the crop cultivation and domestication of animals. Thousands of imprints in bricks from the earliest levels of the site have been identified as cultivated naked six-row barley, hulled six-row barley einkorn wheat, domesticated emmer wheat and durum wheat. These crops could have been grown in naturally moist areas near marshes, lakes springs, or water courses (Meadow 1991).

In the developmental stages important features of irrigation system occurred that is "Gabarbunds". These massive stone/mud dams are into the shapes as Kach or terrace dam like those of South Arabia and Negev (Fariservis 1985). The chronology of these Gabarbunds is not clear yet. The Nais, or seasonal torrents also comes from mountain highlands to plains and provide sufficient water for cultivation.

In Indus river plains the Sailabi (Inundation) method, which indicated by the flooding cycle and pattern of water distribution inherent in the rivers and flood plains of the region, was probably the means of agricultural irrigation during the fourth and third millennia (Flam 1986, Kenoyer 1991).

By analogy with traditional system not using intensive irrigation, two major grain crops could have been raised, depending on annual rainfall or flooding season within a specific region. The Rabi crop is sown in fall and with sufficient winter rain, can be harvested in spring without irrigation. These crops

would include wheat, barley, pulses, sesamum, peas, vegetables and possibly perennial cotton. (Kenoyer 1991, Personal observations)

A second crop Khraif is sown during the monsoon flooding and includes the crops of cotton mustard, sesamum dates melon and peas. The rice, sorghum, and various millets were grown in Gujarat region by 2600 BC (Kenoyer 1991).

The archaeological discoveries like granaries storage jars, sickles, grinding stones, imprints in the bricks, charred seeds and Gabargunds suggests that the double and intensive cropping system in most regions prior to 2600 BC.

Domestication of Animals During LRE

During the LRE period both the wild and domesticated animals were supplemented as part of their subsistence system. The forms of wild animals identified includes gazelle, wild sheep, wild goat, water buffalo, spotted deer, barasingha, nilgai, wild cattle onager, black buck, wild pig and possibly elephant (Meadow 1989, Possehl 1990). The preferred habitats of these animals include the foot hills, plains and Riverine environment, but almost all were attracted to cultivated lands, and could have been killed in or near the agricultural fields. From all these wild species, only sheep, goat and cattle were first domesticated. The cattle became dominant in the early periods of Mehrgarh more than 60% fanual remains of cattle have been reported. (Meadow 1991). The 70% of cattlebone also habe been found from Jalilpur (Mughal 1990).

Burial Systems

The well documented evidences of burials come from Mehrgarh. However, the graves have been discovered at Damb Sadaat and Kalibangan (A Kot Dijian Site) but not has been much analyzed and reported yet. The largest cemetery is reported at Mehrgarh, 150 graves discovered within an area at least 220m sq.: in extent they will be described below.

Generally, burials were provided with grave goods, animals offerings, and frequently wear the ornament as necklace, pendants, bracelets, belts and anklets. The beads are made from a range of material such as perforated or worked shell, mother pearl, lime stone or semi-precious stone (turquoise, lapis lazuli).

Sellier (1991) has distinguished all burials into three categories: (1) Those with no grave goods (2) Those with steatite beads (Standard ornaments) only (3) and those accompanied by more exceptional goods of pottery, bronze or semiprecious stone. The child burials belong largely to the first categories (73%), while the adult female burials have most goods (36%) with “exceptional” goods, (39%) with “standard” ornaments and a mere 25% without any goods. The adult men come in between -60% with no goods and 20% in each of the other two categories The ratio of burials indicates the social stratification in which the women probably have got first priority, children comes second and few adult men could obtain any social status. Some one can suggests two things i.e. family structure was based on matriarchal or the women has got ideological status as goddesses of fertility. However, this was further supported by the presences of clay figurines and “Horn deity” from Kot Dijian phase of Indus river plain villages.

The factors of habitational organization such as elaborated architecture, intensive and diverse subsistence pattern and burial systems shows that the communities of LRE were considerably developed and living in the cities. Generally, the settlement pattern grew as three tier settlement hierarchy (Mughal 1990, Kenoyer 1994) The communities were connected through ideology and trade networks.

Technology During LRE

The early technologies include ceramic industry, metallurgy and lapidary works and Shell industry. These industries indicated culture change sociopolitical development and the high possibility of kin relations, extra-kin interaction economic and ideological legitimization (Kenoyer 1994)

Ceramics

The ceramic technology developed earlier than the others. Originally pottery was hand made and mold made, but afterwards wheel made pottery appeared and becomes the dominant. A wide variety of vessel forms occurred. The vessels were treated with a verity of colored slips as well as textured slips, monochrome, bichrome and rarely polychrome schemes are found that utilized a rich variety of geometric zoomorphic and floral motifs (Shaffer 1991).

The mass production of ceramic at various local production centers is observed and no doubt almost every big town was also producing ceramic according their own needs. Existence of such centers implies sophisticated economic organization capable of coordinating commodity production and distribution. The presence of local styles of ceramic suggests the local development of the industry prior to LRE. The potter marks appeared which supports the notion of the control of a commodity. The Kot Dijian style is found every where in above noted phases of the Late Regionalization Era. This was the first time when a process of consolidation began. Trace element studies of clay of the LRE pottery will indicate the production center and trade of ceramics

Metallurgy

Metallurgy was also developed and included a variety of copper/bronze and gold personal ornaments and tools. Although the quantity and quality of those object vary from one settlement to an other, the general impression is that of a variety of part time and full-time craft specialists (Kenoyer 1994).

The resources of gold is found from Northern Indus Valley and Afghanistan; the copper is found at Khetri in Rajasthan, South, Baluchistan and Afghanistan. The archaeological evidences of the copper use are found from Mehrgarh, Jalilpur and Kot Diji and other sites. These sites show the presence of the material but do not show the working areas. The future research may be reveal some good results.

Lapidary Craft

The Lapidary was one of the important industry where large variety of semiprecious stone beads and pendants, necklace, bracelets, and head bands made of lapis, turquoise and steatite carnelian and agate are reported. The chert drills were used for stone perforating. The chert drills were used for stone perforating. This shows that lapidary crafts were highly developed.

The resource areas of raw material procurement is locating very far distant as listed below:

SN	Commodity	Source area	Utilization
1	Shell	Oman, coastal belt of Sindh Gujarat	Beads, bangles, ladles, ritual items
2	Lapis Lazuli	Badkhashan NE Afghanistan	Beads, ritual items
3	Turquiose	Central Asia or Iran	Beads
4	Agate	Saurashtra	Beads of different shapes and sizes

5	Carnelian	Saurashtra	Beads of different shapes and sizes
6	Carnelian deep red and orange	Kutch and Gujarat	Beads of different shapes and sizes
7	Steatite	Baluchistan, Aravalli range	Baluchistan Aravalli Hills
8	Chert /flint	Rohri Hills and Baluchistan	Blades, cores, drills, arrowheads
9	Banded Chert	Rohri Hills	Weights

Above list shows strong interaction networks of the LRE people who were engaged in this difficult task of the acquisition of raw material. This might have been produced full time trader who provided the raw material to the craft specialists at settlements for further processes. The production might have given to another trader who reached inter-communities which are again locating very far from each other as discussed above.

Shell Industry

Shell was one of the major trade commodity and symbol of status and wealth since Neolithic (Kenoyer 1994). The white shell items such as bangles and disc beads were almost identical to those produces in later periods. The communities along coast were engaged in the trade of shell to inland settlements.

During LRE shell was coming from Western Coast (Karachi and Makran) Eastern Coast (Gulf of Kutch and Gulf of Khambhat) and Coast of Oman. It is possible that due to the far-distant locations shell could not reach at the upper parts of Indus Valley. One can ask the question of presence and absence of shell at Rehman Dheri and semi-precious stone at Kot Diji site. The presence and absence of commodities indicate two things (1) the factor of distance (2) the factor of ideology. The further excavations can clarify this issue.

Besides the stone, shell and metal, it can be assumed that the perishable commodities viz. fruits and nuts, grains, spices (garam masalhas), animals, and textile might have been traded from lowland to highland from Central Asia, Afghanistan and Iran towards Indus Valley. This type of trade was continued in the historic Mughal periods (Dale 1994: 14-30. Even in modern days; peoples from highlands and lowlands have trade connections and brings all those dried fruit/ nuts not available in their respective areas. This trade practice is observed during moderate climatic conditions for the people who are engaged in the trade. For transportation purposes, the caravan, boats and carts were used. The caravan was consisted of cattle, goat sheep and dog (Kenoyer 1991). The mentioned commodities might have been carried in animal skin, bags made of wool and straw and ceramic vessels. (Personal observation). This strong interaction played major role in the spread of ideological thoughts, integration of the communities and the rise of urban settlements during late regionalization era.

Conclusion

The discussion about early cities should now be settled that there were early cities in the Indus Valley during Late Regionalization Era. By all definitions and criterion suggested by various scholars are being fulfilled. For example, the model of four preconditions proposed by Kenoyer (1991,1994) is completely recognizable all over the Indus Valley during late Regionalization Era. Shaffer's (1991) studies related to the Baluchistan and Indus Valley Traditions has suggested the transition and spread of those

traditions through space and time. Another set of criterion is discussed by Michael Jansen and Coningham (1989,1995) [after Childe 1950] they defined 10 criteria for city which are easily countable and recognizable during the LRE.

These perspectives produce a powerful explanation as Shaffer explains the long-term cultural process; Mughal provides archaeological evidence for early urban development and Kenoyer explains the structural conditions enabling full urbanism. Consequently, the Indus state emerged through a gradual process of regional cultural development (Shaffer), manifested in proto-urban settlements during the Kot Diji phase (Mughal), and enabled by socio-economic preconditions necessary for complexity (Kenoyer).

This Framework is strong because it avoids outdated explanations and ideas, such as, Sudden "urban revolution"; External diffusion from Mesopotamia; Hydraulic despotism and Militaristic state formation. Instead, it emphasizes on the Indigenous development; Regional diversity, Economic integration, Gradual evolution and Archaeological evidence bases**.**

Their approach about State Formation effectively argues that the Indus state was not imposed from above but Urbanism grew from earlier regional systems; integration preceded centralization and political authority may have been corporate rather than monarchic.

Combination of all above referred model and definitions clarify the issue of incipient urban centers. These LRE settlements were continuously developing, however, the process of development was gradual (Mughal 1991, and Kenoyer 1991) which eventually resulted huge urban state centers. Therefore, it is proposed that LRE centers may be considered as early states.

Recent discoveries from excavations at the Harappa has supported the notion of gradual growth of the city (Kenoyer 1997). A stratigraphical and contextual process of development has been recorded from the Harappa. Nevertheless, overall picture of all communities of highlands, lowlands and coastal areas were linked each other through trade networks and pervasive ideology. Craft technology became widely spread with mass production of ceramics. The initial steps for control is indicated through potter marks and fortifications around the settlements. Consequently, by considering vital information as discussed here, it now conformed that the situation was highly favorable during LRE 2800-2600 BC. for the rise of early urbanism in the Indus Valley.

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