

The Indus valley: Overview of Harappan civilization, Part One

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- Geographic and ecological setting
 - lowland Pakistan and northwestern India
 - A huge area compared to Mesopotamia or Egypt
 - generally hot and little rainfall
 - so most agriculture depends on river water
 - Indus floodplain is good for low-investment farming
 - rivers flood and form natural levees, as in Mesopotamia
 - making irrigation easy, with little need for large-scale canal systems until later times
 - floods come at a convenient time, like the Nile
 - bringing both water and rich silt
 - allows two different crops per year, without large investment in canals or other works
 - subsistence base was a local variant of the southwest Asian pattern
 - wheat, wheat, barley, peas, lentils
 - plus cotton and sesame
 - sheep and goats
 - plus species domesticated locally: humped cattle, buffalo, pig
 - the rivers sometimes break out of their channels and shift course, as in Mesopotamia
 - many archaeological sites are located along abandoned, dry river beds
 - rivers are mostly navigable
 - encouraging communication and exchange
 - mostly alluvial soils without mineral resources, like Mesopotamia
 - although some places have outcrops of stone useful for tools, jewelry, etc.
 - wide zones of resources roughly parallel to the rivers
 - beyond that, large expanses of desert
 - crossed by nomadic herders and traders probably since Neolithic times
 - this is a periphery similar to that surrounding Sumer and Egypt
 - a convenient natural disaster:
 - sites in the Indus floodplain are mostly buried by silt from annual flooding
 - the Ghaggar-Hakra river (sometimes called the Sarasvati river), paralleling the Indus to the southeast, had similar settlements along it
 - a shift in river courses cut off water from this river during the Mature Harappan period
 - leaving an entire region of Harappan sites stranded in the desert of northwestern India
 - where we can find them without the deep burial and water table problems along the Indus
- Relationship with surrounding areas, and with Mesopotamia
 - mountains to the west (Baluchistan) contain minerals, metals, are good for pasturing herds; occupied by nomadic herders and settled farmers
 - desert to east limits contact with rest of Asia
 - Himalayas to north also enclose the region

- these barriers enclose a huge area; not really circumscribed in Carniero's sense
 - trade contact to the west by land through very rough mountains of Baluchistan
 - sea routes to head of Persian gulf - a 4 to 5 week trip by traditional sailing vessel
 - did significant contact with Mesopotamia actually occur? when?
 - if yes, did it affect society in the Indus region very much?
- Neolithic Period: 7000 - 3500 BC
 - Agriculture seems to have started on the western margins, in Baluchistan and the edge of the mountains, by at least 7000 BC
 - cultures were highly variable from region to region, and changed a lot over time
 - people probably first settled out on the Indus plain in the Late Neolithic, around 4500 BC
- Early Indus Period 3500 - 2600 BC
 - a long period (900 years) that presumably lumps together a wide range of societies
 - roughly the same as “Early Harappan” in Wenke and Olszewski
 - contemporary with
 - Middle Uruk period through the first half of the Sumerian Early Dynastic period
 - Naqada II through Egyptian Early Dynastic
 - overall, overlapping but a bit later than the first complex societies of Sumer and Egypt
 - Early Indus period saw an increasing number of farming settlements on the Indus plain
 - early on, cultures were local, different from place to place
 - during the last 200 years of the Early Indus period, a pottery style first identified at Kot Diji (“Kot Dijian” ceramics) was used at many sites over much of the Indus region
 - this suggests increasing interaction of some kind, maybe trade
 - this is called the Kot Diji phase, from 2800 - 2600 BC
 - contemporary with the Sumerian Early Dynastic and the Egyptian Early Dynastic
 - Most early Indus period people lived in small agricultural villages
 - But there were also a few large towns or cities
 - example: Rahman Dheri, in second half of Early Indus (say 3000 BC), got to 22 hectares
 - over 4 times the size of the SSU main quad
 - same ballpark of size as large Early Uruk centers, but 500 to 1000 years later
 - rectangular mudbrick houses in somewhat orderly rectangular street plans
 - not strictly planned, but far more so than the chaotic jumble of Mesopotamian towns
 - some had a wide main street running north-south, with narrower secondary streets perpendicular and parallel to it
 - some towns had a raised “citadel”
 - large rectangular raised area or tell, often with high-status residences and non-residential buildings on top, and the sides held up by retaining walls
 - the name is misleading; these were not necessarily mainly for defense, although access was limited by the surrounding wall
 - once thought to be artificial platforms
 - now thought to be just the oldest section of town, where more debris had accumulated
 - apparently where the high-status people lived
 - apparently where central functions were carried out

- maybe because it was safest from flooding
- located to one side of the lower, residential part of town
- some early Indus towns were walled
 - like Rahman Dheri, Kot Diji, Kalibangan, Harappa, etc.
- these towns are thought to have been relatively independent, self-sufficient, not united
 - each subregion within the Indus system had a different style of pottery
- but at least one site, Lewan Dar Dariz, was economically specialized
 - people at Lewan Dar Dariz specialized in making groundstone tools
 - axes, donut stones (clubs? clod breakers? or...?)
 - grinding stones for grain processing
 - presumably for exchange with people from other towns
 - meaning that some towns were already partially interdependent
 - large, but not among the largest: 10 hectares
 - surrounded by a massive mudbrick city wall
- Harappa
 - Harappa was already a walled city by the Kot Diji phase
 - by the end of the Early Indus period, Harappa
 - occupied at least 25 hectares
 - produced quantities of beads from jasper, agate, carnelian, and other stones
 - imported steatite and carved stamp seals from it
 - would become one of the largest cities in the following Mature Harappan Period
- at Harappa and other centers, increasing evidence of complex economies and trade, especially during the Kot Diji phase
 - most pottery was made on “foot wheel” (like the “fast wheel” we have seen elsewhere)
 - allows greater production, presumably for exchange, possibly capital investment
 - copperwork became more common (although still rare)
 - spread of “Kot Dijian” ceramic style suggests increasing interaction, maybe trade
 - ox carts were in use by the time Kot Dijian ceramics were widespread, possibly indicating larger-scale hauling of goods
 - Many seals and sealings with geometric motifs suggest a lot of trade
 - internal trade: Lewan Dar Dariz produced groundstone items that were widely traded; maybe other towns had similar specialties
 - external trade: in jewelry stones from Baluchistan and Afghanistan
- but still very minor social stratification in burials, housing, etc.
- Writing: a few early examples of Harappan writing have been found at Harappa during the Kot Diji phase (more on this later)
- did Early Indus settlements qualify as “civilized”?
- Meanwhile, to the west of the Indus system, in Baluchistan: the site of Mundigak
 - two mounds with large buildings on top, one with a colonnaded hall
 - presumed to be in trading contact with Indus sites
 - late in the Early Indus period, added massive walls with square bastions
 - just one example of the complex societies that arose between Mesopotamia and the Indus
 - a big issue that we aren't going to touch here...

- Mature Harappan Period (also called Mature Indus, or just Harappan) 2600 - 2050 BC
 - started several centuries after dynastic kingship was well established in Sumer and Egypt
 - started about the same time as
 - the royal burials at Ur
 - the building of the great pyramids
 - and lasted over 500 years after that
 - the Mature Harappan period may have begun with a dramatic change
 - widespread adoption of Harappan style ceramics over a span of maybe 200 years
 - Around the end of the Early Indus period, several cities suffered extensive fires, then were rebuilt
 - Kot Diji had two big fires around 2500 BC
 - evidence of widespread fires at Amri and Kalibangan
 - Orderly town plans were imposed on top of the earlier, less organized town plans
 - after the fires, the pottery styles were mixed, with old styles continuing, but mostly the new Harappan style
 - some see this as evidence that these sites were sacked and rebuilt by Harappans
 - but others (like Mark Kenoyer) think this is just a coincidence of small fires
 - he sees the changes in ceramics and site planning as more gradual
 - Harappan pottery was also adopted in peripheral areas, in addition to local styles
 - suggests that Harappan people and/or goods moved into these outlying regions that already had their own pottery styles
 - due to conquest?
 - trade?
 - Harappan outposts or colonies...or?
- Rise of really big cities and complex settlement pattern
 - At least four major cities or capitals
 - Harappa and Mohenjo Daro on the Indus river
 - Ganweriwala and Rakhigarhi on the dry bed of the Ghaggar-Hakra river
 - these probably comprised several competing but similar states, rather than one huge one
 - Secondary sites seem to be smaller versions of the same city plan
 - Kalibangan, Kot Diji, Sandhanawala, Judeirjo Daro, and many others
 - There were also some possibly special-purpose sites
 - example: the small site of Lothal was apparently a port and trade/manufacturing center
 - reservoir or docking area (debate about which it was)
 - workshops for intensive production of stone beads, bronze, and ivory items
 - many clay sealings, with up to four seal impressions, suggesting commerce
 - Plus many hundreds of smaller village sites
 - so most Indus people were probably rural
 - continuing Neolithic practices of farming wheat and barley with small-scale irrigation
- Cities were walled, although maybe for flood control as much as defense
- Very uniform artifacts, planning, architecture
 - standardized styles of pottery, jewelry, seals, etc. over the whole vast region
 - standardized brick proportions (1:2:4 for easy laying) and sizes (7 x 14 x 28 cm)

- supposedly a standardized pattern of laying bricks: “English bond”
 - alternating rows of all headers and then all stretchers
 - although site photos suggest that the bricklaying pattern was not really that consistent
- standardized length units; several graduated rulers have been found
 - two basic units
 - a “cubit” of around 52 cm (51.8 to 53.6 cm)
 - a “long foot” of 33.5 cm (or 37.6 cm)
 - one ruler is divided into subunits of 1.7 mm, with each 10th mark emphasized, like a modern metric ruler
- standardized weight system
 - cubical weights of various stones
 - most common unit is 13.6 grams (about 1/2 ounce)
 - weights come in sets that include fractional units, 1 unit, 2, 4, 8, 16, 32, 64 units, etc.
 - balances on which the weights were used have also been found
 - suggest concern with exact measurement of amounts of materials
 - maybe associated with trade
- standardized city plans, as discussed below
 - even small towns seem to emulate an ideal city plan
- various interpretations of all this standardization and uniformity:
 - centralized production of standardized goods that were then widely distributed?
 - strong control of production in many different places in order to ensure standardization?
 - extreme cultural conservatism that led people to make things in the same way?
 - an ideology that promoted conformity?
- Typical Harappan city features
 - size and population
 - Mohenjo Daro: 2.5 square km (250 ha)
 - over 2.5 times the size of the entire SSU campus
 - estimates from 35,000 - 41,000 people
 - Harappa: population estimates range from 23,500 to about the same as Mohenjo Daro
 - Most towns had a “citadel”, as some had in the Early Indus period
 - on the west side of site
 - raised, rectangular platform running north-south
 - size varies from 215 x 460 m at Harappa (about 4 times as long and wide as Stevenson)
 - to 65 x 130 m at Kalibangan (a bit bigger than Stevenson hall)
 - to smaller citadels at smaller sites like Lothal
 - as high as 12 m
 - bland looking, but very large
 - citadels were typically enclosed by a wall with big corner buttresses/bastions, and buttresses along length of wall
 - used to be thought that these were artificial platforms
 - but probably just the oldest sectors of towns that had walled, enclosed neighborhoods
 - so the oldest neighborhood formed the greatest accumulation of debris, like a tell

- retaining walls around the edges produced a platform-like appearance
- these oldest neighborhoods were apparently also the most prestigious and wealthiest
- big, presumably administrative buildings on top of the “citadel”
 - at Mohenjo Daro, one big 27 m square courtyard was filled with rows of pillar bases, probably to hold up a roof of a large columned hall
 - also at Mohenjo Daro: a sunken rectangular bath with wide steps leading into it...
 - 12 X 7 m, 3 m deep (36 x 21 feet, 9 feet deep)
 - Two skins of water-resistant fired brick, sawn to precise shape to fit tightly, in gypsum mortar, with a layer of bitumen (natural asphalt or tar) between them: clearly designed to hold water
 - has a drain
 - presumably filled with water carried from a large well in an adjacent room
 - surrounded by porticos and rooms
 - generally thought that this pool was for ritual bathing, as is still done in India
 - only known from Mohenjo Daro; not yet found at other sites
- many towns also had a “granary”
 - located on the citadel or next to it
 - elevated brick foundations with crossing channels on top, hints of a wooden superstructure, and at Mohenjo Daro, a ramp-like entrance or “loading dock”
 - originally thought to be foundations for a wooden grain storage warehouse
 - built to allow air flow underneath to prevent rot and spontaneous combustion
 - because some known Roman granaries were built this way
 - may or may not actually be granaries, still uncertain
 - A few burned grains were found between the bricks of the “granary” of Lothal, but is this enough?
 - they could also be foundations for some other kind of wooden building
 - one “granary” has traces of repeated small fires on the brick platforms; maybe they are some kind of offering structures?
 - at Harappa, the “granary” is near circular platforms once thought to be for grinding or threshing grain
 - recent excavations found no traces of grain, but rather accumulations of silt, as if they had been vats
 - Kenoyer thinks the platforms and wooden sheds on the “granary” foundations were a textile shop, where indigo dye was produced and textiles were dyed...
- Next time, we will look at the “lower town”, the rest of a typical Harappan city