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Indus Civilization... (1)

- The Indus Civilization had the first farming cultures in South Asia, which emerged in the hills of what is now called Baluchistan, to the west of the Indus Valley.
- The farmers took part in the so-called Neolithic Revolution, which took place in the Fertile Crescent around 7500 to 6500 BCE.
- These early farmers domesticated wheat and a variety of animals, including cattle.
- In the "Era" terminology, the Neolithic is known as the "Early Food Producing Era".



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Indus Civilization... (2)

- The fertile alluvium of Indus Valley (Indus and its five tributaries) led to the development of numerous **peasant settlements in the urban complexes** by their rich agricultural produce. The settlements **nearer to urban site** were clustered densely. The boundary is marked by mud-bunds for the protection of settlement from natural calamities.



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Indus Civilization... (3)

- The settlements are distinguished by their small extent of area, even in some cases as holdings of a single family.
- The population of Mohenjo-Daro at the rate of 800 sq. feet per person or 133 persons per hectare.



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Indus Civilization... (4)

- Pastoralism and agriculture were given equal importance.
- Fishing is also presumed from different fishing equipments.
- This phase In Indian agrarian system is distinguished by temple proprietorship of land.



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Indus Civilization... (5)

- The development of these farming communities ultimately led to the **formation of larger settlements** from the later 4th millennium BCE.
- Indus valley civilization was **composite product of different races** that lived and worked together in a particular environment.



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Indus Civilization... (6)

- By 3000 BCE, the Early Harappan communities had been turned into urban centers.
- Thus far, six such urban centers have been discovered during late Harappan period, including: **Harappa, Mohenjo-Daro and Dicki in Pakistan**, along with **Gonorreala, Dokalingam and Mangalore in India.**



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Crop cultivation

The evidences of early Harappan Chalcolithic period was observed in India at important four sites, namely, Harappa, Mohenjo-Daro, Chanh-Daro and Rohira.

- *Cereals* (a) Wheat (b) Barley (c) Millet (*Jowar, Sorghum*),
- (ii) *Legume*: (a) Field peas (*Pisum arvense* from Harappa)
- (iii) *Oilseeds*: (a) Sesame (*Seasamum indicum* from Harappa) and (b) Mustard (*Brassica juncea* from Chanh-daro)
- (iv) *Fibrous plants*: Cotton (Mohenjo-daro and Harappa)
- (v) *Fruit & other crops*: melon-seeds (*Cucumis melo* from Harappa) and stones of date-palm (Harappa), and banana, sugarcane pomegranate, coconut and lemon (Mohenjo-daro and Harappa).
- (vi) *Spice*: Fenugreek (Rohira in Punjab).



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Crop cultivation

Lothal and Rangpur of Sourashtra region and Surkotada which belonged to Kutch, Gujarat evidenced the following crop specimens :

Cereal: Rice; pearl millet (*Bajra, Pennisetum typhoides*); Foxtail millet (*Setaria indica* and *S. verticillata*).



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Farm tools & farming operations

- The people of Indus Valley Civilization utilized the pots, utensils and ornaments. During this period the people identified the importance of ploughing for the proper sowing of crop i.e. soil has to be stirred and seed has to be covered. Different archaeological evidences showed two types of tilling operations : (a) by ploughing for making a necessary depth in the field, and (b) harrowing for stirring the soil at comparatively shallow depth. They used ox-drawn wheel cart for transport.



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Great Granary

- The most remarkable discovery in Harappa is the Great Granary used for storing food grain.
- Well-built body of baked brick, well-ventilated to prevent sweating and mildew and vivid provision of loading facilities from outside.
- These granaries, each 50 X 20 feet [15.2 X 6.1 metres] overall.



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Great Granary

- From the size of the granary it can be concluded that the peasants paid their dues to the Government in kind, used the kinds in granary for payments to employees. The artisans, carpenters and others received their wages in kind from the farmers.



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Irrigation

- Flood-flushing was practiced. At Mohenjo-Daro which state: Two canals were constructed in the month of *Kudam* (Aquarius= November) and *Mina* (Pisces = March to April).
- These canals were cut at low gradient and waters were allowed to merge ultimately into low ground in a direction oblique to the river so as to secure a great fall as possible.



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Irrigation

- Irrigation system was consisting of **lifting of water by water-wheel** and by means of *Shaduf* from adjoining water sources.
- There was also provision of tank irrigation.
- Rice cultivation shows necessary moisture of soil probably retained by now using contour-bunding for locking up monsoon rain-waters by tank-irrigation.



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Horticulture

- During the Indus Civilization horticultural crops like fruits were also cultivated namely **melon, date palm, banana, pomegranate, coconut, lemon** which were confined to Punjab and Indus basin.



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Wild animals

- Elephant, rhinoceros, wolf, jackal, nilgai, gaur (Indian bison), wild buffalo and species of deer (hangul or Kashmir stag, chital, sambhar, barasingha, four-horned antelope, black buck, hog deer, sambhar, barasingha and chital).
- Monkeys, squirrels, mongooses, snakes, pangolins, wild boar and crocodiles.
- Amongst the birds, the duck, peacock, hen, kite, pigeon, dove and parakeet.



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Livestock

- Cattle: Zebu or Brahmani type (*Bas indicus*); and a little grey cattle-breed.
- Elephant: Two breeds having identity with modern Moomoria and Dhundia.
- Dog: Two breeds, a kin to modern Parish and Mastiff types of varieties.
- Fowl: Two types.



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Fishery

- The farmers of the Indus used to harvest (a) fresh-water species: (i) Three types of cat fishes, (ii) carp; and (b) Marine species: Arius.
- Different fishing equipments were used like hooks of two types, barbed and unbarbed net, traps and baskets.
- Use of fishing boat.



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Farm tools

- **(i) Tools for forest-clearance**
- **(ii) Soil-treatment-cum-tilling**
- **(iii) Tillage and other implements**
- **(iv) Harvesting tools**
- **(v) Corn un-husking / shelling equipment**



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Meteorological studies

Archaeological evidences supported by recent meteorological studies speak of the current of South-western monsoonal rain throughout the North-western India during this period.

The duration of rain tallies with the now presenting monsoonal rains *i.e.* from June to October.



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Farm Tax

A kind of tax was presumed to have been paid to the temple, the State's treasury, enjoying the power of overall ownership of land and of state's granary.



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Trade

- Mesopotamia, Sumer, Egypt, Central Asia, north-eastern Persia and north-eastern Afghanistan, Abyssinia.
- Cotton appears to be the only export article.
- Fruit-crops like date, coconut and banana were supposed to have come from Iran and South Asia.