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## URBAN REVOLUTION, CIVILISATION AND BRONZE AGE

The enticement of archaeology lies in the part of enthusiasm related to the unearthing of the unknown and bringing out new perspective and interpretation of human past. The term Civilisation which succeeded Barbarism connotes to urbanized, state level societies comes up in 5000 BCE contemporary to Bronze Age associating metallurgical advancements elaborated and discussed deeply by V.Gordon Childe.

Earlier historians like A.L.Kroeber described civilisation as, “ particular pattern of culture coming up as a complex manifestations” exclaims beginning of ideas, beliefs and thoughts developed around a particular group settled together. Followingly Colin Renfrew states “Complex artificial environment for man, it is the insulation created by man, an artefact which mediates between himself and the world of nature”, indicates the idea of invention of articles indifferent to natural things, creation of commonness between people and therefore easy interactions amongst each other either through trade, meetings, travelling or migration and thus led to exchange of various items therein. Coming up of Marxist definitions who described it as emergence of class societies and following the same theory, V. Gordon Childe in 1930's substantiated the word civilisation as, “tiny villages of self-sufficing farmers who transcended to populous cities nurtured by secondary activities involving production with long distance trade and initially organized into states.’ Similarly, the term ‘Urban Revolution’ denotes progressive, slow and gradual advancement in the social organisation of the society with people started living in dense communities leading to enhanced surplus and economic transformation involving production and trade. Lets look upon how this changes come into being. The main role was played by the ‘Agricultural Transformation’ which took place in the Neolithic period with firstly coming up in Levant and Taurus-Zagros mountain arc. With increased cropping pattern and production of grains helped in surplus production. As surplus can be affected by natural resources various means of exploiting the land and thus inventing new techniques followed by

the farmers. This common way of cultivation to obtain food brought about people together and they finally co-operated each one to secure food and shelter. Another important characteristics of a civilisation is that it doesn't come up all of a sudden. It duly had connections with pristine cultures or under direct influence or threat of foreign civilisation. For example the societies w on the fringes of Mesopotamia. 'Cultural transformations' as explained by Sanders and Price reflects that with time the environment around the human being creates various stimulations responsive to varied obstacles which results into numerous technological, organisational, ideational and physiological changes. Though humans can adapt to the different locations with consequent change in the surrounding, they adapt new techniques to survive in different environment. In ecological sense humans have this tendency to interact to their surrounding be it plants, animals and other beings including topography, soil and climate to create a mutual understanding and exploring out things. And this could have resulted in domestication of animals. Another important factor being the climate change. Within the Holocene period there was gradual shift in the temperature resulting in warming of the environment which was affected by (topography, latitude, neighbouring landforms and local floral conditions); and therefore accompanied with more evaporation and consequent precipitation. Therefore in search of water humans, plants, animals and the surrounding led to closeness among one another and thus forming a community.

Civilisations and Urban Revolution marks the beginning with Bronze Age and coming up of first 'CITIES'. The main argument presented here is bronze tools or ploughs helped rigorously to cut down the forests and projected increased surplus agricultural production. Bronze age is objectified with the prevalence of enormous bronze tools indicating assemblage of single metal as a dominant metal. It implies an age when communities were dependent more on bronze which is an alloy of copper and tin to make tools, weapons and other artefacts. What can be predicted here is that bronze age was in continuance with varied material based cultures. Bronze age is easily associated to all characteristics of urbanism as both are contemporary term but bronze comes to an end with the beginning of Iron Age. 'Metallurgical' advancements marks the major factor symbolizing bronze age. Copper being more feasible and malleable with other metals could easily be moulded and alloyed with other metals through the process of heating, moulding, drilling, grinding, polishing, colouring and thus lead to the making of tools or artefacts. Bronze marks the beginning of 4 major riverine civilisations. First being the Euphrates and Tigris river valleys (Mesopotamian Civilisation), Nile river (Egyptian or pharaonic civilisation), Indus valley or Harappan civilisation on river indus and Shang civilisation around the yellow river.

Continuing further V.gordon childe enumerates the 10 major ways to determine and differentiate between Civilisation and less complex societies, and its implications in the Indus Valley Civilisation :

- Urbanism is often related with the coming up of 'CITIES' and more concern is towards the size of city which is densely populated. It was observed though cities were smaller in area but were accompanied with various activities other than villages. Harappans had population around 35000. With the collapse of egalitarian society as due formation of cities the problem arrived was with the land distribution. Indus civilisation perfectly shows prevalence of Cities like Mohenjo-Daro, Harappa, Kalibangan, Kot-dijji, Nageshwar a specialised conch shell making area.

- With evolving cities which surely would be around the periphery of villages performed various functions and composed with variety of different workers like being full-time specialist craftsman, transport workers, officials, merchants and priests performing their jobs accordingly to earn their living dependent on the rural people for food, fish, animals etc. The reason for full-time specialist could be if single area produced crafts for their region it won't last long and even didn't lead to specialisation. Thus these craftsmen broke away from the community travelling from one place to another sometimes as collectors of raw materials or merchants and forming their clan (hereditary or caste specific) and guilds. In Indus civilisation places like Lothal and Dholavira were specialised for seal making due to their closeness to rivers. A small site named Chanhudaro was busy with bead making, shell cutting, weight making etc. Kalibangan is known as black bangles for being found all over.
- There also have been traces of taxes or tithes given to a disillusioned deity or a divine king by the agriculturists who produce surplus with little technology as proper protection and administration provided by them. Hence these people remain left with low income and engaging less capital required for further production. We couldn't objectify the prevalence of people giving taxes to a divine king or god in Indus valley as according to archaeology but there would have been as it shows the kind of administration involving proper distribution of resources would have been taken place through an authority as found at Shortughai. The priest king, mother goddess and fire altars do provide a little picture of people involved in religious practices. Jim Shaffer connotes strong internal trade marked commonness and political unit.
- Social surplus was dignified through the magnificent public buildings. In Sumer findings of shrines, paved platforms, tower, ziggurats, granaries provide a wise perspective of societal buildings. In Harappa citadels, kiln-bricks, warehouses, palaces, drainage projects the advancements of this period. The provision of bathrooms, courtyards reflecting a sense of privacy, great bath at Mohenjo-Daro projects a collective public event happening together. Doors and windows were made of wood and mats. Presence of Alabaster and lattice work grills found at Harappa and Mohenjodaro.
- So called 'Ruling Class' was formed by the priests, officials, civil and military leaders occupied much of the propertied social surplus. They often misinformed the lower classes and convinced them in performing laborious work as intellectual talks often harm more than physical activity. Thus enjoyed their life befooling others. Indus valley too would have witnessed the same as there was complete demarcation between village and cities there surely existed either individual or a group managing the acquired surplus efficiently.
- In order to pass on the techniques and practices of administration and revenue compilation, recoding things became very necessary for the people. Eventually writing forms significant and convenient point to demonstrate civilisation. Papyrus in Egypt and clay in Mesopotamia was used for the jotting down. Indus people too had their scripts comprising over 400 syllables or symbols used for punch marking in long distance trade and recording the regular stuffs as found on terracotta seals or tablets. They were either inscribed or punched.
- Writings helped in further formation of scripts and led to beginnings of writing sciences like arithmetic, geometry and astronomy. Borrowings of calendar and tropic from Maya and Egyptian civilisation justifies the same. From Indus valley the prevalence of chert

stones for the weight measuring and scales gives us new idea. The formation of drainage, proportionate mud-bricks, proper city formulation could be borrowed.

- Astonishing artistic expression gets evolved with the coming of full-time crafts specialists like pottery makers, sculptors, seal-engravers, painters etc. The thing differentiates them more unique, conceptualised, dynamic and usage of technology in the making of varied artefacts that also differed at every place. Faience, steatite beads, Cylindrical shell tools etc shows advancements in artefact making at Harappa culture.
- Long distance trade was quite prevalent and the concentrated social surplus was also used for the payment of raw materials. Indus valley exchanged through the Mesopotamia involving various commerce transactions as reflected in findings of seals. Trade with Oman with the findings of black vessels with traces of Nickel found in copper at both Indus and Oman. Depiction of boats on seals shows transportation through rivers.
- Therefore, the skills of the specialised craftsmen was appreciated as it was provided with raw materials accompanied with employment and social security shows how he is was related both politically and economically.

Recent scholars have elaborated the definition of Bronze age including idea of :

- Social complexity in the form of class and gender based division.
- Redistributive economic system
- Centralised production
- Centralised state structure in the form of state formation (Egypt and china)
- Centralised belief system of religion as seen in formation of temples and preists class.

In a nutshell, we can predict not all features of traits given by V.Gordon child applied to all civilisations. As no temples or palaces were found in early Egypt but at Maya we see elaborated pyramids of sculpted stone. The low density urbanism found at Maya and Khmer a part of complex Angkor. The naming of territorial state at Shang civilisation and True cities at further Zhou period shows discrepancies. Thence, these changes took place slowly and efficiently with more interaction between different civilisation who exchanged their culture through trading and with time at different stages on chronological graph various civilisation came up.