Chapter-6

(Conclusion)
CONCLUSION

The underlying spirit in exploiting literary accounts and materials available from archaeological excavations pertaining to the period of our study has been essentially to synthesize the two evidences to supplement each other for bringing forth the material life of the people of northern India of that time with as much clarity as possible. Dymond, a proponent of full co-ordination, says that "We have a moral duty to find out as much of the truth as possible and should therefore be prepared to use whatever evidence survives. If it is of different kinds, then we must see it in all of its variety to co-ordinate it". (p.99).

The archaeological records as well as the literary evidences at its best represent only a part of the whole. To bring them together i.e. produce a historical synthesis is not an easy task at all and often produces conflicts, strains and uneasy balances. The nature of the evidence controls the nature of the perception. The historian for example, thinks of Sakyans, Mallas, Magadhans and Panchalas as group of people identifiable as more or less artificial organizations of people based on such ties as politics, proximity, geography, tradition and culture. But the archaeologist on the other hand, would be more interested in the material life within a time bracket and for him buildings, fortifications, implements, crafts, technological processes, potteries, weapons, ornaments and the like are the main
pillars of evidence. Both these sources may belong to the same chronological bracket, but one sees hardly any point of contact between them. They look either from a different angle or different aspects altogether.

A silent issue that comes to mind in archaeology aided by literature in the Indian context is the problem of chronology. Most of the dates in ancient Indian history are derived on the basis of evidences in literature. Archaeology has generally been given a secondary role. Unfortunately, dating in archaeology too is not without hazards. These problems often led archaeologists to leave the textual evidence aside. It appears quite justified to an extent. Sarao reported more than 4000 references that can be found in our literary texts, most of a kind for which there is no way to relate to the archaeological materials (p 165). Despite the fact that there are several things mentioned in literature are reasonably identified. The fortifications, monasteries and other monuments can be identified in the archaeological remains. If archaeological materials abound in pottery types, coins, building materials and metals, the literary records mainly consist of names of the kings, queens, monks, traders, settlement types, commercial information and social classes. Only a few moats, fortification, walls, halls, etc. may be collated and rest is very tentative and generalized. But such exercise does solve our problem. The mention of certain fortification
walls and moats in the literature and their corroboration in the excavations proves that though there is a tendency in the literature towards exaggeration and the archaeological data are on the whole very limited, yet the two can offer something by way of corroboration.

To collate archaeological and literary evidences, we can greatly amplify various deficiencies in the historical record and repair its omission by highlighting and correcting the written record. The coordination of reliable conclusions from each allows us to make reliable synthesis.

However, both archaeology and literature have their own drawbacks, as outlined below. The excavations conducted, so far at sites pertaining to the time-bracket c. 600 B.C. -320 B.C has mostly been of the nature of vertical excavations. No sincere attempt has been made so far to excavate horizontally or on a scale to compare with excavations at Harappa or Mohanjodaro. As a result, the material life recovered till now is comparatively meager. This is because of two reasons. Firstly, most of the sites of the period under research are now fully occupied. It is therefore difficult to excavate them. Secondly, the excavation involves a huge investment of money and manpower. Since India is still a developing nation, therefore, the government is concerned with more and more developmental works on priority basis. Archaeology receives a
meager amount of money from the government to carry on excavations. This amount is far short of the requirement needed to unravel the cultures of the past to the fullest possible extent.

There is yet another impediment in the total estimation of material life of the people. The report of the excavations except the few viz., Atranjikhera, Sravasti Kausambi, Sonpur, Narhan, Prahaladpur, Patliputra, Vaisali etc. had not seen the light of the day. The other relevant excavations conducted at Johdpur (Jaipur) and Noh (Bharatpur) in Rajasthan, Allahapur (Ghaziabad), Jakhera (Etah) Ayodhya (Faizabad), in Uttar Pradesh, Checher Kutubpur (Vaisali) and Oriup (Bhalalpur) in Bihar and Eran (Sagar), Besnagar (Vidisha) and Jaderua (Gwalior) in Madhya Pradesh etc have been reported only briefly.

Another problem is related with the literature. In most of the cases the Sanskrit, Pali and Prakrit texts available to us to reflect on this period were written by religious scholars and therefore only the religious ideas, teaching and moral lessons have been greatly emphasized. They paid little attention to the common life of the people. Therefore, the literature of the period focuses very little on the material life and its prosperity except for Panini's Astadhyayi.

In the light of the above, one has to be very cautious while making generalizations about the period under research. Any new discovery or excavation report can substantially modify our views
about the material life of the people. For example, scholars like Vibha Tripathi and T.N. Roy who wrote nearly twenty years ago believed that the period c.600 B.C. – 320 B.C. had little in common with the material life of the people of the late phase i.e., post 320 B.C. However, a careful study of the materials and new excavation reports aided by literary evidences convey that it was not as true as claimed by the above mentioned scholars.

The people practiced hunting and fishing for their livelihood but agriculture (krish) was the mainstay of life. Its importance can be realized by the fact that Kautiliya used the word krish for agriculture as one of the three categories of science. The most common cereal in the diet was rice (vrihi) followed by wheat (godhuma), barley (yava) and millet along with different types of pulses like common pea (matar), horse gram (kulti), black gram (urad), green gram (moong), chick pea (chana), green pea (kesari) lentil (masur) etc. Literary as well as archaeological evidences reveal that rice was very popular as staple diet of the people. Its use may have been also after grinding as even today. This seems to be due to the presence of querns and mullers at several places. For the purpose of cooking and lighting people used mustard oil (sarsapa) and the oil extracted from sesmum (tila). Besides it, we have also the evidence of cotton cultivation as recorded from Atranjikhera, Chirand and Sringaverapura.
The archaeo-literary evidences also suggest that large number of people were non-vegetarian. This widespread practice of meat eating during this period might have produced a natural reaction in the mind of Lord Buddha and Lord Mahavira, close contemporaries to the earlier century of the period of under study, which led to the propagation of the doctrine of non-injury to living beings. The consumption of liquor (sura) was fairly common. In the taverns liquor was kept in jar and freely sold.

This is the same period in which we have clear-cut evidence of the transplantation of paddy (sali) as recorded by the authors of Ashtadhyayi and Nyaydhammakahao. This method of the cultivation of paddy probably raised its production manifold. Such type of cultivation was supported by artificial sources of irrigation such as canals, channels, wells etc. which has been documented in excavation reports.

In the agricultural operations, perhaps, people used mainly the wooden plough. For breaking the hard soil, deep ploughing and preparing it for the cultivation of new crops, wooden plough was made very heavy in order to achieve the desired result as mentioned in Samyukta Nikaya. At the some extent the sickle made of iron replaced those of other materials and helped the peasant to gather their sheaves more effectively. Even then the lesser number of iron
tools employed in agriculture gives us an idea that farmers possibly
could not afford iron tools in all types of agricultural operations.

In architecture of this new era, besides mud and mud bricks
people also used burnt bricks. Though it began to be used on a
limited scale. It being confined to the buildings of public utility, such
as barns and drains as is in evidence at Hastinapura or tank, well
and canal as at Ujjain in the earlier stages of the culture; but it
seems to gain gradual acceptability among individuals for
constructing houses for residential purpose as a sign of economic
prosperity. It is interesting to find that commonly the walls of houses
and residential places were made of wood, reed, cane and bamboo.
These were made by putting up screen with the help of wood, reed,
cane and bamboo. This screen was then plastered with mud mixed
with rice husks. Since sala wood was used in large scale; hence the
term sala came to be used for variety of building as given in
literature pertaining to the period of our study.

Roofs of the houses, be they either of permanent or
impermanent material, may have been usually thatched as is the
case in modern times as well. Though no archaeological evidence
can be expected from any of the excavated sites due to their
perishable nature of material used; nevertheless, on the analogy of
modern day practices it may be visualized to be more or less the
same. Today thatched roofs are constructed with the help of reeds,
canes, bamboos, all together. In the first instance grid frames of required dimension was made of split bamboos. This is then covered by reeds, tall wild grasses or slacks of dried paddy. The structural base of the roof, so constructed, was plastered with the help of mud as protection from heat of the sun in hot summer days and cold in the winter days. As rains were expected to be heavy in most of the region under study a final covering of the roof was made with the help of terracotta tiles as an additional protection from rains. Interestingly in the Ashtadhyayi of Panini one comes across chhadis which may have been the word commonly used for such kind of roof in vogue at that time. Today we have the word chapper in vernacular to describe such roof common in our times.

Floor of the houses was generally made of clay but sometimes also made of rammed bricks. Each house had its own hearth made of clay for cooking. These were of two types: one above the ground and the other underground. Both these types of hearths are still in use in countryside.

The privies and soak-pits, ring-wells etc were the part of the structural unit of domestic architecture. To facilitate easy traffic, roads were constructed, though generally unpaved. Some were also paved, and they bear even to this day the indelible imprint of their wheel marks in ruts. The wheel marks works out to 5 ft. 9 inches,
apart which may have been the universal gauge of bullock-drawn wagons in vogue at the time.

It happens to be the same period when defensive fortification has begun to come up as safeguards to the urban centers against both floods and human enemies. Examples of such fortification are at Rajagriha, Rajghat, Kosambi, Ujjain. They were all centers as documented in literature of the earliest historical political powers such as Magadha, Kasi, Kosala and Avanti. They were situated on a well-defined early historical trade route running from the middle Ganga Valley to the Daccan. The people also used wooden logs for fortification, which served as a buffer and the first line of defence against periodically rising rivers. Sometimes the fortification was repaired with burnt bricks to strengthen it and to protect from the possible sudden breach due to the river swollen by floods. The moats (vapra) were created along and out-side the fortification wall. These moats were generally filled with water connecting it to the river. This may have been done to make the settlements inaccessible to external enemy or enemies.

Among the use of ornaments (alankaras) were the time-honoured bangles made of shell, ivory, terracotta and glass. Beads, no doubt, strung together as necklaces played an important role in ancient jewellery. These were made of diverse materials like agate, carnelian, jasper, glass, copper, bone and even terracotta and were
spherical, barrel or faceted in shape. The beads of terracotta are usually pear-shaped and often biconical. Beads of arecanut shape were also common in use. It is interesting to note that use of glass for making objects of ornaments, beads, etc. has its beginning in upper Gangetic valley earlier to the period of our study i.e., pre 600 B.C. and continues in this region well within the period of our study. Its eastward dispersal in the middle Gangetic valley appears to be late and perhaps not earlier than 300 B.C. However at Ujjain its occurrence has been recorded in c. 500 B.C. These were supplemented by ear-ornaments in the shape of convex discs with concave sides made of bone and agate, brightly polished, in a shape that lived in popularity for centuries and has slightly modified variants even to this day. Added to this it is worth mentioning that ear ornaments made of glass in the shape of reels had been found at Ujjain datable to c. 500 B.C. of the earliest. Though these glass ear-reels may have been decorated, as well, of which a single specimen has been highlighted so far.

The articles of toiletry (subhagam-karana) remained the same in character. Thus comprised, as of old, the kohl sticks or antimony rods (anjanashalaka) nail parers and hair cleaners. In addition to these there are familiar rough and granular-surfaced skin rubber of terracotta, and the pigment stick of bone or ivory to add to the attractions for beauty. Combs were also in use. Combs in ivory
appears to be a prized possession as it is evident from the fact that broken ones were often gathered together and rivetted with copper pins. During the period under discussion though there is evidence that people use mirror but unfortunately the nature of the mirror is not easy to determine as we have only the handle part of the mirror frame available from Ujjain. The handle is however made of ivory which is exquisitely carved. Such objects were not, of course, common and reflected then, as they do even now, luxury and prosperity.

In the earlier period discs of terracotta, often decorated at the edge, served as game objects for the past time of the people. Playthings continued to be as simple as in the olden days, but in the period under discussion. Their multiplicity is well attested in the excavated materials. The children no longer were content merely with hopscotches or perforated discs and wheels, as toys in the shape of diverse terracotta animals such as the elephant, rattles, or bull begins to appear. Apart from the likeness to real nature, they have decorative patterns in the forms of a circle or leafy patterns or chakras (wheels) stamped, notched or pierced on them. Human figurines, both male and female, in their most simplistic form with little or no decoration suggests that artists had set to work on modeling human forms to cater to the needs of the people for
possessing them as mere art objects. Their religious or ritualistic significance is not well established.

The prolific bone points, variously described as arrow-heads, awls, pins, knitting needles, bone tools etc are the prevalent artifacts of pre – 600 B.C. However, their use continues in the period under our study. Bone points may have their use to engrave on a soft surface such as clay. It is interesting to find that a neatly worked bone point have been found with its cover in the form of socket sheaths at Ujjain. Though these bone points have been generally described as styluses and their probable use shown for writing; but in the absence of any writing this seems to be a far-fetched conclusion.

Iron objects generally appear at most of the sites during the period preceding 600 B.C. But they are in negligible number and, therefore, their importance in economic terms cannot be determined. But in the period under study, metal like iron heralded a new era in Indian history. Barring the Harappan culture and also the megalithic culture of peninsular India, no other period or phase yielded as many metal implements as the period c.600 B.C. to 320 B.C. It is argued that this phenomenon provides a fillip to this period, which brought about various socio-economic changes leading to second urbanization. According to one estimate iron objects of Northern Black polished Ware (NBPW) that covers the period c.600 B.C. –
100 B.C. agricultural implements accounts for a meager 10% of the total as against 36.5% of implements of war and hunt, 35.5% those of various crafts and only 18% comprising household objects (Table No.5). But when we divide the NBPW into two broad phases, it is in the first phase c.600-320 B.C. that the numbers of iron tools are rather limited. They increase substantially during the later phase in c. 320-100 B.C. Seeing to the percentage of iron tools of the above four categories it may be noted that in earlier phase percentage of agricultural tools in comparison to the later phase of NBPW is less. The above mentioned figures clearly indicate that the various crafts particularly carpentry, smithy and masonry developed under the period under study and activities of war and hunt continued to flourish uninterruptedly. Besides, people made wide use of metal implements in household affairs. The small number of agricultural objects possibly means that the peasants could not afford iron objects for all types of agricultural operations. Perhaps wooden ploughs with similar other digging implements were commonly used. This is borne out by literature.

Since copper could not provide enough scope of working in all types of tools and equipments now needed with the advancement of time, hence had to give way to iron. Now copper is limited only to make objects such as ornaments, toiletries items, household objects etc. The repertoire of iron objects points to the many-sidedness of
its application, comprising knives, arrow-heads, spear-heads, wedges and axes. There is indication of local manufacture of iron objects in the form of slags, found at Atranjikhera and Hastinapura. Suggesting not only mining of iron ores but also smithy, involving the twin action of smelting and forging. The arrows and spears provided to them the defence against wild animals and human foes and helped them to hunt down game for food while knives enabled them to carry on skinning of hunted animals and other needs of daily life. The 36.5% (c. 600 - 100 B.C.) in comparison of 35.5% (in pre. 600 B.C.) objects of war and hunt and the specialized weapons of attack and defense suggests possibly a less peaceful life then in the earlier days.

The prevalence of punch-marked coins in the area of our study is a pointer to the fact that money economy in its developing stage had become prevalent. Earlier the nature of the coinage had shown that they were local issues but with the passage of time it became widespread and transcended the barrier of different Janapadas.

The pottery as an essential item of the culture of the period under our study has its characteristic and displays the genius of the potters of the time. The NBPW, replacing the PGW has become the ceramic par excellence. Though seems to evolve generically from the PGW; but surpasses indurability, as could be judged from its metallic sound, and also in having multi-coloured mirror like
appearance of its surface. The NBPW was so much valued that
broken pieces were joined and held together by copper rivets. The
other associated wares of the time were the black slipped ware, the
grey ware and the red ware as more commonly used utensils. The
difference thus may be reckoned as a proof of the fact that the
society of the time has come to be divided into haves and have nots.

Such was the picture of the diversity of life and its expanding
scope. Needless to say, it was richer and more prosperous than that
of the one preceding it, though the limitations of the excavations
during the last fifty years made it scarcely possible to obtain, an
adequately representative picture, not to speak of a complete
reconstruction of the life that had sprung into vigour and ebbed
away.