

The Nature of Agrarian Economy in Rohilkhand Plain

(From Ochre Coloured Pottery to Red Ware)

:Archaeological Perspectives

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Abstract : Agriculture is the primary and main means of livelihood for humans, where people cultivate using their limited resources for production. If we talk about traditional agricultural methods, we observe that in the early stages, humans used animals and plough for farming, as evidenced by various archaeological findings from this region. However, in the present times, agriculture has undergone modernization and mechanization.

This article sheds light on the agricultural economy of the people in the Rohilkhand plains, based on archaeological evidences from the Ochre Coloured Pottery (OCP) culture to the Shunga-Kushana period. If we look at this cultural period in terms of time, it spans roughly from 2000 BC to the 1st century AD. During this time, various human settlements used such as Ochre Coloured Pottery, Black and Red Ware,

Painted Grey Ware, Northern Black Polished Ware (NBPW), and Red Ware. This article highlights the agricultural activities of the people in this region based on the archaeological remains found.

Rohilkahnd Plain is the part of Upper Ganga Plain in which Ganga is primary river and Ramganga is tributary river of Ganga. A part of the great plains covering districts of Uttar- Pradesh namely Bijnor, Bareilly Moradabad, Jyotiba Phule Nagar and Budaun. This is characterized partly with the characteristics of siwalik, bhabar, tarai, khadar and bhangar. In general vast area of the region is almost a level alluvial plain with a slope from north to south with reference to the alignment of the major rivers and tributaries joining them. The whole region very fertile for agriculture. The article focus upon the nature of subsistence patterns in this area during the 2nd millennium B.C. to Early History Period, which will cover historic cultures Ochre Coloured Pottery(OCP), Black and Red Ware (BRW), Painted Grey Ware (PGW), Northern Black Polished Ware (NBPW) and Red Ware of Sunga Kushana period. Analysis of subsistence patterns on the basis of Excavated site at Atranjikhhera, Jakhera, Lal Quila. Hastinapur, Madarpur, Ahichchhatra, Mordhwaj along with Literary sources have been done.

The first human settlement in this area after the decline of Harappan Civilization is known as the Ochre Coloured Pottery. OCP is a Late – Harappan culture in this area. OCP was identified for the first time in the Lower Levels of Hastinapur, Rajpur Parsu and Bisauli by B.B. Lal in 1951 . The OCP is often described as

ill-fired pottery with porous body, worn rolled or detrital in appearance the ware is made of fine clay to which sand was added as tempering material.

The OCP people of the Upper Ganga valley consumed a variety of cereals viz. rice (*oryza sativa* L.), barley (*hordeum vulgare* L.), gram (*cicer arietinum* 1) and khesari (*lathyrus sativus* L.). The evidence of all these cereals have been collected from Atranjikhara . This serves a conclusion that these crops were being produced and used by the inhabitants during the OCP period. Some remains of stone pestles and quern are found at Atranjikhara , Lalquila , Madarpur which shows that these tools were used for pulverizing grains and vegetation.

Bone remains of young animals were found in excavations at Lalquila which have signs of sharp tools used them and on the basis of this evidence it is believed that along with milk, butter and curd they depended upon the flesh of animals.

The next culture is Black and Red Ware (BRW). The pots of Black and Red ware are generally burnished black colour inside and brownish chocolate outside. The black colour varies from highly lustrous bright to rough dull although bright red is missing but the outside brown also varies in shade. BRW culture shows no improvement over the earlier period and there was no evidence of cultivation of a new crop in this region. It is quite possible that BRW inhabitants also cultivated these crops.

The next culture in Rohilkhand Plain is Painted Grey Ware culture. PGW is one of the most important protohistoric cultures of India not only because of its association with the Aryans and the early use of iron but also because it was this culture which brought the

Ganga Valley to the threshold of urbanization. The potentiality of urbanization in the Ganga Valley was realized for the first time primarily because of the use of iron by the PGW people. Iron tools helped PGW people to clear and settle in the then dense monsoonal forests of the Upper Ganga Plains. The PGW culture was essentially a village culture with an agricultural-cum-pastoral base, no sign of urbanization such as town planning, large scale trade and commerce, coinage, writing etc. has been found there though the PGW was first discovered at Ahichhehhatra , but its full significance was realized only after B.B. Lal's excavation at Hastinapur.

If we look at the subsistence pattern during PGW period, then evidence for subsistence comes from two sites Hastinapur and Atranjikhhera. At Hastinapur only rice was found but at Atranjikhhera rice (*oryza sativa*), wheat (*triticum compactum*) and barley (*hardeum vulgare*) were found. PGW inhabitants cultivated rice, wheat, barley, peas and some other legume. The most important cereal that was added to diet during the PGW period was wheat. It has not been found in any of the earlier cultures in the Upper-Ganga Plain. However, it is important to note that at Atranjikhhera, quantitatively rice exceeded wheat and barley. Thus it seems that rice dominated the staple diet of PGW people. Excavation at Atranjikhhera, Jakhera and Lalquila provides the evidence of pestles and quern which much be used for pulverizing the wheat and millet.

Coming to the agriculture production of grains it may be noted that in the Rigveda and Later Vedic texts barley (*yava*) and probably rice or dhana (*dhanya*) occurred. In the later texts the grains which were included are sali (rice), upavaka (barley), godhuma (wheat), syamka

(millet), mudga and kulmasha (beans), masura (lentil) and other unidentifiable grains such as anu, amba, gavidhuka, namba, sasya.

If we look into agricultural tools during the PGW period in Upper Ganga Plain, then PGW culture definitely reveals a very stable agricultural base with agriculture tools like sickle, hoe, ploughshare obtained at Jakhera, Datra and Srine are two distinct terms, which appeared in Rigveda for Sickle, Phala and Stega meaning plough share. Pavira word is used for a man holding a goad or having a spear which occurred in Rigveda. Thus we can say on the basis of archaeological and literary source that these tools were used in Agriculture during the PGW period.

Thus on the basis of combined testimony of archaeological and literary sources it may be concluded that before the introduction of iron in the Gangetic valley agriculture was extensive without proper ploughing and that irrigational facilities made it more and more intensive after the introduction of the iron tools leading to multifarious agricultural activities, producing some new crops, wheat being one of the most important.

Excavation at Atranjikhhera provide the bones of horse, bull, cow, goat, buffalo, deer etc. by which now we can make speculations about animal husbandry and use of their products like milk, curd etc. Some fish hooks also came in light after excavation. These fish hooks shows that fish was one of the primary food in non-vegetarian food.

The next culture is Northern Black Polished Culture in Upper Ganga Basin which is distinguished by the extensive use of iron, introduction of coinage, a well stratified and economically strong society, expansion of

Buddhism and assimilation of a number of smaller states into one of the biggest empires of the ancient world. The period of this culture coincides with the urbanization of the Ganga Plain. The pottery is made of well-levigated clay on a fast wheel. The thickness of the ware is generally uniform and sometimes as thin as 1.5 mm, the core is grey and free from any impurity. The pottery is well fired, besides black NBPW is found in golden, silver, white, pinkish, steel, blue, chocolate and brown colour. If we focus on subsistence pattern during the NBPW period then all cereals namely rice, barley wheat, millet were cultivated. The evidence for grains cultivated during the NBPW period comes from Atranjikhhera, Purana Quila, Radhan. Atranjikhhera has yielded rice, wheat, barley and urad (*Phaseolus mungo* L.). We can say that new pulse was added to the diet during NBPW period from Radhan in Kanpur district. Rice, wheat, barley, pea (*Pisum arvense*) and an unidentifiable cotyledon of legume were recovered from an exposed section of the mound association with sherds of PGW and NBPW.

The meat of horse, cattle, sheep, goat, pig, deer, and fish formed an important part of the diet. The bones of these animals bearing a sharp cut mark have been found at Hastinapur.

The next culture beginning in Upper Ganga Plain is Early Historic culture. The term Early Historic Culture has been used here strictly for the period represented by Red Slipped ware which coincides with Sunga-Kushana periods. With the beginning of Early Historic Period coins, seals, epigraphs and copper plates bearing names of kings and narrative several aspects of their rights became available. Though no cereals and other grains have been reported from the

sites of the Early Historic period, it can be presumed that the food habits of the NBPW people continued in this period also. An inscription of Huviska found at Mathura mentions articles of food to be given daily to the hungry and thirsty. They include barley meal (Sattu), salt (Lavana) and flour (Saktu-Saktu) and some green vegetables.

Evidence furnished by the literature is most exhaustive. Articles under the categories of cereals pulses, fat, sweets and meat suggest. Lavish meals, the cereals included barley, wheat, rice, fried and parched grains; oils: seeds of mustard and til; and pulses: arhar, moonga and masha. The fat included milk, ghee, and oils. Sweets were prepared from rough sugar (guda) or candy (sarkara). The flesh of a number of animals and fish formed part of their food.

Based on archaeological evidences, we observe that in the plains of Rohilkhand, the agricultural-based livelihoods of people were not only increasing from one period to another but also that the agricultural system was undergoing a transformative and continuously evolving state. Additionally, we see that iron tools have been found at some sites associated with Painted Grey Ware, which suggests that these tools might have been used in agricultural activities.

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