

Book Review:

Singh, Birendra Pratap (Ed). 2004. *Early Farming Communities of the Kaimur*. Jaipur: Publication Scheme. Pp. 404. Price: (Vol I) Rs. 3775, (Vol II) Rs. 2725.

Globally the early farming communities are dated to early Holocene. In China rice cultivation is going beyond 15000 BP. In the Northwest of the Indian subcontinent also the first farming of barley and wheat can be dated to c. 8000 BP. In this backdrop, the eastern Neolithic does not go beyond 4200 BP, or for that matter elsewhere in the subcontinent, which is a bit of an enigma.

It seems that in India there is no dearth of excavations; only reports are rare. And the biggest defaulter is the Archaeological Survey itself. In this bleak scenario when a report does see the light of the day, it becomes an event to talk about. In the Senouwar Report there is much to talk about. These volumes on Kaimur are the result of a laudable and painstaking effort of the editor and his colleagues. What is really praiseworthy is the effort of the excavators to invite a variety of specialists to collect samples for their analyses and studies. Before any detailed analysis, a lot of hard work goes into rigorous sampling. The report has become really multi-disciplinary in its scope and an example worthy of emulation by excavators - young and old alike. Though pottery, terracotta and stone tools occupy the prime position in the first volume, the technical reports on plant remains, faunal analysis etc have been downgraded to the status of Appendices in Volume 2, which only reflects the still yawning gulf between the Two Cultures! The reports on floral and faunal remains and site catchment analysis are valuable and should have been integrated better with the text of the main volume. I personally feel that this format of report writing should give place to a book writing format in which each chapter summarises the main findings in all fields and only the technical details are given as appendices. The report is very well illustrated and full of useful tables and a few maps and plans too. The printing, the illustrations, the plates are mostly of high quality and add meaning and lustre to the volume.

This book in two volumes is actually the excavation report of one of the most important sites known as Senouwar, in the Kaimur Range, Bihar. It has been edited by Birendra Pratap Singh, who was also the excavator. This excavation report is truly multidisciplinary in approach and treatment. Most aspects of the excavation have been covered in these two volumes. The site of Senouwar is located on the southern fringe of the Middle Ganga plain. The site has exposed a continuous sequence from the Neolithic to the N.B.P. Culture of the early historical times. The work highlights the potential of this area to understand the socio-economic evolution from the Neolithic through the Neolithic-Chalcolithic, the Chalcolithic and the Historical stages.

R. S. Bisht, of the Archeological Survey of India, has written the foreword and P. C. Pant has done the preface of this book. Besides 13 chapters of the text, the first volume of this book contains 90 line drawings, while the second volume contains 12, thus a total of 102 drawings are included in these two volumes. The volumes also have 103

plates: 40 in the first volume and 63 in the second, showing different aspects of the excavation and the discovered antiquities. Generally the illustrations are of good quality, especially the plates. A large number of tables is also given. All these additions of tables, plates and line drawings add to the lucidity and value of the book.

The first volume contains 13 chapters. The first chapter *Introduction* is mainly a preamble and is in two parts. The first part, *The Site and its Environment*, tells us about the location of the site and different environmental conditions prevailing around the site like landforms, river systems, geology and mineral resources, climate, soils, natural vegetation, fauna and crops. The second part of this chapter is named, *Archaeological Investigation in District Rohtas and aim of the Excavation*.

The second chapter, *Strata and Structures, Culture – Sequence and Chronology* is also divided into three parts: *Plan of the Excavation; Sequence and Chronology; and Habitational Floors, Structures and Antiquities*. The second part of this chapter deals with the sequence of cultures at Senuwar and is based on ceramics, associated cultural remains and ¹⁴C dates, on the basis of which it is divided into four periods: Period I (I A and I B), II, III and IV. The last portion of this chapter generally tells us about the habitational floors and their structures.

The third chapter, *Pottery*, mainly deals with the study of ceramics from the Neolithic, Neolithic-Chalcolithic and NBPW periods that have important information to give not only about culture levels from which they were obtained, but also evolutionary changes through time covering a range from c. 2200 to c. 5th – 4th Cent. BC. The fourth chapter deals with the *Ground Stone Tools* by Pradeep K. Behera & Neena Thakur. It is a small chapter and chiefly deals with the use of ground stone tools (or celts), like axes and chisels. From the point of view of size as well as techno-morphological features, the axes and chisels from Senuwar excavations closely resemble those reported from the Neolithic-Chalcolithic sites of Northern Vindhya as well as the Middle Ganga Plains.

The fifth chapter, *Microlithic Industry*, by Pradeep K. Behera & Neena Thakur deals with the microlithic industry that constitutes one of the important cultural components of the early farming communities of Senuwar. The seventh chapter is on *Stone Objects* retrieved during the archaeological operations at Senuwar. These stone objects have been described in this chapter under seven categories: Food processing equipment, craftsman's tool kit, utensils, ritual objects, miscellaneous objects, indeterminate objects etc.

The next chapter is on *Bone Objects*. Even imperfectly made tools were used as implements by the early Senuwarians. The study of these bone tools shows that the tendency to use bone was very strong during the earlier periods (Neolithic, Neolithic-Chalcolithic to Chalcolithic). This study describes the bone tools mostly used for hunting purposes, also for skinning, preparation of hide, wood, basketry as well as for shelter making devices. This chapter also deals with other bone objects like dice, discs and combs.

The eighth chapter on *Shell Objects* describes the use of shells that were not only used as ornaments but also as tools and implements; the latter are unique at Senuwar. The unique discovery of shell objects like saws, blades, different kinds of points, arrowheads etc. is of great interest.

The next chapter, *Beads, Pendants & Amulets* clearly suggests that personal ornamentation was in vogue during these periods. Advent of metal appears to have prompted bead making at Senuwar as a very rich collection has been obtained from here. It has also been presumed that beads manufactured at this site may also have been traded with the other neighbouring Neolithic and Neolithic-Chalcolithic settlements.

The tenth chapter is on *Bangles and Rings*. This chapter describes a total of eighty-six bangle fragments variously made of terracotta, shell, bone, stone, copper, glass etc. and a total of seven rings.

The next chapter is on *Terracotta Figurines* and describes a total of fifty-seven terracotta human, animal and bird figurines. The twelfth chapter is related to a wide range of terracotta objects that have been recovered from different periods at Senuwar. The objects include skin rubber, edge ground pot sherds, pottery discs, terracotta discs, terracotta ball, ball with a whole, stopper, toy-cart wheel, dabber, potter's stamp, crucibles, terracotta cakes, pellets, lamps etc. These objects give us a lot of information about the types of objects used in that period. The last chapter *Metal Objects* deals with the objects of copper, iron and lead.

In the first volume the text chapters are included, but in the second volume appendixes, summary and deduction, bibliography and index are included. A total number of five appendixes are given in Volume II.

First Appendix *Site Catchment Analysis* is by R. S. Pappu. This territorial approach was first introduced into archaeological studies by Claudio Vita-Finzi and Eric Higgs in their study of prehistoric economy in the Mount Carmel area of Palestine. According to R. S. Pappu, on the basis of these studies, we can conclude that Neolithic and Neolithic-Chalcolithic communities needed an area of 10 Km radius to satisfy all their basic requirements.

Plant Economy of Early Farming Communities is the name of the second appendix by K.S. Saraswat. This meticulous and detailed analysis is the backbone of the study and helps us trace the development of agriculture based subsistence economy from the earliest Neolithic to the Chalcolithic times. The report discusses in detail the man and plant relationship in the Kaimur region of southern Bihar.

The next appendix is on *Faunal Remains*. The study provides a comprehensive report of status of food economy, anatomical and nutritional preferences of the inhabitants in terms of wild as well as domestic animals and carcass processing through different cultural phases at Senuwar. The excavations show that animals were mostly large to medium sized herbivores (both domestic and wild).

Sathe and Badam do a commendable job of their analysis of the Faunal Remains, and the report is well written too. They have concluded that Senouwar has revealed that the occupation at the site was by and large smooth and there were no major shifts in dietary habits. Osteologically, there is no marked difference between the bones from early as well as later levels to indicate the process of domestication which is generally envisaged in such cases of prolonged occupation of a site right from Neolithic to the Kushana period. It is possible that the people who came to settle at Senouwar during Neolithic period brought along with them already domesticated animals, which were subsequently raised for stock breeding. Besides stock breeding, farming, ceramic industries and craft specialisation, inhabitants were equally aware of bones as potential raw material for tool making which were made into various types of artefacts for different uses. All these features, particularly during Neolithic-Chalcolithic phase at Senouwar, very much resemble those of Chirand, another Neolithic site in north Bihar. The nature of cultural complexity at Senouwar, which has a lot in common with that of Chirand, suggests that the Senouwar/Chirand culture complex laid the foundations for cultures of later periods which flourished in one of the most fertile and resourceful areas in Bihar.

The next appendix is related to *Chemical Analyses of soil samples*. Anupama Kshirsagar has written this appendix. It is a common experience that human activities increase the amount of some chemical element like phosphorus, carbon, nitrogen etc. in the soil. These depositions of elements fuse with debris of earth material and the skeletal remains of men and animals and in this way they leave behind chemical residue which can be measured by chemical analysis. These chemical analyses provide us some significant clues about a site, for example the phosphorus analysis of archaeological soil helps in determining settlement pattern, activity area and intra-site relationships.

Analyses of Metal Objects is the next appendix by Ravindra N. Singh. This chapter chiefly deals with the chemical analyses and laboratory studies of various artifacts excavated at the site. This type of chemical analysis throws light on the purity of metal and technological skills of the smiths.

At the end of the second volume of this book *Summary and Deduction* are given in which the complete work is covered in brief once again.

As a whole it is very interesting report that gives a comprehensive account of the excavations conducted by Birendra Pratap Singh. The author has tried to cover all the aspects related to this excavation and has been successful in this effort.

Summary

Stage IA : The Early Neolithic (c. 2200 – 2000 BC)

Singh informs us that the meticulous botanical study by Saraswat has revealed that

from the lowest part to the middle of the Period IA only grains of cultivated rice *Oryza sativa* were found. But the identified wild plants had a wide range, e.g., job's tear, fox tail/*bandra*, wild rice, *Jharberi*, *Chaulai* and *Jangali-Palak*. The domesticated cattle included cattle, buffalo, sheep, goat and pig. A high percentage (57% of the total identified species) of cattle and buffalo from the beginning of Period IA indicates that these species were brought to the region by the settlers, and not domesticated locally.

Stage IB : Late Neolithic (c. 2000 – 1950 BC)

The earlier cultural traits of the Stage IA continue in this stage too. The new cereals included barley, wheat, jowar millet, lentil, field pea, finger millet/Ragi and *Khesari*. The upper half of Period IA at Senuwar witnessed appearance of these cereals. The earlier cultivated variety of rice continued side by side. Introduction of double crop system suggests that agriculture now played a major role in the economy. K.S. Saraswat suggests that the species of these new cereals and pulses are the same as grown by the Harappans. Incidentally, it is interesting to note that the end of Harappan cities also coincided with the date of Stage IB of Senuwar. The botanical evidence retrieved from later part of Period IA indicates, suggests Singh, that a few of the Harappans came up to the Kaimur region. Also with this migration travelled the tradition of cultivation of Harappan food grains.

Stage II : Neolithic-Chalcolithic (c. 1950 - 1300 BC)

Singh informs that along with the continuity of grains of the earlier times new cereals and pulse crops were introduced. The remains of bread wheat (*Triticum aestivum*), Kondon-millet (*Paspalum scrobiculatum*), mung/green gram (*Vigna radiata*), horse gram/kulthi (*Dolichos biflorus*) and chick pea/gram (*Cicer arietinum*), identified from this phase are significant. Besides, there is evidence of the seeds of bhang (*Cannabis sativa*) and *dhatu* (*Datura sp.*). The faunal complex at this stage included the species found in Period IA with the addition of some other wild species like wolf (*Canis lupus*), four-homed antelope (*Tetraceros quadricornis*), chital (*Axis axis*) etc.

Various crafts such as clay modelling, lapidary crafts, chiselling of bone, shell and stone, show gradual advancement. Besides, skilled production, the number of variety of daily utility items may be noted in Period IB at Senuwar. Beads now form important category of antiquities. High proficiency in bead making at Senuwar and other sites reminds one of Harappan craftsmanship.

Evidence for the earliest metal working comes from this stage at Senuwar in the Middle

Ganga plains around 1950 BC. The artefacts manufactured were of pure copper (99%). Curiously the number of objects recovered from this stage is almost double (19) that of the full-fledged Chalcolithic (10 objects) stage at Senuwar.

The Neolithic-Chalcolithic stage unearthed at Senuwar marks the beginning of Chalcolithic phase in the Middle Ganga plains, which was hitherto unknown in the region. The material remains suggest that this was the most flourishing stage in the history of site.

Stage III : Chalcolithic (c. 1300 - 7th-6th Century BC)

The next stage of techno-cultural development in the Middle Ganga plains is that of fully developed Chalcolithic culture. This stage is characterized by the production of bronze objects, and improvement in agriculture in terms of dependence on better and larger selection of crops. This agro-metallurgical progress is reflected by the ceramic collection, which now includes a variety of painted and unpainted wares. It is to be noted that at Senuwar they have not encountered any evidence of iron technology upto 6th Century BC.

Stage IV: (c. 7th-6th - c. 5th-4th Centuries BC)

Not much information about this stage is known due to restricted work. It is demarcated by the emergence of iron and Northern Black Polished Ware. It may be noted that only early phase of NBPW Culture is represented at Senuwar and its late phase is conspicuous by its absence. The study of iron objects revealed that steel making was known to Senuwarians. Singh thinks that the occurrence of two cylindrical objects of sandstone bearing Mauryan polish from this level is of immense archaeological significance. The evidence helps pushing back the antiquity of Mauryan polish to about two centuries earlier than what is usually believed by the scholars. Among other important evidences, appearance of glass beads has to be noted.

At the end of Stage IV (Period III), Senuwar was abandoned. The site was reoccupied by the Kushanas around the beginning of Christian era. No evidence of continuity of earlier culture traits is reflected from antiquities and habitational pattern.

The sad part of the report is the quality of the English language used. It would have been worth all its value if the publisher/editor had invested a little money and effort on copyediting. Some of the paragraphs are simply embarrassing to read. The situation is compounded by the love of the authors for high sounding expressions but a poor command of the language. (See examples below). Thus these highly commendable efforts are spoilt by lack of supervision and editing. Some of the minor irritants are the use of right subscript in C₁₄, flouting all current conventions. It would have been far better if the periods IA, IB, II, III could have been merged with the stages, as the latter

are much more meaningful. This double periodisation has unnecessarily made the sequence a bit confusing. The report is full of such poor and confusing sentences, “but, most of the craftsmanship like pottery and lapidary, bone and cell industry, ware in formative stage.” Craftsmanship and craft are two different words. Lapidary is an adjective and not a noun unless used for the artisan.

The archaeobotanist’s painstaking and laudable report, with high quality illustrations is marred by the absurd use of language, which makes it impossible to understand his conclusions. An example of his ludicrous expressions (*italics* Reviewer’s; Page 523):

The studies of plant remains have brought to light an insight into the glimpses (‘light, insight and glimpses’ all in one little sentence! – Reviewer) of economic exploitation of vegetational resources by ancient inhabitants at Senuwar in the vicinity of Kaimur Hills in south Bihar, from 2200 to 600 B.C. Agriculture was their rewarding economy. Innovation waves of the diffusion of the of Harappan_nutritional traits from some cultural settlements, brought the drastic changes in the economy of the rice-growing Neolithic people. Further contemplated developments agricultural economy and the exploitation of varied plant material indicate that multi-directional avenues of cultural contacts fetched to material prosperity of Senuwar, until conditions and the time appropriate for its rejuvenation appeared around 600 B.C. that led to the springs of second urbanization in the Middle Ganga valley. Considerable assimilative power of the farming community, right from the Neolithic times (2200-1950 B.C.), is evident in view of the growing cultural contacts and ingenuity in agricultural activities. The Neolithic culture must be much older somewhere in the Kaimur region and task still remains to be done in order to understand the enigmas of earlier man and plant relationship, through which avenues of sedentary occupation and agriculture emerged from hunting and food-gathering stages, in the region...The Senuwar is thus expected to bring an increasing swing towards considering past exploitation of botanical material. Significance of such studies is still far to be closed in archaeology.

This deficiency apart, the report is a trend setter and we do hope that other excavators would follow this worthy example of a multi-disciplinary report. The book is a must for all archaeologists.

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