Beginnings of Urbanization in Early Historic India, Dr. Satyendra Kumar Jha, 1998, Novelty & Co., Tarabhawan, Ashok Rajpath, Patna, Rs. 550. pp. 325, Figs. 21, illus. 5.

The book under review is the latest addition to the literature on the theme of early historic urbanism. As Prof. V.K. Thakur states in the foreword of this book, that there is an attempt to revise the older paradigms and come up with new constructs. 'With the latest methodological tools at his command, he has successfully laid bare the dynamics of urban beginnings in early historic India. His familiarity with the recent theoretical debates has added strength to his arguments'. Indeed, Jha shows a deep understanding of the processes and the immanent emergence of city in the middle Ganga Plain (M.G.P., henceforth) during the early historic period. His treatment of the subject is thorough and his approach multidimensional. In a dialectic web he successfully interweaves divergent sources, viz. archaeological, historical, and literary to work on a complex theme like this one.

The book is an outcome of the Ph.D. programme of S.K. Jha. But since 1988 he seems to have worked further to assimilate and accommodate the latest theoretical debates and archaeological evidences available on the subject to update his work. He even adds a postscript in the beginning of the book. The available data from the excavations of the Gangetic plains covering a period of more than a millennium has been incorporated. This time bracket spans through the stages of growth of cultures from Neolithic through Chalcolithic to the urban phase.

The book has been divided into five chapters. The first chapter is introductory. It deals with existing theories on urbanization. He has reviewed them critically—right from Gordon Childe to the most recent ones and then formulates his own hypothesis. The variability of contentions held on a theme like urbanism shows that there is still scope to work on it, especially in the context of the Gangetic Plains. It also underlines the fact that every region has its specificities and therefore should be evaluated independently. Jha does not seem to be making any pretentions about universalizing his assumptions. He has focused his attention to the specific area of the Gangetic Plains, more specifically to the middle Ganga Plain (MGP). Together, the two sections of the book, i.e. the Introduction and the Postscript set the tone for the ensuing discussions.

The next chapter (Ch.II) is entitled 'Technological Base of

Urbanization'. Technologies like metallurgy-iron and copper, ceramic and agrotechnologies have been picked up for a detailed discussion. Maximum space has been allocated to iron technology because of its association with urbanization process. Against the general assumption he tries to demonstrate that iron technology, right from its early levels is employed into production mechanism. He underplays the saliency of war-hunting tool types. The detailed, phase-wise break up of iron objects from Atranjikhera and several other sites help such a construct. To be precise 21.48 per cent of tools may be classified as hunting objects while 42.96 per cent have been placed under the class of 'household' or carpenters' tools. This includes nails, rods, clamps bar-rods, hooks, needles, knives (that could serve other alternative functions too) along with the carpenter's tool-kit, like chisels in good number. Instances have been given from other sites like Taradih, Sonpur, Koldihwa, Narhan, Rajghat in MGP as also from lower Ganga Plain like Mahishdal, Hatigra, Barudih etc. wherefrom chisels, knives, borers, etc. have been unearthed from the early levels (Blackand-Red ware phase). More recently, agricultural implements have also been forthcoming from sites like Jakhera (ploughshare hoe from Proto PGW/early PGW phase). Ganwaria also yields a ploughshare though from a slightly later context. Besides, sickles, hoe (Chirand has yielded a sockted variety), and axe, etc. prove utilization of iron in agricultural sector. One may take an alternative position but Jha has forcefully demonstrates his case of a dynamic role utilization of iron in production mechanism from almost the earliest phase of introduction of iron in Ganga Plains.

Copper objects and iron-copper juxtaposition in typological exclusivity have been discussed. Alloying technique and its impact on the end product along with the analytical data have been incorporated that add further value to this discussion. Additionally, resource zone for various minerals/metals have also been looked for. Even the mining practices have been brought into the purview of examination. Although it is indeed a difficult or almost an impossible task at present state of our knowledge specially in the case of early settlements of this region but it has been ventured into. Where we have a positive evidence to suggest use of objects like bar-calls for mining, Jha speculates about it. *Arthaśāastra* has been made use of to build up a case.

Chapter III on 'Settlement Pattern and Demographic Features' is a thorough study incorporating the literature available on this subject.

Two studies on the subject by M. Lal and G. Erdosy based on U.G.P. have been critically examined and used. The disparity of their approach and discrepancies therein have been underlined. But in the absence of well defined or better models of settlement pattern studies suited to the Indian conditions he tries to come up with models of his own. He has incorporated the literary data also in his reconstruction. In the absence of a thorough work on spatial distribution settlements however, his constructs would remain at best 'tentative', to his own admission. Demographic features have been worked out on the basis of Blanche's suggestion of interrelationship between increased rainfall and population density. By adding margin to the data on UGP provided by Lal and Erdosy, Jha draws a demographic profile of MGP. The rainfall in UGP is 80 cm. per annum while it is 122.6 cm per annum in MGP. Therefore, the population density should be higher in the latter zone (according to the theory of Blanche).

Reconstructing the settlement pattern in the area of study is indeed a well nigh impossible job because of the shifting drainage system of the region. In large cases the surface contours have been almost totally obliterated. Even Pataliputra, the Mauryan capital, has undergone topographical changes because of changes in river courses around this place.

Jha has further substantiating overcome this obstacle by this data with literary and historical accounts (like those of Megasthanese) wheresoever available. Using such sources, he draws out plans of Kumrahar palace and fortification plans at several sites. *The Arthaśāstra* helps work out inter-spatial population flow and settlement hierarchy. The terms like 'ghosha' (a pastoral settlement), 'grāma' 'mahāgrāma' etc. while indicating their status in the hierarchy also suggest their functional position. It may be worthwhile looking into such gradations in the archaeological evidence. A planned work to locate such evidence archaeologically through exploration and excavations would have added immensely to the merit of the work.

The last chapter on 'Chronology and Diffusion' incorporates the deductions of the study. Firstly, he situates the beginning of urbanization process in the UGP in view of an early beginning and the comparative prosperity of sites like Atranjikhera and Jakhera at the pre-NBP level (during PGW phase). Secondly, he comes to the conclusion that the origin of NBP should be looked in the UGP than in Bihar. This is because NBP, he feels, is an extension of the PGW ceramic tradition. This has been argued on the strength of

Radiocarbon dates as well as relatively early techno-cultural growth discernible in the UGP. Though this is forcefully put forth, he may not find many takers to such an assumption. Because, firstly, there is no consistency in C-14 dates to support the early dates of NBP in IGP. Secondly, the dispersal of ceramic cultures has a very complex pattern. Thirdly, the associated cultural assemblage, especially red ware on more westerly sites like Hastinapur goes against its being an early NBP centre. Lastly, the smaller finds like trracotta ghata shaped or arcanet beads, discs and figurines, etc. all show some kind of a contact between the two zones from the first half of 1st millennium BC. itself. Interactions must have led to similarity in cultural material between PGW and NBPW. The two also overlap at most of the sites. Interestingly, the break up of different objects at Atranjikhera clearly demonstrates a decline in material cultural around NBP times. Jakhera presents a similar picture. There appears to be a shift in cultural foci from west to east around this juncture. Perhaps the emerging socio-political power of the middle Gangetic zone was shaping it as an 'area of attraction' quite for some time before the actual rise of Magadhan imperialism.

Difference of opinions are key to a healthy academic debate. That apart, the arguments put forth by Jha have a force. Besides some minor shortcomings like the chart of iron objects has been wrongly printed, there are some errors in printing here and there. The language is clear and crisp, though the style becomes a bit laborious at times. The treatment of the subject is thorough. It is indeed a valuable contribution that may be useful to historians and archaeologists alike.

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