Process of Peripheralization of Settlements in Early Historic Odisha: An Archaeological Perspective

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Abstract: The rural settlement is always in a state of flux for its centuries of transformation and variation. It is also the critical indicator of the social process which is why we must look at a settlement as a 'small communities' rather than as a site or the region. The studies of rural Settlement lay the foundation for the understanding of socio-economic and cultural milieu of rural history. Can we imagine the sustained growth of urban centre or 'Anytown' without the support of rural settlement? Why does suburbanization invade the rural area? This paper has made a dynamic view at the previous archaeological work and focused on the process of expansion and changes of settlement in the plain regions with an eye to getting the summation of the historical process and socio-economic transformations.

Keywords: Western Odisha, Early Historic, Settlement, Archaeology, Culture, Social Formation, Joined-up Approach

Introduction

Writing of regional histories came to limelight at the beginning of the twentieth century in Indian states as a part of the nationalist response to the colonial process of knowledge production and its circulations (Sahu 2013: xi, 2014a: 2, 2014b: 30-36). As a result of that, all the regional or sub-regional scholars focused on the major wars and local heroes and very few scholars showed curiosity to study the early rural settlement history. Settlement pattern studies were undertaken enthusiastically, to study the relationship among people, environment, technology, and material potential, by Possehl (1980) and Lal (1984) and their works were published nearly 35 years ago and still these works have flamed the interest of formative scholars in order to study the settlement history (Varma 2001). As a result regional as well as local scholars started addressing the above issues. It is generally believed that the archaeological research largely intends to recover and interpret both physical and cultural remains (Rouse 1977: 2). In West Odisha, the study on the early historic settlements, its spatial distribution, spacing and sizes of settlements, remains untouched till last decade of the twentieth century (Basa, 2006). Tripathy, nearly 15 years ago, initiated the settlement

pattern studies in Odisha and it was in between 2005-15; scholars focused on the Tel river valley and the Mid-Mahanadi through the regional perspective (Tripathy 2002, Mishra 2005, 2010, 2011, 2012, 2013, Behera 2006, 2013, Bag 2017). We noticed two major problems with regards to the studies of settlement history of western Odisha undertaken by the scholars (Durga 2015a, 2015b:129-40, Sahu, 2010: 1-16). Firstly, in the last three decades, scholars analyzed, explained and understood the changes and material domains and overviewed the significance of the Historio-Geographic Transformations, socio-economic and political structure. Secondly, it observes that scholars have neglected those rural settlements which are mushroomed around the Tel and Mahanadi rivers. Studies of rural settlements should be looked at from a regional perspective to trace the existence of social formations through time and space. The parochial nature of works and nominal interpretations raised many prolonged questions on the nature of settlement patterns, cultural interactions, and its distributions in the Tel, Brahmani and Mahanadi rivers with respect to their tributaries such as the Suktel, Lant, Undar, Udanti, Hatti, Sagada, Ret, Sandu, Uttei, Roul, Sankh, Koel, and the Kharag. Settlements are neither essence nor primordial but emerge through a complex historical process. The time periods of these settlements, that is, falls between the fourth century BC and fourth Century AD and approximately early medieval periods. So, this paper made a dynamic view at previous archaeological works and focused on the process of expansion and changes of settlement in the plain regions with an eye to getting the summation of the historical process and socioeconomic transformations.

Geography, apparently, plays its own role in terms of understanding of the settlements of human past (Subbarao 2011: 3, Murthy 1949: 50). Western Odisha, the most captivating region and sometimes branded as a Historio-Cultural Unit of Eastern India, is often referred as an attractive treasure house of cultures, traditions, art, architecture, religions, customs, languages, literature and folktales. This region is bounded by the present Ranchi state and Singhbhum district in the north, the Chhattisgarh state in the west, the Srikakulam district of Andhra Pradesh and the Malkangiri district of Odisha on the southern side. The geographical features of this region have its own peculiar features and that is the reason that it evolved a historical unit on its own. The divergent geographical personalities have some kind of semblance with the geographical topographies of Chhattisgarh. Sahu describes that erosion plain of the Mahanadi valley and Tel river basin, comprising the present-day districts of Kalahandi, Bolangir and Sambalpur and some parts of Dhenkanal district in the central part of the state, is a fertile part of this sub-region (Sahu 1993:3). The Ong, Tel, and other tributaries of the Mahanadi run in this area. The sub-soil water table in these areas is lower than that of the coastal plains (Sinha 1972: 148-149, Basa 2005: 70, Mishra 2011: 42-47, Singhdeo 1978:11-14). It is noticed that the local geographical feature of this region has its impacts on climatic, cultural, and tradition and so it is natural to assume that these diverting local characteristics have crucial impacts on the material culture of this region (Singhdeo 1978:1-14). Nevertheless, the degree of variation between the foci of the Tel and the Mahanadi rivers is striking somewhat and deserves to be underlined separately to understand the material culture of this region, because divergent in geographical features influenced the natural resources and cultural histories (Patternson 2006: 5).

Defining Settlements

The settlement pattern, a geographical concept, was introduced to field archaeology by Willey and he defines 'settlement pattern as the way in which man disposed himself over the landscape on which he lived, it refers to dwelling, to their arrangement, to the nature and disposal of other building pertaining to community life' (Shinde 1998: 70). Do settlements themselves have meaning? By the settlement patterns studies, Plog asserts, "the distribution of different site types with respect to each other and with respect to natural environmental zones; the layout of settlements or the configuration of different kinds of activity space on a site; and the design or layout of habitation or dwelling structures" (Plog 1974: 71). Trigger defined 'settlement as the study of social relationships using archaeological evidence and asserted that settlement pattern meant the manner in which people's cultural activities and social institutions are distributed over the landscape' (Trigger 1967). Henceforth, we may further argue that the study of settlement is the study of three dimensions such as people along with their relations with the environment, Material Culture, and the technology (Durga 2015a). It is observed that settlement, Kowalewski argues, is formed in a place where people lived or carried out certain activities, including regularities in the relations of these places and activities to each other and to other features of the environment and this place could be a place of temporary house or permanent habitation and also a place of other functions (Kowalewski 2008: 226). So, we can say that settlements are formed because of activities that are carried out by people and their interaction with the specific localities and outsiders (Durga 2015a). We used three different types of the term for settlement studies such as settlement pattern, settlement system, and settlement archaeology. Thus, we used the term Settlement pattern for the study of the distribution of sites over a given area while settlement system for the study of rules governing the physical arrangements of sites across a landscape and finally, we used the term settlement archaeology for the study of reconstruction of cultural ways of life and processes of change (Shinde 1998: 71). Trigger suggested three different levels of settlement pattern studies: Individual building or Structure; it is the study of a particular settlement of an individual, community level; it is involved in a specific community includes individual buildings and zonal pattern; it covers community, individual building, and region (Shinde 1998: 71). In fact, the studies on settlements have developed differently from place to place and depending on the nature of the settlements. The process is an action that produced the pattern which is carried out by human agency. It is the study of explanation of observation, it tells us how the pattern comes into existence (Rouse 1977). Janapada was the composite unit of settlements (Ghosh 1973: 71). An attempt has been made by the Indian scholars to relate the different words for the term settlement. The terms such as Grama, Ghosa, Nagara, Samuvaha, and Gonisadi-Nivista-Grama have been used for settlement in Indian

contexts(Ghosh 1973: 32). According to Kautilya, the *Grama* means the population of a village which is mostly composed of Sudra cultivators. The *Ghosa* means the pastoral settlement and it sometimes levelled as *Gonisadi-Nivista-Grama*. The *Nagar* is to be identical with *Samvuha and Nigam, Puir, Pattana, Putabhenada, sthaniya and sanghnagari and* all the terms seem to be equal to urban settlements (Ghosh 1973: 36). A settlement is the critical indicator of the social process that is the reason we must look at settlement as a 'small communities' rather than the site or the region (Fleming 1990: 5). Settlements, either urban or rural, have their structural features according to their size, pattern, and distribution. So, the study of settlements, Murthy signalized, can be analyzed under seven categories such as evolution studies, Environment and habitat, a spatial distribution of rural settlements, spacing and sizes of settlements, a hierarchy of service centre, village pattern and morphology of rural settlements (Murthy 1949: 86).

Archeological Perspective

The above aspects considered as the main themes of settlement studies will be our central concerns while we calculate the distributional pattern of settlements. Sundargarh district, the unification of two princely states such as Gangapur and Bonai, is positioned in the north-western part of Odisha. The district is an undulating tableland of different elevations cut up by torrential hill streams and the rivers such as the Ib and the Brahmani (Mohapatra 1986: 193-98). Prehistoric rock painting and ancient settlements were noticed in the district (Chauley 2008: 121-25). The scholars like Sahu and Singhdeo argue that the whole region, Sundargarh, formed a single political entity during the early historical phase and the South Kosala was the ancient name of this region (Sahu 2013: 152-172, Singhdeo 1978: 23-50).

Jamrasagarh is an early historic settlement. Scholars such as Brandtner, Yule, Mohanty, and Mishra surveyed the site and these surveyors argue that Kishorgarh was the previous name of the site. The site structure is an irregular rectangular shape and eastwest oriented. The site is situated at the convergence of two rivers and it is six kilometres away from the industrial town of Rourkela and formed by a natural escarpment lying some 16m above the confluence of the rivers Koel to the north and Bisra Nullah to the south (Mohapatra 1986: 193-98). The actual size of the site is 2.5 hectare. An attached settlement, on the east of Jamrasagarh, is noticed and the size is approximately 100m x 100m. Surveyors branded the site as an 'associated settlement'. The site revealed baked brick, and the size of the bricks is 20cm x 20cm x 6cm. In the early historic settlement debris, plain red wires strewn across the surface have been noticed. The site could be dated from the early historic to early medieval period, the surveyors delineated. Hence, they pointed out that the date of the baked bricks would go as far back as to the early medieval period, but the period of the plain red ware goes back to an earlier period (Yule 2008: 40-41). The site is a chief historic settlement in a part of north Odisha. Further excavation may solve questions related to its cultural relations with its contemporary cultures. Khariar and Neheha are the early historic settlements located in Nuapada district. Brandtner who took the exploration to Khariar or Nehna site got ground stone axes and recorded the pottery stratigraphically. He says that there are close similarities with the early historic pottery of western Odisha and Chhattisgarh. The Nehna site, an ancient fort, was first reported by Singhdeo (Singhdeo 1985: 108-113). It is located hardly three kilometres away from Khariar town of Nuapada district (*Indian Archaeology: A Review* hereafter as I A R 1984-85: 55). In 1992-93, Brandtner reconnoitred Nehna and laid a trench (Brandtner 1994: 110-113). The size of the settlement is 110 x 250 m in wide and length. Further, it shows the basic features of urbanism and denotes the indigenous method of iron smelting. Nehna has revealed a large variety of pendant and semi-precious stone beads. Bangles, bowls, birds, lamps, Copper artefacts were discovered from the Nehna site. Brandtner, on observation on the stratigraphy of Nehna, reveals two unique cultural phases viz, early historic phase and early medieval period (Brandtner 1994:112). The time period of above site provisionally may be placed in between first century AD to fourth/fifth centuries AD, Mishra argues (Mishra 2009: 191-228). An early historic settlement such as Pendrupekan, surveyed by Singhdeo, was found in Nuapada district. The dimension of the site is 1.7 hectare. It is observed that the interior of Pendrupekan is divided into three segments: (1) the main area, (2) an upper area and (3) a lower sanctuary. The megalithic culture and historic settlement emerged on the top of the mountain. Excavation for the site is needed to realize the material culture and archaeological potential of this site (Durga 2015a). Pondkital, located on the left bank of the river Ong, is an early historic site of Sonepur district (Yule 2008: 49).

Haldipali, located in the Sonepur district, is an early historic settlement. The site has yielded material such as fine black and red ware, well-slipped, polished surface, black/brown burnished ware, a red-slipped ware and plain red ware (Yule 2008: 59-62). Lakarma and Kustapali, early historic sites, have been found in Sonepur district. These sites were explored by Ota (I A R 1983-84: 60-61). Nuagarh-Asurgarh, situated between the twin villages of Kumersingha and Nuagarh at a distance of about 6 kilometres south-east of the tehsil Birmaharajpur in Sonepur district, is an exclusive archaeological mound (Pradhan 2006: 63). The mound is about 7.5 metres in height and 580 metres in length and about 300 metres in breath above the present location of the Mahanadi. The site Asurgarh witnessed the discovery of iron objects, human skeletal remains and potteries. Material remains such as painted pottery, black and red ware, black slipped ware red ware, black ware and red slipped ware have been spotted from the site. A good number of sherds with graffiti marks, marked with geometric and non-geometric, representation of nature and anthropomorphic, are seen in the excavation site. This site, Pradhan argues, emerged to a fully developed settlement of this region and the time period of the site may be between the Chalcolithic period and the first century AD (Pradhan 2006: 75).

Baidyanathapur, flourished on the Tel river of Sonepur, witnessed the availability of the proto-historic and early historic settlement. From the investigation, it is noticed that the settlers of the site used sherds of baked brick and black slipware (Yule 2008: 9). The site requires excavation and it perhaps helps us to understand the cultural antecedent and settlement pattern of Baidyanathapur. Kumersingha, located on the left

bank of the river Mahanadi, is another interesting archaeological site. Considerably, this site countersigned the existence of the remains of pre, proto and historical phases. The size of the settlement is 100 m in width with a height of about 4-5 m from the surrounding plains and roughly 175 m in length. This site bore painted pottery, black and red ware, black slipped ware, red ware, black ware and red slipped ware. The structure and plan of the house are known. As per the evidence from the site, the settlement was abandoned after used. Khameswarapali, a multi-cultured settlement, is located on the northern bank of the Mahanadi of Bolangir district. The time period of the site falls between the Chalcolithic and early historic periods. This site yielded painted pottery, black and red ware, black slipped ware red ware, black ware and red slipped ware and vessels of diverse shape with complicated rims. Kharligarh, located at the confluence of the rivers Rahul and the Tel, an ancient ruined settlement (Pradhan 2003: 51-61, Mohanty & Mishra 2005: 110-111, Mishra 2011: 99-107 and Tripathy 2005, 2007). The settlement began in early historic BC and came to an end in the early The size of this settlement is about 14 to 17 hectares. The western fortification is the most prominent feature of the site. It is noticed that the fortification wall on the most elevated part has settlement remains visible on the surface (Figure 1). Yule (Yule 2008:44) described the features of the settlement as follow:

"The steep edges of the settlement are eroded by dozens of gullies, the largest of which is located in the north-west corner of the site. Building debris protrudes from those gullies on the north, east and south slopes of the naturally fortified settlement area. At first sight, on the north-western bank of the settlement, a flat stretch of the embankment suggested a possible boat landing. But further observation and survey counter this idea. Presumably, primarily geological terracing is visible on the north bank which now is gardened. Closer investigation reveals the presence of accumulated stone in the river frontage".



Figure 1: Kharligarh, Broken Kiln is Visible

The site yielded plain red ware, burnished black ware, painted pottery, black and red ware, black slipped ware, black ware and red slipped ware (Yule 2008: 16). Ota undertook the exploration of the Dhourakud site, an early historic site of Bolangir district (*I A R* 1983-84: 60-61). Narla/Asurgarh, the fort of the giants, is a principal early historic settlement (Figure 2 and 3). The site is 5km away from the Narla railway station (Mohanty & Mishra 2005: 106-110, 2011: 82-94). The size of the settlement is 24.29 hectare and the site is rectangular in shape and lies on the right bank of the river Sandul (Behera 1980: 1-7). Excavation reports reveal the existence of painted pottery, black and red ware, black slipped ware, black ware and red slipped ware (Sahu 1978: 23-25). Yule (Yule 2008: 47) remarked on the features of the Asurgarh settlement as below:

"We must go beyond the preservation of the glacis in order to understand its original appearance. Isolated brickbats reveal themselves on top of the glacis which suggests that whatever revetment was built probably consisted at least partly of fired brick. The corners are higher than the glacis itself. Especially on the northern side, the long ridges give an indication of the size and position of the original moat, which was clearly a part of the defensive system. The site was selected for its source of water and drainage for the moat. The adjacent Sandul probably has not changed its bed much since the erection of the fort".

The fort settlement witnessed excellent luxury pottery such as Northern Black Polished Ware. Scholars such as Sahu, Singhdeo, Mohanty and Mishra argue that the site belonged to sixth century BC and they also say that settlers of the Asurgarh fort imported the Northern Blacked Polished Ware from the Gangetic Valley. It can be argued that the settlement might belong to the third century BC to fourth century AD. The settlement showed luxury goods like numerous beads fashioned of semi-precious stones, one-half of a double shell mould for casting metal beads or rivets, a jasper ear ring, fragments of an ivory comb, another jasper seal with a problematic inscription and seals fashioned from jasper derived from this site, and the orientation of the excavation lies in the south most part of the settlement and the settlement has been placed on an upland area. The surface is nearly flat and shielded with grass and shrubs and today it is used for grazing (Brandtner et al. 2007: 41). Budhigarh (Budhi Means Old and Gada or Garh means Fort) is a distributional settlement. The site, lies on the left bank of the river Rahul, a southern tributary of the river Tel, is placed near Rampur block of Kalahandi district (Mohanty & Mishra 2005: 111-112, Mishra 2009: 196, 2011: 69). The site is well known for its 52 catchments settlement and the size of the site is approximately 12.75ha. Mishra reported the occurrence of pottery sherds and other artefacts from the site (Mishra 2009). The pottery of Budhigarh consists of northern black polished ware, knobbed ware, coarse grey ware, black slipped ware, red ware and black and red ware. Harappan and Megalithic graffiti of post-firing have been reported form these wares (Mishra 2009). The site revealed Iron objects such as sickle, hoe, bolt, nail, knife, long spear, arrowhead, miniature bowl, dagger and sword were found on the site (Mohanty & Mishra 2005: 97-124). The size of the brick is 45 x

30 x 10cm. The time period of Budhigarh, Mishra argues, can be placed from the Neolithic to the early medieval period (Mishra 2009: 197, 2011: 107). Asurgarh site is a habitational fort settlement while the Budhigarh site is the multi-culture settlement (Durga 2015a). from the excavation report of Budhigarh burnt potteries have been noticed such as hard red ware, red slipped ware, plain red ware, dark-coloured pottery, red slip ware and poorly fired red (Yule 2008: 308-318). We noticed from the sites such as Asurgarh and Budhigarh that the continuation of habitations from Chalcolithic to the Gupta period.



Figure 2: Mud Wall of Asurgarh-Narla



Figure 3: Asurgarh-Narla, Mud Wall Eroded by the Flood

Table 1: Size of the Early Historic Settlements of Western Odisha

Sl. No.	Name of the Settlements	Location of the Sites (Districts)	Sizes of the Settlements (Approximate)
1	Jamsargarh	Sundargarh	2.5 hectare
2	Nehna	Nuapada	2.75 hectare
3	Pendrupekan	Nuapada	1.7 hectare
4	Nuagarh-Asurgarh	Boudh	14.4 hectare
5	Kumersingha	Sonepur	2 hectare
6	Khameswarapali	Bolangir	14 to 17 hectare
7	Podagad	Nowarangpur	8hectare
8	Dumerbahal Ghupti	Kalahandi	10hectare
9	Kesaribeda	Nowarangpur	5hectare
10	Sirpur	Kalahandi	8hectare
11	Teresingha	Kalahandi	8hectare
12	Asurgarh- Narla	Kalahandi	24.29 hectare
13	Urlukupagarh	Kalahandi	9hectare
14	Kharligarh	Bolangir	27hectare
15	Budhigarh	Kalahandi	12.75 hectare
16	Badmal	Sambalpur	4 hectare
17	Bileikani	Kalahandi	6hectare

Badmal, located about 41 km south of Sambalpur, is an early historic habitational site (Behera 2013: 125-34). The habitational settlement is placed in a rectangular shape and the size of the site is 4 hectare (Yule 2008: 9-10). The Badmal habitational settlement witnessed three fortification settlements. The main fortified settlement, supported by two smaller settlements, is located on the north-western side towards the river. These two small settlements are supportive of the agricultural activities of the Badmal settlers. It is also noticed that there are four main entrances on the south-west, north-west, north-east and south-east (Yule 2008). This is probably the earliest evidence of fortified settlement in western Odisha (Behera 2004-05: 118). The Badmal site revealed for the first time existence of the Iron remains in Odisha. The site has yielded flattened ring, spearhead, drill bits, nail and arrowhead. Apart from Iron objects, this site witnessed a high percentage of red and black ware, semi-precious stone, semi-finished beads, potsherds and stratified charcoal. Badmal needs a full fledge excavation in order

to understand the relationship between the Iron Age and early history material culture. Berhampura of Sambalpur district was another fort settlement. The size of the settlement is about 2 hectares. The researcher argues that the site could be possibly dated to the Gupta period (Yule 2008). Budikon, a ruined early historic settlement, is located in Boudh district. As per the report, the site noticed no pottery sherds but a number of tombs (Yule 2008: 10). Ota reported so many early historic settlement sites such as Ramai, Rabiri, Mundipadar, Karadapada, Gudgud Nallah, Gohiripali, Dolabahi, Digi, Chelibahal, Boulsingha, Badjharan, Tunimunda, Tithipali, Talupali, Shobhapali, Selamal, Soupara and Santipali. His exploration reports help us to understand the defence system and habitational structures of the early historic settlements (I A R 1983-84: 61). Asurgarh of Manamunda is one of the multi-cultural site (Behera 1980: 16). Banerjee, reported the site in 1929, argues that the site was just an ancient fort (Banerjee 1920: 64, Mishra 2011:96-99). Antiques such as Punch-marked coins, semi-precious stone, beads, copper bangles, nail, knife, axe, dragger, rod, terracotta item, black and red ware, red ware, black slipped ware and grey ware was noticed from the site (I A R 1989). Marykund and Karumpadar are the major early historic settlements of Boudh. The external findings are mostly chalcolithic and Iron Age ceramic objects such as black and red ware and pointed pottery, black ware, black slipped ware, red and black ware, red ware, red slipped ware, white-painted Black, Red Ware sherds, fragments of a four-legged vessel (Yule 2008: 16). Tentulipali is an early historic settlement of Karumpadar. The site witnessed artefacts such as typical early historic wares, pottery forms, black and red ware and black slipped ware (Yule 2008).

The Process of Settlement Expansion and Its Decline

The Process of settlement expansion, observed in western Odisha, can be customarily classified into three types. Firstly, a settlement with fortifications where inhabitants live inside the fort such as Asurgarh-Narla, Kharligarh, Ulapgarh and Berhampura, and later these people migrated to the plain areas for their agricultural purposes. Thus, this process led to the emergence of more vestigial settlements around the main settlements or forts and these kinds of settlements can be called Mother Settlements. Secondly, a settlement with or without fortification where people live in and outside of settlements such as Jamrasagarh, Nehena, Nuagarh-Asuragh, Budhigarh, Podagad and Badmal. These kinds of settlements are supporting each other in terms of economic exchange and cultural relation and these types of settlements can be referred to Associated Settlements. Thirdly, a settlement without fortifications where people live in dispersed and later abandoned the settlements and moved to other interior regions. Such settlements are Bhairapadia, Kumersingha, Khameswarapali, Haldipali, Lakarma, Bileikani and Ponkital. To these types of settlements, it would be suitable to denote as Diffused Settlements/mobile settlements.

The process of expansion of settlements in western Odisha, in an evocative sense, can be explained in three levels. In the Primary level of settlement formations people, probably during the prehistoric period, constructed their settlements in the main river valley such as the Mahanadi, Tel and the Brahmani rivers and this process led to the initial process of settlement formation. In the Secondary level of settlement formations, people migrated from the main rivers, not all but some settlement continued, to the Tributaries Rivers to meet their maximum requirements and this process led to crystallization and distributions of settlements with or without forts. These types of settlements mushroomed in the rivers like the Sankh, Koel, Ong, Boden, and the Ib. The third process of settlement formations is most important to understand the high profile of second urbanization and that is known as Tertiary level of settlements formations. People in the protohistoric and early historic periods continued the process of migration not only to the plain regions but also into the tributaries because not all people preferred to live in the main rivers such as the Mahanadi, Tel, and Brahmani (pers. comm. with Prof. Shereen Ratnagar). This process led to the complete process of city formation or states formation, or secondary urbanization in this region (Singh 2018). It produced maximum numbers diffused settlements on the rivers like the Tel, Hatti, Sagada, Ret, Sandul, Utei, Rahul, Kharg, Suktel, Lant, Undar and the Udanti, but at the same time emerged some important planned or unplanned urban centres such as Asurgarh-Narla, Kharligarh and Podgad. Study on the size of the settlements will help us to understand the density of population which is considered as the essential feature of civilization (Childe 1950).

Mass migration and environment crisis can be attributed to the process of decline of settlements. Therefore, abandonment of urban centre has been recognized as a formal process of the expansion of rural settlement and is identified as a key process in the formation of settlements or localization of settlement in the periphery areas of Western Odisha. Further, the process of abandonment of settlement and the abandonment of structure and activity areas within settlements leads to a secondary or tertiary level of settlement formations (Cameron and Tomka 1993). Under what circumstances people abandoned their settlements? Whatever their causes, all the abandonment settlements, the report says, witnessed of a general process of adjustment between local populations, indigenous cultures, and regional diversities (Durga 2015a). The process of decline and abandonment of urban settlement in west Odisha started after the third to fourth centuries AD or little two centuries later. Settlements totally did not decline or abandoned by the inhabitants, but some settlements continued till fifth to sixth centuries or early medieval period as full-fledged urban centres with so many supporting settlements such as Asurgarh Narla, Kharligarh, Nehena, and Budhigarh. The process of urban decline in Tel river valley, according to Mishra, started in the fifth to sixth centuries AD (Mishra 2011:171).

There was no decline or de-Settlementization in the fifth or sixth centuries AD, because Belkhandi, Podagarh and Jamrasagarh are such settlements which emerged after the fourth to fifth centuries AD and continued till tenth to twelfth centuries AD. Kumersingha is a multi-cultural settlement and the people of the settlement abandoned their habitations and migrated to somewhere. Where did the people migrate? The time span of a few settlements such as Asurgarh and Budhigarh fall

between the Chalcolithic to the early historic period. Will it help us to understand the social changing process? There are some habitational sites such as Amathagarh, Talabhamraka, Godar, Sihini, Udayapur emerged after the seventh century AD. With encyclopedic knowledge, Mishra says that the abandonment occurred because during the fifth century AD the eco-system got changes in the Tel river valley that's the reasons people could not contrive new trick to combat or adjust with the changing scenario and might have resorted to migration to other regions.



Figure 4: Tel River

Frontier colonization involves the migration of peoples into new lands, bringing these areas and their inhabitants within the social and economic domain of the expanding society. Expansion of this kind has occurred throughout human history and accounts for human occupation of nearly all habitable parts of the earth. The form of colonization has varied greatly, ranging from situations as disparate as the extension of territory by hunter-gatherer groups to the conquest and exploitation of continents by complex, industrial states (Lewis 1983). Further, in spite of abandon or decline of urban centres, there was the maximum number of settlements mushroomed around the river valley and shifted to the plain area, Singh (2016) enunciates, after the fourth century AD. Thus it is noticed that abandon, decline, and the emergence of new settlements continue in the early historic period. At any point in its existence, some proportion of materials is falling into disuse and decomposing, while new materials are being added as the replacement. In a certain sense, a part of every community is becoming, but is not yet, archaeological data (Ascher 1961: 324). Sebak (1999) argues that the favourable climate, alluvial soil of river basins like the Mahanadi and Tel river, the water facility most probably attracted the early man to live a settled life in this region (Figure 4). Further, he argues that the demographic expansion, clustering of village settlements, the expansion of agriculture and exploitation of the natural resources of this region most probably led to the emergence of the semi or urban centres or 'anytown' in the strategic places of this locality (Sebak 1999: 45, 55-60). Culture continued but settlements petered out. The material culture of this region enables us to look at the process of settlementization in the rural area between fourth century BC and fourth century AD (Figure 5).

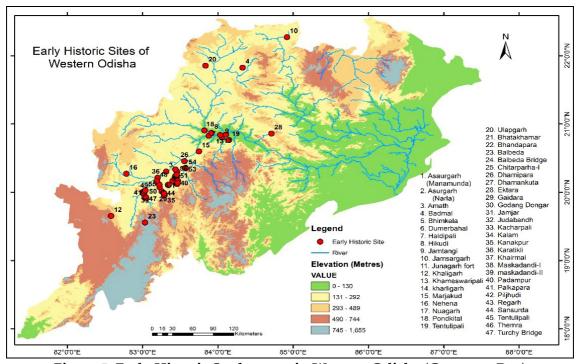


Figure 5: Early Historic Settlements in Western Odisha (Courtesy: Bag)

Discussion and Conclusion

Expansion of settlement is impossible without the economic axis or trade centre. The emergence of trade centre leads to new trade networks or routes. It acts as an 'importer of cultures and ideas' from other contemporary cultures. So, the study of the settlements could help in locating the trading routes and contacts and also guide in understanding the contemporary cultures. The early historic period transformed the earlier egalitarian society into the complex heterogeneous urban milieu. Western Odisha bestowed with natural wealth, excellent agricultural conditions, surplus food production, and adequate knowledge of agriculture, facilities for communication, trade linkages and political incentive. And because of its embodiments, this region made itself to form a well-planned settlement between fourth century BC and fourth century AD. It also laid the foundation for the secondary state formation as well as the second phase of urbanization (Seneviratne 1980-81: 54-69). Asurgarh-Narla is the largest settlement and Podgad is the second largest settlement in entire part of western Odisha. Why there were so many variations in sizes of the settlements has been analysed (Table 1). Availability of natural sources, mushrooming of trade networks and communications seem to be the main cause for the variation in sizes of settlements. The study of these settlements would also help us to understand the behaviour and reaction of the surrounding tribal people towards these newly established populated areas. It will also lead us to understand the 'dynamic internal transformation' of these tribal societies into caste societies (Sahu 1984: 148-57). Further, the study of early historic settlements of western Odisha is not merely a study of the material culture of the past to understand human behaviour with their environment but it is also an understanding of social experiences or social changes of the past. It is the history of the 'smaller communities' which deals with the cultural and social aspects and material culture and the relationship between man and the environment of the early period of western Odisha (Durga 2015a).

To avoid the narrow interpretations of settlements studies in western Odisha, it is necessary to change the research approach as other scholars follow. As Patternson(2006) raised few questions on the settlement studies such as how should these individual patterns of continuity or of declining or increasing site numbers, be interpreted? The question comes to our mind that what actually happened in the day to day organization of rural communities, of what people did, and with whom and to whom, how they thought, and how they conceptualized their societies (Bellamy el at. 1990: 143). Why a settlement continued without an increase in sites, declined and continued with the incensement of sites? For the central understanding of settlement history, Hodges opines, the scholar must focus on four important aspects of settlements such as its chronology, density, morphology and sociology (Hodges 1990: 25-33). Apart from the above aspects of settlements, one needs to focus on five major elements of rural settlements such as agrarian space, burial ground, sacred place, communication networks and fortification structures. Do we need to adopt a new research approach to understand the settlement history from the bottom top perspectives? Scholars like Thapar, Kosambi and Sharma plea for viewing the past from a new perspective by joining up archaeological and literary evidence so as to achieve a total view of history (Jha 1979: 1500, Thapar 1978: 193-210).

One can't get the professionally and socially acknowledged history without the 'joinedup approach'. So, for that scholars need to combine different categories of source materials such as archaeological, literary, anthropological or ethnographical. Such a correlation must come with historians, archaeologists, anthropologists and other social scientists to understand the permeation of social, economic and socio-cultural evolution of western Odisha. The *Joined-up approach* is essential for a new perspective. To understand the process of settlement formations and its cultural profile, it is necessary to adopt the 'approach' and it is not new in India. There are so many works have been done on this suit (Basak 2006, Mohanty & Mishra 2002, Varma 2006). To give a meaningful understanding of the archaeological record of settlement patterns, the ethnoarchaeological studies are essential (Binford 1980:5). The studies on the Ganoal and Rongram River Valley, undertaken by Sharma, revealed the potential of the settlement pattern of this community. The Garo tribes is a shifting cultivator and the ancient techniques of bark cloth making and fishing by poisoning are still practice by them (Sharma 2006). Bag's work on the settlement history of western Odisha is praiseworthy. For the first time Bag combined both archaeological and epigraphical

evidence to highlight the settlement history during the historical period (Bag 2017). Proper excavation may help us to understand the structural features of settlements but in Odisha, we don't have a proper excavation report on settlement studies (Murthy 1947).

It is difficult to give a precise opinion about the socio-economic condition of western Odisha in the early historic period because we do not have any textual data to tell us about it. The archaeological sources witnessed the presence of potter, craftsman, artisans, farmer, traders, and mason. Between the sixth and eleven centuries AD this region, according to epigraphical data, was ruled by the Sarbhapuriyas, Panduvamsis and the Somavamsis rulers. The basic problem confronted by the scholars is that how and when the tribal people were categorized into occupational group or castes or how the people of this region were socially unified. This region witnessed the integration of tribes into the caste peasant society since the early historical period.

Sahu argues that during the Common Era, the migration of brahmanas as a recipient of land grants from Radha, Odradesa and Madhyadesa have resulted in the peasantization of the tribes, hierarchization of the segments and their organization of society. As a result, this led to the agrarian expansion, growth of towns and trades and state formation during early historical or early medieval periods (Sahu 2013:74). The issue of the construction of the sub-regional history of western Odisha will be impossible without taking help of archaeological materials and land-grant inscriptions. The available evidence both from the archaeological and epigraphic segments suggests that this region has gone through a long process of historical evolution and constituted an organic socio-cultural entity (Sahu 2013-80).

The process of settlement expansion or urban development was not limited to the main rivers. It got expansion over the river valleys of the Tel and Mahanadi and their tributaries which led to the interactions between the settlements. There were mutual interactions and communications between Asurgarh, Budhigarh, Kharligarh and Manamunda. The Tel played a major role in the exchange of ideas, cultural values, customs, socio-cultural development, trade and commerce. That is the reason so many excavated settlements shared a common culture (Sahu 2013: 87). In sum, it is observed that the settlements pattern studies need to look from a regional perspective and for that, the archaeological materials must be examined within a socio-cultural framework instead of its chronological bearings and generalizations. How can we understand the institutionalized form of socio-economic behaviour of people from the available archaeological and epigraphic evidence? The Joined-up approach is more important to get the answer to the above question. Archaeologists play their own role in the understanding of the Odisha's past, they must move from typological studies to the interpretation of the material remains to understand the emergence of the social formation process. Thus, the above topic is problematic to deal with in all aspects, in spite of that the present discussion on the settlements of the early historic period has its own limitations and further research will solve many problems.

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