

Archaeology in the Indian Subcontinent: An Approach to Methodology & Direction

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Introduction

Historical Background

The archaeology of the Indian or the Indo-Pak sub-continent could be called a colonial heritage of Britain. It was at the initiative of the colonial administrators that archaeological/anthropological activities were started here. The foundation of the Royal Asiatic Society of Bengal marks the beginning of the study of Indology. Later it expanded a branch in Ceylon but Nepal and Afghanistan, also falling in the same sub-continent geographically, remained outside the movement as they did not constitute the British Indian Empire.

Nearly a hundred years after the foundation of the Royal Asiatic Society, the Archaeological Survey of India was founded in 1861 with Gen. Cunningham as its first Director. In the subsequent years the Survey saw many ups and downs and finally began to conduct archaeological works under Sir John Marshall as its new Director General. The coming of Mortimer Wheeler later in the

scene marks the end of an old and the beginning of the new era of archaeology of the sub-continent. He introduced the stratigraphic method in excavation and himself led several explorations and excavations in different parts of the country. But as has been generally remarked archaeology in those days used to be a one-man show, figuring only one person throughout the scene. Wheeler did much to bring about changes in this phenomenon by giving training to more native scholars in different fields of archaeology. But the theoretical approach remained unchanged. Archaeologists' main concern was and remained to excavate and classify the objects and define hierarchically the stages of cultures. Tool typology was the main basis of chronology and the definition of a culture.

Partition of India after 1947 independence left her without important archaeological sites like Harappa and Mohenjodaro. So archaeological works were speeded up on the eastern parts of Indus in the Punjab, Gujarat, and Rajasthan states, besides Central and Peninsular India. Pakistan organized its own plans on the other side of the border. The

divided nations have, since then, moved faster than any period of their archaeological history.

Moving along the traditional Old World lines Indian sub-continental archaeology has made some noteworthy achievements during the past hundred years or so. They can be summarized as follows-

- a. As has been mentioned elsewhere in the paper, the main achievement made was the revealing of stone age complexes and division of ages on the basis of the findings.
- b. Secondly, Indus Valley culture was brought to light. Its city plan, material objects, its rise, fall and diffusion constitute a mass of literature now.
- c. Like the vast assemblage of stone/metal tools and objects at different parts of the sub-continent, pottery is another important feature of the past culture of the region. Besides other informations it provided keys to India's trade contact with far-off nations.
- d. The most important accomplishment is the establishment of archaeology in the major universities, the opening of archaeology departments by many State Governments of India and Pakistan and the growing contact of archaeology with other disciplines both at the institutions and in the field.

In brief, recent decades, especially post 1950's have seen much progress in both theoretical and methodological fields in the archaeology of the sub-continent.

In the following, an attempt will be made to single out the main areas that need more focus in the future archaeological research programs and the theoretical and

methodological directions that should be taken. In the discussion countries like Nepal and Bangladesh will be omitted because of the paucity of recent information; and the limited space here will not allow much discussion on Sri Lanka and Afghanistan either, although all these nations fall in the broad geo-cultural canvas of the sub-continent. The main focus will then be the Indo-Pak region.

The research programs, hypothetically for the next decade, could be organized into two packages- a) short term projects-should include a review and observation of collected materials at the problems, preparation of a comprehensive chronology of prehistoric and historic cultures of the entire region and offer explanation, and b) long-term projects-are those programs that give archaeology a new direction and will continue as processes rather than terminate by the end of the decade. The professional archaeological institutions, universities and related organizations would be the major contributors to this project and interdisciplinary approach would be the procedure. The respective governments would be made accountable for the publication of the researches on a regular basis. This will keep all the concerned abreast of the activities in the field and bring in comment and criticism necessary to further update the development and reassure the right direction of the research movement. Basic units of archaeological research would have to be expanded from stone tools and other implements to man's varied activities within a broad system at different periods of time.

The major problems to be addressed in the coming decade have been discussed in the following sections.

1. A systematic study of the stone age and historical cultures and formation of a detailed, comprehensive picture based on archaeological chronology :-

This proposition does not imply the demolition of already established values, attributes and achievements of archaeology of the region. What is important is to reconstruct a detailed and complete picture of the individual and regional culture complexes as independent yet integrated systems. As noted in the introductory section, Wheeler's re-organization of archaeology after 1943 gave much emphasis on stratigraphy and the reconstruction of culture with the help of objects excavated from the site. Concerted efforts were made to excavate and preserve evidences as much as possible. Wheeler himself led several extensive excavations such as the Indus Valley, Brahmagiri and Arikamedu. Several major and minor excavations are being carried out in post-independence India, Pakistan, and Ceylon. As Hole and Heizer put it (in the American context) the two decades since 1950 will certainly become known historically as the age of technological innovation in archaeology. This remark fits very well in the context of Indian sub-continental archaeology as well.

Physically, the sub-continent covers a vast landmass of Asia; India alone figuring dominantly on the map. Indian stone age has been divided into Early, Middle, and Late phases. Almost each phase has its own peculiar features in different geographical regions. When the early Soan phases have more chopping tools, they decrease in proportion as one moves toward the south, e. g. the Madrasian Early Stone Age has more hand axes than other tools. The flake-scrapers-dominated early Middle Stone Age is fairly distributed but its late phase almost disappears from the subcontinental scene (Allchin and Allchin, 1968: 60-77). Late Stone Age has been more extensively excavated in India and less so in Pakistan and Sri Lanka. Indian evidences are distributed in most part of

the country including central India's caves and open sites and some finds have been dated by C-14 method (Allchin and Allchin, 1960: 83). Sri Lanka's Late Stone Age is reportedly continued without a gap well into Iron Age around 5th century B.C. Characteristically, the Late Stone Age there is associated with the hunting and gathering tribes, part of which continued to do so during the historical periods. The Allchins rightly feel that the stone age study is uneven and erroneous at places. But it is very important in the context of Indian history. The Himalayan glacial sequences and their relationship with the European Glaciations have to be established.

Many local cultures have contributed to the formation of big metropolitan cultures of the sub-continent. So, the goal of future archaeological research should be to plan research with evolutionary pattern in view, be it in India or Pakistan, because the formation and function of the ancient ecological system in the region had certainly a wider area of impact in the olden times (Possehl, 1979:96). In short, archaeology should consolidate and complete its formative-descriptive phase in the way American archaeology has done. The re-excavated Harappan sites could in fact expose several aspects of Indus civilization that are considered to have bearings on several protohistoric and historic cultures of the sub-continent. The materials made available so far have not genuinely satisfied the questions raised above. Similarly, fresh excavations could be carried out at other sites, too.

2. A search for the hominid along the Siwalik Plateau of North-Western India and other similar Pleistocene deposits in the Himalayan river systems up to Bhutan-India-Burma border area.

It is already established that the early hominid lived in the sub-continent and search

for more evidences is continued (Khatri, 1962; 160-181). The study of early man began in the early 19th century but was not revived till the first quarter of the 20th century when American Museum of Natural History undertook the research later followed by the Yale-North India Expedition of the 1930's. The search was conducted in the Siwalik range and several hominid fossils of several species were discovered. Of them, the Ramapithecus of which a tooth was discovered in Nepal is considered ten to twelve million years old and probably the oldest hominid so far found.

Despite the fact that Ramapithecus a well-established place in the hominid evolution, there still are theoretical problems related to the taxonomy, ancestry and allocation of proper place to this Himalayan species in the history of hominid evolution. Another problem is its relationship with the African and South-East Asian counterparts. W. E. L. Clark thinks that Ramapithecus is closer to Kenyapithecus discovered by Leakey. He also suggests that South Asian regions, especially the Siwalik plateau has rich prospects for more search (Clark, 1972: 179).

So far, only the Siwalik region has been explored more intensively. But the Palaeolithic tools found in other parts of India and different parts of Nepal in the north and Sikkim in the far east suggest that these regions are equally potential, too. Next, research should be directed toward exploring the links between the hominids of this and other neighboring regions just mentioned. There is no reason to believe that Ramapithecus died out in the Siwalik as the later tool traditions of different ages imply a continuous human occupation throughout the sub-continent. There still is a vast gap, however, between the hominids and the earliest tool traditions.

Related to the study of man is another potential area of study in the sub-continent, palaeodemography. Few preliminary studies have been done in India on the basis of Harappan skeleton but this field needs more comprehensive and a well planned study as this is a key to understand the problems of population diversity in regional and sub-continental context and different patterns of migration to remove the outdated concept of race still prevalent in the anthropological circles of the region (Kennedy, 1980:419). The research should be planned for the next decade on short and long term basis covering both the issues raised in this section.

3. The study of geo-ecology and the pastoral-food producing communities of i) Indus-Baluch area, ii) East India and iii) South and Central India.

This problem demands more concerted interdisciplinary approach in archaeological research of the sub-continent. In fact, to understand, analyze and explain all the aspects of archaeology in the sub-continent, the role of interdisciplinary approach is very significant. Lately, this has been so and some research works of this nature are already out.

Being stretched far and wide, Indo-Pak region offers a rich area for the development of archaeological research in collaboration with other physical-natural sciences. The dry zones of the region all along the Indus river system bear the evidence of major morphological processes (like Kalahari desert of Africa and High Plains of the U. S.). Few preliminary studies have demonstrated the possible past climatic changes in the Rajasthan-Gujarat area along Indus basin where fossil sand-dunes were found covered during the fluctuating nature of precipitation and humidity (Goudie, 1973:31). A comparative study of these and recently dried river systems

of the region could be useful to unfold the past climate.

To talk of the Indus river itself, the vagrant and often violent nature of this river has been accounted by some for the fall of the ancient cities situated all along its bank. Despite the danger, Harappa lived long. Integrated study should be made to understand the mechanisms that controlled the climate, affected and stabilized production. A study of the history of agriculture prior to the British introduced canal irrigation could give an insight to the problem mentioned above. Leshnik thinks neither the existing climatic conditions nor the agricultural tools have changed significantly over the past four thousand years (1973:72). Certain cities, if not all, were certainly subject to the flood of the Indus at times, when Indus deposited silts and covered the bases of the earlier settlements. The study of Palaeoclimatology could thus give answer to many questions pertaining to the role of climate for the growth and decline of cultures in the region. At places the earlier occupied levels are up to thirtynine feet below the modern plains.

Another climate related problem that archaeologists must consider for the research in the region is that of ecology and the emergence of the food producing communities. Much ink has flown in the description of Indus cities but relatively less has been done on the village communities that lay on either side of the Indus and supported the highly developed civilizations as its bases. The study of cultural ecology is important in the regional context. There are several culturally defined areas which at many points ignore the modern political boundaries and need a joint venture in fresh research. Some ecological systems are independent of each other having their impact on certain areas (Malik, 1968:154).

Regarding food producing in the sub-continent, Indian archaeologist Vishnu Mittre's theory is that the earliest phase of agriculture developed in the Indus Valley-Baluch area with plants derived from West Asia. He also thinks that Pearl, Millet, Sorghum, Ragi, Sesame, Date Palm, Peas could be considered India's contribution to the origin of agriculture worldwide (1977:586-87). Chronologically, agricultural technique in the region seems to have come through the Iranian plains sometime during the third millenium B.C.

The varied topography of the sub-continent is potential for the study of changing relationship between man and environment. Although any quantifiable change is hard to locate now, the material remains of the past and the existing pastoral-farming communities could provide keys to understand how much closer the symbiotic relationship between villages and cities in one hand and villages and pastorals on the other might have been in the past. The tools, analyzed on this light, can be of immense help to understand man's relation with nature. Graham Clark thinks the attraction of prehistory is the opportunity it offers for studying the interplay of social aspirations and environing nature over long periods of time (1953). Regarding methodology of such a study L. Binford thinks a regional method could be suitably applied as geoclimatic variation is the most important variable for all ages, past and present (1964:444). In this light, Indian sub-continent could be divided into three major topographical regions-Himalayan Upland including part of Afghanistan, Nepal, Pakistan, Bhutan etc. Indo-Gangetic Plain including Bangladesh; and Peninsular India including Sri Lanka. Different research strategies could be made for these different

regions. From subsistence point of view the Indian sub-continent can be further divided into two basic parts—

- a) The areas where agricultural return was maximum and which went through dynamic cultural changes, and
- b) The areas where return was less than optimum and remained conservative to change. When the first became the regions of attraction throughout the history (e. g. Indo-Gangetic Plain etc.), the second (e. g. Assam, Orissa, Bihar, Rajasthan etc.) remained in isolation or faced invasion by the former. Fairservis thinks this regional hypothesis is a base for the study of man's attempt to upset ecological balances through the ages (1971:1-27).

4. The rise of the cities, civilization and the state with special reference to the Indus Valley Civilization, its rise, fall, and diffusion.

Indus Valley has been referred to at several places in the paper for a valid reason. Despite so many literature and a continued research on its different aspects there still are many important questions that remain unanswered. Physically, the region occupies a very significant place and served as a center of metropolitan civilization for a long time before its fall. Its social, political, and economic systems should be studied in relation to its physical environment of the period. F. R. Allchin suggests therefore that fresh excavation conducted through interdisciplinary approach can settle disputes related to the Aryan invasion of India, rise of the farming communities, cities, organized polity, and religion (1973:1-9). A continuous five centuries of "Pre-Harappan" cultural evidence exist in the sites called Amri, Kalibangan, Kot Dizi, Kulli, Zhob and Nal, many of whom fall on

the Pakistan side today. These earlier phases culminate into Harappa and Mohenjodaro.

Post 1947 excavations in India have suggested the dispersion of the Indus civilization in several western states of India. A fresh look at the available data and more excavations with a view to study the rise of state organization is important to put together the relationship between the Indus and later cultures. The next decade also needs attention to be given to other cities and civilization of Central and South India.

5. A need to develop archaeology's relation with other disciplines with new approaches.

The fifth and last proposition is more a program than a specific problem. And, it is important to develop theoretical goal to give archaeology of the region a right direction and address the problems mentioned above.

R. E. Mortimer Wheeler, one-time Director General of the Archaeological Survey of India once observed that the need for the growth of Indian archaeology was to get closer to physical-natural sciences and cooperatively raise the standard of archaeology to international level (Wheeler, 1946:125-133). He explained archaeology as humanistic science as it was the concept of the day. Things have changed since Wheeler's time but the basic concept of archaeology remains hardly changed. Archaeology is still taught as an humanistic science in major institutions.

Few archaeologists of the present generation have however got to believe that the role of archaeology in the region should not be limited to the classification and description of culture. Archaeology needs new direction and approach to present an altogether new picture of numerous culture patterns in a big

frame and solve many complicated questions of regional and continental importance.

As has been mentioned elsewhere there have been some developments in this regard. The recent trend seems aimed at bringing archaeology closer to anthropology and other social sciences. This welcome theoretical shift is also reflected in the field. To a region with a long past and a multitude of primitive level cultures still surviving throughout its length and breadth, the role of archaeological anthropology is very important.

Archaeological data represent the ideas of different human groups of the past and their behavior pattern. The General Systems Theory could then be applied to classify the materials. This will help integrate archaeology's goal with anthropology and other social sciences to widen the horizon (Malik, 1975: 204-24). This approach is very important to improve the condition of archaeological research. For the next decade, therefore, research should be problem-oriented and formulated taking such set goals and prospects into consideration.* The main problem in the case of lithic stages of India's past is to establish the relation of these tools of stone ages to the rise of food production (Stigler et al, 1974:145). This equally applies to other countries of the continent, too.

Conclusion

The new approach to the archaeology of the Indian sub-continent can in no case be a super-imposition of theory upon reality in the field, as a traditional archaeologist of the

region might think it can. One could even put forward some evidence to the effect that such a theory or even the methodology is applicable to the New World or some other regions only. But the significant point to consider is that science or scientific approach is not limited to any particular region. Secondly, all the stone or pottery assemblages form typological classes in terms of space and time, contribute to history and have much more to say on the then environment, ecology, modes of subsistence, social-religious trends and ideas and more than that, on how all these categories form a system and what their mutual relationship had been. In other words, as the integrated research in archaeology proceeds from one stage to the next there comes a phase when history, anthropology, and archaeology fuse together and make a better configuration of cultural patterns hitherto unknown in the region. It is gratifying that such signs are already visible in some corners of the academia of the sub-continent.

Similarly, some healthy signs have also appeared at the national levels. Most nations of the sub-continent have now realized the educative values and function of archaeology and many universities and institutions have their own research works going on. These indicators of the growth of archaeology in past few years suggest the growth in methodological organizations in the form of university departments, research units, institutions, museums, training schools and laboratories plus contributions to international organizations, publications etc. as part of the global

* Two best examples of problem oriented interdisciplinary researches could be a) Robert Braidwood's study of the origins of agriculture in West Asia and b) The Tehuacan Archaeological-Botanical Project conducted during 1961-64. The latter is an extensive project that brought to light many facts regarding the origin and spread of agriculture and its role in the rise of civilization in the New World (McNeise 1967:3-13).

archaeology. The need, therefore, is to give a right theoretical direction in the changed function of archaeology and further accelerate the healthy trends to make sub-continental archaeology competent enough to frame general laws, reflect and predict the full and comprehensive picture of man's past, and of course, future.

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