

PART I

THE BACKGROUND

CHAPTER 1

**THE ARCHAEOLOGY OF EARLY HISTORIC
SOUTH ASIA***F. R. ALLCHIN*

The aim of this book is to review the broad developments leading up to and attending the emergence of cities and states in South Asia, and to the formation of what we may call an Indian urban style of life and culture. Our approach will be primarily archaeological, but we shall also take into account such textual, inscriptional or other evidence as available and relevant to our aim. We shall use a definition of archaeology that is rather wider than is common today, but one which has emerged over the past two centuries of research on early India. This definition accepts as ancillary parts of early historic archaeology such subjects as: domestic architecture, city planning and the construction of secular and religious monuments; the development of various branches of art including sculpture and painting; epigraphy and the early use of writing in South Asia; the standardization of weights and measures and the use of coinage. We accept all these as relevant to our subject and as contributing to building up a balanced picture of early historic Indian civilization. We consider them to be as much fit subjects of archaeological investigation as are the more fashionable aspects of the subject. Another feature of our study is that it seeks to adopt an international approach, treating South Asia as a whole (i.e. India, Pakistan, Bangladesh, Sri Lanka and Nepal), rather than restricting our scope to a single country or region. This is probably the first time that such a broad overview has been attempted. In this context we should remark that Afghanistan is for the most part treated as peripheral to South Asia. We shall on occasion refer to such cities as Kandahar, Begram or Ai Khanum, but rather as comparisons for South Asian cities than as integral parts of South Asia.

At the outset we must make another point regarding this book. Although our subject deals centrally with the emergence of cities and states in South Asia, it is not our aim to offer definitions of these and other such terms, nor to become involved in lengthy discussions of matters of archaeological theory. Rather it offers a primarily descriptive account of the emergence of South Asian cities and states, attempting to integrate the several categories of evidence mentioned above.

The subject of this book, *Early historic South Asia, the emergence of cities and states*, is one which has been hitherto largely neglected. The late A. Ghosh, the

first Director General of Archaeology in independent India, was the first archaeologist to produce a monograph on *The City in Early India* (1973). To date there are few comparable works: T. N. Roy's *The Ganges Civilization* (1983) is an invaluable and detailed study of the material culture of 'the painted grey ware and northern black polished ware periods in the Ganga plains', but its somewhat restricted geographical horizon, its focus on specifically archaeological data, and its limited concern with many questions of wider interpretation, make it less helpful for our purpose than it might otherwise have been. Two other recent studies, using settlement archaeology as their base, deserve mention: they are Makkhan Lal's *Settlement History and the Rise of Civilization in the Ganga-Jamuna Doab* (1984) and G. Erdosy's *Urbanisation in Early Historic India* (1988). The scope of both these works is mainly limited to the Ganges valley, and they report the results of field surveys of sites in Kanpur and Allahabad districts respectively. Romila Thapar's *From Lineage to State* (1984) offers a far broader focus on social formations in the Ganges valley in the mid-first millennium BC, and provides many insights into the central questions of the rise of cities and states; but its approach is essentially that of the ancient historian. In some respects similarly oriented is another important contribution, also the work of an ancient historian, Ram Sharan Sharma, whose *Material Culture and Social Formations in Ancient India* (1983) offers a thoughtful and detailed study, although with a somewhat more restricted scope. Its timescale concludes around BC 300, thus leaving aside the Mauryan and post-Mauryan periods which we regard as integral to our subject.

In this situation there appears to be a *prima facie* case for a book of this kind. It is clear that our aims differ from those of most of the earlier writers, both with regard to the breadth of the geographical and chronological horizons we have set, and in terms of the breadth of our definition of archaeology. The task is not made easier by the paucity and restricted nature of much of the available evidence, and one may well wonder why this should be the case. In seeking to find an answer to this question, it may be helpful to enquire into the history of early historic archaeological research in the countries of South Asia, and into its current position. Therefore, before embarking on our subject itself, we shall briefly review this question, if only to offer some explanation of why there should have been such a neglect of early historic archaeology.

The archaeological background

Archaeology was first introduced to South Asia by European merchants, colonial adventurers and travellers. These were followed from the late eighteenth century onwards by British officers serving with the East India Company or in the army. The inception and early growth of archaeology were the work of a series of brilliant scholars, among whom Sir William Jones stands first. Under his inspiration and that of the Asiatic Society of Bengal which he founded in 1784, a

small band of scholars was formed, and the serious business of data collection began. Only thereafter did archaeology take root. Among the achievements of the first half of the nineteenth century were the decipherment of the earliest datable Indian inscriptions, many until that time unreadable even by indigenous scholars, and the discovery of coins of the Indo-Greek and Bactrian Greek rulers of Afghanistan and northwest India. With a few notable exceptions excavation, if resorted to, was crudely done and amounted to little short of plunder.

A notable step forward occurred in 1861 when Major General Alexander Cunningham retired from the army and was appointed as the first Surveyor, later Director General, of the newly created Archaeological Survey of India. Cunningham was no newcomer to the subject: he had already made a study of early coins, and in 1854 published a monograph on the Buddhist remains at Sanchi, *The Bhilsa Topes*, besides numerous other pieces of research. He now embarked upon an epic series of archaeological tours which took him to many parts of northern India, ranging from Bengal to the Northwest Frontier, published year by year in the twenty three volumes of his *Archaeological Survey Reports*. One of his central goals was the rediscovery and identification of the great cities of early Indian literature, that is to say of the early historic period. During his remaining years he published a series of other important works. Although Cunningham contributed little to the development of archaeological research techniques, particularly excavation, his contribution in terms of the rediscovery of ancient India was enormous.

By the end of the nineteenth century certain characteristic features of archaeology in South Asia had become well established. In its protohistoric and early historic phases archaeology had become recognized as an aid to the rediscovery of an emerging and later fully formed civilization, and had accepted its scope as including evidence deriving from inscriptions and textual sources, as well as from coins. It had from the time of Sir William Jones onwards been generally accepted that the study of the monumental remains and ancient arts of Indian civilization were integral parts of the subject.

In 1902, as a result of the direct enthusiasm of the Viceroy, Lord Curzon, John Marshall, a young archaeologist whose early experience had been in Greece, was appointed as the new Director General of Archaeology. His appointment marked the beginning of an altogether new stage of archaeological discovery which lasted, till Marshall's retirement in 1928 and beyond, until the outbreak of the Second World War. During this period almost every aspect of the subject was advanced: excavation, architectural conservation, epigraphy, publication and the creation of museums. Although Mortimer Wheeler was later to criticize Marshall's methods of excavation, the fact remains that they were the basis of his momentous discoveries of the Indus civilization, and the excavation of a whole series of important early Buddhist sites and monuments. Among the early historic cities of South Asia several of Marshall's excavations remain to this day without parallel and as such will be frequently referred to in later chapters of this book. This

positive assessment does not however mean that progress in archaeology in India during this period was uniformly excellent: by the thirties there were already many signs of stagnation and a lack of fresh thinking, and these were highlighted in the critical report produced for the Government by Sir Leonard Woolley in 1939.

Sir Mortimer Wheeler's brief spells as Director General of Archaeology in India and later as Archaeological Adviser in Pakistan, between 1944 and 1947, witnessed his tempestuous impact on what had by then become the sleepy and quietly inefficient Archaeological Survey of India; and on its successor in the newly created Pakistan. Many things demanded revitalization and many needed drastic change. Particularly in the field of excavation techniques Wheeler set out to train a body of young scholars as field archaeologists. The success of this programme has left a lasting record in the great spate of published excavations of the following two decades, and undoubtedly marked the start of a major turning point in South Asian archaeology. Wheeler, however, was from the outset clearly aware of his limited occupancy of both these posts, and perhaps for this reason he set clearly defined objectives for what could be achieved. He realized that there was not time to develop equally all aspects of archaeology or archaeological training; something which in different circumstances he might well have done. As it was many departments were scarcely touched by his reforming zeal. Among the topics which did not receive the attention they deserved were consideration of the wider aims of the excavation of early historic cities, and the practical demonstration of how much might be achieved by more extensive excavation. Apart from the limited training dig carried out under his direction at Taxila (Sirkap), his only other excavation of an early historic city was a second training dig at Taxila, on the Bhir mound. This excavation, which photographs show to have been on a considerable scale, has so far not been published.

Early historic archaeology in South Asia since Independence

It is not our intention to follow the history of South Asian archaeology through the past five decades. Rather, we shall touch briefly on certain aspects of recent archaeological research in South Asia, particularly insofar as they relate to the early historic period. Our aim is to indicate some areas of research which in our view need enhancement, and to point to some instances which deserve further stimulus.

There has been a tendency to neglect the use of archaeology to augment the limited information available for the early historic period, from other sources. This has arisen partly because much greater interest has been generated by the later prehistoric and protohistoric periods; partly because the research programme inaugurated by Sir Mortimer Wheeler concentrated primarily upon establishing basic culture sequences at selected sites; and partly also because of the enigmatic character of the Indus civilization, with its undeciphered script and

sudden demise, which tended to hold archaeologists' attention. Little attention has so far been given to the great potential of the excavation of early historic settlements as a means of learning more about almost every aspect of life and society, and of augmenting the information derived from texts. For example, few complete house plans have been excavated at any early historic site. To find published examples of such plans we have to return to the excavations of Marshall in the early decades of this century! With only a few exceptions, for example at Sonkh (Hartel 1976; 1993a), early historic excavations in the second half of the twentieth century have been confined to cutting tiny sections through city ramparts or occupation deposits with a view to obtaining pottery sequences and chronological data. There are many topics within the field which require properly designed research programmes. For example, archaeologists have scarcely attempted to find ways of throwing light on such longstanding historical debates as those concerned with establishing or confirming the dates of the Buddha or of the era founded by Kaniska.

It is not an exaggeration to say that early historic archaeological research in South Asia has suffered from a number of major lacunae. Undoubtedly the basis of many of these has been the tendency to cling too closely to the methods and patterns of excavation laid down by Wheeler. There are remarkably few instances of innovation of techniques to meet changing objectives, or for that matter of experimentation with some of the new methods which have been developed and successfully employed elsewhere in the world. Another neglected area is in the adoption of new approaches including those which may be characterized as theoretical archaeology. One consequence of this is the all too frequent absence of a problem-oriented approach. Another is the rarity of the use of statistical methods comparable to those employed by the social sciences. A contributory factor may be the relatively limited interaction with archaeologists from outside South Asia possible under the system prevailing during much of this period. In some cases for example, in India, international exchanges and particularly co-operation in fieldwork were for a time actively discouraged. Happily this situation has now changed.

Such general criticisms of course call for some qualification. First of all, it must be remarked that the situation has differed from country to country within South Asia, some showing greater interest in early historic archaeology and others less. Secondly, it is evident that, for whatever reasons, palaeolithic, prehistoric, protohistoric and even medieval research have almost everywhere received more attention, and consequently have remained more lively than early historic archaeology. Thirdly, there are numerous examples of South Asian archaeologists and institutions whose work transcends our criticisms, even if it often lies outside the narrowly early-historic field. For example, in India, Deccan College, Pune, lovingly developed by the late H. D. Sankalia, stands out as a centre which has consistently sought to arouse public interest and support for all periods of archaeology, and to promote international co-operation and exchange. It has also

created a leading South Asian base for scientific specializations in archaeology; and in some of its recent excavations, notably that of the village of Inamgaon, its archaeologists have employed a theoretical approach, and new concepts of excavation and interpretation. Similarly the radiocarbon laboratory established first at the Tata Institute of Fundamental Research, Bombay, and later transferred to the National Physical Laboratory, Ahmedabad, has developed a South Asian centre of repute for physical methods of dating and their applications. In Pakistan, Rafique Mughal's Cholistan survey stands as an outstandingly important and innovative research project, still awaiting final publication, which although largely concerned with the protohistoric period demonstrates how much a problem-oriented approach can accomplish. In Sri Lanka, Siran Deraniyagala's extensive series of cave excavations and the systematic employment of radiocarbon dating in this context offer another outstanding model; so too does the same scholar's major project at Anuradhapura which has been applying modern sampling techniques and a carefully devised strategy of excavation to the rediscovery and study of this early historic city. More such innovative approaches are needed in the early historic field.

The need to enhance early historic archaeology

In the course of writing, we have quite frequently experienced feelings of despair, brought on by the realization of how many opportunities have been lost and how slow has been the advancement of knowledge in so many areas. What makes the situation particularly acute is that, with the continuing population explosion taking place throughout South Asia, whole areas, including ancient cities, which were still reasonably accessible and undamaged in 1947, have since been destroyed or at least put beyond the range of excavation by the process of development. In some cases the extent of change or destruction is extraordinary. For example, Pataliputra was probably the greatest city of South Asia in Mauryan times, and much of it was still available for investigation forty years ago, but since then a great part of the ancient city has been submerged by modern housing and other development as part of the expansion of the city of Patna. In Nepal, the Licchavi capital near the village of Hadigaon, with its royal palace complex, regarding which so much can be learned from inscriptions, has suffered a similar fate. In Pakistan, the second city of Puskalavati (Charsada), at Shaikhan Dheri, was still an open mound of some 36 hectares when we saw it in 1963, at which time the site was declared protected: returning thirty years later we found that nearly the whole mound had since been built on. What makes this case so deplorable is that the buyers of building plots first plunder any ancient remains they can discover and in the course of this excavation most objects and cultural evidence have been destroyed.

Such horrors of course can be found in many parts of the world, and we do not wish to imply that South Asia is in any way unique in this respect. But in some

respects the local situation is peculiarly unfavourable to conservation, because of the great density of population in many areas and its continuing growth, and because of the necessarily limited funds and resources available. Moreover, as we have indicated, the wider situation is not as bleak as the more narrowly early historic picture may suggest. Since the middle of the twentieth century there has been a slow, but steadily increasing, momentum of change, and particularly in the past decade the quality and quantity of archaeological publications, both from the Government departments and more particularly from universities, hold out the promise of progress to come. If our present book appears from time to time to be over critical, it is because of our deep concern at the destruction of the cultural heritage which we have witnessed taking place before our eyes during the past decades.

CHAPTER 2

THE ENVIRONMENTAL CONTEXT

B. ALLCHIN

Viewed from outer space, or seen as part of a physical map of Asia, the Indian subcontinent appears as a discrete unit, a triangular peninsula bounded on two sides by the ocean, and divided from the rest of Asia by three great intersecting mountain ranges. Lying approximately between latitudes 5 and 35 north of the equator, much of the peninsula is in the tropics. Within the region there are great climatic variations, providing a whole range of environments from the humid tropical conditions and residual tropical forests of parts of the south, southwest and east to the desert of the northwest, and including mountains, rocky hills and plateaux, dry forest and savanna, and rich alluvial plains some of which are well watered and others completely arid and unproductive unless extensively irrigated. The major rivers are important features of the subcontinent, and one or more of them have been central to each phase of early city development.

South Asia is a land of massive erosion and deposition, processes natural to the arid tropics which have been accentuated, particularly in the northern parts of the subcontinent, by the rapid uplift of the Himalayas. This has been taking place for several million years, and is still taking place. It is due to the ongoing collision of the Indian peninsula, which was formerly a large island, with mainland Asia. This in turn is part of the process of plate tectonics or continental drift whereby major land masses divide, move around the world and re-combine with other blocks of the earth's crust.

The Himalayas, Karakoram, Hindu Kush etc. are all in geological terms young mountain ranges, still being pushed upward by the force of the collision with peninsular India. As a result the rivers and streams that drain them flow with great force, are constantly down-cutting to maintain their level, and at times carry great quantities of silts, gravels and larger pieces of rock out of the mountains. Most of this material is deposited in the plains, and some of the finer silts are carried out to sea. The result is the wide alluvial plains and great deltas of the Indus and Ganges systems; the coastal plain of Gujarat, formed by the Narmada and Tapi (Tapti) rivers; the extensive deltas of the east coast, and the numerous enclaves of fertile alluvial soils in mountain valleys and among the hills of northern and central India and northern Pakistan.

The combination of forces described above, together with a monsoon climate which means long dry periods alternating with heavy seasonal rains, produces a volatile situation. In the normal course of events sudden heavy floods occur following prolonged dry periods, and failure of the monsoon leading to severe droughts is not uncommon. Major rivers regularly deposit vast quantities of silt on their flood plains, so that the soil is constantly revitalized, which helps to account for its apparently inexhaustible fertility. But the same rivers are also prone to change their courses from time to time with catastrophic effects. There is ample geological and geomorphical evidence to show that events of this kind have been taking place at intervals over many thousands of years due to natural causes. Increasingly the effects of erosion, droughts, etc. have been accentuated by human activities such as deforestation. These are all factors which must be borne in mind when considering the environmental conditions of past times and attempting to reconstruct the surroundings in which the cities of the second urbanization came into being.

South India and Sri Lanka are rather different in some respects. The major eastward-flowing rivers of peninsular India have formed considerable deltas along the east coast, but inland the valleys appear to be scoured of major accumulations of alluvial material. There are a number of reasons for this, perhaps the most fundamental being that southern India and Sri Lanka appear to have been relatively stable during the Quaternary.

Enough has already been said to indicate that the South Asian landscape is extremely varied, and that within the subcontinent there is a wide range of environments that have the potential to lend themselves to almost every imaginable human life style. Since the appearance of the first cities, and probably long before, some of the alluvial plains have been intensively cultivated and densely populated by settled village communities. Herdsmen traditionally inhabit certain of the more arid regions, many of them leading partially or completely nomadic lives which are often combined with trading and seasonal work of various kinds. Even today there are communities in the remoter hills and forests who depend upon hunting and gathering for much of their livelihood, and a century ago there were many more. Communities such as these existed alongside cities of the Harappan period (the first urbanization) of the third millennium BC, and alongside those of the second urbanization which is the subject of this book. Many of the cities of the latter group have been steadily expanding since the period dealt with in the following chapters, and some of them are now among the largest and most cosmopolitan cities in the world. Nomadic communities still move around in the countryside, and enter the cities for purposes of trade, and sometimes to work on building sites and other projects.

Before discussing the environment in which the cities of the second urbanization emerged, it may be helpful to look briefly at the rather different setting of the earlier Harappan cities. The major Harappan cities, Mohenjo-daro, Harappa, Kalibangan, Judeirjo-daro, etc. are all situated on rich alluvial soils within the so-