

## SCIENCE AND THE HIDDEN PAST

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Archaeology is a science which deals with the study of human behaviour in societies that are no longer in existence. It does this mainly by studying the material remains of past societies and by trying to reveal and reconstruct patterns of behaviour or ways of living that can no longer be observed today.

Material remains can be divided into two major groups: artefacts, which are man-made objects of every type and category, from great works of art and architecture and the ruins of ancient cities to simple pieces of broken pottery, tile fragments or 'fossilized' rubbish heaps; ecofacts which are natural objects which have been used by man, or which have been affected by human behaviour or, even, things which indicate the ancient climates and physical environments in which man lived, such as pollen and other plant remains.

Why should we be concerned with studying past forms of human behaviour? The basic scientific reason is that in order to understand any phenomenon thoroughly, we have to study not only its present manifestations but also its origin and development. This is true whether it is the origins of the universe, the origins of life or the formation of the earth's structure and surface. Similarly, if we want to understand human society today and its potential for the future we have to know how human society evolved, the problems

it faced and the solutions it discovered in its ascent from the animal world and its evolution into the complex society of the 20th century.

But there are also important psychological and social reasons for studying and appreciating the past. The search for roots, the concept of progress, the answer to the questions why are we here? where did we come from? where have we arrived at? where are we going?, are all important aspects of man's life-supporting and life-enriching cultural system. They create ethical and moral values, give us identity, give 'meaning' to life and enrich our existence in many different and subtle ways. Above all the knowledge of the past is what gives us that awareness of movement, of historical motion, that allows us to conceive of a future.

All societies have been concerned with their past in one way or another. Modern society knows much more about the past than any previous society and our knowledge is due to the study of such subjects as astronomy, geology, palaeontology, archaeology and history. Modern archaeology arose from three specific aspects in the development of modern knowledge: one, the renewed interest in ancient art and culture that arose with the Renaissance - it was this cultural and philosophical development that also brought about the birth of modern science; two, the study of geology, which produced an interest in past processes and past environments and gave us a systematic method of measuring great epoch of time; three, the study of evolution,

particularly the evolution of man and his physical and cultural ascent through time. In keeping with these complex roots, modern archaeology is the one field of the social sciences which involves almost all the natural sciences, the social sciences and the humanities. Thus the phrase "Science and the Hidden Past" has a specific meaning when applied to the field of Archaeology. What we are attempting to do today is to give you a general idea of what Archaeology is and to give you a glimpse of what kind of work archaeologists do, what phenomena they study and what methods they use.

### CYCLES OF GLOBAL HISTORICAL DEVELOPMENT AND URBANIZATION IN ANCIENT SRI LANKA

What is presented here is a broad review of the Sri Lankan data on urbanization in order to draw attention to generalized patterns of trans-Asian historical development. This study takes its place within the framework of two major theoretical problematics - one, a group of questions regarding urban genesis and urban function; two, the problem of why the technologically advanced, substantially-urbanized, substantially-mercantilist societies of Asia failed - in the period between the 11th and the 15th centuries to generate the dynamics and momentum that produced the modern transformation which took place in Europe from about the 15th and 16th century onwards.

Each one of the countries of the South Asian region has significant and unique contributions to make to the study of these

problems. Looked at in a long-range perspective, we are able to propose at least three global cycles of historical evolution relating to the phenomena of urbanization in South Asia and beyond. The first of these cycles is associated with the great chalcolithic-bronze age transformation that took place in the 3rd and 2nd millenium B.C. in Africa (in the Nile Valley), in three key nuclear zones in Asia (i.e. Mesopotamia, the Indus valley and the Yellow River valley) and in South-east Europe. The second cycle begins with the generalized diffusion of iron technology in the Old World through the 1st millenium B.C., culminating in the emergence of a number of historical civilizations. The beginnings of urbanization in Sri Lanka, represented by the key site of Anuradhapura, is located within this time horizon.

The third cycle overlaps the second. It has its roots in the 7th century, with the end of the classical era in Europe and West Asia, the dynamic rise and expansion of Islam, the exponential developments of the civilizations of post-Guptan South Asia and T'ang China, and the emergence into the full light of history of Japan, Korea and Southeast Asia. This third cycle has its culmination in the developments of the post-13th century period - that critical period which saw the dynamic rise of Europe.

The 11th/12th/13th century marks, a critical watershed in the Asian historical trajectory. In Sri Lanka, in particular, as in South-

east Asia, this boundary is as or more important as that of the 7th/8th century. Our hypothesis of the 'second urbanization' belongs to this time horizon.

The urban forms of the 'first' urbanization in Sri Lanka are important for the evidence they provide with regard to the spatial morphology of urban centres, the social meaning and function of the urban form, the internal organization of space, general evidence of urban lifeways, and so on. The cities of the first urbanization were the great power centres of a dominantly-centralised state. They are characterized by a geometricality of form and a monumentality of structures, reflecting the nature of their relationship with the other constituent elements of the society at whose centre they stand. The 'second' urbanization sees a fracturing and dispersing of this systemic concentration of power. It is marked by the decentralization of polity, the emergence of multiple kingdoms and mini-and micro-polities associated with a variety of urban and port centres - all manifestations, in my estimation, of a new historical dynamism in which commerce, mercantilism and cultural cosmopolitanism played a significant if as yet incalculable role. The long-range implications arising from our investigation involves the question of why this dynamism failed to respond to the challenges that arose in a fourth cycle of global change that begins in the 15th and 16th century in Europe.