

ARCHAEOLOGY IN INDIA TODAY'

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I FEEL DEEPLY HONOURED BY THE GRACIOUS INVITATION EXTENDED TO ME TO DELIVER THE Convocation Address at the second Convocation of the now well-established School of Archaeology of the Archaeological Survey of India. I feel humbled too. Honoured, because the invitation has come from a department of the Government of India which, by its silent but devoted and dedicated labours, has contributed largely and significantly to the rewriting of the history of our land and its people, has added considerably to the image and glory of our past and has helped to develop a new science and academic discipline in our country, now come to recognition by the highest scientific and academic bodies. Humbled, since I have never been a student of archaeology in the contemporary connotation of the term, far less a professional archaeologist. I have, therefore, no claim to the honour that has been so kindly extended to me, and I feel somewhat diffident to wear a crown that would have better adorned a more distinguished head in the field of archaeology proper.

Yet, I must confess, archaeology—particularly, Indian archaeology—is an area of intellectual discipline that has been having a strong and loving grip on me since I became, back in 1926, of my own choice, a private student of that doyen of Indian archaeologists, the late Rakhaldas Banerjee, and some of you must be knowing that his enthusiasm for the subject was as infectious as his vast knowledge and experience were inspiring.

And then, since I have always been a close student of ancient Indian art, history and culture, a blood-relationship, however removed in degrees, with archaeology was inescapable. All our materials for the study of art and architecture or iconography come, as you know, through archaeology. We have, therefore, to assimilate a good deal of archaeological information; in the process archaeology became, with many of us at any rate, identical with or a handmaid of the history of Indian art and architecture. So was it with our epigraphists and numismatists, whose source-materials too came through archaeology but whose dependence was basically on their philological and linguistic discipline. They and, in general, all chroniclers of our history and culture thus came to regard archaeology more as an illustrative commentary on the texts, epigraphic or literary, which they were concerned with. Archaeology was, therefore, identical with or subordinate to art or philology. Even today, in my university, the University of Calcutta, the post-graduate syllabus on Ancient Indian History and Culture includes epigraphy and numismatics on one hand and art, architecture and iconography on the other, under the head 'archaeology'. I believe, the case is still more or less the same in our older universities. We have yet to admit that an art-historian or an epigraphist or a numismatist

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is *not necessarily* an archaeologist in the modern sense of the term, though an archaeologist may specialize, if he chooses, in art or epigraphy or numismatics, to enable him interpret his finds more competently than otherwise.

Besides, until very recently archaeology was something with a strong undertone of romance, and the archaeologist was a romantic hero out in the wide open of the desert or braving his way through impenetrable forests in search of cities and palaces, or of magnificent works of art or accumulated treasures of kings, generals or priests lost for long under the débris of centuries or in the womb of dark forests. Sensational stories of archaeological discoveries in the valleys of the Nile and the Tigris-Euphrates or elsewhere, of the nineteenth and early twentieth centuries, the heroic and sometimes mysterious deaths of not a few of eminent archaeologists in the course of their brave quests, the descriptions of little-known or uncharted regions, etc.—all glamourized ten-fold by the press—went to deepen and expand the tones of the romantic halo the archaeologist was supposed to wear. During the years 1924-26, when I was a student of Ancient Indian History and Culture in Calcutta University, the charm and spell of Mohenjo-daro and Harappa, of Taxila and the central Asian deserts were overpowering, and you can well imagine what romance archaeology held out to us. I cannot say that that romance has altogether worn off today. After all, there must be some romance in life to live by.

It took me and many like myself more than half of our active intellectual life to realize that a sensational discovery, such as that of the tomb of Tutankhamen or of the cities of Mohenjo-daro and Harappa, are almost always the crowning achievements of long years of patient labour, methodically pursued, and are not ends by themselves, and that the charred fragment of a piece of wood, a tiny sherd of a half-burnt pot or a heavily-rusted iron nail picked up from the bottom of a pit fifteen feet deep is as important to the archaeologist as an inscription of Aśoka, the rock-cut sculptures of Ellora or the magnificent temple at Konarak. Indeed, not until very recently did we come to the knowledge that archaeology as a discipline was something distinct and different from the discipline of art-history or that of philology and linguistics or even that of history.

The reason for the state of things I have just referred to has to be sought in the very history of the origin and evolution of the discipline of archaeology. During the Renaissance and Humanistic movements in Europe, the classical world of Greece and Rome all but monopolized the imaginative vision and intellectual horizon of scholars and men of letters, to whom archaeology was, very understandably, synonymous with the art-history of the Graeco-Roman world. Indeed, archaeology seems to have provided the key with which they unlocked the gates of the temples of ancient muses who were supposed to have been held in bondage through the long centuries of what was called the Dark Age. Europe seems to have rediscovered her body and spirit in the knowledge, wisdom and aesthetic values of classical Greece and Rome.

This one simple fact of history of sixteenth-century Europe led to the tying up of archaeology with art-history on the one hand and philology on the other, and hence also with history. The situation continued to remain very much the same throughout the seventeenth, eighteenth and a very good part of the nineteenth century, and, in the process, so far as formal teaching and learning at institutes and universities were concerned, art-history, philology and archaeology went together and formed part of one and the same syllabus of study. It is still the same in many European and American universities, nothing to say of our own in India, where the tendency is still to keep archaeology tied up with art, philology and ancient history, for very understandable reasons, I must admit—reasons of finance, employment-chances, interrelation of the disciplines, etc., for instance.

Nevertheless, one has to admit that archaeology, as understood and practised today everywhere in the civilized world, is distinct and different from art-history in more respects than one. Works of art admittedly belong to the domain of archaeology but purely as historical documents, throwing light on one or more aspects of the history of human civilization of a given time and space. But works of art, from the point of view of art-history, are studied more for their aesthetic value, and hence aesthetically the more significant ones are the concern of the art-historian, whose main aim is to find out the aesthetic tastes and ideals, forms and techniques of a given epoch. But to the archaeologist even a most indifferent work of art incompetently executed may be as important a find as the Gaṅgā image from Besnagar, for instance; his function is not to interpret *selected* examples but to study and interpret historically *all* materials of a bygone civilization left inside and above mother earth. From his point of view an artefact that reveals a stage in the evolution of a tool-type may be more important than the artefact itself. The approach and method of the two disciplines are, therefore, basically different.

So is archaeology different from ancient history, though it must be admitted that the former is a cognate, an auxiliary, to the latter, and they are closely interdisciplinary. Yet, there are certain basic differences between the two disciplines. First, history is primarily concerned with selected regions which have written records, of Pāṭaliputra or Kānyakubja, Mathurā or Kāñchī, for example, and it is these regions that loom large in its narratives—regions the rôle and influence of, which have determined the shape and form of a given civilization. Secondly, history deals primarily, so far as ancient and medieval periods are concerned, with the dominant classes, the higher levels of society—the kings and the nobility, the priestly and the feudal classes—who leave behind their own records, directly or indirectly, in writings or in monuments, or in both. And thirdly, history is more or less strictly confined to the periods for which there are written records. Indeed, history starts with the beginning of writing in a given civilization; what goes before is pre-history or protohistory and is not the concern of the historian. Since archaeology, on the other hand, seeks to reconstruct the material civilization of man since the earliest times, it is concerned not with *selected* regions but with *all* regions, even the most lowly ones if it holds in its bosom the remains of a bygone civilization, from potsherds, grains, pollens, utensils, weapons, tools of any sort, peasant-houses, earthworks, beads, etc., to palaces and fortifications, tombs and towers, temples and precious jewellery. From this it follows that archaeology takes into fullest account all classes and all levels of the society of a given time and space, not merely the dominant and upper ones. And in addition, archaeology includes written records as well and takes them into full account, even the textual ones. In fact, in Indian archaeology, the written material, including epigraphic and textual material, and the purely archaeological material are more often than not complementary to each other; when carefully and critically, yet imaginatively, utilized, they can make the history of a given period not only rich and lively but also significant.

With all this, the fact remains that the aims of archaeology and history are identical, both attempting to reconstruct the story of the material civilization of man from its very crude and primitive beginnings to the present day, and this stage by stage, region by region, along the arrowline of time. Archaeology and history are, therefore, interdisciplinary. An archaeologist can ignore the discipline of history—objectivity of outlook, critical appraisal of evidence in obedience to its laws, rules of historical criticism and judgement, etc.—only at his own peril and that of archaeology itself. Equally important is it for the historian to realize that he cannot, merely out of written records, reconstruct the past without taking into account what the archaeologist brings forth from the womb of the earth. And just as, with the widening horizons of historiography and consequently changing conceptions of history, the historian has to take into account not merely the discipline

and fruits of archaeology but also of other social sciences, so archaeology too, to be able to yield the best and fullest results, has to take the aid not only of such human sciences as anthropology and sociology but also of such physical and biological sciences as physics and chemistry, palaeontology and palaeogeography, botany and geology, not to speak of history.

To begin with, the archaeologist must know the ground under his feet, which means that he must be able to understand the nature and character of the soil including those of the rocks and the earth in its various transformations through the ages, the various successive stages in the evolution of its flora, and the bones of men and animals that it contains in various stages of decay and decomposition. He must also be able to understand the meaning and significance of the materials which went to the making of the various objects left in the womb of the earth—tools and weapons, pottery and household requisites, remains of food and clothes, houses and fortifications, hearths and burials—the material which such objects were made of, the geological circumstances in which all such objects were found, the climate of the times to which the objects belonged and the effect of geology and climatology on the objects themselves. *Secondly*, modern ways of archaeological reconnaissance and exploration include not only chance-finds and surface-indications on the ground and sometimes literary and textual information, legends, traditions and folklore, but also recent methods of geophysics, soil-science, aerial photography, electromagnetism, underwater detection, etc. *Thirdly*, even in excavation-work, morphological and stratigraphical analysis of finds presupposes a knowledge of fundamentals of chemistry, physics and geology, besides a very close observation of every single shade of discoloration or trace of imprint left in or on the earth and the ability of the archaeologist to explain it. *Fourthly*, problems of dating of archaeological finds have today come to adopt methods that were originally evolved in the study of the natural sciences, as for example, the study of typology, stratigraphy, distribution and environment in determining relative chronology, and dendrochronology (concentric growth-rings in the trunks of trees), radio-carbon tests, astronomical calculations, fluorine-contents of bones, magnetic measurement for pottery, etc., in determining absolute chronology.

It is not, therefore, difficult to understand why archaeology today has come to demand of its votaries the rigours and precision of a real scientific discipline; indeed, the Indian Science Congress have been recognizing it as such for some time past. In this recognition we have not been much out of touch with what has been happening in the western world, where too it is only in course of the last two decades or more that archaeology has been evolving its modern connotation, conception and techniques.

When, therefore, five years ago, despite full-fledged post-graduate courses in Ancient Indian History and Culture, with specialization in art, iconography, epigraphy, palaeography and numismatics, in some of our universities, the Archaeological Survey of India, led by my esteemed friend Shri Amalananda Ghosh, conceived the idea of instituting a School of Archaeology to impart, under the Directorship of one of our ablest prehistory scholars, Shri B. B. Lal, a full-course scientific training in the modern concepts, practices and techniques of archaeology, I happened to be one of those who welcomed it with all our heart. *First*, because it was necessary to de-amateurize archaeology, if I may use such a term, once and for all; *secondly*, to divest the subject of its long and almost absolute obsession with art and monuments on the one hand and written records, be it even epigraphy or numismatics, on the other; and *thirdly*, to enable us systematize the knowledge and experience our leading professional archaeologists have been acquiring since Sir Mortimer Wheeler came into the field of Indian archaeology, and prepare more and more young men and women for serious pursuit of the subject on modern lines. About this

time the University Grants Commission also came to feel the need of introducing archaeology as a more or less autonomous discipline in the humanity-courses of half-a-dozen of our universities. I have no doubt that this too has been a move in the right direction, since at least a few of our universities had already been doing good and important work in field-archaeology, the contribution of the Deccan College, Poona, led by Professor H. D. Sankalia, being the most significant in this direction.

Modern archaeology in India is only a little over twenty years old; it is just on the threshold of being considered and recognized as an adult. But in course of these two decades Indian archaeology has made tremendous progress not only in widening and deepening our knowledge of the country's most ancient past, and bridging, however imperfectly, the yawning gaps between our prehistory and protohistory on the one hand and protohistoric and historical periods on the other, but also in evolving principles, methods and techniques that have added to the cyclopaedia of world-archaeology and in establishing our contacts and relationships with other comparable cultures and civilizations. We now have a clearer picture of the Early Stone Age and also the knowledge of another Stone Age, its geographic extent and the environment of the Stone Age man and new, though yet hazy, knowledge of certain mesolithic or transitional cultures and of the pastoral-agricultural peoples of the Neolithic Age. During the last ten years or so, extensions of the Indus valley civilization have been located as far east as near Delhi and as far south-west as Kutch and Surat, along with a number of new features not noticed in the Indus valley proper. We also have a better and more accurate knowledge and appreciation of how the Indus civilization was supplanted by civilizations in the Gaṅgā valley, Rajasthan and Malwa, all with their distinctive features. A new chapter has been added to our knowledge of Indian prehistory and protohistory by the discovery of the chalcolithic culture of the Deccan and its character in so far as the life and economy of the people of this culture are concerned. Equally important is the extension of our knowledge of Indian megalithic cultures and of the general acceptance of pottery as an unfailing index of any prehistoric and protohistoric culture in India as elsewhere.

In historical archaeology too, the unceasing labours of the last twenty years have yielded rich dividends in the shape and form of discovery of new sites, giving us a better knowledge of Indian city-planning as at Sisupalgarh and Arikamedu, Nasik and Nevasa, Ujjayinī, Kauśāmbī and Nagarjunakonda; of epigraphic records, including the discovery of Aśokan records at Kandahar in Greek and Aramaic, at Gujarrā in central India, near Ahraura in Mirzapur District and at Rajula-Mandagiri in Kurnool District; two small records establishing the identification of the Ghoshitā:āma-vihāra at Kauśāmbī and the Raktamṛittikā-mahāvihāra at Karṇasuvarna; a number of *yūpa*-inscriptions from a number of sites; a Brāhmī inscription in a cave at Mamandur, near Kanchipuram, and graffiti at Arikamedu, both presumably in early Tamil, and a set of copper-plate inscriptions from Chinchani in Thana District throwing new light on early Rāshtrakūṭa-Śilāhāra relations with the Arabs. Discovery of monuments, such as Buddhist establishments at Ratnagiri, a Buddhist *stūpa* and monastery at Devnimori, a Buddhist temple and *vihāra* at Sirpur, a Buddhist *stūpa* and *vihāra* at Kauśāmbī and a whole complex of Buddhist establishments and an amphitheatre at Nagarjunakonda, have all gone a considerable way in extending our knowledge and understanding of Indian art, architecture, iconography and religion.

Yet, and despite all these important and significant, if not spectacular, achievements of Indian archaeology, there are wide and deep gaps in our definitive knowledge of the ancient and medieval past of our country and people. When, for example, did the Early Man make his first appearance and in which regions in India and under what climatic

conditions? What were his environments, his ways of life? We know somewhat the answers to these questions, but our knowledge is not yet very precise, far less full and exhaustive. Who were the people that reared up the chalcolithic culture of the Indus valley and how was the torch of this culture carried east and south-west? How is this culture related or not with the chalcolithic culture of the Deccan? Here, too, we have perhaps a sort of working hypothesis to go upon, especially after the most recent publication of the results of re-examination of skeletal remains of the Indus valley by the Anthropological Survey of India, but our knowledge still remains very hazy and uncertain. The megalithic problem of south India too still remains unsolved, and we know practically nothing of the relation of this culture with the megalithic culture of Karachi or, as a matter of that, of Europe. Then, there is the biggest problem of our neolithic culture. We do not have any answer to such questions as: when and how did man in India transfer himself from a food-gathering economy to a food-producing economy, that is, when did he take to agriculture and domestication of animals, especially to plough-driven agriculture, when was wild rice domesticated, how did we evolve the polished stone implements or did they come from outside, and if so, from where? When, whence and how did most of our edible vegetables domesticated, that is, made non-poisonous? When did textile make its first appearance and what were the tools and techniques of its manufacture? What were the tools and techniques and history of the evolution of our early metal-industries, of boat-building, for example, and a dozen of other crafts without which no urban civilization is possible? Then there still remains with us the almost eternal Aryan problem. Who were the Indo-Aryans, whence did they come and how? What was their economy, and how were they related with the Aryans elsewhere, in Afghanistan, Iran and Europe? We have philological and literary answers to such questions, but they lack foundation on the solid rock of archaeology. And how were the Indo-Aryans related or not with the chalcolithic peoples of the Indus valley? Certain answers have been sought to be given to this question, but they are at best conjectural and hypothetical.

Even in respect of the archaeology of the historical periods we have no answer to such questions as to what the nature and character of the social and economic life of the people of the very well-known but so-called Maurya and Gupta periods of Indian history or, as a matter of that, of the urban life of the people of even such cities as Pāṭaliputra or Kauśāmbī, Kānyakubja or Ujjayinī. We have here, too, certain answers, perhaps, from literary and textual, that is written, sources, but they invariably lack archaeological confirmation. Despite Kālidāsa and a host of other literary authorities, the excavations at Ujjayinī have not yet upheld their rich and colourful descriptions of the city during the so-called Gupta culture-period. Indeed, we are not likely to have any such confirmation or more precise and clearer knowledge unless and until these cities and the outlying areas are excavated horizontally in a large scale.

Here then is a voluminous corpus of work awaiting the energy, initiative, vision and knowledge of our archaeologists of today and tomorrow. Their steady, patient and dedicated labours will take decades, if not generations, to find adequate and satisfactory answers to what must be considered only a few of the many questions that Indian archaeology faces today. Here is your opportunity—you who are graduating today from this School of Archaeology after two years of hard study and a harder qualifying examination—to put into effective operation the knowledge and efficiency each one of you has been able to acquire in the field of his choice. Whether you go back to your respective departments of archaeology or your universities, you will have scope and opportunity, provided you work for them, to use your energy and talents towards the solution of one or more problems I have just referred to. It is not destined for one to do much in one's short

span of life, but, as someone said, one step forward is achievement enough for one's life. I wish most sincerely this achievement to each one of you. Heavens be with you, now and always.

One thought and one prayer more, for the Indian School of Archaeology, which today you are leaving behind.

A School of this kind is not, to my mind, merely an institution with a locale and habitat; it is a way of thinking and doing in a specified field of human activity symbolized and given shape and form in an institution. From this point of view the School of Archaeology is the symbol of whatever Indian archaeology and the department that organizes and administers it, as well as our university departments of archaeology, stand for.

When, therefore, this School came into being, I had the vision of its one day being transformed into an Institute of the kind and character of the British Institute of Archaeology, the history and tradition of which must be well-known to you all. Last year, when Shri B. B. Lal, your Director, led the expedition to Nubia, or my ex-pupil, Survey Superintendent Shrimati Debala Mitra, our first woman-archaeologist, took out another expedition to the Nepalese *tarai*, I loved to imagine and visualize that they were doing so in the name and under the banner of the Indian School of Archaeology, the School viewed as an idea and a symbol, just as the British Institute of Archaeology had done in Ur, Crete, Egypt and elsewhere.

But visions and sentiments apart, I have another practical consideration in mind when I plead for an expanded transformation of this School of Archaeology.

The future of Indian archaeology, in its national and international import and the problems connected with it, opens up before us a vast vista that cannot be adequately dealt with, I am afraid, by the existing excavation wing alone of the Archaeological Survey of India. As it is, this wing is more than overworked even within the national sphere of our problems. A few of our universities have associated themselves in this field and are doing important and significant work; even then it is not enough to cope with the immensity of the task. The State departments of archaeology are also perhaps active and productive in their respective spheres, but by the very nature of their organization, their work is somewhat obliged to be of regional import, though at times they may contribute towards the solution of problems of national, even of international, significance. Considerable expansion of the Excavations Branch of the Survey is, therefore, called for even in respect of our national problems in this field.

But it is increasingly becoming clearer that there are certain very important problems in Indian archaeology solution of which does not lie within the territorial confines of India alone. The megalithic problem, the question of our chalcolithic cultures and its bearers, the neolithic question and all problems connected with it and the Aryan problem, to cite only a few cases in respect of our prehistoric and protohistoric cultures, cannot be solved without reference to the archaeology of the Mediterranean countries, of Egypt and western Asia, of central Asia and eastern Europe, perhaps also of south-east Asia and China. Even in the archaeology of historical periods, the Śaka-Kushāna and Hūna-Gurjara complex—in a word the nomadic-pastoral complex of Indian culture—cannot properly be understood, to my mind, without reference to the archaeology of central Asia and eastern Europe, and perhaps also of China. The intimate relationship of Indian archaeology with that of Nepal and Tibet on the one hand and the entire south-east Asian complex on the other is much too well-known to need any reiteration. All these are problems of international import.

And it is here, I fondly imagine, that the School of Archaeology can play a significant rôle if only our Government, with the active help, co-operation and guidance of our resourceful and sympathetic Director General and his efficient Survey, would agree to raise it from the status of a mere teaching institution to that of an active field- and research-organization as well, of international significance, teaching being one of the aspects, albeit an important aspect, of its work. It will be for this School to enlist the co-operation of our university departments of archaeology whenever and wherever necessary and work out co-ordinated plans and organize and lead expeditions abroad, in collaboration with local archaeological organizations, if and when necessary. I am proud of our Archaeological Survey, which is one of the most efficient departments of the Government of India, and I know there is enough talent, vision, knowledge and experience in the Survey to enable it give the School the shape and form I have in view.

I hope and pray, my vision of the School will one day take a concrete form, and by God's will, that day may not be very far.