

Controversy related to ‘Typology’ in Indian Prehistory: A Report

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Abstract

The aim of this paper is to discuss the different types of tool traditions that have been discovered from different parts of the world in response to India. The objective of prehistoric typology research is to identify various tool-making processes used by prehistoric humans in various locations during the early stages of their cultural development. The study of tool types seeks to determine the development, contact, and migration of different traditions, as well as their impact on past cultures. Different tool kinds are classified based on morphological criteria such as form, technique, and possible functional value. It is not necessary that all tool types found all over the world should conform to the defined typology since prehistoric men made tools according to their convenience. Therefore variation in the style of the types of tools is natural. So, it is obvious that the tools found in Europe, East Africa, or India is not identical to one another.

Keywords: typology, stone tool, migration, comparison, culture

Many questions arise when we study prehistoric tools. What is the purpose of studying Stone tools? How many are there? Why should we study them? The answer is very simple. By examining the tools and implements used by prehistoric people, not only we can achieve a greater understanding of their culture but also certain intangible aspects of culture. Prehistorians are primarily concerned with classifying and identifying patterns in the numerous artifacts that they recover from surface clusters or from the excavation of habitation deposits because typology forms the essential framework for the study of Stone Age cultures. The majority of the artifacts created in the early phases of human

biological and technological evolution were made of stone, but later on, organic materials such as wood, bone, antler, and horn were also used (Mishra & Nagar 2009).

Archaeology's basic unit of classification is a type. One could consider Francois Bordes (1961) to be the founder of typological studies. Typology has two aspects: the functional and the morphological. The former is focused on the purposes of tools, whereas the latter is more concerned with their forms and manufacturing methods. The primary function of this type is descriptive in nature. Sometime, typological study speaks often unbelievable and needless assumptions. 'Typology is a dangerous device and must be used only with due precautions' say Child (1936). In archaeology typology has been taken as a chronological and interpretative device. Typology denotes generally the classification of remains and specimens according to the type they exhibit and its evolution. The classification of tools or remains according to the type and evolution is supposed to convey 'implication of a cultural and chronological kind'. In 1929 Child observed 'where stratigraphy or geological evidences is lacking, we must have resource to typology. This depends on the assumption that types evolved (or degenerated) regularly'. But this assumption is not wholly correct and is sure to create confusion. Subsequently, Child (1936) realized the drawbacks of the typological study and sounded a note of warning regarding the pursuit of typological method in the study of prehistoric stone tools.

Normally, typological study creates confusion and leads unnecessary confusion. As already we know, stone tools were first studied by natural scientists who accepted them as fossils like other fossils that 'prone to the law of evolution'. Defects of typological study become evident when we take into consideration the nature of stone tool findings in India. Generally, many sites in India have yielded stone tools which are invariably of mixed types. Hence, it is not possible to determine the typological sequence of stone tools. Again, typological study unconfirmed/unverified by chronological evidence is unless for dating and classifying stone tools. Even the 'typological series' may turn out to be bogus.

Yet, stone tools of India have been studied typologically and different stages of their technological development determined. Tools have been compared, similarities and dissimilarities pointed out and the travel of ideas or culture constructed. The stone tools in India have been found to have a uniform distribution bearing likeness with those from Africa and Europe. It has been urged that 'tools from South India, Africa and South England, show identical techniques of manufacture and form, and in all these areas essentially the same evolution can be traced'. Then, the tool making tradition in the

Palaeolithic has trans-continental distributions. Even if early stone tools were man-made, the argument of 'trans-continental distribution' seems unsound. On the assumption of trans-continental distribution of early Palaeolithic stone tools from India have been classified on the European model. European nomenclatures have been used to describe a particular type of tool. We are all well acquainted with such terms as Abbevillian, Chellean, Oldowan, Acheulian, Clactonian, Mousterian, Levalloisian etc. It implies that tools in India and Europe were made after similar fashions or techniques. It may not be completely impossible, but its probability is significant. The application of European nomenclatures is not only unscientific but wholly unsatisfactory. It is unthinkable that the Indian Palaeolithic passed through the same stages as in Europe. Besides, the geological confirmation is absent in most cases. It has been truly said that the practice of applying one and the same name to a period or to a culture has been responsible for horrible confusion and remains an obstacle to its clear thinking.

In general, each region should present its own ways of making or fashioning tools. The nomenclatures of different stone tools and their classifications used generally in India should be better confined to Europe alone. It seems improper to imprint European techniques and classifications on Indian stone tools. Early stone tools of India, if they are really man-made, might have their own techniques of making and require to be classified accordingly. Even with the geographical horizon of India, different parts have also developed different techniques in response to environments. After all, 'archaeological aspect is local'. This point has been further clarified by Child (1961) who observes: 'any tool is a social product; its manufacture and use and therefore its forms too are conditioned by traditions of social groups which make and use it. American table knives and forks are quite different from those current in Great Britain.' Uniformity in tool techniques or forms in all parts of the world is unimaginable.

In order to tide over these difficulties and confusion, nomenclature like 'Soan-Levallois-Acheulian' are also used, perhaps to describe the likeness between two or three types of tools. But such terminologies are also unhappy and carry little sense. It would be always preferable to name a particular industry after its locus. This is the fundamental principle of archeology. On the other hand, if tools from different parts of the world are alike in forms and techniques, they are so, not because of the employment of an identical technique but more so, because of their making by nature under similar conditions and circumstances.

In this context, a particular reference may be made to the result of typological study made in India with regard to the stone tool complexes from the Soan valley, Burma, South East Asia and China. Movius (1949) thinks that tools from these places 'appear to be related to each other'. It has been accordingly urged that early implements from these regions belong to the chopper-chopping tool complex. From Soan to China via Java there is continuation of the same tool making tradition. But there exists a territorial gap between the Soan in the North-west and Burma. Piggott (1950) argued that at least we can say that the Soan industry is of East Asiatic in affinities. It may be assumed that so-called Abbevillian-Acheulian tools of the Soan valley have western and the eastern Soan specimens, eastern affinities. But Movius (1957) has told that it is not possible to establish the priority of one of these two tool complexes. On the whole then, the Soan industry has both western and eastern affinities, and this is a contradiction of the theory of an absolute East Asiatic complex of the Soan implements. Even the typological reconstruction of Movius has been questioned and certain differences between the chopper tools and Soan valley and those of Burma and China have been pointed out. Accordingly, it has been urged that the 'Soan is essentially regional' in character. In that case, any presumption of one common origin of chopping tools does not seem proper. Affinities may be detected but that does not necessarily imply a common origin. Even pebble tools from various parts of India do not always display unmistakable likeness with those from the Soan valley. This does not, however, mean that there are no similarities between tools from various parts of India and outside. But likeness of tool belonging to different regions does not necessarily imply a common heritage.

It has been again urged that 'similar forms of tools could not have evolved in different countries absolutely independent of one another; so a cultural relationship is obviously indicated'. But the stone tool-making can advance and make progress quite independently of one another in response to environment. It is highly improper to suppose that tool-likeness is an indication of cultural relationship or migration of peoples. From the typological affinities of the stone tools it becomes clear that they have both eastern and western affiliations. In such a case, it is extremely difficult to determine the original source. In reality, stone tools all over the world bear striking likeness in forms and techniques and also in raw materials. Such a likeness amongst early tools is apparently a dirty presumption if they were actually made by man. No two stone tools can normally be alike in flaking or flake-angling or in other techniques, if they are the products of man. Even Child (1956) urges that 'no two hand-made tools are identical'. It is rather unthinkable that in those early days when there was no marked specialization, tools made by different persons would be alike.

On the other hand, identical tools could have developed quite identical of one another. Long ago, Lubbock (1865) observed that the 'simple arts and implements have been independently invented by various tribes, at different times, and in different parts of the world'. Later, Braidwood (1951) contends that 'similar looking industries evidently developed in response for needs of existence even though they may have started at different moments and lasted for different moments and lasted for different lengths of time'. Similarly, Wheeler (1966) observes that 'we need not exclude the possibility that two different men, living in two different places and ages and without cross reference, may both have invented safety-pins'. Accordingly, tool-likeness might be the result of individual or group achievements, quietly independent of one another.

But differences in tool-making by man seem to be expected in prehistoric times. Nature alone can make identical tools. Analogous natural conditions might have been responsible for making identical tools. Similarly, the use of the same raw material for tool-making in certain parts of the world is also striking. The only alternative then is to suppose that stones available in similar environment were perhaps transformed into chipped implements by similar actions of nature. This explains more reasonably the sameness in tools forms distributed over different parts of the world. A uniform distribution of handaxes over different parts of India and outside has been supposed as an indication of the travel of ideas and migration of peoples. Previously, the scientists speculated that the Stone Age man entered into India from Europe. In 1906, Logan tried to prove that the Palaeolithic men of India were immigrants from Europe...' So also were the opinions of others. Now it is thought that the early Palaeolithic man came to India direct from Africa.

Coon (1963) believes that there was only one way of making stone tools and that tool-making began in Africa in the second half of the Lower Pleistocene. These tools were simply pebbles and choppers and subsequently, simple techniques spread to South-east Asia. Keonigswald (1966) similarly holds the view that the 'handaxe cultures developed in Africa'. Wheeler (1960) also takes Africa as the primary center for the dispersal of the handaxe culture, and he says that we are opposed with diffusion of ideas. Bordes (1956) suggests that 'an African influence spread to South-western Europe, bringing cleaver, unknown to the European Acheulians'.

Similarly, travels of the Early Palaeolithic man and his ideas from Africa to the South and from the Eastern horizon to India have been postulated. Soundararajan (1952) could find out likeness between the Giddalur (Kurnool) and Kafuan or Oldowan industries. This has also been noted by Koenigswald (1966) who after Burkitt and Cammiade contends that the 'Victoria West type is also known from

Giddalur and Bhavanasi gravels of India'. He has also referred to the Madras laterites yielding 'Acheulian handaxes and cleavers side by side, just as in the classical sites of Africa'. In this context, a reference may be made to the claim of Khatri (1966). He claims to have discovered the Oldowan industry belonging to the Abbevillian and Acheulian complex in the Narmada valley. He also suggests the evolution of the latter from the former. In that case, the handaxe might be taken as an independent development on the soil of India. But investigations carried out in the same horizon by Misra, Pappu and Sen could not discover any such 'Oldowan Horizon'. According to Zeuner, the Narmada industry is much later. Besides, the simple occurrence of pebble tools in an assemblage does not necessarily preclude Oldowan industry. On the other hand, Gupta (1962) equates the so-called Oldowan tools with the Chelles-Acheul forms. Dasgupta (1968) makes the stone tools from West Bengal (especially Susunia & lower Subarnarekha valley) contemporaneous with the Kafuan and Oldowan implements.

Other scholars have suggested the correlation of the South Indian pebble tools with the early Acheulian industry. Koenigswald (1966) has again referred to the affinities of the Java, handaxes including 'rostracarinates and large flat scrapers' with the Sangoan of Africa. He says that this very fact has been so long overlooked. Besides, the rostracarinate types have their counterparts in India as well. Not only has that, the chopper-chopping tools of India been again derived from South-east Asia and China. Similarly, the Clactonian and Levalloisian elements in the Soan valley have been brought from the West. All these presumptions have little decisive evidence. They are all unbelievable conclusions drawn from scanty typological affinities.

Even within the geographical limits of India, migrations of peoples and cultures have been construed on the basis of the typological study of stone tools. From the typological study of the Odishan stone tools it has been deduced by Mohapatra (1962) that the 'Odhisian culture is certainly related to Central India, Mirzapur, Narmada and Godavari and that culture infiltrated into Odisha from Central India'. Besides, the infiltration of the Madras handaxe people into the North-west has been also postulated to explain the presence of the handaxe in this region. Conversely, tools having likeness with the Soan implements have been explained by assuming the travel of the Soan people. Some have even gone to the extent of detecting the influence of one culture upon another from the typological study of stone tools.

From a similar typological study of stone tools, it has been urged by Dasgupta (1966) that '... the pebble tool and handaxes from West Bengal may indicate routes of prehistoric migration between

Western India and Eastern Asia'. Further, it has been said that 'these comparisons become more interesting when a group of Upper Palaeolithic stone tools from Deulpota on the banks of the Bhagirathi recall among others similar ones from Jabenge in South Celebes. Such materials will no doubt enable us to probe into unknown prehistory of the Far East when the lower Gangetic valley might have relation with the Eastern Archipelago effecting unbelievable diffusions of culture and civilization'. Not only that, Dasgupta (1968) could find the Kafuan and Oldowan tools in West Bengal, and the life patterns of their authors have been made compatible with those in Europe, Africa and Asia. He suggested also that the early Palaeolithic phase of Europe, Africa and Asia is represented in Susunia, West Bengal.

Many similar deductions from slight likeness of stone tools comprising casual and incredible finds hardly need any comment. In the same fashion, the Neolithic tools of Assam have been correlated with those of South-east Asia, and cultural migrations from that direction into Assam have been construed. Not only that, even an absolute dating has been assigned to the stone tools and also to the movements or migrations of the people. Some examples of palaeoliths are claimed to have been discovered in Assam. These chipped stones have been supposed to belong to the chopper tool complex typologically. Hence, it has been urged that the early palaeoliths of Assam are affiliated to those from Burma and South-east Asia. The sequence of the handaxe which is the Early Palaeolithic type fossil on the plains of India (Bengal, Orissa and South India) does not, however, speak in favour of cultural migrations from the East. This has been interpreted as 'Indianization of Assam'. The implication hinted at is that Assam, even during prehistoric times, was culturally detached or separated from the mainland of India. The motivation is self-evident and it is far away from the purview of any scientific discipline. Does such a flight of imagination require any contradiction? This is an ill-motivated presumption. We must not forget that the 'boundaries of culture are in fact spatial, as well as temporal'.

Further, in recent years, Paterson and Drummond (1961) have made a fresh study of the Soan flake tools from the Potwar region. Tools have been divided into two groups, Upper Clacton A and Upper Clacton B. They have advocated a hypothesis that this complex is an intrusive industry described by them as 'The Clacton Invasion'. The postulated route of this invasion is supposed to be indicated by the discovery of the Mousterian examples in Afghanistan by the Italian Mission. Recent discoveries at Sanghao, are also supposed to belong to this tradition extending over both sides of the Indus. It has been further urged that this particular industry has no link with India proper because of the

intervening Thar desert. In other words, it has been hinted at that the Clactonian tools were confined within the limits of Pakistan alone.

But this hypothesis has little archaeological basis. **First**, it is doubtful whether the Thar Desert was actually formed during the so-called 'Clacton Invasion'. On the other hand, we have positive archaeological evidences in support of a flourishing civilization in the river valleys of the Sarasvati and the Indus even during a still later period. **Second**, the desert could not have certainly prevented the infiltration of the Clactonian invaders. **Third**, certain sites on the plains of India proper have yielded Clactonian tools as well. Even Rajasthan produced Clactonian implements. If there was no infiltration of the Clactonian people into the plains of India, how are we to explain the presence of their tools? **Fourth**, Late Soan industry has been made at the same time with that from the Narmada region. **Fifth**, Mrs. Allchin describes the link between the Soan valley and the plains of India by saying, De Terra and Paterson have found out that certain flake tools from the Narmada are comparable to Late Soan tools from Pakistan, as defined by them. We are now in a position to revise this, and say that the Late Soan falls typologically within the range of the Middle Stone Age. De Terra and Paterson go further and claim that the deposits which contain the Late Soan tools are contemporary with the second aggradation phase on the Narmada. The question of this relationship is a different one, as the two deposits are laid in quite distinct environmental regions, one north and the other south of the desert belt. None the less, the typological comparison, in our opinion, is a valid one and in itself implies contemporaneity. Thus, the Late Soan extends the distribution of the Indian Middle Stone Age, north of desert belt into the southern foothills of the Central Asian Massif. But this position has been again reversed by the study of Paterson. The Upper Clactonian industry is equated with the Middle Stone Age examples from India. This industry is further supposed to have a wider distribution over Pakistan having links with western Asia, and it is from that source that the Indian Middle Stone Age has to be derived through the intermediary of Pakistan. Dani (1963 & 1960) does not, however, fully agree with this view of Paterson and observes that it is no use giving an independent and isolated life to the people of India even at this stage. Similar reconstructions of the migration of prehistoric peoples on the basis of the typological study of stone tools are most unsound and unbelievable.

Similarities or likeness between stone tools from various parts of the world have been detected. But the sameness in tool-forms does not necessarily indicate migration of ideas or of man nor of any cultural contact. In reality, since there are so few ways in which stone can be successfully flaked, it is likely that any of the given techniques may have been independently invented in different places at

different times and that, therefore, the use of an identical technique does not necessarily imply culture contact. Stone tools could have been made in identical fashions without any contact whatsoever.

Long ago, Lubbock (1865) contended that it is too often supposed that the world was peopled by a series of migrations. But, migrations, properly so called, are compatible only with a comparatively high state of organization. This high state of organization was certainly lacking in Lower Palaeolithic times. Morgan (1928) has rightly pointed out the illogicality of such reconstructions of migrations of peoples and ideas from a typological study of stone tools by saying: 'As if two different men could not have dressed a pebble in the same fashion without having consulted together beforehand. They (Prehistorians) attribute extraordinary excursions to the ancient peoples, as though there had been a Cook's Tourist Agency in those days'.

It is hardly possible to distinguish an Indian handaxe from the one recovered from Africa, England or Palestine. This does not necessarily mean that the tool was actually made by the same group of people. Coon (1967) says that it is 'highly unlikely that any person in the second interglacial ever visited England, Africa and Palestine in his life time, or that any system of organized communication or transport existed among these places'. Hence, Coon (1967) thinks that stone tools were the products of 'cultural traits of the most conservative nature...'

A parallel development of the stone tool industry in different parts, a little earlier or later, quite independently of one another in response to environments is a serious interpretation. Stone tools from different parts of the world bear likeness not because they were made by the same group of people or that they were influenced by similar ideas or techniques, but because they were the products of analogous natural conditions. The chipped stones from various parts of the world are alike because they were perhaps made by nature.

Typological study of old stone tools is being strongly followed and this is being done more particularly in India with increasing effectiveness and confidence without any proper understanding of its complications. Such a study will be strange. Even Movius (1954) admits that 'in any event the application of detailed typology as a means of studying Lower Palaeolithic assemblages is getting us nowhere...'

Likeness of archeological specimens obtained from different places does not normally demonstrate any migration of culture or ideas. Because, there are some other difficulties in respect of the reconstruction of the migration of culture. 'A culture-trait cannot be diffused to another culture

unless it harmonizes with the latter's pattern. A culture is not like a formless pin-cushion into which a new invention, a novel practice or a fresh fashion can just be stuck' (Child 1956). Taking into consideration these fundamental principles of culture-diffusion, it would be improper to talk of the migration of ideas or culture or of peoples on typological similarities of stone tools belonging to different parts of the world. Further, the pebble tools which are the oldest and the commonest in India cannot be recognized as criteria of cultural contacts. Thus, Washburn (1959) says that 'they are too crude to give indications of cultural contact'.

Besides all these speculations emerging from the typological study of stone tools, the most intricate and confusing problem relating to the credibility of stone tools discovered from various parts of India is the mysterious keeping in mind in absence of human remains (except Narmada man discovered by Arun Sonakia in 1981) or any other culture-relics in association with the so-called stone implements.

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