
BOOK REVIEW

Book Review Teaching Archaeology: Lewis R. Binford in the Classroom Edited by Nancy Medarris Stone and K. Paddayya Aryan Books International, New Delhi, 2020

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It's a book review on the recently published Teaching Archaeology: Lewis R. Binford in the Classroom edited by Nancy Medarris Stone and K. Paddayya by Aryan Books International, New Delhi in 2020.

Lewis R Binford is an American archaeologist known for the initiation of what came to be known as 'New Archaeology'. New Archaeology brought in a paradigm shift with the application of quantitative methods and the practice of archaeology as a rigorous science. This book is a collation of thirty seven lectures delivered by Lewis Binford in 1982 as a series of lectures entitled as '*Strategies of Archaeology*'. This book provides a refreshing approach that gives us an insight of the unique pedagogical approach of Binford.

The book starts with Binford and the India connection written by K Paddayya. This small piece was of great interest to many of us especially those associated with Deccan College, Post-Graduate and Research Institute, Pune. In mid-1980s, Deccan College became the unofficial spokesman of New Archaeology in India and in this background the then Prof. M.K. Dhavalikar invited Lewis Binford for a month-long summer school in New Archaeology in May to June 1986. About thirty young teachers and researchers from universities and government departments were enlisted as participants. Many of these participants in the summer school subsequently occupied senior positions in universities and government institutes. This small piece by Paddayya also mentions many interesting anecdotes including exchange of ideas between Binford and the participants during classroom lectures, informal discussions, and field trips. Overall, it is understood from this write up that the atmosphere was truly exciting and that of a learning experience.

The first lecture under strategies of archaeology discusses the characteristics of archaeology as opposed to other kinds of fields. The first one is that of material things and the fact that they are all static in nature. It also talks about the challenge towards these strategies taken by archaeologists to look at this static relationship and talk about dynamics. It also highlights the fact that archaeological records get modified over time and is quite

different from the way it was produced. So, there are three kinds of challenges for archaeology, viz. how do we look at things in the present and make accurate statements about the past; how do we look at static and make statements about dynamics; how do we identify what we are looking at, how do we diagnose what we see.

Lecture two is a discussion about the archaeological record, the theories that they either believed, or used, or are aware of, and which they cite to justify the way they use archaeological record. This lecture also includes the discussion on the relation of intellectualism and archaeological devices. It highlights the fact that when one talk about a culture, the perspective from which one is using or attempting to investigate can be very different and vary independently of the thing itself. The lecture also discusses on the notion of objectivity and investigation and how the meaning of objectivity has changed since its origin in a Baconian notion to present day where objectivity is useful at an operational level.

Lecture three is a discussion about the interest in Palaeolithic archaeology and the context of intellectual discussion on this starting from eighteenth century till today. It talks about the biblical view of man's history to different non-biblical positions in respect to man. Almost all the early arguments in archaeology were arguments about association. For example, associations of stone tools with extinct animals, association of stone tools with stone tools, association of age with geographical and topographical features. However, by the middle part of the nineteenth century, a proper intellectual framework was developed in Palaeolithic archaeology.

Lecture four is a discussion about how to achieve objectivity. Very early in its development the beginning of objectivity was to involve science and the argument that we can learn from experience. However, in spite of their claims for empiricism and the fact that they were being objective, the tactics that were used did not have a modern analogue.

Lecture five initiated with the tool function and eventually developed to a discussion on pattern recognition studies and its importance. The discussion then moved

on to mentioning two schools in archaeology in the later part of the nineteenth century according to Binford – the Formalists studying form and trying to invent frames of reference for looking at it and that of Reconstructionists – the ones who wanted to reconstruct the past. Eventually, the discussion moved on the relationship between static and dynamic in which these schools were involved and what they were doing for archaeology.

Lecture six was a discussion about American archaeology and how European archaeological thinking reacted to American archaeology. From the very beginning in American archaeology, there was no necessary linkage between the products of man and the kind of man. However, in European archaeology, there was some kind of necessary linkage between the products of man and the kind of man. Binford also put forth the fact that this no linkage scenario has a tremendous implications for the development of methods. He also pointed out that according to Americanists, there is no necessary relationship between the social and ethnic identities that might be present at a given time and the distribution of cultural products. By this the American studies viewed *history* as the explanation for cultural variability. Towards the end of the lecture, he also pointed out extreme arguments mounted by the British that everything had been invented by the Egyptians, and that it diffused around the world by various mechanisms which according to Binford is pretty racist because it is advocating that few people are the chosen ones and are smart and the rest are '*bunch of dingbats*'.

Lecture seven is the continuation on the idea of historical causation. According to Binford, if we can understand the flow of cultural knowledge through measures of degree of similarities and dissimilarities and sharing, we could begin to understand something about the bigger picture. He also talked about a different practice in Anthropology back in the 1920s when anthropologists were sent to live with primitive societies to collect the data. According to Binford, this is probably the most unnatural demand that one can make to a person because the concerned person who have grown up in a given culture with his own language and believe sent to a totally different culture that this person will not understand and the primitive society will not understand him either. According to Binford, this approach was a reaction to a realization among the American archaeologists that they didn't have any methods to test the historical data and by developing the *direct historical approach* would give some answer.

Lecture eight is a continuation of the practices in American Anthropology and Archaeology. However, the difference that the Anthropology is involved at the personal level, however, the Archaeology is not. This lecture also deals with questions like why do people behave differently, how ethnic groups came into being, and the racist idea and argument that are frequently linked to answering these questions. According to Binford culture is often viewed as the cause of variability where 'culture' becomes the explanation for the archaeological record. However, better approach would be to use archaeology to explain cultural development.

Lecture nine is on the same line of discussion on understanding cultural differences. Where do cultural

differences come from? How do they come into being? What processes operate to differentiate people culturally? etc. He talks about a number of studies by American Anthropologist Kroeber on accurate view of culture. He also mentions views put forth by WW Taylor. The lecture towards the end highlights problems like scale of generalisation versus scale of observation by archaeologists.

Lecture ten is a discussion looking on how to use culture in different perspectives and different scales of looking at society. According to Binford the archaeological record reflects coincidence with respect to the operation of organized past system. This has both positive and negative implications. It is positive in the sense that the more variations in the archaeological record offers more potential information about different aspects of the past. On the other hand, the negative is, given this dynamics, more and more puzzling to understand the structure and properties clearly. Binford also highlights another central issue for the archaeologists that is to distinguish between *ecogenesis* and *anthropogenesis*. This means that the property that we are looking at has been derived from ecosystem or by the direct actions of man. In this lecture Binford also focusses on the fact that some archaeologists are interested in cultural history, some in reconstructing the past and some in investigating cultural processes. However, what Binford emphasises is that one cannot do any archaeological inference without investigating the cultural processes because it is the processes which has led to what we recover as statics.

Lecture eleven is on how to describe artefacts. Binford has pointed out that for archaeologist the entities are different than ethnographers since they hardly get entire pots. Secondly, for archaeologists since they are studying on fragments, size and shape which may not be reconstructed in its full form are not very important. Thus, the characteristics of the archaeological record that the archaeologists choose to study are conditioned by context of relevance and based on their observations. So, what Binford has tried here is to again specify on unit of observation highlighting the fact that the characteristic chosen by the archaeologist are justified by the kind of questions and knowledge that he/she seeks to gain through the study. Towards the end of this lecture, Binford has stressed on the point that the more we learn about the archaeological record, the more we learn about relationship between statics and dynamics and we are able to derive better units of observation. He has rightly pointed out that the strategies taken by archaeologists to design field techniques should allow them to evaluate the limitations of their own unit of observation.

Lecture twelve is about pattern recognition and developing criteria for classification. Classification is the most important and fundamental step taken by all archaeologist to initiate any kind of analytical study. Pattern recognition study can be done using list of attributes in order to define tool types and then take the tool types as units of observation to look at patterns. However, Binford has rightly pointed out that archaeological inference is not simple because there is not much scope to test the interpretive theories in the modern world. Every interpretation of the past is based upon a hypothesis which is rooted

in the relationship between statics and dynamics none of which can be tested in the archaeological record. They are mostly based on our ideas about how the world operates.

Lecture thirteen is a discussion on understanding the behavioural or dynamic context of the investigating past. Binford has argued that if we are to understand the past with some level of accuracy we have to really focus on our methodology. Developing a fairly secure methodology can help us to explain why it was that way.

Lecture fourteen is a continuation on the aspects of unit of observation. In this piece Binford has differentiated between units of observation versus units of association. According to Binford, unit of observation may be tool types but unit of association are like a stratum, pit, feature found in a site or structure. Archaeologists generally have treated units of association as frame of references. However, when a stipulative approach is taken towards unit of association, then its meaning is taken for granted and lacks a theory. Lack of theory can always give rise to biases. Thus, the keys to develop multiple observational frameworks to look at the same units to solve the problems.

From Lecture fifteen onwards Binford speaks on Middle Range (MR) research to bridge the gap between the present and the past. Middle Range is various kinds of research that archaeologists have to do in order to produce archaeological inference about what the past was like. He also happens to mention '*Mike Schiffer may not know what Middle Range research is, but anybody that understands inference must*'. Binford also mentions that the challenge of MR is not just how to justify an inference but also how to understand the necessary connections between statics and dynamics in intellectual terms that are independent of the theories. However, Binford has stressed on the fact the MR is at the core and is the essence of potential growth for archaeology as a field method because MR helps us to make inferences close to accuracy. Thus, reconstructing a more accurate past.

Lecture sixteen is a continuation on the function of MR research and its justification. Ethnographic analogy is a very important part of MR research. However, it is to be realized that using ethnographic analogy comes with its own problem. There is no theory for ethnographic analogy. Therefore, there is no way of knowing whether they are going to be true or not. Binford has explained this with an example – '*if an archaeologist was aware that there may be fifteen other situations that could lead to a little pile of stones with charcoal underneath them, then his knowledge is sufficient to realize that at least those conditions – a little pile of stones plus charcoal – is not an accurate diagnostic of stone-boiling. But the naïve archaeologist comes along and says, "it's rational for me to believe that is stone-boiling because it's found in the same areas as the Sinamoy and they used to do it this way and blah blah blah"*'. Thus, archaeologist must know the domains of ambiguity.

Lecture seventeen starts with a discussion on traditional archaeology where no investment on MR is seen. Traditionally, the criteria for accepting a given anthropologists view of the past is plausibility which means that there is no objectivity. In this lecture, Binford also introduces the concept of formation processes as a key to investigate

archaeological record. To obtain any kind of objectivity, one must be able to justify the fact. In fact, the robusticity of MR theory is determined by how objectively one can operate to evaluate theories of processes. Towards the end of this lecture, Binford talks about Ian Hodder's different position in archaeological interpretation. According to Binford, Hodder is less of a structuralist and more of a primitive contextualist. In fact, according to Binford, Ian Hodder is an interesting phenomenon who have just discovered culture and that people are different culturally. He also mentions an academic altercation between him and Hodder that took place in Cambridge. While getting interrogated by Hodder and his troops, Hodder mentions Binford's study of Nunamuit to be wrong highlighting the fact Binford never asked the Eskimos about their ideas and attitudes of dirt. Binford admitted that this a failure on his part.

Lecture eighteen is more philosophical in nature and went on to discuss about '*explanation*'. He mentions about Aristotle's essential properties and also teleological explanation which is different from the Aristotelian sense. He also argues that most of the archaeological explanation are in the form of teleological argument that is explanations that are established following the motive of the person. Although teleological explanation is a perfectly legitimate form of explanations in some settings, however, it is to be realized that it can only be used when the values are taken for granted within a cultural system. Thus, we have no way of independently verifying ancient peoples' past goals. On the other hand, if you are ignorant of 'human nature' in a behavioural sense, then we cannot use an essential form of explanation which claims that all man would behave this or that way. So, other kind of explanation that comes in here is that of causal explanation. Causal explanation has some properties in common with an essential argument, but the properties are not intrinsic to things.

Lecture nineteen starts with a discussion on hypothesis. The modern notion of hypothesis came into being in the sciences post 1910. Hypothesis building is very important for archaeologists because what we want to interpret is beyond our observation. We also generate causation in the form of an argument. So, if we have a hypothesis, we can deduce consequences of that theory for properties of the archaeological record. He also goes on discussing about the views of hypothesis testing following Baconian notion of science. He concludes this lecture highlighting the point that theory should be developed in two levels – General theories and Middle Range. General Theories helps us in explaining the past whereas MR helps us in explaining the archaeological record which is in the present and if we are successful to link the two, then we can come up giving meanings for the archaeological records.

Lecture twenty is a continuation on the importance of building hypothesis and its implication. He went on arguing why a MR theory should not be developed from empirical patterning because empirical patterning simply provides the basis for question. He also discusses on personal strategies and tactics brought in by the researcher and how they differ from person to person. Researchers should be seen as an active agent who is bringing

knowledge and experience which influences on his or her own ideas.

Lecture twenty-one is about concept of scale. Both on descriptive and interpretive level, scales are determined by archaeologists not only as the size of the described data but also as the temporal and spatial level of the interpretation. Scale is an enormously important aspect for archaeologists to understand. Scale exists at fundamental level of archaeological interpretation. According to Binford, most of us live our lives at a given scale so we think that is the way reality is. So, it is our perspective and we try to force the archaeological record into that perspective.

Lecture twenty-two and twenty-three are continuations of earlier discussion on general theoretical and paradigmatic issues. Binford has again elaborately discussed on perspectives and unit of observation. He has also highlighted the importance of deductive reasoning in the method of evaluation but his main focus has been on perspectives being the most important aspects which most people do not pay much attention to.

Lecture twenty-four is also the continuation of the same thought process. Binford opines that common archaeologists have avoided the challenge of learning about frames of reference and has created a confusion between frames of reference and units of observation. It is the perspectives that has conditioned what has been generated. Thus, in case where different theories have generated to accommodate different views of the past derived from different perspectives, how do one evaluate those with out having any MR research. Although it should be kept in mind that perspectives are complicated things because they condition how we give meaning right from the start. The challenge is to increase scale as analysts because we get our meanings by recognizing variability.

Lecture twenty-five is a discussion on the notions of objectivity and subjectivity in anthropology. The same view has come over to archaeology where people who are into symbolism and structuralism demands that archaeological record can be understood by empathising with the subjective view held by the producers of the archaeological record. Although Binford thinks that outsider perspective is the most appropriate to the archaeologist. The reasonings given by Binford is that archaeologists are outsiders to the past, that they are very much an observer in contemporary times. So, by adopting an outsider perspective, one attempt to look for patterning and then offer an explanation for the pattern. Binford opines that objectivity is something that is achieved through research tactics and not by perspectives.

Lecture twenty-six discourse on how do we create knowledge/intellectual phenomena and to what extent our culture, ideas, understanding are useful to create this knowledge. Binford suggests that culture is created by us and that it does not come from the external world. Culture is the differential ascription of meaning given to things by utilising the intellectual inventions. Science is concerned with how we evaluate under specified conditions, our ideas, words, concepts, arguments – and archaeology is no different from any other science in that sense. Since meaning are given by us the challenge is to figure out how accurate and useful those meanings are.

Lecture twenty-seven is a discourse on researching building methods and building theory with a particular case study on distribution of stones plotted by German archaeologist by the name of Alfred Rust at a site called Ahrensburg in the late 1940s. By this example, Binford showed the difference of perspective between Rust and his team. When Rust has worked at the site, he knew nothing about ethnography, however the advantage that Binford had over Rust is that he is aware of ethnographic information. He also took other case studies. For example, that of Australian Aborigines in Central Desert, the Magdalenian housing in western Europe and tried to prove his point that reasons coming from internal perspective of a society may have nothing whatsoever to do with the underlying reasons for behaviour. However, learning about how individuals do things in the context of motivation can be used for different kind of explanations.

Lecture twenty-eight is a continued discussion on the differential use of residential space in the Arctic by men and women. This whole lecture is in the form of question and answer. Question posed by students and answered by Binford and how ethnography can be used to establish a relationship between some sets of dynamics and some sets of statics.

Lecture twenty-nine is an interesting discussion on how archaeology can be defined as a science. Once again Binford stressed on objectivity and explained with the case study of Raymond Dart's finding of *Australopithecus* back in 1920s and how he used 'objective way' of defining the ancestor that was not in terms of anatomical properties but in terms of behavioural properties.

Lecture thirty is a continuation on the early Hominid finds those of *Australopithecus* found in the cave of Swartkrans, Leakey's find in Olduvai gorge, and in general on the view of early man. Binford here also stressed the justification of the use of MR theory for this kind of interpretation. Binford talked about his research on the formation processes of sites excavated by Dart and Leakey. Formation processes can help us identifying active ecosystems of the past. According to Binford these sites were not created by hominids but hominids must have played some role in the dynamics of site formation. The moral of this lecture was the more we know about the palaeoenvironment, the better our understanding of hominid will be.

Lecture thirty-one is a discourse on plausible arguments and how will one can reason from the premises with which one starts and if the premises are wrong then the criteria of plausibility is not helpful. Hence, Binford stressed that continuous self-educating through medium of criticism is important. Criticism plays a very important role in the field of academics. In the course of the same lecture Binford also answers questions from the students on behavioural pattern of prehistoric communities like that of scavenging and hunting and once again talking about MR research as a basic tool to testing hypotheses.

Lecture thirty-two is a discourse repeating on some basic aspects of the discipline. For example, archaeological record and its importance, pre-knowledge to pose questions, archaeological implications, diagnostic material, pattern recognition, etc.

Lecture thirty-three is a discussion on how theories can be abused or how they can be helpful. The whole discourse is on nature of theory and how they can be used to test facts about past human life. According to Binford, one must put MR theory into place before one can test the theory. This kind of sequence of operation needs to be build because people want to know what really happened and are not interested in knowing the strategy.

Lecture thirty-four is a continuation of lecture thirty-three on how an archaeologist can use the archaeological record for testing theories. Binford pointed out the fact that when we are looking at processes, they are still going on but the archaeological record as part of the processes happened in the past and is not observable any longer. So, according to Binford, a really good archaeologist will realize the uniqueness of each and every site and will be in a position to read these unique conditions. Thus, working in the field is very important to develop one's ability to read and must be guided by mentor's knowledge.

Lecture thirty-five is a very interesting discourse on postulating mental phenomena as causes of behaviour. Binford points out that when we postulate various kinds of mental phenomena as causes for human behaviour, to most it seems intuitively accurate, realistic, and obvious things to do because we tend to operate that way. However, attention should be paid to the units that they are talking. This discourse also contains very interesting conversations between students and Binford on concept of system. For example, when one student posed a question that it is fairly obvious that system teach us how to survive. Binford's answer was '*tell that to the Jewish people in Auschwitz*'. The important thing to understand in this context is that do we look at cultural system seeking to achieve certain ends by the participant and make the participant believe that. Most mental theories are extremely complicated because it has no existential properties. The very idea of psyche is a theoretical concept. So, the final question is mental theory useful then. According to Binford, in archaeological discourse theories of mental causation are basically conditions in which some thing new is coming into existence. It is a non-theory in the

sense that there is no mechanism. Binford concludes this lecture talking about binary oppositions in every piece of folklore, literature, and cultural systems by posing a question – does that help us in understanding our world?

Lecture thirty-six starts with a realisation of Binford as a teacher that I also can associate with. I have been teaching advance theories and methods in Deccan College for almost eight years now and one thing that I totally empathise with the students especially attending theoretical discourse where they mostly sit and nod. Teaching theoretical discourses at times are very challenging because in some sense they are quite abstract and concretising these thoughts and more importantly communicating that to the students is quite a challenge. However, theories are important to learn because when one is trying to explain why some human societies are mobile and others are not, is not a matter of ambiguity. Thus, to talk about how the world works in the operational sense is a theory. So, theories are provocative and if one is not comfortable with it, then archaeology is probably the wrong field to be in.

Lecture thirty-seven which is the last lecture of the series is a kind of summation of all that Binford has been talking about till now. It is about building models and hypothesis testing which in turn will help reduce the ambiguity and refine our ways of seeing things in the archaeological record.

This book also contains three previously published articles by Binford in Deccan College Bulletin as appendices. Overall, this book offers a kind of refresher course in New Archaeology or as we now prefer to say Processual Archaeology. The best part that I enjoyed reading the book is to know Binford as a teacher rather than a scholar and his personal views on his contemporaries. Besides having few editorial issues like that of typo error where the word *times* has been typed as *tines* in page 31 and that of an incomplete line in paragraph three in page number 73, this book is a good read for students as well as scholars in archaeology.

Competing Interests

The author has no competing interests to declare.

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