ARCHAEOLOGICAL PRINCIPLES
FOR THE CHRONOLOGY AND PERIODIZATION
OF PALAEOLITHIC CULTURES IN ARMENIA

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The main aim of archaelogical research is to create a scientific system which is adequately able to reflect material culture. Obviously, there are certain requirements for fulfilling this difficult and complicated task. First the selection of material; then the necessary research experience to write scientific studies on this material; and thirdly, the appropriate theory.

This last requirement - that of appropriate theory - is the most complicated and uncertain issue in archaeological research. On the whole, there is not much interest in this area, because archaeologists substitute it with empirically created methods of classification, typology and grouping on the basis of content.

By the middle of the last century, with some small modifications, the establishment of archaeological ages and their sub-units had generally been accepted as an evolutional scheme of cultural development.

In spite of the examination of archaeological sites, in-depth empirical analysis of new and old material and important results from investigations in the field of genetic connections between cultures, this model, due to cumbersome thinking, continues to be widely accepted to the present day. This situation has basically arisen from the following circumstances:

a) research lacks a specific, localised character, which - apart from local idiosyncrasies - would clearly outline the scope of a given culture over time and area.

b) archaeologists have been unable to overcome the limitations which close off the route from an empirical to a logical level, and without this, it is impossible to explore levels of cultural development on the basis of given criteria.

c)) archaeologists cling doggedly to geological stratification, to the use of methods based on the natural sciences and finally, to absolute dating methods.

The end result is that neither formal, traditional typology, nor a cultural approach have been able to establish, to date, a relative chronology for the archaeology of the individual cultures, without which, it is impossible to be rid of the contrived scheme for the periodization of lithic ages.

First of all, underlying the limitations of classical (traditional, formal) typology is the fact that it is not based on actual material from different industries - indispensible in the case of classification. Secondly, is the fact that classical typology examines isolated finds and does not concern the process of their manufacture and development.

This way of thinking moves in the direction of a metaphysical method, in which the artefacts and the type become identified with each other and both remain unchanged in the course of the research. Lack of clarity, as a result of the logical generalization of empirical facts, has become

a significant feature of existing archaeological terminology.

The eventual consequence of this is that typologia confines cultural development to variations which are simultaneous stratigraphically or are adjacently positioned spatially. Meanwhile, the problems of establishing relationships between cultures, explaining the inner mechanisms of change within a given culture and evaluating the degree of development remain unsolved.

Taking the above into account, it is necessary to modify this typology in a co-ordinated fashion and rearrange it in accordance with a new system of archaeological research, so that typology only fulfils the strictly defined function of building a model for the artefact (type, variety, category, class, industry).

Other non-typological methods (factorial, analytical, deductive-hypothetical) are by-products of classical archaeology. These aspects have no special significance because they fall far from our set objective. As for scientific methods (geochronology, biostratigraphy, anthropology, statistics, archaeometry, etc.) these are all necessarily pushed into the background by the methods of "pure" archaeology.

1. Selection of material

For the purpose of creating an archaeological system, the material of the Middle Palaeolithic is unique and special.

In the multi-layer cave sites in Armenia, the kind of material appears which is excellent from the point of view that the caves were occupied for a long time (from the beginning of the Mousterian till the Mesolithic), they are spread out over a wide area (the Armenian Plateau and neighbouring territories), the raw materials are homogenous (obsidian) and they show the whole cycle of the processing of the stone, starting from the raw material and through to the manufacturing waste the traces of changes have been preserved.

This is precisely the only industry culture, whose degree of empirical excavation is more than enough to form the basis of classification, style and typology.

2. An archaeological system for the on-going modification of material in practice

Our new scientific system which we established on the basis of the on-going modification of material culture in practice, was formed during this research. On this basis, the premise is that an industry consists not only of ready-to-use, completed forms but appears as a composition of the production process. Our task is to reveal the connections between these processes.

Consequently, the continuing modification of the material is not a theoretical but practical problem, appropriate to the general epistemological levels (condition, structure, composition, constitution, system).

On every level, appropriate to a given objective (the study of artefacts, the analysis of fragments, the synthesis of attributes, the combination of defining features, the co-ordination of types), a combination of processes, built strictly one upon the other, is established (separation, classification, generalization, determination, marking) which enhances the basic taxonomic/ systematizing units (differentiation, classification, the establishment of styles and types).

On this basis, logical schemes appear as universal taxonomies, which reflect the process of change for the levels of the various generations from the empirical to the formal. In addition to this, all other modern empirical analysis are applicable.

Here we cannot discuss in detail the method for modifying the artefacts. In summary, it involves:
a) converting the artefacts into a graphic representation (attributes), which is then shaped into a logical concept independent of the content (marking).
b) from the markings, consituent parts, procedure, modifications and style we construct a model and this will be the type.

3. The new theory

Thanks to this logical system, archaeology has received an epistemological status and has become capable of providing orientation with a much greater degree of accuracy in practice than any other form of analysis. This means that it is ready to move onto a new level of formalisation, as well as performing historical interpretation and providing a prognostic function. Culture's inner change and finally, the above-mentioned logical generalizations, through unambiguously formed concepts, takes a precise shape:
1. which express the ideas (denomination, idea, term, category) connected to the descriptive, empirical, logical, mathematical, philosophical levels of research;
2. which explore the inner mechanisms of development (technique, technology, typology, morphology, motives);
3. which can reflect adequately the nature, content, function and essence of Palaeolithic cultures.

Moreover, we can construct clear notions of the measure of concord, which are significant on different levels (identity, sameness, similarity, equivalence, adequacy). These, meanwhile, are based on the varieties of industries and on objective chronology (phase, stage, epoch, period, century). If the formation of a technique (Levallois) indicates a specific phase, then the technological varieties (denticulated, Charentian) can be can be understood as stages, while the local culture indicates an epoch on the typological level (Typical Mousterian).

The continuity of those traditional cultures which reached the morphological level of development denotes of the whole of the Palaeolithic, during which a consistent transformation or innovation of the traditional culture took place.

These universal criteria can also be applied in the classification of those cultures, which flourished after the Palaeolithic. Those which belong to this material culture and logically reflect the production, subsistence, artistic, architectural and burial complexes in their entirety.

By using this system, archaeological cultures can be classifed in the following way:
1. Pure Palaeolithic culture - industry (all of the groups and the genetic connections between them are present).
2. Neolithic culture - minor industry (some groups are missing).
3. Advanced metal-using culture - a complex of archaeolithic type stone implement production.
4. Cultures from within the frame of historical time - pseudolithic type stone implements collection, group, site.

The last two groups are special in the following respects:
• they are all high-altitude, open-air sites, near sources of raw materials, without layers of occupation or evidence of settlement.
• they are represented by different types of patinized, isolated complexes, which consist of different types of stone without any cultural context.

Thus, the most recent research changes in a co-ordinated way, our conception of the almost universal model of periodization for the stone age (Olduvan - Chellean or Abbevillian - Acheulean - Mousterian -

Upper Palaeolithic - Mesolithic - Neolithic). In Armenia, this model, with certain, small refinements, gives the following, logical scheme: Palaeolithic - Mesolithic - Neolithic - Archaeolithic - Pseudolithic.

The beginning of the Stone Age is denoted by Mousterian-type cave settlement culture (Yerevan-1, 2; Lusakert-1, 2). It represents a characteristic, local culture, which developed without interruption extending into the Mesolithic and spanning the whole of the Palaeolithic.

In Armenia, the Mesolithic is a transitional, technical stage between the Palaeolithic and the Neolithic. The Neolithic does not show any easily separable culture.

This logical idea helps us to understand these early farming cultures, which followed the Palaeolithic and show little lithic industry. The Hatunarh settlement can be cited as a classical example of this kind of site, the culture of which is a symbiosis of the typological features of Mesolithic, Neolithic and Aeneolithic, which gives us a basis for regarding this culture as belonging to the Neolithic.

The Upper Palaeolithic, similarly to the Mesolithic, is not a epochical culture and its appearance takes the following forms:
- morphological at Yerevan-1
- industrial at Lusakert-1, 2
- archaeolithic at Nurnus
- pseudolithic at Satani-Dar.

Those which belong to the so-called Lower Palaeolithic cultures (Olduvan - Chellean - Acheulean), can, on the whole, all be described as archaeolithic and pseudolithic, which developed outside of cultural contexts in mountainous regions during historical times. Of particular importance is the fact that in Armenia, these complexes and groups appear without doubt in an order of progressive archaism, so reversing the sequence of development (Acheulean, Chellean, Olduvan). Most

scholars, because of these archaic and primitive characteristics, erroneously see them as archaic and place them before the Typical Mousterian culture of the Palaeolithic.

Consequently, in Armenia, the Stone Age begins with the Mousterian-type industrial culture and ends with the appearance of Mesolithic and transitional microlithic industries.

At some point, we also have to investigate the early farming cultures of the Neolithic-Aeneolithic period (bone tools, iron objects and pottery).

With regard to the Archaeolithic and Pseudolithic, it must be noted that these are remanent, obsolete manifestations of the period of regression to stone processing, starting from the Bronze Age and ending with the Middle Ages.