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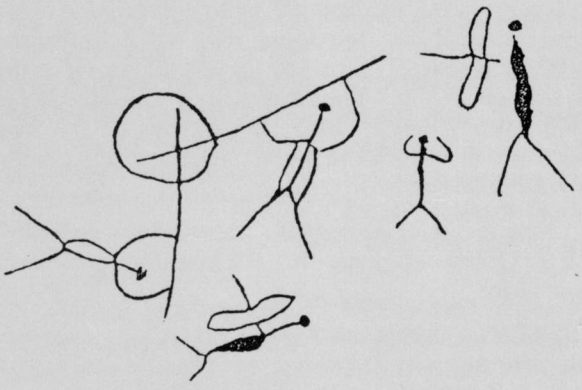

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William Y. Adams and Ernest W. Adams: *Archaeological Typology and Practical Reality. A Dialectical Approach to Artifact Classification and Sorting. Cambridge University Press, Cambridge 1991. 426 pages, 11 figures and 10 tables. ISBN 0 521 39334 5 hardback.*

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Admittedly, I have great difficulties making up my mind about this book. On the one hand, it has given me a valuable new insight and clarification on archaeological typology and classification. On

the other hand, I have found it to be too circumstantial, in fact to the degree where its ideas and messages are in danger of being lost among the words, even though the book is filled with programmatic statements and summarizing paragraphs.

The book, probably in an attempt to be as thorough as possible, has a tendency to stray from its issue, to repeat itself, and to include chapters on issues which are of marginal interest to most archaeologists, and are marginal to the main theme. Neither do I find myself in full agreement with the authors. Their stated starting point is not as much theoretical considerations on typology, as it is the practical reality of how typological work in archaeology is carried out. This is fine as long as one can agree upon what the practical realities are. From a Scandinavian point of view, however, I find that the practical reality described by the authors is one which would have been unquestionable 30 years ago. Today, however, it has to be modified on several important points.

I shall start with an overview of the book, and then proceed with a criticism of some issues where I found the book wanting, or erroneous. This criticism should be seen from a positive point of view, as it partly reflects ideas and contemplations that grew during the reading of the book. Thus the book does contain original ideas providing a better understanding of archaeological typology, and it does promote further discussion. However, it is a book for the researcher interested in theoretical issues concerning archaeological typology. It is not a book to be placed on students reading lists, and I doubt very much if you will find many field archaeologists who will ever read the book.

The book is in four parts, of which the first short one is introductory. Part two deals in six chapters with *The nature of types and typologies*. Here the two authors make a basic distinction between classification and typology:

> A classification, however, is a matched set of partially contrasting categories, roughly at the same level or levels of abstraction, which exist in what has been called 'balanced opposition' to one another. (p. 45)
>
> In our usage, a typology in a particular kind of classification: one designed not merely for categorizing and labelling things, but for segregating them into discrete groups which correspond to our class categories and labels. (p. 47)

Despite the somewhat garbled language (at least to a Dane) in the definition of a classification, the meaning is clear: we categorize comparable observations into sets of mutually exclusive classes (we classify) in order to establish a systematized frame of reference. Some classifications (the typologies) we furnish with explicit definitions which make an unequivocal sorting of instances within the domain of the classification possible. This is obviously a very sound distinction. Whenever we work with observations in research we tend to classify them. We do not, however, automatically create a formal typology that will allow an unequivocal sorting of the individual observations.

The two authors are brothers, both in university positions, one as a trained philosopher, the other as a trained archaeologist. The archaeologist considers himself as primarily a field archaeologist with extensive experience from field work in Nubia. The combination of a philosopher and a field archaeologist is important to the authors. In fact the book is considered to be an outsider's view of what archaeologists do when they classify:

> In general, however, our book should be regarded as an ethnography of archaeological classification, a study of the various ways in which field archaeologists go about making and using classifications to meet their different needs. (p. xviii)

In their ethnography of archaeological classifications they state many important observations. Thus, they stress the dialectic nature of type concept formation:

> In practical typologies we suggest that the first type concepts are often largely intuitive; they may be influenced both by conventional wisdom and by the circumstances of our first encounters with the material under study. Later, our concepts will consciously or unconsciously change as we began systematically to differentiate types from other types, and to give them formal expression. They may change even more through the practical experience of sorting new material. Throughout, there is a continual dialectic or feedback between the objects and our ideas about them, and this process will never end as long as there is new material to be sorted. (p. 19)

and concerning the nature of type concepts:

> We suggest that they are so complex as to defy rigorous characterization: they are partly intuitive and partly rational, partly natural and partly artificial, partly essential and partly instrumental. We go on to point out, that most archaeological typologies are polythetic, so that there are no fixed criteria of 'typehood', and that archaeological types are usually distinguished by norms of central tendencies rather than by distinct boundaries. In conclusion we suggest that the justification for types

does not lie in how they were made but in whether or not they work for some specific purpose. (p. 19–20)

Part III of the book deals in four chapters with *Typology in action: the Medieval Nubian Pottery Typology*. Considering the stress placed by the authors on the practical aspects of the formation of typologies, this part of the book must be grasped as very important. Disappointedly, however, you get only a very vague idea of the structure of this particular typology, and the remaining part of the book, where it is frequently referred to, it never attains the position of the illuminating example that it probably was supposed to be.

Part IV — *Pragmatics of archaeological typology* — consisting of nine chapters is considered to be:

the pragmatic heart of our work. Here we take a strictly empirical approach to scientific classifications: not attempting to develop abstract principles about what they are or how they should be made, but seeing what kind of generalizations can be derived from the consideration of actual, extant typologies. (p. 21)

This part of the book contains many important observations, but it is also here you feel that the book begins to stray from the issue. At the same time it becomes irritating that the authors stubbornly remain ethnographers and refrain from any attempt to look ahead. Furthermore, you begin to wonder, or at least I did, whether the reality they describe is the reality of today, or whether it is the reality of a lingering yesterday.

In Part V — *Classification, explanation, and theory* — consisting of five chapters, the authors turn to the theoretical issues within what has been termed the typological debate. They do this, however, with a contemptuous sneer:

Because there is a substantial gap between theory and practice, the issues that are discussed in Part V are to a considerable extent 'paper issues', having little relevance to what goes on in practice in the field. (p. 24)

It may be that in general there is a big difference between theory and practice, but being a believer in dialectics, as I am, I do believe that not only does practice influence theory but theory also influences practice.

Throughout the book it is stated that very often typologies are polythetic in nature. Yet it is clearly realized that

it is not possible to specify either necessary or sufficient conditions for "typehood" in a polythetic classification — another feature which makes an abstract definition of types virtually impossible. (p. 70)

The polythetic nature of 'most' typologies is not considered to pose a problem as it is accepted that any typology is interpreted through practical sorting procedures. In other words there is a gap between what is said and what is actually done. To me there is no doubt that things very often work this way, but is that an acceptable state of affairs, as the authors claim it to be?

It is exactly this issue that Mats P. Malmer has addressed in his extensive and influential output since the beginning of the 1960s (he seems to be unknown to the two authors). Malmer has called our attention to the problem of fuzzy definitions of typehood, and he has been very particular in his demands that types should be defined through a set of explicit, necessary and sufficient conditions to allow unequivocal sorting of objects. The definitions should be followed by extensive type descriptions to further the recognition and usability of the types. It is quite clear that Malmer considers only monothetic types to be types. Polythetic types are not types because they cannot be used for unequivocal sorting.

The concept of polythetic types, however, is in fact quite fascinating, due to its basically relational, multi-dimensional nature. It is not usable, however, in a sorting procedure. Indeed, if we wish to use the concept in connection with individual objects, we have to talk of typehood in terms of degrees or probabilities of membership, I believe, and not of either/or.

Malmer has had an immense impact on Scandinavian archaeology, and it is obvious that the kind of typologies produced in practical work in Scandinavia today differ from the descriptions that Adams and Adams gives for a prototype typology. Theirs are more like typologies a generation ago. The modern Scandinavian typology for sorting purposes is one which is monothetic and very explicit in its definitions, and the definitions are also considered to constitute the sorting criteria in a direct one to one relation. Further, there is a clear tendency for type separation based on boundary criteria instead of modal criteria whenever it is possible. This is another point where there is an obvious discrepancy in Adams and Adams. They write:

Types are defined by their modalities or central tendencies and not by fixed boundaries. Every type modality

exhibits, and is defined by, a unique combination of attributes, but some types also have clearly apparent boundaries while others do not. (p. 240)

Sorting problems could really be forestalled at the classification stage only if types were defined by their boundaries. In archaeology this is rarely if ever the case, as we have observed in Chapter 6 and elsewhere. Types are defined by central tendencies, from which most actual specimens deviate in some characteristics and in some degree. (p. 299)

Boundary definitions can be applied and are applied in modern Scandinavian typologies when attributes are measured on a continuous (ratio) scale. The use of this scale is possible whenever we speak of morphology of objects, and boundary defined typologies are thus generally typologies that separate forms.

Boundary definitions are generally not possible when we deal with attributes on a nominal scale. Here the (often stylistic) attributes are separated by evaluations of modality mostly, and hence type definitions rest on modal criteria. Experience tends to show that whereas boundary defined, monothetic, morphological types works fine, the same is often not true with modality defined, monothetic, stylistic types. They are simply too 'crude' and 'unreal'. A very tempting line of argument — including the polythetic concept of attribute clusters — leads from here to exactly the position taken by Adams and Adams. The actual development, however, does not seem to go that way. On the contrary it seems to go in the direction of not doing object typologies at all!

Scandinavia is a very rich and intensely worked archaeological area, where the knowledge of the archaeological material is excellent and very detailed. This has gradually led to a tradition where more emphasis is given to the attributes themselves than to types based on the attributes. Thus it is very common to see an archaeologist deal with an archaeological problem of pointing out the chronological, geographical and contextual qualities of individual attributes, and not through the use of a typology of the objects. We also see comprehensive sweeping investigations that earlier would have demanded the formulation of types run entirely on the basis of attributes yielding excellent results.

The question is, do we need the object typologies at all, or will it be possible, in the sense defined by Adams and Adams (that is as sorting mechanisms for objects), to avoid them in the long run? Surely we will never be without classifications, this is self-evident, but typologies? And do we already see a development that eventually will render typologies old fashioned?

At the root of the problem lies the fact that typologies are basically rigid, monothetic and one-dimensional, whereas the reality to which they are applied is variable, polythetic and multidimensional. In the age of information science this has become increasingly clear, and archaeologists begin to seek means to avoid the reduction of reality to simple one-dimensional schemes. The only obvious solution is to keep descriptions of material (in terms of attributes) in complex, computerized, open storage, based on structured description schemes, and then apply various, preferably multivariate, methods to view the described material in specified selections.

This procedure does not provide means for the sorting of new material. On the contrary, new material can be treated only by adding it to the described body of material, and here it will influence and change the result of the views upon the material. The question, however, is if we need the sorting? My experience tells me that archaeologists can indeed work entirely on the attribute level, that they tend to do so now, and it can be done in a very efficient manner. When I am confronted with pottery material from a Neolithic excavation, I would never start categorizing the individual pots/sherds in terms of an object typology. On the contrary, I would start to look at individual attributes, and from my knowledge of the chronological, geographical and contextual qualities of these attributes I would state my judgement of the material. In fact, the way I would work is not very far from the way you would work with a computer, where you have a multitude of information in open, relational storage that you can question from different points of view and with subsequent, often differing, results.

The book *Archaeological Typology and Practical Reality. A Dialectical Approach to Artifact Classification and Sorting* is an excellent book with respect to its description of almost any aspect of traditional typologies. I have learned a lot, and I have realized many things that I had not given any consideration before. To me, however, the book is also a book concerned with the past, or at least of what is beginning to become the past. Its greatest weakness is thus that it does not focus sufficiently on current reality, and that it has no

vision. The backbone of the book is a pottery typology created by one of the authors through a lifelong (since 1959) work in Nubia, and that is felt.