

The archaeological study of exchange: theoretical problems and a new approach

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I intend in this paper to review some of the recent developments in the archaeological study of exchange, and to point up problems which require further attention. The main thrust of my arguments will be concerned not so much with problems in provenancing archaeological material, but with the interpretation of the distribution patterns which are thus revealed.

Archaeological approaches, 1960-1981

Two themes characterise the development of archaeological approaches to trade and exchange in this period. The first of these comprises attempts to classify mechanisms of exchange and infer their operation in prehistory from their supposed archaeological correlates. An obvious example is Renfrew's work on characterising fall-off curves for various kinds of reciprocal and redistributive exchange (1977). The second line of development involves attempts to relate types of exchange to types of social organisation. Both in Flannery's book "The Early Mesoamerican Village" (1976) and Earle and Ericson's volume "Exchange Systems in Prehistory" (1977) we find the repetition of the popular equations associating reciprocal exchange with egalitarian societies, and redistribution with chiefdoms and states.

Both developments can be understood as part of the general development of New Archaeology in the 1960's and 1970's, with its belief in the possibility of reconstructing, or "reading off", social organisation from archaeological data. The source of inspiration for these developments can be traced to substantivist economic anthropology - with its emphasis on the "embeddedness" of the economy in the structure of society - and in particular to the work of Karl Polanyi. Polanyi envisaged a dichotomy between hierarchical state societies on the one hand - with their formalised schemes of social stratification, commercial money and dependence on market exchange - and egalitarian tribal societies on the other hand, with their dependence on reciprocal mechanisms of exchange. Since its appearance in 1957, this model has been a major influence on economic and evolutionary anthropology and, with minor modifications to accommodate the evolutionary scheme of band, tribe, chiefdom and state as elaborated by Service, Sahlins and Fried; has passed into common archaeological usage.

This brief characterisation of archaeological developments would be incomplete, however, without a discussion of the problems thrown up by these approaches. For despite a general optimism about archaeologists' ability to reconstruct prehistoric exchange systems and thereby to read off other aspects of social organisation, some undercurrents of doubt have been developing in the "Post-New Archaeology" period of the last few years. I would argue that not enough energy has been spent in making explicit and tackling these problems, nor have enough people questioned the basic propositions of the received anthropological model. The main part of this paper will therefore be taken up with a discussion of the most serious problems, starting with those relating to the archaeological recognition of exchange mechanisms, and going on to those which concern the linking of modes of exchange to types of social organisation. In the final part of the paper, some suggestions about how such problems may be avoided or eliminated will be introduced.

Exchange mechanisms and their archaeological correlates

Attempts to infer the operation of exchange mechanisms from their presumed archaeological correlates are by now well known. The range of techniques used for this is wide, and includes simulation and spatial analysis of artifact distribution patterns, examination of assemblage composition, and investigation of single assemblage traits thought to relate to scale of production, storage or medium of exchange. It cannot be denied that the achievements from such approaches are considerable. Take, for example, the recent attempts to demonstrate the importance of redistributive exchange in the palace economy of bronze age Crete. Here, clear indicators of large-scale production, storage and documentation relating to taxes and trade combine to give a fairly coherent picture of economic life in a so-called Early State Module (Halstead 1981).

However, if we turn to a critical review of the achievements of spatial distribution analysis, we find that a certain disillusionment has developed concerning the ability of the techniques to distinguish between different types of exchange. The main problem involved with these, as well as with other techniques, is that the so-called "diagnostic" traits are often found to be characteristic of more than one exchange mechanism. It may be impossible, for instance, to distinguish statistically between the end results of computer simulations of down-the-line barter and ceremonial exchange. Colin Renfrew pointed out in 1975 that central place

redistribution is spatially indistinguishable from central place marketing. And Isabel McBryde has shown, in her distributional analysis of ethnographic Australian axes (1978), that several distinct distribution patterns can be generated by a single mechanism given slightly different operating conditions. Clearly measures of spatial distribution alone are not generally sufficient for the identification and differentiation of types of exchange.

I would argue that where archaeologists have failed to make convincing identifications of prehistoric types of exchange, the cause of this failure is only partly due to inherent shortcomings in the analytical techniques used. More serious problems deserving attention here involve failures in the process of archaeological reasoning, shown most strikingly in the mis-use of ethnographic analogy in attempts to correlate patterns with processes.

In one paper, given at a Southampton conference on ceramics a year ago, it was argued on the basis of assemblage composition that the presence of items from a variety of distant production centres indicated that the site was a regional market. Although this may have been true of the particular ethnographic instance chosen, unfortunately it would be possible to indicate many ethnographic counter-examples - such as the case of sites belonging to the Kula Ring of Melanesia. A similar chain of reasoning was responsible for the suggestion that standardisation of production can be taken to indicate craft specialisation, which in turn implies the existence of markets and hence the presence of a complex state society.

The main criticism that could be levelled against such reasoning is that insufficient attention had been paid to the cases where the proposed correlation has not held, and to cases where the diagnostic trait correlates with a different kind of exchange from the one proposed. To put it another way, the demonstration that trait X correlates with mechanism Y in one instance does not prove that trait X is exclusively correlated with that mechanism. Failure to take account of this fact in the past has led to the paradoxical situation where a single trait - long-distance movement of goods - has at one time been cited as evidence of reciprocal exchange, and at another as an indication of redistributive market exchange. In such cases, it is clearly not sufficient to turn to the ethnographic record for symptoms of particular exchange mechanisms; it is equally important to turn the tables and establish which symptoms have an exclusive relationship

to certain mechanisms. No matter how many statistics are used to demonstrate a positive correlation between symptom and cause, the statistics are virtually useless if no attempt has been made to establish the exclusivity of that correlation.

A similar criticism would apply to the failure of some archaeologists to make an adequate distinction between the concepts of mode of exchange and mechanism of exchange. Polanyi's terms "reciprocity", "redistribution" and "market exchange" in fact refer to broad categories or modes of exchange. By "mode" is meant a general organizing principle which serves to unite apparently diverse types of exchange behaviour. A mechanism of exchange - such as taxation, periodic markets, central place redistribution or ceremonial transfer of valuables between affines - represent a single type of exchange behaviour. Each mode may incorporate several different mechanisms and, as has been noted before, each mechanism can have many material manifestations. Take, for example, the case of the broad category of mechanisms grouped by Polanyi under the label "market exchange". Whilst some variants of this are distinguished by the presence of an all-pervading, standardised medium of exchange, the appearance of currency alone is not itself sufficient to distinguish what Polanyi would call a market economy. For on the one hand, some types of market exchange operate without a standardised exchange medium; on the other hand, special purpose currencies such as shell money may be found to play an important role in the so-called egalitarian reciprocal exchange systems of America, Africa and Melanesia. Despite the fact that such complexities were made clear by Polanyi in 1957, nevertheless archaeologists have still failed to model systematically the correlations between modes, mechanisms and manifestations of exchange.

Inferring the nature of social organisation from exchange data

This issue is important because many archaeologists have used evidence about exchange as a primary indicator of the existence of egalitarian, chiefdom and state societies in prehistory. If such assumed correlations are shown by empirical evidence to be invalid, then much of the prestige currently held by exchange studies is likely to be lost. Let us focus on the following question:

Can the propositions of the received anthropological model be backed up with empirical evidence to demonstrate that there is a significant

correlation between modes of exchange and types of society? That is, can we demonstrate that reciprocity is the dominant mode of exchange in egalitarian societies, whereas redistribution predominates in hierarchical societies?

If for a moment we leave out the idea of dominant modes, and ask whether certain mechanisms of exchange are found in some societies but not in others, then in a very general sense the model holds good. That is, it is possible to detect a tendency for features such as large-scale markets, professional merchants and trading empires to be present in state societies but not generally in tribal societies. Such conclusions have been borne out by an empirical cross-cultural study by Frederick Pryor (1977), who used information from the Human Relations Area Files to classify societies into various levels of socioeconomic complexity, and examined the exchange mechanisms associated with each. However, Pryor's study was marred both by the use of suspect criteria to differentiate between levels of socioeconomic complexity, and by his inability to explain the correlations thus derived between societies and exchange mechanisms.

If we examine more closely the concept of dominance and the definition of hierarchical and egalitarian societies, we find that the model rests on thinner ice.

Recent ethnographic work by Timothy Earle (1978) on the functioning of Hawaiian chiefdoms has raised doubts about the extent to which redistributive exchange is a dominant feature of this type of society. He claims that the redistributive aspects of chiefly rule involved a minimal amount of actual redistribution of goods beyond the upper ranks of society. The flow of commodities was very much a one-way affair, sustained by promises from the chief to provide followers with ritual security in return for tax and tribute. The modes of exchange which, in terms of frequency and scale of activity dominated Hawaiian society, were balanced reciprocity or inter-community barter involving the bulk of the population, and ceremonial reciprocity involving exchanges of luxury goods between chiefs. Were it not for the fact that the position of chief was a permanent one, and the basis of power rested on ascribed status, rather than on the chief's entrepreneurial activities, there would be very few grounds for differentiating this chiefdom from the so-called egalitarian tribal society of New Guinea.

Another piece of work which challenges the idea of dominant modes of exchange is Ian Hughes' study of an ethnographic exchange system in New Guinea (1977). Here we find the principles of reciprocity and redistribution operating side by side in various forms. However, rather than suggesting that one exchange mode is dominant, Hughes suggests that both act as complementary structures for integrating the numerous, mutually hostile groups of the island into a network of trade and exchange. The principle of redistribution is involved with the mechanisms by which differences in power and status are generated; the principle of reciprocity is concerned with codes of behaviour for maintaining relationships and necessary flows of commodities. The implication of this study is that to introduce a term such as "dominance" would mean the injection of an unwarranted degree of subjectivity into judgements about that society.

A further study which knocks holes in the idea of characterising societies in terms of dominant modes of exchange is Tim Ingold's work on reindeer economies in arctic and subarctic regions (1980). He differentiates between modes of subsistence based on a single resource - reindeer - and stresses just how variable the mechanisms and principles of exchange can be, amongst societies conventionally classified as "egalitarian". For example, the adoption of carnivorous pastoralism - where herds are kept for their primary product, meat - can lead to a low degree of exchange of any kind, whereas "milch" pastoralism - based on the animal's secondary products - can give rise, simultaneously, to reciprocal and redistributive modes of exchange. Ironically, in the one case where it is possible to characterise a subsistence strategy as having a dominant exchange mode, we find that hunting - the strategy of "egalitarian" societies par excellence - involves a very strong ideology of redistribution.

Indeed, it would be possible to argue that the two main principles of exchange as defined by Polanyi - reciprocity and redistribution - are present in tandem in a wide range of societies at differing levels of organisational complexity, and that to try and characterise one or the other as being dominant in every case is to create false distinctions.

The difficulties of correlating types of exchange with types of society are, however, but one aspect of a more serious problem, that of the poverty and incoherence of archaeological definitions of social organization. It appears that we are stuck in a rut, assuming that societies can be allocated to types, trying to differentiate "egalitarian" from

"hierarchical" societies, and paying little attention to the plethora of sub- and intermediary types. It is worth bearing in mind that Polanyi's work was originally concerned primarily with differentiating capitalist from pre-capitalist societies, not with studying the wide range of societies falling under the latter heading. This may be one reason why economic anthropologists (eg Clammer 1978) are turning away from studies of distribution to studies of modes of production - or are even abandoning notions of "production vs. distribution" altogether (Jorion, pers. comm.) - in their attempts to understand socio-economic structures.

The validity of labels such as "egalitarian" and "hierarchical" has long been a debating point amongst some anthropologists. Many would now argue that only a tiny minority of societies can be described as truly egalitarian. Most other societies have institutional mechanisms for the differentiation of power and status; anthropological debate now centres on defining different kinds and degrees of hierarchisation. It has been decided that it is no longer justifiable to draw the line around hierarchical societies so as to exclude "tribal society", since the distinction between tribe and chiefdom has been shown not to stand up to empirical testing in many areas. If this is the case, then the utility of a model which tends to group together the majority of known societies into one general category is placed in doubt.

Steps towards a new approach

Having presented a minimalist view of archaeological approaches to exchange, it is now time to suggest some ways in which these problems can be overcome.

It is necessary first of all to decide whether the basic problem lies in the idea that there exist systematic links between economic and social organisation, or in the particular ways in which this idea has been applied in the past. Acknowledging that "economic organisation" can often be regarded as synonymous with "social organisation", I would argue that the latter is the case, and suggest that the major task facing archaeologists is the development of a better understanding of the articulation between exchange and those aspects of social organisation which form the focus of interest.

Efforts should be directed towards making a systematic, cross-cultural analysis of the nature of power and status differentiation and its

manifestations in known societies. Having thereby revised their classification scheme for societies, archaeologists might then return to the study of exchange mechanisms and their material manifestations.

However, rather than continuing in the current fashion of unsystematically searching for symptoms of particular mechanisms, I would propose the adoption of a more rigorous approach, in which all possible permutations of social type, exchange mechanism and material manifestation are considered, and their relationships understood. Only in those cases where an exclusive correlation can be demonstrated between social type and exchange mechanism, or between exchange mechanism and material manifestation, will a particular trait be treated as diagnostic. In effect, this approach would be concerned with the definition of sufficient and necessary organisational conditions for the existence of particular exchange mechanisms. However, such an approach would be no more valuable than existing "correlative" studies, were it to lack a theoretical basis with which to understand the articulations of interest. Just as theory validation without reference to empirical material is unpalatable to many, so cross-cultural generalisations in a theoretical vacuum are, as we have seen, useless. The approach of greatest potential for the present task is that used by Jack Goody in his "Production and Reproduction" (1976).

It may well be that ~~they~~ type of approach suggested above will lead to the discovery of hitherto undetected diagnostic features relating to the articulation of material culture, exchange and social organisation. I predict that, of all the redistributive mechanisms which are related to political control, a significant difference may emerge between those which involve a predominantly one-way flow of goods - as in the Hawaiian example - and those where the redistribution of material is genuinely two-way, as in the case of central place marketing. Recourse to anthropological studies might suggest that the differences between these particular exchange mechanisms relate to differences in the way that power and status is distributed, expressed and legitimated in these different societies.

Some might argue that this so-called "new" approach differs very little from that which is being used by archaeologists now. However, one important qualitative difference is the fact that the proposed approach is designed to make explicit the potential and limitations of archaeological inference. By demonstrating logically what can and cannot be inferred from the observation of traits relating to exchange, the approach will allow

archaeologists to entertain a more realistic idea of the value of exchange studies in prehistory.

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