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PART ONE

The development of theory

Chapter 1

Theoretical archaeology: a reactionary view

Ian Hodder

Functionalism is defined as the use of an organic analogy in the explanation of societies, with particular reference to system, equilibrium and adaptation. The New Archaeology is found to be functionalist and a critique of functionalism is put forward, centring on the dichotomies between culture and function, individual and society, statics and dynamics, and on the links to positivism. Criticisms of an alternative approach, structuralism, include the lack of a theory of practice, the dichotomies between individual and society, statics and dynamics, and the paucity of rigour in the methods employed. A contextual or cultural archaeology is described which is based on the notion of 'structuration', and which attempts to resolve many of the difficulties associated with functionalism and 'high' structuralism. The main concern is with the role of material culture in the reflexive relationship between the structure of ideas and social strategies. Similarities are identified with the historical and humanistic aims of an older generation of British prehistorians such as Daniel, Piggott, Clark and Childe. Today, however, the earlier aims can be followed more successfully because of developments in social theory and ethnographic studies.

Functionalism and the New Archaeology

In defining functionalism, a simplified version of Radcliffe-Brown's (1952) account will be used since his approach can be shown to be close to that followed by many New Archaeologists (those who in the 1960s and 1970s were concerned with explanations and approaches of the types outlined by Binford and his associates). Functionalism introduces an analogy between social and organic life. Emile Durkheim (*Règles de la Methode Sociologique* 1895) defined

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the 'function' of a social institution as the correspondence between it and the needs of the social organism. In the same way that the stomach provides a function for the body as a whole and allows it to survive, so any aspect of a past society can be assessed in terms of its contribution to the working of the whole society. A society is made up of interrelated parts and we can explain one component by showing how it works in relation to other components. But these are all very general statements, and there is room for a great variety of views within these general propositions. Indeed, Radcliffe-Brown (1952, p. 188) stated bluntly that the 'Functional School does not really exist; it is a myth'. Functionalism often appears to be little more than a 'dirty word' used by the opponents of anthropologists such as Malinowski, Boas and Radcliffe-Brown himself, and it may convey little meaning. So if it is to be used of the New Archaeology, a more specific definition needs to be provided.

The concept of function is closely linked to the notion of system. In the middle of the eighteenth century Montesquieu used a conception of society in which all aspects of social life could be linked into a coherent whole. What Comte called 'the first law of social statics' held that there are relations of interconnection and interdependence, or relations of solidarity, between the various aspects of society. It is possible analytically to isolate certain groups of particularly close interrelationships as systems.

According to the functionalist viewpoint as stated in systems theory, societies reach a healthy organic equilibrium, called homeostasis. Plato, in the Fourth Book of his *Republic*, saw the health of a society as resulting from the harmonious working together of its parts. The Greeks distinguished good order, social health (*eunomia*), from disorder, social illness (*dysnomia*), while the notion of malfunction and social pathology was a central concern of Durkheim. (In recent systems archaeology, pathologies have been listed and their effects examined by Flannery (1972).)

Pathologies occur during periods when the organic unity and equilibrium are upset as a result of maladaptation. A society can only continue to exist if it is well-adjusted internally and externally. Three types of adaptation can be distinguished. The first concerns the adjustment to the physical environment, the ecological adaptation. The second is the internal arrangement and adjustment of components of the society in relation to each other. Finally, there is the process by which an individual finds a place within the society in which he lives. It is through these three types of adaptation that societies survive and evolve. Many anthropologists and archaeologists, however, have discussed change largely in terms of ecological adaptation, the meeting of external constraints. It is an ecological functionalism which prevails today in archaeology.

In this chapter the term functionalism refers to the use of an organic analogy and to the viewpoint that an adequate explanation of a past society involves reference to system, equilibrium and adaptation as outlined above. Although functionalism, and specifically ecological functionalism, were mainstays of the theoretical framework of an earlier generation of archaeologists such as Gordon Childe and Grahame Clark, they have become more widely important as a result of the New Archaeology of the 1960s and 1970s. Indeed, processual and systems archaeology is almost by definition a functionalist archaeology. As Leach (1973*a*, pp. 761–2) pointed out, 'Binford's remark that "behaviour is the by-product of the interaction of a cultural repertoire with the environment" may be proto-typical of the "new" archaeology, but to a social anthropologist it reads like a quotation from Malinowski writing at the time when naive functionalism was at its peak – that is to say about 1935.' This view is too extreme, but Renfrew (1972, p. 24) also states that to examine connections between subsystems as in systems theory 'is, of course, simply a statement of anthropological functionalism, that different aspects of a culture are all interrelated'.

The degree to which archaeology has adopted a functionalist conception of society and culture is apparent in the writings of the major figures of the 'new' discipline. Although the archaeological contributions of these writers differ, the notions of organic wholes, interrelated systems, equilibrium and adaptation can all be identified most clearly. For example, in Flannery's (1972) systems model for the growth of complex societies, the job of self-regulation within the sociocultural system 'is to keep all the variables in the subsystem within appropriate goal ranges – ranges which maintain homeostasis and do not threaten the survival of the system' (ibid., p. 409). According to Binford (1972, p. 107) 'we can . . . expect variability in and among components of a system to result from the action of homeostatic regulators within the cultural system serving to maintain equilibrium relationships between the system and its environment'. Similarly, for Clarke (1968, p. 88), 'the whole cultural system is in external dynamic equilibrium with its local environment'. 'Equilibrium is defined as that state in which dislocation amongst the component variety is minimised . . . Dislocation most frequently arises . . . when different networks independently transmit mutually contradictory information – presenting an anomaly at nodes in the structure of the system. Sociocultural systems are continuously changing in such a way as to minimise the maximum amount of immediate system dislocation' (ibid., p. 129). According to Hill (1971, p. 407), a set of variables is only a system if their 'articulation . . . be regulated (maintained in steady-state) by homeostatic processes'.

The importance of maintaining equilibrium with the 'environment' has also been emphasised by Renfrew (1972). Indeed, man's relationship with the environment is seen by him as one of the main aspects of systems theory. 'The whole purpose of utilising the systems approach is to emphasise man–environment interrelations, while at the same time admitting that many fundamental changes in man's environment are produced by man himself' (ibid., pp. 19–20).

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'Culture . . . is essentially a homeostatic device, a conservative influence ensuring that change in the system will be minimised. It is a flexible adaptive mechanism which allows the survival of society despite fluctuations in the natural environment' (ibid., p. 486).

Thus it is thought that human sociocultural systems can be described as if they were adapting to the total social and environmental milieu. Renfrew (1972, pp. 24–5) talks of the 'essential coherence and conservatism of all cultures . . . the society's "adjustment" or "adaptation" to its natural environment is maintained: difficulties and hardships are overcome'. A similar view is expressed by Binford (1972, p. 20). 'Change in the total cultural system must be viewed in an adaptive context both social and environmental.' Indeed Binford's (1972, p. 22) definition of culture 'as the extra-somatic means of adaptation for the human organism' is one of the main tenets of systems archaeologists. 'Culture, from a systemic perspective, is defined . . . as interacting behavioural systems. One asks questions concerning these systems, their interrelation, their adaptive significance' (Plog 1975, p. 208). 'Culture is all those means whose forms are not under direct genetic control . . . which serve to adjust individuals and groups within their ecological communities . . . Adaptation is always a local problem, and selective pressures favouring new cultural forms result from nonequilibrium conditions in the local ecosystem' (Binford 1972, p. 431).

The functionalist and processual emphasis in archaeology aimed objectively to identify relationships between variables in cultural systems. There was a natural link to an empirical and positivist concept of science. 'The meaning which explanation has within a scientific frame of reference is simply the demonstration of a constant articulation of variables within a system and the measurement of the concomitant variability among the variables within the system. Processual change in one variable can thus be shown to relate in a predictable and quantifiable way to changes in other variables, the latter changing in turn relative to changes in the structure of the system as a whole' (Binford 1972, p. 21). This statement demonstrates the link between functionalism and a conception of explanation as the prediction of relationships between variables. It is thought that the relationships can be observed empirically and quantification can be used to assess the significance of associations. The way is thus open for recovering cross-cultural generalisations, and 'the laws of cultural process' (ibid., p. 199). Although Binford (1977, p. 5) appears more recently to have doubted the explanatory value of cross-cultural statistics, the above attitudes to explanation have at times been developed into a rigid hypothetico-deductive method based on a reading of Hempel (e.g. Watson, Leblanc & Redman 1971; Fritz & Plog 1970).

Critique of functionalism

I do not intend to examine the problems of applying systems theory in archaeology (Doran 1970), nor whether systems theory has really aided archaeologists in their functionalist aims (Salmon 1978). Rather, I want to consider the criticisms of functionalism itself. Martins (1974, p. 246) describes the critique of functionalism as an initiation *rite de passage* into sociological adulthood, and I have suggested elsewhere (1981) the need for a wider debate in archaeology concerning the various critiques of and alternatives to ecological functionalism.

Many of the problems and limitations of the organic analogy as applied to social systems have long been recognised. Radcliffe-Brown (1952, p. 181) noted that while an animal organism does not, in the course of its life, change its form, a society can, in the course of its history, undergo major organisational change. Other problems are not inherent to the approach but result from the particular emphasis that is given by archaeologists, perhaps as a result of the limitations of their data. For example, a systems approach which assumes that homeostatic equilibrium is the natural state of things results in the notion that all change ultimately has to derive from outside the system. Negative feedback occurs in reaction to outside stimuli, and positive feedback and deviation amplifying processes need initial external kicks. According to Hill (1977, p. 76) 'no system can change itself; change can only be instigated by outside sources. If a system is in equilibrium, it will remain so unless inputs (or lack of outputs) from outside the system disturb the equilibrium.' The result of this view has been to place great emphasis on the impact of supposed 'independent' variables from outside the sociocultural system under study. The favourite external variables have been environmental factors (e.g. Carneiro 1968), long-distance trade (Renfrew 1969), and population increase (Hill 1977, p. 92), although it is not often clear why the latter is assumed to be an independent variable. Little advance has been made in the study of factors within societies that affect the nature of change (see, however, Friedman & Rowlands 1977). But Flannery (1972) has shown how the systems approach can be extended to include internal forces of change and those forms of internal adaptation within the organic whole which have been described above.

A more fundamental limitation of the functionalist viewpoint centres on the inadequacy of function and utility in explaining social and cultural systems, and on the separation made between functional utility and culture. All aspects of culture have utilitarian purposes in terms of which they can be explained. All activities, whether dropping refuse, developing social hierarchies, or performing rituals, are the results of adaptive expedience. But explanation is sought only in terms of adaptation and function. The problem with such a viewpoint is not so much the emphasis on function since it is important to know how material items, institutions, symbols and ritual operate, and the contribution of the New Archaeology to such studies is impressive. It is rather the dichotomy which was set up between culture

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and adaptive utility which restricted the development of the approach.

In archaeology the split between culture and function took the form of an attack on what was termed the 'normative' approach. In Binford's (1965) rebuttal of the 'normative school', he referred to American archaeologists such as Taylor, Willey and Phillips, Ford, Rouse and Gifford who were concerned with identifying cultural 'wholes' in which there was an ideational basis for the varying ways of human life within each cultural unit. Such archaeologists aimed at identifying the normative concepts in the minds of men now dead. Binford more specifically criticised the normative studies which tried to describe the diffusion and transmission of cultural traits. It is not my concern here to identify whether the normative paradigm, as characterised by Binford, ever existed. Certainly, as will be shown below, European archaeologists such as Childe were already able to integrate a concern with cultural norms and a notion of behavioural adaptability. But in Binford's view, the normative approach emphasising homogeneous cultural wholes contrasted with the study of functional variability within and between cultural units. The normative school was seen as historical and descriptive, not allowing explanation in terms of functional process. So he moved to an opposite extreme where culture, norms, form and design had only functional value in, for example, integrating and articulating individuals and social units into broader corporate entities. In fact Binford suggested that the different components of culture may function independently of each other. Functional relationships could thus be studied without reference to cultural context, and regular, stable and predictable relationships could be sought between variables within social systems. As a result, an absolute gulf was driven between normative and processual studies. 'An approach is offered in which culture is not reduced to normative ideas about the proper ways of doing things but is viewed as the system of the total extrasomatic means of adaptation' (Binford 1972, p. 205). More recently (1978*a*) Binford has still more clearly separated the study of norms from the study of process. He has attacked the historical and contextual emphasis of Kroeber and Kluckhohn (ibid., p. 2). On the one hand (ibid., p. 3), artefacts are the reflections of the mental templates of the makers and these ideas in the minds of men cannot adapt intelligently to new situations. On the other hand, cultural variability is simply the result of adaptive expedience. He could ask (1978*a*, p. 11), 'do people conduct their ongoing activities in terms of invariant mental templates as to the appropriate strategies regardless of the setting in which they find themselves?' Indeed, his Nunamiut ethnoarchaeology is introduced as an attempt to identify whether faunal remains could be studied as being 'culture-free'. Cultural bias can only be identified (1978*a*, p. 38) when an anomoly occurs; when the adaptively expedient expectations are not found.

The dichotomy set up between culture and function limits the development of archaeological theory because 'functional value is always relative to the given cultural scheme' (Sahlins 1976, p. 206). All actions take place within cultural frameworks and their functional value is assessed in terms of the concepts and orientations which surround them. That an item or institution is 'good for' achieving some end is partly a cultural choice, as is the end itself. At the beginning of this chapter Durkheim's definition of the function of a social institution as the correspondence between it and the needs of the social organism was described. But the needs of the society are preferred choices within a cultural matrix. It follows that function and adaptation are not absolute measures. All daily activities, from eating to the removal of refuse, are not the results of some absolute adaptive expedience. These various functions take place within a cultural framework, a set of ideas or norms, and we cannot adequately understand the various activities by denying any role to culture. An identical point is made by Deetz (1977) in his comparison of cultural traditions in two historical periods in North America.

The above discussion is particularly relevant to the functionalist view of material items. As already noted, Binford assumes that culture is man's extrasomatic means of adaptation. According to David Clarke (1968, p. 85) 'culture is an information system, wherein the messages are accumulated survival information'. In this way material culture is seen as simply functioning at the interface between the human organism and the social and physical environment in order to allow adaptation. It has a utilitarian function (Sahlins 1976). The result of this view is that cultural remains are seen as *reflecting*, in a fairly straightforward way, what people *do*. Even work on deposition and post-depositional processes (Schiffer 1976), while adding complexity to the situation, still assumes that material culture is simply a direct, indirect or distorted reflection of man's activities. This is a continuation of earlier views of material culture as 'fossilised action'. As Fletcher (1977*b*, pp. 51–2) has pointed out, material culture is seen simply as a passive object of functional use; a mere epiphenomenon of 'real' life. But there is more to culture than functions and activities. Behind functioning and doing there is a structure and content which has partly to be understood in its own terms, with its own logic and coherence. This applies as much to refuse distributions and 'the economy' as it does to burial, pot decoration and art.

Linked to the separation of function and culture has been the decreased emphasis on archaeology as an historical discipline. If material items and social institutions can be explained in terms of their adaptive efficiency, there is little concern to situate them within an historical framework. The evolutionary perspective has emphasised adaptive relationships at different levels of complexity, but it has not encouraged an examination of the particular historical context. However, it is suggested here that the cultural framework within which we act, and which we reproduce in our actions, is historically derived and that each culture is a particular

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historical product. The uniqueness of cultures and historical sequences must be recognised. Within the New Archaeology there has been a great concern with identifying variability. But in embracing a cross-cultural approach, variability has, in the above sense, been reduced to sameness. Diachronic sequences are split into phases in which the functioning of systems can be understood in synchronic terms as instances of some general relationship. The dichotomy between diachrony and synchrony is linked to the split between culture and history on the one hand and function and adaptation on the other. The resolution of the culture/function dichotomy which is sought in this book will also reintroduce historical explanation as a legitimate topic of concern in archaeology.

Another limitation of the functionalist perspective of the New Archaeology is the relationship between the individual and society. The functional view gives little emphasis to individual creativity and intentionality. Individual human beings become little more than the means to achieve the needs of society. The social system is organised into subsystems and roles which people fill. The roles and social categories function in relation to each other to allow the efficient equilibrium of the whole system. In fact, however, individuals are not simply instruments in some orchestrated game and it is difficult to see how subsystems and roles can have 'goals' of their own. Adequate explanations of social systems and social change must involve the individual's assessments and aims. This is not a question of identifying individuals (Hill & Gunn 1977) but of introducing the individual into social theory. Some New Archaeologists have recognised the importance of this. 'While the behaviour of the group, of many individual units, may often effectively be described in statistical terms without reference to the single unit, it cannot so easily be *explained* in this way. This is a problem which prehistoric archaeology has yet to resolve' (Renfrew 1972, p. 496). The lack of resolution is inherent in the functionalist emphasis in archaeology.

Further criticism of functionalist archaeology concerns the emphasis on cross-cultural generalisations. After an initial phase in which ethnoarchaeology was used largely to provide cautionary tales and 'spoilers' (Yellen 1977), the concern has been to provide cross-cultural statements of high predictive value. Because of the preferred hypothetico-deductive nature of explanation, it became important to identify rules of behaviour and artefact deposition which were used regardless of cultural context. As already noted, such an approach was feasible because the particular historical and cultural dimensions of activity were denied. Different subsystems were identified, such as subsistence, exchange, settlement, refuse disposal and burial, and cross-cultural regularities were sought. Since the role of cultural and historical factors was not examined, it was necessarily the case that the resulting generalisations either were limited to mechanical or physical aspects of life or were simplistic and with little content. Some aspects of human activity are constrained by deterministic variables. For example, it is difficult for humans to walk bare-footed on spreads of freshly knapped flint, or to work or sit in or near the smoke of fires (Gould 1980; Binford 1978*b*). Certain types of bone do hold more or less meat or marrow, and they fracture in different ways (Binford 1978*a*; Gifford 1978). The seeds sorted by wind during winnowing depend partly on wind velocity and seed density (Jones, pers. comm.). Smaller artefacts are more difficult for humans to hold and find than large artefacts and so the patterns of loss may differ (Schiffer 1976). Cross-cultural predictive laws or generalisations can be developed for these mechanical constraints on human behaviour, and ethnoarchaeology has been most successful in these spheres, but attempts to extend this approach to social and cultural behaviour have been severely criticised as is shown by the debate over the hypothesis put forward by Longacre (1970), Deetz (1968), and Hill (1970) (e.g. Stanislawski 1973; Allen & Richardson 1971), and the result has been the frustration implied by Flannery's (1973) characterisation of Mickey Mouse laws. As soon as any human choice is involved, behavioural and functional laws appear simplistic and inadequate because human behaviour is rarely entirely mechanistic. The role of ethnoarchaeology must also be to define the relevant cultural context for social and ecological behaviour.

Linked to the emphasis on cross-cultural functional laws is the idea of 'predicting the past' (Thomas 1974). The percentages of modern societies in which women make pots (Phillips 1971) or in which size of settlement is related to post-marital residence (Ember 1973) are difficult to use as measures of probability for the interpretation of the past because modern societies are not independent nor do they comprise a random or representative sample of social forms. More important, however, is the lack of identity between prediction and understanding. It is possible to predict many aspects of human behaviour with some accuracy but without any understanding of the causal relationships involved. Equally, a good understanding of a social event may not lead to an ability to predict the outcome of a similar set of circumstances. Levels of probability and statistical evidence of correlation are no substitute for an understanding of causal links and of the relevant context for human action. The use of mathematical and statistical formulae which provide good fits to archaeological data leads to little understanding of the past. My own involvement in spatial archaeology, a sphere in which statistical prediction has been most successful, has shown most clearly that prediction has little to do with explanation.

The embrace of the hypothetico-deductive method and prediction in relation to interpretation of the past has allowed the definition of independent levels of theory. A distinct 'middle range theory' has been identified because it has been assumed that objective yardsticks or instruments of measurement can be obtained for the study of past systems and their archaeological residues (Binford 1978*a*, p. 45). We have general theories of social development and lower level

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theories concerning the formation of the archaeological record. Similarly, Clarke (1973) suggested that pre-depositional, depositional, post-depositional, analytical and interpretive theories could be distinguished despite the existence of overall controlling models. This separation of levels or types of theory is partly possible because of a model of man which separates different functional activities and sets up predictive relationships between them. Thus, depositional theory can be separated from interpretive theory because artefact deposition is adaptively expedient and can be predicted without reference to wider social theories. The hypotheses concerning social institutions and social change are thought to be different in nature from the hypotheses concerning the relationship between society and material culture. But both material items and their deposition are actively involved in social relations and we cannot separate independent levels of theory. Frameworks of cultural meaning structure all aspects of archaeological information. Leone (1978) has shown most clearly how data, analyses and interpretations are inextricably linked. The different theoretical levels should be congruent, and beyond natural processes there can be no instruments of absolute measurement.

The aim of the New Archaeology was to show the rationality of institutions with respect to their environments. The main criticisms of this general approach as described above are as follows. (1) The dichotomy set up between cultural form and objective functional expedience is misleading, and material items are more than tools holding survival information. (2) The functionalist viewpoint is unable to explain cultural variety and uniqueness adequately. (3) Social systems become reified to such an extent that the individual contributes little. (4) The cross-cultural generalisations which have resulted from functionalist studies by archaeologists have been unable to identify valid statements about social and cultural behaviour because the relevant context is insufficiently explored. (5) Different levels or types of hypothesis have been identified, but in fact all hypotheses are and should be integrated within a coherent social and cultural theory. This volume seeks to respond to these criticisms by developing alternative approaches. I wish to begin by considering various definitions of 'structure'.

Structure as system, pattern and style

In the preceding discussion of functionalism, reference has been made to the adaptive utility of material items and institutions within social and cultural systems. Subsystems (pottery, settlement, social, economic etc.) can be identified and discussed in cross-cultural perspective. Within each socio-cultural system a particular set of systemic relationships is produced in order to meet local needs at particular moments in time. In the analysis of such systems, the words 'system' and 'structure' are interchangeable. The system (or structure) is the particular set of relationships between the various components; it is the *way* the interrelationships are organised. Within New Archaeology, then, structure is the system of observable relations. Structure is the way things are done and it, like individual items and institutions, is explained as the result of adaptive expedience.

The functionalist view of structure is apparent in discussions of social organisation, social relations or social systems, none of which are distinguished from social structure. The term social structure is used by New Archaeologists to refer to bands, tribes, chiefdoms, states, as well as to reciprocal, redistributive and prestige transactions. Social structure is observed directly in burial and settlement patterns where the visible differentiation in associations and forms is seen as reflecting roles and activities organised in relation to each other. The structure of social relations as a whole is organised so as to allow adaptation to such factors as the distribution of environmental resources (uniform or localised), the availability of prestige items or valued commodities, and the relationships with neighbouring social groups.

In such systemic studies the close relationship between the terms 'structure' and 'pattern' is apparent. In identifying social and economic structures various patterns are analysed. These patterns include the distributions of settlements of different sizes and functions across the landscape, the distributions of artefacts and buildings in settlements, the distributions of resources, the distributions of artefacts among graves in cemeteries, the regional distributions of exchanged items and the regional distributions of artefacts in interaction or information exchange spheres or 'cultures'. These various patterns are 'objective' and are immediately susceptible to statistical manipulation, quantification and computerisation. The concern with pattern allows the legitimate use of a wide range of scientific software, including numerical taxonomy and spatial analysis.

The identification of pattern and the implementation of 'analytical archaeology' is extended to studies of arrangements of attributes on individual artefacts, where 'pattern' is often equivalent to 'style'. The analysis of pottery and metal decoration, and of the form of artefacts, leads to the definition of 'types' based on the association of attributes. Artefact styles are interpreted as having utilitarian or non-utilitarian functions; they are technomic, sociotechnic or ideotechnic (Binford 1972). Style is involved in the support of group solidarity (Hodder 1979) and the passing on of information (Wobst 1977).

In functionalist archaeology, structure is examined as system, organisation, distribution, pattern, or style. It is produced by people attempting to adapt to their environments. Like any artefact, structure is a tool for coping. If culture is a tool acting between people and the environment, and if the term 'culture' describes the particular adaptive organisation produced in each environmental context, then structure is also similar to culture. A culture is seen as the way material bits and pieces are assembled and associated in a geographical area in order to allow human adaptation.

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Structure as code

In this chapter I wish to distinguish between system and structure (Giddens 1979), by defining structure not as system, pattern or style, but as the codes and rules according to which observed systems of interrelations are produced. Several archaeological studies have made a contribution to the analysis of structure as code, and some examples are discussed here.

Within studies of Palaeolithic cave art, Leroi-Gourhan (1965) has made specific interpretations of signs as male or female and has suggested various codes for the combination and relative placing of the signs within the caves. Marshak (1977) identified specific interpretations of symbols as dangerous and he related the structure associated with the meander in cave art to the general flow and participation in daily life. Conkey (1977) identified general aspects of the rules of organisation of Upper Palaeolithic art, such as 'the non-differentiation of units', and did not attempt to provide a specific meaning in terms of social organisation. All these analyses were concerned to identify codes or rules, but the nature of the interpretation of these structures and of their relationship to social structures varied.

Studies of later artefact and pottery design have often tended towards a still more formal emphasis in that little attention is paid to the social context in which structures are produced. The linguistic model has been developed most fully by Muller (1977) in his analysis of the grammatical rules of design. His work, and Washburn's (1978) definition of different types of symmetry, do not result in any attempt at translating cultural meaning and symbolism. Rather, Washburn uses symmetry simply as an additional trait for the discovery of population group composition and interaction spheres. Such analyses can be, and have been, carried out without any major change in functionalist theories of society.

Some of the work on the identification of settlement structures has also involved little criticism of the New Archaeology. Clarke's (1972, pp. 828 and 837) identification of structural transformations (bilateral symmetry relating to male/female) in the Iron Age Glastonbury settlement appears as a peripheral component of a systems analysis. A clear link is made between the generative principles of the settlement design and the social system. Isbell's (1976) recognition of the 3000-year continuity in settlement structure in the South American Andes, despite major discontinuities in social and economic systems, raises more fundamental problems for systemic studies since structure is seen to continue and lie behind adaptive change. Fritz's (1978) interesting account of prehistoric Chaco Canyon in north western New Mexico shows that the organisation of houses, towns, and regional settlement can be seen as transforms of the same underlying principle in which west is symmetrical to east, but north is asymmetrical to south. This study is concerned to link the organisation of social systems to underlying structures. The structuralist analysis of a Neolithic cemetery by Van de Velde (1980) has related aims. Fletcher's (1977*a*) work on the spacing between 'entities' – posts, walls, door posts, pots and hearths – in settlements is concerned less with social strategies and more with ordering principles which carry long-term adaptive value. Hillier *et al.* (1976) have identified a purely formal logic for the description of all types of arrangement of buildings and spaces within settlements.

The above examples are drawn from prehistoric archaeology but structural studies have an important place in historical archaeology (Deetz 1967; Ferguson 1977; Frankfort 1951; Glassie 1975; Leone 1977). While many of the prehistoric and historic archaeology studies explain structure in terms of social functions and adaptive values, they also introduce the notion that there is more to culture than observable relationships and functional utility. There is also a set of rules, a code, which, like the rules in a game of chess, is followed in the pursuit of survival, adaptation and socio-economic strategy. In an ethnographic analysis of the Nuba in Sudan, it has been shown that all aspects of material culture patterning (burial, settlement, artefact styles) must be understood as being produced according to sets of rules concerned with purity, boundedness and categorisation (Hodder 1982*a*). Individuals organise their experience according to sets of rules. Communication and understanding of the world result from the use of a common language – that is, a set of rules which identify both the way symbols should be organised into sets, and the meaning of individual symbols in contrast to others. Material culture can be examined as a structured set of differences. This structured symbolising behaviour has functional utility, and it must be understood in those terms. But it also has a logic of its own which is not directly observable as pattern or style. The structure must be interpreted as having existed partly independent of the observable data, having generated and produced those data.

The concern with material culture as the product of human categorisation processes is described by Miller in chapter 2. It is sufficient to emphasise here that the various structuralist analyses of codes can be clearly distinguished from functionalist studies of systems. Both structuralists and functionalists are concerned with relationships and with the way things and institutions are organised. In other words, both are concerned with 'structure' if that word is defined in a very general way. But there is a difference in that the logic analysed by functionalists is the visible social system (the social relations) which exists separately from the perceptions of men. For Leach (1973*b*, 1977, 1978), structure is an ideal order in the mind. For Lévi-Strauss (1968), it is an internal logic, not directly visible, which is the underlying order by which the apparent order must be explained. But for Lévi-Strauss, the structure often appears to lie outside the human mind (Godelier 1977). Structuralists, including Leach and Lévi-Strauss, claim that adequate explanation of observed patterns must make reference to underlying codes.

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Criticisms of structuralism

The problems and limitations of the different types of structuralism are discussed by, for example, Giddens (1979), and in this chapter only those criticisms will be examined which are particularly relevant to the themes to be debated in this book. A major problem concerns the lack of a theory of practice (Bourdieu 1977). The structuralism of Saussure, which uses a linguistic model, separates *langue* as a closed series of formal rules, a structured set of differences, from semantic and referential ties. The formal set of relationships is distinct from the practice of use. Similarly, Lévi-Strauss identifies a series of unconscious mental structures which are separated from practice and from the ability of social actors to reflect consciously on their ideas and create new rules. In both linguistic and structural analyses it is unclear how the interpretation and use of rules might lead to change. How an individual can be a competent social actor is not clearly specified. As in functionalism, form and practical function are separated.

The failure within structuralism and within structuralist analyses in archaeology to develop a theory of practice (concerning the generation of structures in social action) has encouraged the view within functionalist archaeology that structuralism can only contribute to the study of norms and ideas which are epiphenomenal. The gulf between normative and processual archaeology has been widened since, on the one hand, structuralist approaches could be seen as relating to ideas divorced from adaptive processes while, on the other hand, it was thought by processualists that social change could be examined adequately without reference to the structure of ideas. Some of the structuralist studies identified above, such as those by Muller and Washburn, make little attempt to understand the referential context. The notion of a 'mental template' can be criticised in a similar vein because it envisages an abstract set of ideas or pictures without examining the framework of referential meaning within which the ideas take their form. In other, more integrated studies, such as those by Fritz and Marshak, the social and ecological contexts of the structures identified are examined, but the link between form and practice is insecure and no relevant theory is developed. On the other hand, work such as that of Flannery and Marcus (1976), which fits better into the functionalist mould, relates all form to function and structural analysis is limited. Few archaeological studies have managed to provide convincing accounts of the relationship between structure as code and social and ecological organisation.

Other limitations of structuralism can be related to the above. As in functionalism, the role of the individual is slight. In functionalism the individual is subordinate to the imperatives of social coordination. In the structuralism of Lévi-Strauss the individual is subordinate to the organising mechanisms of the unconscious. The notion of a 'norm' in traditional archaeology implies a structured set of cultural rules within which the individual plays little part.

The dichotomy between synchrony and diachrony, statics and dynamics, exists in structuralism as it does in functionalism. Structural analyses can incorporate time as a dimension for the setting up of formal differences, but the role of historical explanation is seen to be slight in the work of Lévi-Strauss, and there is little attempt to understand how structural rules can be changed. Structures often appear as static constraints on societies, preventing change. Structuralism does not have an adequate notion of the *generation* of change.

While the main concern of reactions to structuralism is to develop an adequate theory of practice (Bourdieu 1977; Piaget 1971, 1972; Giddens 1979), other criticisms have concentrated on the methods of analysis. Structures, because they are organising principles, are not observable as such, and this is true whether we are talking about anthropology, psychology or archaeology. They can only be reached by reflective abstraction. Thus, structures of particular kinds could be said to emerge because the analyst is looking for them, trying to fit the data into some expected and hypothetical structural pattern. But how can such hypotheses ever be falsified (Pettit 1975, p. 88)? For structuralism to be a worthwhile pursuit, it must be possible to disprove a weak hypothesis. However, Pettit (ibid., pp. 88–92) feels that rejection of structuralist hypotheses is impossible, at least in regard to myths, for a number of reasons. For example, the initial hypothesis in structuralist analysis often is necessarily vague so that the analyst can give himself room to shift the hypothesis to accommodate the new transformations. Also, because there are few rules on the way in which structures are transformed into different realities, one can make up the rules as one goes along. By using sufficient ingenuity, any two patterns can probably be presented as transformations of each other.

Thus the structural method of Lévi-Strauss 'is hardly more than a licence for the free exercise of imagination in establishing associations' (ibid., p. 96). There is certainly a danger that archaeologists may be able to select arbitrary aspects of their data and suggest a whole series of unverifiable transformations. These criticisms are discussed in detail by Wylie in chapter 4. Here I wish to note that Pettit's attack is directed at those formal and structural analyses which take little account of the referential context of social action. Within a structuralism in which a theory of practice has been developed, Pettit's criticisms have less force because the structural transformations must 'make sense' as part of a changing and operating system. Abstract formal analysis must be shown to be relevant to a particular social and historical context, and it must lead to an understanding of the generation of new actions and structures through time.

All the above criticisms of structuralism have concerned the need to examine the generation of structures within meaningful, active and changing contexts. The criticisms of both functionalism and structuralism centre on the inability of the approaches to explain particular historical

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contexts and the meaningful actions of individuals constructing social change within those contexts. Archaeology in particular has moved away from historical explanation and has tried to identify cross-cultural universals concerning either the functioning of ecological systems or (rarely) the human unconscious. There is a need to develop a contextual archaeology which resolves the dichotomy evident in functionalism and structuralism between cultural norm and societal adaptation.

Archaeology as a cultural science

The approaches developed by the majority of the authors in this volume are not structuralist in that they take account of the criticisms of the work of, for example, Leach and Lévi-Strauss, made by various 'post-structuralist' writers (Harstrup 1978; Ardener 1978). Yet the insights offered by structuralism must be retained in any adequate analysis of social processes, and it is for this reason that I have not deleted the term structuralism from the papers in this book (e.g. Wylie, chapter 4; see also the term 'dialectical structuralism' used by Tilley, chapter 3). Even if structuralism as a whole is generally rejected, the analysis of structure has a potential which has not been exhausted in archaeology.

Structural analyses involve a series of approaches described by Miller (chapter 2). Important concepts which can be retained from structuralism include syntagm and paradigm. Syntagm refers to rules of combination, and to 'sets' of items and symbols. In burial studies it may be noted, for example, that particular 'costumes' can be identified which are associated with particular sub-groups within society. The rules of combination describe the way in which items or classes of item (e.g. weapons) placed on one part of the body are associated with other classes of item on other parts of the body. Similarly, sets of items may be found to occur in settlements. Syntagmatic studies can also be applied to the combination of attributes on artefacts, and in chapter 14 rules for the generation of Dutch Neolithic pottery decoration are described. Paradigm refers to series of alternatives or differences. For example, in the burial study, a brooch of type *A* may be found worn on the shoulder in contrast to a pin or a brooch type *B* placed in the same position on other skeletons. Each alternative may be associated with a different symbolic meaning.

But in all such structural analyses the particular symbol used must not be seen as arbitrary. 'High structuralist' analyses are directed towards examinations of abstract codes, and the content or substance of the symbol itself often appears arbitrary. However, the symbol is not arbitrary, as is seen by, for example, the placing of a symbol such as a crown, associated with royalty, on the label of a bottle of beer in order to increase sales. The crown is not chosen arbitrarily in a structured set of differences. Rather, it is chosen as a powerful symbol with particular evocations and connotations which make its use appropriate within the social and economic context of selling beer in England. The content of the sign affects the structure of its use. Barth (1975) has demonstrated elegantly that material symbolisation cannot be described simply as sets of categories and transformations, however cross-cutting and complex one might allow these to be. Culture is to be studied as meaningfully constituting – as the framework through which adaptation occurs – but the meaning of an object resides not merely in its contrast to others within a set. Meaning also derives from the associations and use of an object, which itself becomes, through the associations, the node of a network of references and implications. There is an interplay between structure and content.

The emphasis on the symbolic associations of things themselves is not only a departure from purely formal and structuralist analyses. It also breaks with other approaches in archaeology. In processual analyses of symbol systems, the artefact itself is rarely given much importance. An object may be described as symbolising status, male or female, or social solidarity, but the use of the particular artefact class, and the choice of the symbol itself, are not adequately discussed. Similarly, traditional archaeologists use types as indicators of contact, cultural affiliation and diffusion, but the question of which type is used for which purpose is not pursued. The symbol is seen as being arbitrary. In this book an attempt is made by some of the authors to assess why particular symbols were used in a particular context. For example, in chapter 14 the shape of Neolithic burial mounds is seen as having been appropriate because the shape itself referred back to earlier houses, and such references and evocations had social advantage in the context in which the tombs were built.

The structural and symbolic emphases lead to an awareness of the importance of 'context' in interpretations of the use of material items in social processes. The generative structures and the symbolic associations have a particular meaning in each cultural context and within each set of activities within that context. Although generative principles such as pure/impure, or the relations between parts of the human body (see chapter 12), may occur widely, they may be combined in ways peculiar to each cultural milieu, and be given specific meanings and associations. The transformation of structures and symbols between different contexts can have great 'power'. For example, it has been noted elsewhere (Hodder & Lane, in preparation) that Neolithic stone axes in Britain and Brittany frequently occur in ritual and burial contexts, engraved on walls, as miniatures or as soft chalk copies. The participation of these axes in secular exchanges would evoke the ritual contexts and could be used to legitimate any social dominance based on privileged access to these items. In a study of the Neolithic in Orkney (Hodder 1982*a*) it has been suggested that the similarities between the spatial structures in burial, non-burial ritual, and domestic settlement contexts were used within social strategies to legitimise emerging elites.

So far, it has been suggested that material items come

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to have symbolic meanings as a result both of their use in structured sets and of the associations and implications of the objects themselves, but that the meanings vary with context. It is through these various mechanisms that material items and the constructed world come to represent society. But what is the nature of representation in human culture? In particular, how should social relations be translated into material symbols? For New Archaeologists these questions are relatively unproblematic since artefacts (whether utilitarian, social or ideological) are simply tools for adaptive efficiency. Symbols are organised so as to maximise information flow and there is no concept in such analyses of the *relativity of representation*. It is in studies of representation that concepts of ideology play a central role, and although there is considerable divergence of views within this book on the definition and nature of ideology, it is at least clear that the way in which structured sets of symbols are used in relation to social strategies depends on a series of concepts and attitudes that are historically and contextually appropriate. I have demonstrated elsewhere (1982*b*), for example, that social ranking may be represented in burial ritual either through a 'naturalising' ideology in which the arbitrary social system is represented as occurring in the material world, or through an ideology in which social dominance is denied and eradicated in artefacts and in the organisation of ritual. This example demonstrates two extremes in the representation and misrepresentation of social relations, but it serves to indicate that all material patterning is generated by symbolic structures within a cultural matrix.

Burial pattern, then, is not a direct behavioural reflection of social pattern. It is structured through symbolically meaningful codes which can be manipulated in social strategies. Archaeologists must accept that death and attitudes to the dead form a symbolic arena of great emotive force which is employed in life. Similar arguments can be made in relation to other activities in which material culture is involved (Hodder 1982*a*). Throwing away refuse and the organisation of dirt are used in all societies as parts of social actions (see, for example, the use by Hippies of dirt and disorder in the 1960s and 1970s in western Europe and North America). Equally, the preparation of food, cooking and eating have great symbolic significance in forming, masking or transforming aspects of social relations. Pottery shapes and decoration can be used to mark out, separate off or conceal the social categories and relationships played out in the context of food preparation, storage and consumption. There is no direct link between social and ceramic variability. Attitudes to food and the artefacts used in eating activities play a central role in the construction of social categories (as is seen, for example, in the use by Hippies and Punks of natural 'health' and unnatural 'plastic' foods in contemporary western Europe). Similar hypotheses can be developed for the wearing of ornaments on the body, the organisation of the production of pottery and metal items, and the organisation of space within settlements and houses. Before archaeology can contribute to the social sciences, it must develop as a cultural science. The concern must be to examine the role of material culture in the ideological representation of social relations. Excavated artefacts are immediately cultural, not social, and they can inform on society only through an adequate understanding of cultural context.

Material symbolisation is not a passive process, because objects and activities actively represent and act back upon society. Within a particular ideology, the constructed world can be used to legitimise the social order. Equally, material symbols can be used covertly to disrupt established relations of dominance (see Braithwaite, chapter 8). Each use of an artefact, through its previous associations and usage, has a significance and meaning within society so that the artefact is an active force in social change. The daily use of material items within different contexts recreates from moment to moment the framework of meaning within which people act. The individual's actions in the material world reproduce the structure of society, but there is a continual potential for change. The 'power' of material symbols in social action derives not only from the transformation of structures between different contexts or from the associations evoked by particular items or forms. It resides also in the ambiguous meanings of material items. Unlike spoken language, the meanings of material symbols can remain undiscussed and implicit. Their meanings can be reinterpreted and manipulated covertly. The multiple meanings at different levels and the 'fuzziness' (Miller, chapter 2) of material symbols can be interpreted in different ways by different interest groups and there is a continuing process of change and renegotiation. It is essential to see material symbols as not only 'good to think', but also 'good to act'. Artefacts, the organisation of space and ritual are embedded in a 'means-to-end' context. The effects of symbols, intended and unintended, must be associated with their repeated use and with the 'structuration' of society. Symbolic and structural principles are used to form social actions, and they are in turn reproduced, reinterpreted and changed as a result of those actions.

The dichotomy between normative and processual archaeology is thus by-passed by the notion that symbolic structures are in a continual state of reinterpretation and change in relation to the practices of daily life. Because of the emphases on context and on the continual process of change which is implicated in material practices and symbolisation, archaeological enquiry is of an historical nature. Artefacts and their organisation come to have specific cultural meanings as a result of their use in particular historical contexts. The examples of the crown and the Neolithic barrows have been provided above. The enquiry is also historical because the intended and unintended consequences of action affect further action. They form a setting within which future actors must play.

The approaches explored in this book are neither idealist nor materialist. They attempt to bridge the gap

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