APPENDIX J: PATTERN

[Alexander, Christopher. A Pattern Language: Towns, Buildings, Construction. p.x]

"The elements of this language are entities called **patterns**. Each **pattern** describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice."

[Rapoport, Amos. History and Precedent in Environmental Design. p.214-215]

"Note that the last five or six sections can all be seen as having one major goal: to aid in the identification of regularities, that is, in the search for **pattern**. This is, of course, a major topic in recent discussions about science and, as the debate about making archaeology into a science has developed, so has an emphasis on the importance of pattern recognition. Recall my argument that a major consequence of such a search and a precondition for it is the use of the broadest and most diverse bodies of evidence and comparative analysis.

Thus in dealing with the issue of faunal remains, the point is made about the importance of recognizing

distinctive **("diagnostic") patterns**. Only from those can one recognize or identify the agents responsible (Binford 1981). Although the specific emphasis in the latter is on bones, the argument about the importance of pattern recognition is, as pointed out above, very general. For "bones," one could substitute other "things"; the specific indicators, measures, methods, and inferential arguments would be different, but the importance of pattern recognition is general would remain because from **patterns** one can derive the expected composition (in this case, bone assemblages) and compare these with the actual ones. As discussed in Chapter 3, anomalies can only be identified if there are expectations. Having identified patterns and having concluded that they are interesting, one can then ask what they mean and make inferences about what happened in the past to result in such patterns. Ideally, of course, alternative explanations should be sought.

This theme of looking for **patterns**, one of the most basic activities of all scientists (and scholars), is a common theme in the recent literature in archaeology. This may be called repeated patterns of coocurrence (Smith 1982), or regularities (Salmon 1982). They may bear different labels (Binford 1981, 1983a,b; Renfrew 1982, 1984; Renfrew, Rowlands, and Segreaves 1982; Smith 1977), but the essence is the same: the importance of identifying **patterns** the material record, in the relationships among attributes, in behavior and in environment-behavior interaction for the purpose of using such regularities as analogs for inference."

[Rapoport, Amos. History and Precedent in Environmental Design. p.297]

"The case study approaches its subject matter from two sides, an approach of great importance in research generally. On the one hand, it begins with pedestrian behavior and its relation to complexity."

"On the other hand, it begins with the observation that most past vernacular environments seem to have a particular form. In that sense, it begins with what seems to be a **pattern**. It also seems, on the basis of personal intuitive feelings, anecdotal evidence, and the writing of certain design writers that this form of vernacular streets is highly supportive for pedestrians."

[Heider, Fritz. On Perception, Event Structure, and Psychological Environment. p. 79]

"Only nonlocal proximal determinants are accepted, and that means for Gestalt theory that external determination is made in terms of **stimulus patterns**, internal determination in terms of fields and Gestalt processes. Koffka (1935) states: All we intend to do is to replace laws of local correspondence, laws of machine effects, by laws of a much more comprehensive correspondence between the total perceptual

field and the total stimulation...(p. 97). Things look as they do because of the field organization to which the proximal stimulus distribution gives rise (p. 98). Thus we find the program of Gestalt psychology to be: perceptual processes have to be defined in terms of **stimulus pattern** and field organizations; the question, 'Why do things look as they do?' should be answered in these terms."

[Barker, Roger G. Ecological Psychology. p.18]

"A behavior setting has both structural and dynamic attributes. On the structure side, a behavior setting consists of one or more standing patterns of behavior-and milieu, with the milieu circumjacent and synomorphic to the behavior. On the dynamic side, the behavior-milieu parts of a behavior setting, the synomorphs, have a specified degree of interdependence among themselves that is greater than their interdependence with parts of other behavior settings. These are the essential attributes of a behavior setting; the crucial terms will now be defined and elaborated (the comments refer to the italicized words). (1) A behavior setting consists of one or more **standing patterns** of behavior. Many nits of behavior have been identified: reflex, actone, action molar unit, and group activity are examples. A standing pattern of behavior is another behavior unit. It is a bounded pattern in the behavior of men, en masse. Examples in Midwest are a basketball game, a worship service, a piano lesson. A standing pattern of behavior is not a common behavior element among disparate behavior elements, such as the twang in Midwestern speech or the custom in small American towns of greeting strangers when they are encountered on the street. A standing pattern of behavior is a discrete behavior entity with univocal temporal-spatial coordinates; a basketball game, a worship service, or a piano lesson has, in each case, a precise and delimited position in time and space. Furthermore, a standing pattern of behavior is not a characteristic of the particular individuals involved; it is an extra-individual behavior phenomenon; it has unique characteristics that persist when the participants change."

[Barker, Roger G. Ecological Psychology. p. 28-29]

"The structural attributes of behavior settings are directly perceived. One sees that the behavior of the Saturday Night dance (ticket-taking, dancing, conversing, eating, playing musical instruments, etc.) occurs inside, not outside, the setting (of which the hall is part); one sees that the geographical arrangement of the chairs, the open floor area, the refreshment counter, the drums, etc., is congruent with the **pattern of behavior**. But the dynamic attributes of behavior settings, their internal unity, and the forces patterning persons, behavior, and objects into the shape and order required by the setting are

indirectly apprehended. The evidence initially available to us on the dynamics of behavior settings will now be presented.

Influence of behavior settings upon the behavior of inhabitants. The influence of behavior settings upon behavior is exhibited in natural experiments that occur in Midwest. In these experiments, behavior settings are the independent variable and the behavior of Midwest inhabitants the dependent variable. Data of one such experiment are presented in table 3.1, where some aspects of the behavior of the children of the second grade are summarized as they passed from one behavior setting to another during the school day. The same children exhibit these **different patterns** of behavior day after day; and the experiment is repeated each year with a new group, with the same results. The changes observed in the behavior of children as they change from one setting to another can only be ascribed to forces operating within the behavior settings."

[Ittelson, William H. and Proshansky, Harold M. An Introduction to Environmental Psychology: Research Methods in Environmental Psychology. p. 214]

"Objections to experimental procedures, from the point of view of the environmentalists, derive from their emphasis on discrete behaviors rather than the whole man. Ideally, our interest in not in the analysis of isolated psychological functions but in the intact behaviors and experiences of people in relation to relevant physical settings. A methodology for environmental research must evolve out of the nature and characteristics of the phenomena it studies. to the extent that such phenomena are complex, isolated variables cannot (an should not) be specified. Seeking relationships between intact physical settings and the ongoing integrated behaviors of individuals means relating a **patterned environment** to a sequenced **pattern of human activity**. Moreover, such relationships must be studied over extended periods of time. Finally, they become meaningful only in the context of the total environment-the social, cultural, and institutional systems that define the existence of modern man."

[Collins, John B. Perceptual Dimensions of Architectural Space Validated against Behavioral Criteria. p.11]

"The second category incorporates investigations into the social and interpersonal impact of various architectural considerations. The most common variables encountered in this category include number of interpersonal confrontations occasioned by various design considerations (usually traffic **patterns**), the number of friendships formed, studies involving parameters of 'personal space'."

[Winkel, G. H. and Sasanoff, R. An Approach to an Objective Analysis of Behavior in Architectural Space. p. 352-353]

"Movement through the museum was selected as the user-behavior of interest because it was possible to obtain highly reliable estimates of **movement patterns**; because movement was one variable which appeared to be more easily amenable to study in a simulation setting; because movement is one variable which may be influenced by the form and content of any kind of space; and because movement in the museum situation represents an exceedingly crucial aspect of user behavior operating to define a complete 'museum experience'. It should be noted that movement is not a single-dimensioned variable. In addition to specification of path, **movement patterns** will reveal the number of exhibits visited, the particular points on the floor which the visitor passes over, the elapsed time spent in motion or at rest, head movements and body orientation, etc. Thus movement can serve as a potentially rich user behavior."

"by drawing a line on the plan corresponding to the movement of the subject in the actual space."

"and the time spent at that point recorded. If for some reason the subject stopped in the middle of the floor."

[Winkel, G. H. and Sasanoff, R. An Approach to an Objective Analysis of Behavior in Architectural Space. p. 359]

"The first analysis made consisted of collations of the separate tracking maps into composite maps, which give an overview of the paths which the subjects followed in their museum experience. Each of the individual tracking maps was combined into a single map, representing the path behavior of the sample. The method of presentation which was utilized involved the breakdown of the composite maps in such a way that the **path behavior** of the sample becomes clearer."