in mind, a model of change in the settlement and subsistence systems of foragers is presented below.

While the sorts of variability in the adaptive behavior of inhabitants of desert environments cannot obviously be explained wholly by reference to "special" properties of aridity alone, we feel that a productive approach to understanding behavior in such regimes is through analysis in terms of a processual model which isolates a small number of variables – both independent (environmental variables, in this case) and dependent – and predicts the nature and direction of relationships between them. This model can in turn be used as a reference against which to monitor and attempt to explain differences in many other dimensions of human behavior. The variables upon which we will concentrate here are rainfall, surface water availability (or stress), group mobility, and group size.

3. The Model

In an attempt to encompass what seem to be some of the major dimensions of variability in Basarwa behavior, and as an approach to an explanation of this variability in terms of causal variables, a model has been derived (Fig. 1). A model is of course simply a "predictive" device designed to be used as a zero-point against which to compare observed data; we do not contend that the following relationships are necessarily "true" in any way.

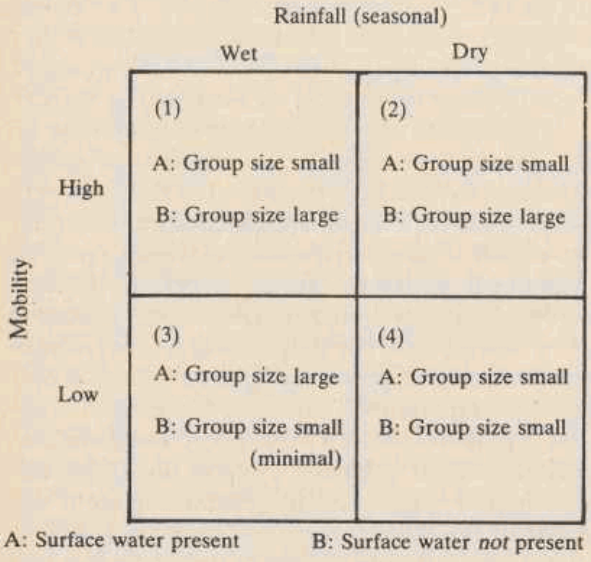

Fig. 1: A model showing expectable relationships between the variables of rainfall, mobility, group size, and surface water.

This model anticipates the relationships between four variables, two of them ecological and two of them overtly behavioral: rainfall, surface water availability, group size, and group mobility. Each of these variables can be observed through both ethnographic and archaeological methods. Although the model is phrased in terms of extreme cases of each variable, we believe that *any* group encountered in the Kalahari can be placed on a scalar continuum between these two extremes.

That this model conforms at least partially to trends actually observable in the field is illustrated by the differences already noted between the behavior of the !Kung in the northwestern Kalahari and the G/wi in the Central Desert.

Other criteria used in deriving the model include the fact that large group sizes are only possible at low mobility in the presence of concentrated or self-renewing food resources. In addition, wet-season mobility is expected to be restricted when compared to dry-season mobility, thus necessitating small group sizes in almost all cases.

Several things should be pointed out as regards this model. First, some of the alternative extremes may well be hypothetical (i.e., they may not actually occur in the real world). For instance, under a wet rainfall regime in situations of available surface water, mobility may be restricted automatically because of physical contingencies and hence the alternative for high mobility and small group size under contingency "A" may be imaginary. Secondly, it should be emphasized that no numerical values are assigned to contingencies in this model at present and that large or small group size, or high or low mobility, may be of different degrees in different cases. The present "values" are only meant to indicate scalar trends.

Thirdly, and most importantly, it is not assumed in any way that all activity and behavior carried out by the people comprising "large groups" or "small groups," or for that matter under similar extremes of mobility, will be the same. For instance, alternative A in box No. 1 seems to be represented empirically by non-resident or foraging mobility, while alternative B in box No. 3 (another "small group") is in the case of the G/wi a residential group. This serves to illustrate the point of our model; the variables presented here, we believe, are *interrelated* in such a way that changes in one have important implications not only in terms of the other variables of our model, but in terms of many aspects of the behavior manifested by hunter-gatherers under the conditions created by their interaction.

The model specified the nature and direction