I wish to speak from the perspective of a North American archaeologist educated in the Anthropological Archaeology tradition of Americanist research. Also as an archaeologist with personal experience and formal training in ecological and paleoecological research. Professor Renfrew's "rhetorical questions" reflect concern with a class of archaeological problems familiar to Americanists for the past two decades: how do we identify and explain the processes of past human behaviour, and how do we identify and evaluate processes (such as site formation, paleoecological and geomorphological processes) which have effects upon the character of data we examine to investigate past human behaviour? This class of problems is not new to archaeology, but has become very much more a focus of interest with widespread acceptance of the thesis that prehistoric societies and cultures are most effectively treated as systemically organized phenomena which function in the context of social and bio-physical environments.

To the degree that archaeological research on such matters has been unusually effective, I would claim, it has capitalized on methods and techniques developed in archaeology, paleoecology and geography yet it has diverged from the research foci of traditional studies in those disciplines. This is eminently reasonable, for the concern of such work is not the behaviour itself, or its cultural, historical or geographical setting, nor even the ecological nature of the interactive relationships which (if you'll pardon the Americanism) "network" the elements of the systems under study. The focus of concern is processes per se.

The study of such processes is peripheral to the traditionally central concern of archaeology with the sequence and character of prior human behaviour, the traditional central concern of geography with terrestrial space, and the traditional central concern of ecology with the web of life and the economy of nature. But all of those disciplines are eclectic, and their practitioners...
have been and continue to be encouraged to explore peripheral concerns and issues by innovative methods. Investigations of processual questions require innovative consideration of just that body of information which falls at the intersecting and ecological study. It profits from the application of scientific methods and techniques of all three and also from application of the theory and methodology more traditionally employed in other natural sciences, social sciences, humanistic research and applied arts.

We do not at present have an accepted name for such work, and tend to think of it as joint efforts among scholars of traditional disciplines - as suggested by the title of this seminar. In structural terms, however, it is something distinctive: a truly interdisciplinary form of scientific inquiry, adapted to the demands of problems and the realities of the forms of evidence available. Though I have written about it under the title "Contextual Archaeology", what seems significant is not what we call it but the particular difficulties we encounter in accomplishing it. Two difficulties strike me as particularly relevant. First, traditional programs of learning in these disciplines ill prepare those who wish to study processual problems. We teach students to pursue scientific research in an original and creative fashion, but do not provide instruction about how to establish intellectual environments which are conducive and stimulating to such efforts. In many respects traditional curricula reward most highly those students who view science solely as the application of well-tried and well-approved theoretical and methodological knowledge to new bodies of raw data. Second, accomplishment of structurally interdisciplinary research seems to require extraordinarily wide ranges of scientific expertise at theoretical and methodological as well as technological levels. Only very rare, very gifted individuals can encompass such ranges. We cannot expect reasonably rapid development of this type of research if we are forced to await the appearance of exceptional genius. Administrative and managerial structures for which we have no present models must be evolved to meet the challenges of integration of the expertise of varied scientists.

The case examples of alliance of geography, archaeology and paleoecology presented tonight thus have a significance beyond their success in yielding information relevant to the solution of processual problems. They also provide clues to the way we may begin construction of an interdisciplinary methodology - the logically most promising basis for such research in future.