

Thirteen

Different specifications **of** the nature of the continuity that ties two situations together in a sequence of change give rise to very different hypotheses about the mechanisms and processes of change. For every analysis, it is therefore necessary for us to make explicit our assertions about the nature of the continuity.

In physical anthropology, the principle of noninheritance of acquired characteristics represents a step toward such a specification of the nature of continuity. And the increasingly rigorous study of change has only been made possible through the explicit assertion that what continues through time may be described as a gene pool, and that changes in form reflect changes in the frequencies of genes in the gene pool of the population.

In archeology, a hand-axe does not breed a hand-axe, and the typological vocabulary that seemed to imply this kind of continuity has largely been dropped in favor of an explicit recognition that the continuity is found in (a) the cultural tradition of the tool-makers. However, the constraints on the processes of change implied by this are very poorly understood. Perhaps for that reason, archeology seems so far to have been more successful when specifying other kinds of continuity, such as (b) the constancy of materials, implying constraints that help us understand courses of change in techniques and art styles, or (c) the continuity or slow change of environment,

enabling archeologists to see successive cultures as changing adaptations to the environment.