HISTORY AS INFORMATION FLOWS REACTING TO ENTROPIC PROCESSES

Susantha Goonatilake
Research Division, People's Bank, Colombo

A long range model of societal change that satisfies both existing views of social change as well as the partially successful attempts of

recent writers to relate entropy to social change (such as Jantsch 1980, Malaska 1985, Laszlo 1987, Allen 1985, O'Connor 1985, Zelleny 1985, Proops 1987 and Clark G Juma 1989) is possible by assuming societies to be information flow systems.

Social structures can be considered to consist of class and occupational strata which provides a 'skeletal framework' for the flow of human culture and information through time. Such a social system, it is posited, intervenes with the social and physical environment through technological and social means. The social arrangements that result from this interaction with the environment, present themselves as a set of cultural and information flow streams. Entropic processes act on these information flow streams resulting in a self-organizing 'autopoietic' system.

In this process of self-organizing, history unfolds itself as a sequence of 'bifurcations' as generally described by the thermodynamics of open systems. These dysjunctures correspond to the emergence of various societal stages associated with technologies such as the peleolithic, neolithic, agricultural and industrial.

The paper examines this model in the light of existing evolutionary schemes in the new thermodynamic tradition such as Boulding (1970), Jantsch (1980), Malaska (1985), Laszlo (1987) as well as more classical schemes such as those of Marx, Hegel and Leslie White.