A CARTOGEOGRAPHIC METHOD OF DERIVING HOMOGENEOUS REGIONAL DEVELOPMENT AREAS INVOLVING THREE

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If the change tendencies of two associated statistical variables, *a* and *b*, are compared, four and only four correlative combinations are possible, viz.:

LANDSCAPE VARIABLES

	a	*b*	
1.	+	+	positive correlation with both increasing
2.	+	—	negative correlation with *a* increasing
3.	—	+	negative correlation with *b* increasing
4.	—	—	positive correlation with both decreasing

By extending this process to include a third variable, we have eight possible combinations.

	a	*b*	*c*	
1.	+	+	+	coexpansion of all variables
2.	+	+	—	coexpansion of all variables except *c*
3.	+	—	+	coexpansion of all variables except *b*
4.	—	+	+	coexpansion of all variables except *a*
5.	—	—	+	corecession of all variables except *c*
6.	—	+	—	corecession of all variables except *b*
7.	+	—	—	corecession of all variables except *a*
8.	—	—	—	corecession of all variables

Thus is derived a comprehensive ordered series of associated change types possessing the characteristics and cartographic advantages already noted in connection with Multi-Synoptic maps in which interperiod comparisons are involved (Bollinger 1942). When a series of distinguishing symbols is assigned in the map legend and the statistical data for unit statistical areas are classified and their occurrence represented on the map, the areas of like correlative association are defined. It also is possible to deduce the areas in which each of the three variables is increasing or decreasing. The method may be used in comparing and depicting the areal association of all classes of landscape phenomena for which tendencies or trends can be ascertained. It may be employed as a tool in the analysis and interpretation of geographical developments.

LITERATURE CITED

Bollinger, C. J. 1942. A synoptic chart of population change in the Gulf South West. Texas Geogr. Mag. 6(1): 9-12.