

# Aggregation

- *Process of grouping of persons or activities* together in a same place or in an area of limited size. Settlement nodes develop through aggregation of migrants, cities through aggregation of houses or even of urban municipalities when speaking about agglomerations. Services and facilities of a same range aggregate to form a same functional level: it is one of the fundamental assumptions of Christaller's central places theory. Aggregation processes suppose that similarities or communities of interest exist between the persons or objects brought closer, which are strengthened by interactions allowed by proximity: the Chinese empire built itself through aggregation of kingdoms.

- *Statistical aggregation* : grouping of units similar by their attributes. Methods of hierarchical classification use aggregation criteria such as "maximisation of the second order centered moment", which means ensuring a maximal variance between classes and a minimal variance inside classes. These methods identify aggregation levels which give account of heterogeneity (intra-classes variance) associated to some partition.

- *Geographical aggregation* (opp. splitting) : grouping by contiguity of geographical units into units of an upper aggregation level (for example, transition from a municipal grid to a cantonal grid). Mode and level of geographical aggregation of units may modify relations between characters measured on them. This practice is well known among tacticians of "gerrymandering" or electoral division.

See also : scale

## Bibliographie