# Area of influence (zone of influence)

Area polarised by a centre, for a set of relations (influence area of a city) or a category of relations (area of cultural or commercial influence, trading area). The notion of influence is difficult to specify. It is measured on basis of frequencies (or probabilities) of travels made by inhabitants of the periphery toward the centre when using services it provides. Areas of influence (e.g. map drawn by G. Chabot in 1952 for the French cities) have almost circular shapes because probability of visiting a centre decreases in an exponential way with distance to the centre. Their limits are fuzzy because on the verges, population is divided among several competing centres.

The central places theory explains the different sizes of areas of influence through the maximum reach of services provided by a centre, corresponding to its level in the functional hierarchy of centres.
For a same city, the size of an area of influence may vary from a radius of a few kilometres to radii of several dozens or even hundreds of kilometres, whether influence is measured in function of the extension of the basin of fresh products supply, in function of the pendular moves between home and work (employment basin), in function of the frequency of use that population of surroundings makes of urban retail and services, in function of the recruitment of pupils and students, or in function of the diffusion of regional press. The reach is defined by the maximum extension of the area of influence. Increased transports speed and multiplication of relations in network or at long distance have weakened relevance of the concept of area of influence by reducing the relative importance of proximity relations in contiguity. This concept remains useful to describe the average spatial organisation of flows of population using services, at regional scale.

# Bibliographie