

ON THE PROBLEM OF SMALL URBAN AGGLOMERATIONS

Malé městské aglomerace. — Vymezování městských aglomerací ve specifických podmínkách Československa (viz zpráva ve Sborníku čes. společnosti zeměpisné, 1962 str. 258 a další) přineslo některé poznatky, které mohou mít širší platnost. Ukázalo se, že geografické spojení měst a dalších sídel na jejich obvodu existuje i u malých měst. Tato schopnost vytvářet aglomerace zřetelně slábne se snižující se velikostí města (dolní hranice kolem 5 000 obyv.). I menší sídla mají ve své blízkosti další seskupení obyvatelstva. Tato se však vyvíjejí v podstatě nezávisle. — Ukazuje se, že hustota obyvatelstva se úměrně zvyšuje s velikostí měst, ale u měst s více než 50 000 obyvateli se zvyšuje již jen pomalu. U malých měst neklesá lidnatost pod 250, výjimečně 220 obyvatel na km². — Města i po rozšíření svého obvodu se nadále výrazně odlišují od venkovských sídel i když aglomerováním podstatně nerošířily svoje zastavěné území. — Ukázalo se dále, že existují i zemědělské aglomerace tam, kde venkovská sídla spolu stavebně souvisí a jejichž zemědělská velkovýroba je jednotně organizována. U těchto „aglomerací“ vzniká potenciální možnost jejich vývoje jako měst nového typu.

The delimitation of agglomeration belongs to some of the tasks most frequently dealt with. The author has made extensive use of foreign as well as Czechoslovak literature (Arnold A., Bastié J., Beaujeu-Garnier J., Bobek H., Boustedt O., Davidovič V. G., Dziewonski K., George P., Chabot G., Pokshisevskij V. V., Sirp E., Hůrský J., Korčák J., Verešík J., etc.) and according to the following characteristics: compactness of the built-up area, economic composition, internal relations of transportation and in part also services (the author has not investigated the external character and concentration of the population with regard to changes after 1945) 285 towns and urban agglomerations have been delimited, e.i. their contemporary administrative boundary enlarged in accordance with the geographical feature (see: Sborník československé společnosti zeměpisné 1962, pp. 258—264).

Czechoslovakia is one of the densely populated countries (13,8 million inhabitants to an area of 128,000 km², density of population 108 inhabitants per one km²) with a great density of settlements (some 20,000 agglomerated settlements without any isolated houses) with an average distance of about 2—3 km between the neighbouring settlements. Especially in Bohemia small villages prevail (62% of all administrative communities have less than 500 inhabitants).

| Size of towns | Number of towns | Number of agglomeration | % of agglomeration | Number of inhabitants | Average in 1.000 inhab. | Area in 1.000 ha | Average Area | Density of population |
|--------------------|-----------------|-------------------------|--------------------|-----------------------|-------------------------|------------------|--------------|-----------------------|
| 1,000,000 and more | (1) | 1 | (1000) | 1.068,6 | 1.068,6 | 28,0 | 28,0 | 4.851 |
| 100,000 to 350,000 | (4) | 3 | (75) | 951,7 | 193,4 | 66,5 | 13,3 | 1.431 |
| 50,000 to 99,999 | (14) | 14 | (100) | 883,7 | 63,1 | 84,8 | 6,1 | 1.042 |
| 20,000 to 49,999 | 39 | 34 | 87 | 1.093,5 | 28,0 | 196,1 | 5,0 | 558 |
| 10,000 to 19,999 | 75 | 53 | 70 | 1.012,4 | 13,5 | 294,3 | 3,4 | 398 |
| 5,000 to 9,999 | 152 | 54 | 35 | 1.066,5 | 6,9 | 431,9 | 2,8 | 247 |
| 5,000 and more | 285 | 159 | 55 | 6.077,4 | 1.120,0 | 1.061,6 | 3,7 | 1.564 |

The delimitation of agglomerations in such a territory has brought to light certain results which might be of wider validity.

The basic informative data are as follows:

1. The delimitation of agglomerations is often limited only to large towns. Urban agglomeration as a geographical (functional and spacial) union of towns and other settlements on its outskirts exists also in the case of small towns.

2. The capacity of creating urban agglomerations clearly weakens considerably with the reduction in the size of the town which is to be its node. The administrative delimitation of the town more or less confirms this. In Czechoslovakia the lowest limit of the capacity to create agglomeration may be set at about 5000 inhabitants. In the Czechoslovakia there exist a whole number of other settlements partly with the character of a town (according to the central statistical service about 214 administrative units which often have other settlements in their close vicinity). These however basically develop independently as agricultural, transport and sometimes partially industrial settlements.

3. Analysis has shown that there exists not only the well known relation between the size of agglomeration and the density of population on the built-up area, but in connection with this phenomenon also the dependence between the size of the town (urban agglomeration) and its administrative territory. If we ignore local deviations we shall find that the density of population in towns (and agglomerations) usually increases with its size. Density of population in towns with more than 50 thousand inhabitants and an agglome-

ration of a quarter million inhabitants increases only slowly and there are no large differences between their density of population. In the case of small towns (and agglomerations) density of population does not drop below 250, exceptionally 220 inhabitants per km². A certain more characteristic group among small towns is formed by the agglomeration (towns) from between 10—25 thousand inhabitants. They have a density of population of about 400 inhabitants per km².

Towns after the delimitation of agglomeration according to gross indexes of density of population per total area also distinctly differ from villages. The relationship between the density of population and their groupings is a valuable corrective in the delimitation of agglomerations. These by the linking up of the nodes with the settlements on the outskirts considerably increase their territory without noticeably extending their built-up area.

4. In regions with a high density of population some groups of towns are often formed. In the author's opinion, however, these groupings cannot always be referred to as "conurbation". This term should be used only in reference to such groupings forming a certain system and unity and analogically to agglomeration have their node and to a considerable extent common functions. There are two such conurbations on the territory of the Czechoslovakia in the coal field of Ostrava and in the lignite field in northern Bohemia. The groupings of towns par exemple in north east Bohemia cannot be called conurbations even though we find there towns only 5—10 km distant from each other. They exist however as comparatively isolated settlements with different functions. In future it will be necessary to organise these groups according to a unified plan and with the development of reciprocal division of function between them. Thus the more exact determination of the term "conurbation" and its differentiation for the groups of towns has its practical importance.

5. It has been found that there exist agricultural, non-urban agglomeration where villages are connected structurally (with a maximum distance of 2 km between built up areas) and by the formation of cooperative agricultural large-scale production are organised as one sole production unit. Thus organisationally and functionally linked up settlements possess all preconditions for a speedy development as the node village for the entire surroundings. In the case of large villages there thus arises the potential possibility of their development into small towns. According to the composition of the population and their occupation there already now prevails employment in services over employment in agriculture. Changes in the organisation of production in another form are the basis for the development of new types of settlements, respectively their grouping.

The confrontation of the indicated conclusions with conditions in other countries would permit the formulation of some general rules for future work both in the theory of the geography of towns as well as and in the application to the practical reconstruction of settlements.