

OLIVER BAŠOVSKÝ

THE FUNCTIONAL CLASSIFICATION OF SETTLEMENTS AS AN  
ELEMENT IN ECONOMICOGEOGRAPHICAL REGIONALIZATION  
OF THE AREA (ON THE EXAMPLE OF THE ORAVA LAND)

L'auteur prend pour le point de départ la régularité de l'apparition des proches types fonctionnels des agglomérations, respectivement des changements des types fonctionnels des agglomérations en proportion de la distance du centre gérant de la région. L'auteur constate que cette régularité est un reflet des particularités économique-géographiques du territoire et il présume que la typologie fonctionnelle des agglomérations peut être exploitée comme l'un des éléments de la régionalisation. Basant sur une analyse de la structure fonctionnelle, de la structure sociale et du type des maisons, il précise les types des agglomérations de l'Orava. Prenant pour le point de départ deux catégories des relations de la dislocation des types des agglomérations — savoir de l'homogénéité et de la complémentarité — il délimite sur le territoire de l'Orava deux catégories des subrégions et il démontre ainsi l'applicabilité de ce critère pour la régionalisation.

## INTRODUCTION

After the Second World War, but mainly after the establishment of the special commission of the I. G. U. at the congress in Stockholm in 1960, the problems of economicogeographical regionalization have been in the focus of attention of economic geographers abroad and even in this country. The members of the commission at several symposia and conferences (Utrecht — 1961, Jablona — 1963, London — 1964, Brno — 1965, Strasbourg — 1967), but even further geographers being interested in the given problems, had worked out many theoretical problems in regionalization and presented empirical attainments of their examinations within this sphere.

Occupying ourselves in the problems of functional classification of the towns of Slovakia we watched the behaviour of equal or related types of towns in areas economically homogeneous, eventually we called attention to the changes of urban functional types associated with their distance from the leading town of an area (O. Bašovský 2, 3). These peculiarities of the distribution of urban functional types, valid also for rural settlements, are a reflection of economicogeographical peculiarities of given areas and can be used — in our opinion — as one of the elements, of the partial criteria in delimiting the regions of different ranks. This dependence will be more in detail noticed on the example of the Orava land.

The problems and methods of the study in functions and functional classification, widely used mainly in studying towns, are known to our readers from several domestic papers (O. Bašovský, 2, 3, Z. Láznička, 20, J. Verešík, 27) and foreign ones, of which we draw attention to a comprehensive work by K. Dziewoński (9). Successively, although relatively more rarely, even the works concerning the functional classification of rural settlements began appearing. The German urban designer H. Lehman (23) is well-known with his widely based methodical work on settlement classification (including cities). K. Mittelhauser (24) classifies the rural settlements on the basis of homestead types. The economic activity and social structure of population make the basis of the classification by the Polish lady geographer M. Dobrowolska (7). The Roumanian geographers I. Băcănaru, I. Ștefănescu, P. Deică, D. Bugă, E. Molnar and V. Tufescu (1) and V. Cucu (6) emphasize the production policy of rural settlements. The general questions and the functional classification scheme of rural settlements is analysed by the Soviet geographer S. A. Kovalow (18), too. The settlement classification of concrete areas was carried out by J. V. Lasis (19), K. P. Kosmatchow and A. A. Nedeshtchow (17) and others. In Hungary P. Beluszky (5) was engaged in these problems. As early as the 1960's in the Department of Economic Geography at Comenius University even the rural settlement classification started being elaborated. In analysing the industrial regions of the Upper Nitra land and that of Žiar nad Hronom, K. Ivanička (12, 13) paid his attention also to this problem. Later J. Mládek (25) proceeded in this direction. The functional classification of rural settlements of Slovakia was worked up by K. Ivanička, A. Zelenská and J. Mládek (26). Recently also Z. Láznička (21, 22) has contributed to this sphere, leaning in contrast to all our even foreign works not upon the economic structure of settlement population, but on the structure of working people in the given settlement (including the commuting one).

It is no easy matter to contribute with something new to this sphere. But at least in a modest measure we shall make a try for it, namely in the following:

1. Most authors delimitates the functional types of rural settlements usually on the basis of economic structure of population. The authors do take into account inadequacy of using the economic structure of population in delimiting the types, and therefore they use various corrections. As a criterion, some authors use the combination of economic and social structures. K. Mittelhauser (24) uses the homestead type as a criterion. Our classification of the Orava land settlements is based upon three close connected marks — functional structure, social structure and type of houses (type of homesteads) — and upon the partial classifications corresponding to them. In this direction, our classification may be considered as a more universal one, which better and wider shows the types of settlements as well as the correlation of them to the economic structure of an area.

2. Especially the intensive commutation to work from rural settlements does not allow leaning upon the economic structure without definite corrections in laying out the settlement types. Basing upon this reality and the existing dichotomy of the settlement economic base (a portion of population lives by working in the place of residence, another portion by doing off the settlement), we base our classification on „the pure economic structure“. Let us name it as it is used in towns — the functional structure. We shall obtain it by collecting population working off its residence to a separate group. The including of the workers commuting to a given settlement into its structure and the deriving of functions from such an arranged structure (Z. Láznička, 21, 22),

even if it seems to be justified, is considered as illogical by us. First the commuting people to work is considered twice, namely both in the place of residence (in determining the residential function) and in working place (it makes expressive the profiling function). The localization of a plant or a facility in a rural settlement is usually reflected and it has a strong influence upon its function, thus the adding of the commuting does not change substantially its functional pattern. In our case we try to find a more objective and at the same time a widening aspect of this settlement peculiarity. It consists in classifying the settlements according to the social structure of population including whole the population. The social structure shows at the same time even relations of other category. The classification according to homestead types (type of houses) creates a supplementary, but in no case a neglectable mark, useful especially in determining outer alternations of settlement structure. In this sense our paper at least in part shifts forwards the problems of rural settlement classification from the methodical viewpoint.

3. The third aspect is the analysis of settlements of the Orava land as a whole, without distinguishing into towns and rural settlements, but as a coherent, by mutual relations connected and integrally working system. As it can be seen later, many peculiarities of functional types can be explained and understood within this framework only.

4. On the basis of analysis of settlement functions and their classification in the concrete area — Orava, whose natural and economic peculiarities specify, no doubt in many ways, the location pattern of settlement types, but basically they do confirm some general laws of location, we shall try to demonstrate their applicability in economicogeographical regionalization of an area.

#### THE FUNCTIONAL CLASSIFICATION OF THE SETTLEMENTS OF ORAVA

Orava is a historical, so far commonly used name for a geographically characteristic area in the North of Slovakia and it coincides substantially with Dolný Kubín District. The geographical analysis of Orava was presented by J. Hromádka (11). His work did not lose its value so far. Since it makes a wider framework, in which our problems are located, we draw attention of the reader.

The examined area of Orava (the district of Dolný Kubín and 5 communities of Liptovský Mikuláš) has an area of 1,715.5 sq. km. and in 1961 there lived here 88,076 population in 79 administrative units — communities. The mountainous Orava was counted until the 1950's among agrarian, economically backward areas. The main source of subsistence of the population was agriculture pursued in rough climatic and soil conditions and hence oriented to cattle and sheep breeding and job in extensive forests. Manufacturing was represented by small saw mills, stone quarries and home-hand-made manufacture. Orava represented one of the most typical emigration areas of Slovakia. The economic development during last 20 years did not pass by the Orava land. It has caused deep changes in its economic structure, although — like in other places in Slovakia — nor here were used all the chances and reserves. The structural transformations of Orava are associated with two facts: a) industrialization and in part the development of activities of the third sector and the development of transport connected with them, b) influence of the neighbouring industrial areas of the Váh and Ostrava lands. It is sufficiently illustrated on Map 1.

Until the 1950's a prevailing part of the rural settlements in Orava was constituted by agricultural or agricultural-forestry settlements with farming population. The

Table 1

	Manufacturing	Building industry	Agriculture	Forestry	Transport and communications	Trade, supply, collective feeding	Communal services	Others	Not quoted	Those working off residential place
Average	6,4	1,3	38,3	3,2	1,4	1,9	0,5	4,3	0,2	42,5
Maximum values	66,2	8,4	92,3	16,7	24,9	10,7	4,2	25,9	1,2	76,5
Minimum values	0,0	0,0	9,9	0,0	0,0	0,0	0,0	0,0	0,0	7,7

economic base of the settlements was the area delimited by their administrative boundaries. These settlements were completed by a few non-agricultural settlements (Kralovany, Oravský Podzámok), which similarly like the small, strongly agrarized towns (Dolný Kubín, Trstená, Tvrdošín, Námestovo) were an integral constituent of Orava's rural settlement. Owing to a slight regional activity, Orava did not possess a leading centre, its portions inclined to the above mentioned, more or less equivalent centres. The slightness is witnessed by the fact that still in 1961 the district town of Dolný Kubín remained with population number behind Zázrivá, a great dispersed community. These small towns were with their functions of service or production close connected with the economic nature of the area. The houses built usually of the local material — wood and stone, in a typical style, in part distinct in the individual parts of Orava, constituted agricultural farmsteads.

The above mentioned changes in Orava's economic structure, especially industrialization, the development in commutation to work, the development in transport and in further activities of the third sector (chiefly of tourist industry) have reflected extraordinarily strongly in the structure of settlement.

a) *The economic functions and types of settlements.* Under the function of a settlement the role fulfilled by a given settlement within the system of settlements of a given area is understood. In dependence upon the economic activity, which is the base of existence of a settlement, we can lay out the settlement functions by means of various methods and respective settlement types according to their quality and quantity.

The significance of the individual branches of functional structure of Orava's settlements is different. For this reason even the individual functions are of a different importance. Some functions (branches) may influence in a deciding way the nature of a settlement, whereas others are represented less. It is witnessed by the data of Table 1.

As shown by the table data, the differences between the minimum and maximum values are extraordinarily great in some branches of the functional structure. It pertains to agriculture (9.9 : 92.3), working people off its residence (7.7 : 76.5) and manufacture (0.0 : 66.2). These branches and functions may be represented in the settlements in such a strong measure that they can fully determine the functional increase of a settlement. The mentioned branches, eventually the functions corresponding to them — the agricultural, residential and industrial ones — play a *deciding* part in the functional structure of Orava's settlements.

The further group is constituted by the branches that the differences between the

minimum and maximum values are already substantially lower in (0.0 : 25.9). They are public administration, educational system, health service etc. (others), transport and communications, trade, collective feeding and supply and forestry. These functions are, no doubt, of a specific, but yet a *supplementary* significance in the functional structure of Orava's settlements. They do not stand separately, but they always are combined with the function of the precedent group.

At last it is building industry and communal services, which regarding the minimum and maximum values are of a *slight*, neglectable significance in the functional structure of the settlements.

The second problem is determining the marginal values, i. e. quantification the individual functions. The starting point may be here for us the relations of the settlements with an allied functional nature, which can be ascertained by means of statistical methods. Classing the individual settlements of Orava with respective types and the quantitative characteristics of their functional structure are included in Table 2.

b) *The settlement types according to the social structure of population.* Together with the transformations in economic structure of Orava's settlements even the social structure of population has changed in a substantial way. The originally prevailing farming population has changed even its social composition along with the change of main subsistence source, which chiefly manufacture and building industry have got, eventually even other branches. By socializing the village (which in a small measure only took place in Orava) a group of co-operative farmers has arisen. The number of members of the group of employees has generally increased. The process of changes in the social structure is, however, relatively complicated. As it is pointed out by Z. Jureček and O. Ullmann (15) a considerable portion of the families has a mixed social structure. In spite of it the social structure of population may serve as a relatively good base for classifying the settlements. The social structure of population divides the population in definite groups, figuratively said, in „horizontal direction“ in contrast to the economic alias functional one dividing population into groups in „vertical direction“. For example, with the social group of workers it classes the workers employed in manufacture, building industry, transport, agriculture, forestry etc. It groups population according to a mark of another category than economic alias functional structure, although it is close connected with that. No wonder, therefore, that the social structure of population is reflected in classifying schemes of some geographers engaged in rural settlement (H. Lehman, 23, M. Dobrowolska, 7).

The social structure of population of Orava's settlements is characterized by the data in Table 3.

From the viewpoint of average values of the social structure of population, Orava may be characterized as a region whose population belongs mainly to workers and individually farming people. The maximum and minimum values indicate that all the social groups except „the others“ are to be taken into consideration in classifying.

The social structure of population of Orava's settlements is extraordinarily varied, mixed. In a series of the settlements, no doubt, the single social group strongly prevails, but prevailing most is represented by two and a few even by all four considered social groups of population. In determining the „social types of settlements“ we have proceeded from clearly distinguishable cases, i. e. when a single social group strongly prevailed in the settlements, through the settlements that two social groups prevailed in, up to the settlements that three, even also four social groups were more or less represented in. The classing of the individual settlements of Orava with their respective types together with giving marginal values is referred in Table 2.

Table 2

		Towns		Rural		
		multi-functional	residential	industrial	transport-residential	service-forestry-(agricultural)-industrial
Social types	Economic types indices	all branches represented	those going off make above 50 %	above 65 % is in manufacturing and building industry	in transport above 20 %, those working off residential place make above 40 %	chief functions are services, forestry or agriculture and manufacturing
worker type	those appurtenant to workers make 60 even more %			Mokrad	Kraľovany	Ústie n/P.
farming type	those appurtenant to individual farmers make 60 even more %					
co-operative farming type	those appurtenant to agricultural co-operative system make 50 and more %					
employee type	those appurtenant to employees make 50 and more %					Orav. Podzámok
worker — employee type	those appurtenant to workers make 40—55 % and to employees 30—45 %	D. Kubín, Námestovo, Trstená		Istebné, Nižná		
worker — farming type	those appurtenant to workers make 35—60 % and to individual farmers 25—60 %					
worker-cooperative type	appurtenant to workers make 45—55 %, to agricult. farm. 25—30 %					
mixed type	at least 3 social groups are represented		Tvrdošín			
total number		3	1	3	1	2

## settlements

agricultural	agricultural-forestry	agricultural-residential	residential	total number	
above 60 % work in agriculture and forestry, event. even less, but share of those working off residential place does not exceed 40 %	above 60 % work in agriculture and forestry, share of those working off residential place does not reach 40 %	share of those working off residential place and active in agriculture, forestry make 40—60 %	those working off residential place make above 60 %, event. even less, but active in agriculture and forestry do not reach 40 %		family and flat houses make above 60 %
B Lehota, Hladovka, Jasenová, Pokryvác, Srňacie, S. Hora Leštiny, Zem. Dedina, Revišné		Beňadovo, Komjatná, M. Borové, V. Borové	Bobrov, Breza, D. Lehota, D. Štefanov, H. Lehota, H. Štefanov, Podbiel, V. Dubová, Huty	16	family and flat houses make 40—60 %
		Malatiná		7	family houses make 20—40 %
				3	strong prevalence of farmsteads (not underlined)
				1	
				5	
Mutné, Vitanová	Habovka, O. Lesná, O. Polhora, Zákamenné	Babin, Brezovica, Čimhová, Dlhá n/O., Hruštín, Chlebnice, Klín, Krušetnica, Liesek, Lokca, Lomná, Novoť, O. Jasenica, O. Veselé. O. B. Potok, Pribiš, Pucov, Rabča, Rabčice, Sihelné, Vaňovka, Zázrivá, Zuberec, Žaškov	Medzibrodie n/O., Zubrohlava	32	
		O. Poruba, Vasilov		2	
Osádka, V. Kubín		Bziny, Krivá, Ťapešovo, Vavrečka, Veličná, Zábiedovo	Kňažia, K. Hôrka, Medvedzie, Párnica, S. Dubová	14	
13	4	37	16	80	

Table 3

	Persons appurtenant to (in %)				
	workers	employees	agricultural co-op system	individual farmers	others
Average	50,9	15,1	3,8	27,5	2,6
Maximum values	69,7	58,0	54,2	73,7	15,8
Minimum values	7,9	1,8	0,0	0,0	0,0

c) *The classification of settlements according to the kinds of houses (types of homesteads).* The materialized expression of economic functions and of social structure of population is farmsteads (settlement units). Another nature is possessed by the farmstead of a farmer, forming at the same time the economic unit with a dwelling house and farming buildings, and other one, in turn, possessed by a worker or an employee, whose working place is a near urban or industrial centre and to whom his homestead serves as residential place only. In the towns and industrial settlements the concentration of population, many times the lack of areas as well as the economy of construction evoke specific settlement formations — flat houses. These three kinds of houses examined by our statistics may supplement the picture of the classification of Orava's settlements.

The average, minimum and maximum indices of shares of the individual kinds of houses in Orava's settlements are given in Table 4.

Table 4

	Family houses	Farmsteads	Flat houses	Others
	in %	in %	in %	in %
Average	29,3	68,0	1,4	1,3
Maximum values	99,3	99,9	17,5	8,5
Minimum values	0,0	0,0	0,0	0,0

On the basis of the data of homestead types and in part also of the data of shares of population living in the individual homestead types, the settlements of Orava may be divided into 4 groups. The classing of the individual settlements of Orava with respective types according to the kinds of houses together with quantitative indices is given in Table 2.

#### THE REGIONALIZATION OF ORAVA ON THE BASIS OF ANALYSING THE DISLOCATION OF FUNCTIONAL SETTLEMENT TYPES

The original, totally a simple picture in functional settlement types of Orava, in connection with the economicogeographical transformations, has become a substantially more complicated one. The number of types and subtypes has increased still more by



using three criteria. In studying the dislocation of the individual settlement types and the relations of the individual types from the viewpoint of Orava's regionalization, two kinds of relations as well as two aspects in solving this problem stand out (Map 2).

The first aspect is the relation of homogeneity, of the standing out of homogeneous or related functional types. From this point of view, Orava may be divided into three subregions.

1. The central subregion, of a shape of capital L reversed upside down, occupies the settlements of the Orava valley stretching from Kralovany as far as up to Tvrdošín and Trstená, where it turns towards Námestovo. Economically it is the most activated area of Orava, in which nearly all the industrial plants are localized. The Orava valley is at the same time the main transport axis of the whole Orava (railway, road). There are all the urban settlements of Orava in the subregion, and thus a prevailing part of service activities is concentrated here. The Orava valley, namely its widened parts (the Veličná basin), have the best soil and climatic conditions for agriculture of all the examined area. This portion of Orava was first settled (the Orava Castle, Tvrdošín, Veličná) and it has remained most densely settled so far. The subregion is inhabited by  $\frac{2}{5}$  of Orava's population and the greatest total population growth (25 %) was here in the course of last decade. There are 32 of 80 examined settlements of Orava in the subregion. The economic nature is fully reflected in settlement types. We find here all the urban settlements of Orava, all the specialized non-agricultural settlements and except 3 cases all the residential settlements. Not great is the number of agricultural-residential settlements (6). To the subregion even 3 small settlements with an agricultural function are included (Zemiarska Dedina, Beňová Lehota, Revišné), stretching along the right-handed tributaries of the Orava, flowing down the slopes of the Oravská Magura Mts. These ones are distinct from the settlements lying in the valley of the Orava functionally, by their position and population increase. There is, however, a presupposition that they will fulfil some auxiliary functions for the settlements of the Orava's valley in the future (the recreation one). From the viewpoint of social structure the matter is prevailingly the worker-employee, worker, employee and mixed settlement types. The mentioned social structure is a reflection of the concentration of manufacturing, services and the higher degree of collectivization in agriculture of the subregion. In the central subregion in connection with the changes in functional and social structure, even the type of homesteads has strongly changed (Map 2), namely both owing to the construction of new residential areas in industrial and urban settlements, eventually in settlements associated with them (the housing construction for the workers of Kovohuty at Mokraď was located in Kňažná) and owing to the construction of family houses. The central subregion is thus the area with the deepest transformations in the settlement structure of Orava.

2. The second subregion, which is similarly of the shape of a strip, includes the settlements along southeast boundaries of Orava, namely from Komjatná up to Suchá Hora. From the physico-geographical viewpoint this subregion occupies eastern and northern portion of the Oravská vrchovina Mts., further the Skorušina Mts. and the Sub-Tatran Furrow and eastern portion of the Orava basin. It is an area with relatively good conditions for agriculture, especially in the lower and warmer portion of the Oravská vrchovina Mts. and in the north of the Orava basin. In the middle of the subregion formed by the Sub-Tatran Furrow (Podtatranská brázda) and the Skorušina Mts., there are worse conditions for agriculture and are compensated by labour possibilities in forests. There is no urban centre here, manufacturing is represented by one quarry at Zuberec and peat plants at Suchá Hora. From the viewpoint of transport

conditions, the area is divided into three portions — southern inclines to Dolný Kubín, central to Podbiel, eventually to Nižná, and northern portion, in turn, to Trstená. The subregion is inhabited by 1/5 of Orava's population. Within last decade there was the total population growth a half lower here than in central subregion. Some communities of the subregion are depopulated. In the subregion mainly smaller compact settlements prevail. The subregion is characterized by agricultural (9), agricultural-residential (13), prevalingly farming and worker-farming settlements. A characteristic typ is even the agricultural-forestry settlement of Habovka. Even further communities (Vitanová, Zuberec) have an increased share of the active population in forestry. Non-characteristic for this subregion are two residential settlements — Huty and Valaská Dubová. The subregion has totally an advantageous communication with attractive centres in the Orava valley and in the south even with the centres of Liptov, to which is directed the main part of population working off its residential place. From northern portion of the subregion merely (the Orava basin and the adjacent area) the population is directed mainly out of Orava. Keeping in the original agricultural function in the settlements in the south of the subregion (Jasenová, Vyšný Kubín, Lešiny, Osádka, Srňacie, Pokryváč) is associated on the one hand with better conditions for agriculture, on the other hand with a better position to Dolný Kubín and Liptov's centres, where the population was moved for good, but even with a lesser growth (Evangelic communities). For these reasons no over-crowded villages arose here like in the Upper Orava land, where employment possibilities out of the residential place, which arose after the war, had even a stronger reflection to the functional character of settlements. Within the house type agricultural homesteads prevail, in a series of communities, however, even family houses are strongly represented. The settlement structure of the subregion has yielded to the changes reflecting in social structure and homestead types rather than in economic settlement functions.

3. The third subregion includes the settlements of the northwestern portion of Orava, separated from the chief economic zone of Orava by the highest inner-Oravian watershed — by the Oravská Magura Mts. The subregion territorially coincides with the Hruštín valley bottom, the Podbeskydská vrchovina Mts. (Sub-Beskydian Low Mountains) and the Sub-Beskydian Furrow. The subregion, excepting the Hruštín valley bottom, has the most favourable conditions for agriculture. The population, therefore, since long ago has found the second source of its subsistence in extensive forests and at numerous saw-mills, or it has gone away, out of Orava for its work. The economic nature of the subregion is given by agriculture and forestry so far. The subregion, like the previous one, is from the transport viewpoint broken into several units. The main transport line leads along the Hruštín valley bottom, which has a good communication with the central subregion (via Oravský Podzámok) and with Námestovo. Podbeskydská brázda (the Sub-Beskydian Furrow) and the low mountains are with the roads leading along the Polhoranka, Veselovka, Mutňanka and Biela Orava valleys connected with this transport axis. The whole subregion, especially the communities of the Sub-Beskydian Furrow and low mountains, are situated in an unfavourable transport position to the inner-Oravian economic centres. A great part in the life of the subregion has been played, therefore, by the road Lokca—Oravská Lesná—Oščadnica making possible the connection of the upper-Oravian communities with the main transport line of the ČSSR — the railway line Košice—Bohumín. Along this way a prevailing portion of the population working off its residential place is directed to the Ostrava land, but even to other areas in the Czech lands. There live 2/5 of the population in the subregion, similarly like in the central subregion. It is, however, strongly back behind that in the

total population growth for last decade. A peculiarity is the prevalence of larger communities forming large dispersed settlements. Of the functional types the agricultural-residential (17), mainly worker-farming settlements strongly prevail. Little possibilities in gaining permanent work in other areas in the past have caused an unnaturally strong over-crowding in these villages. An increase in need of labour after the war, mainly in the Ostrava land as well as the transport development have conditioned an intensive departing, but not in a such measure like in the previous subregions. It was even unfavourable conditions for agriculture that made possible the farmers to be freed from the soil. In the settlements of the Hruštín valley bottom, in turn, some better conditions for agriculture, in spite of a stronger influence of Oravian centres, have conditioned keeping the original agricultural settlement function. The significance of the forestry in the subregion is witnessed even by 3 agricultural-forestry settlements (Oravská Polhora, Zákamenné, Oravská Lesná) as well as a higher share of working in forestry in some further communities. The only exception of the types is Breza, a settlement with residential function. Another mark, distinct from the previous subregions, is a strong prevalence of farmsteads in house types. The subregion may be characterized as an area that the settlement structure has yielded to the changes in the weakest measure in, even these ones are mainly due to the „outer factors“.

To the above mentioned division we make a remark that on the basis of the appearing of homogeneous and related settlement types Orava could be divided even in more detail, namely into units more or less identical with the natural units laid out by J. Hromádka (11). The morphology of the Orava's area and the roads connected with it, the different accessibility of the centres of Orava, the history of settlement and ethnic peculiarities of the individual natural units, but even the manner of their economic using are reflected in the functional nature of the settlements.

Another aspect important from the viewpoint of our conceiving the settlement pattern of Orava as an integral, internally differentiated system, is the relation of *complementarity*. Within a system each settlement fulfils a definite part, and hence it is a heterogeneous one. The settlements form a definite, regular, typological, functional series varying from the leading centre or the centres up to the fringes of a subregion. In this case this typological series looks as follows: town, industrial settlement, other non-agricultural settlement, residential settlement, agricultural-residential settlement, agricultural settlement, agricultural-forestry settlement. In considering subtypes the scale will be still extended more. It is to be taken into consideration, however, that a connection with another subregion may appear in dependence from economicogeographical peculiarities in whichever member of this series. On the basis of the complementarity aspect the area of Orava may be divided into three subregions (Map 2):

1. The subregion of Dolný Kubín. Its core is the district centre — the town of Dolný Kubín, the industrial settlements of Mokrad', Istebné and the service-forestry-industrial settlement of Oravský Podzámok. Around this dissociated economic core, situated in the valley of the Orava, all the life of the subregion runs. The settlements with residential function (Párnica, Kňažica, Dolná and Horná Lehota, Sedliacka Dubová) — all lying on the transport axis in the valley of the Orava, are the most dependent settlements upon it, namely due to their residential function. Going on to the fringes of the subregion they are relieved by agricultural-residential to agricultural settlements. The subregion occupies the whole former district of Dolný Kubín. Thanks to the economic increase of Dolný Kubín — Mokrad' and Oravský Podzámok as well as to a weaker activation of Námestovo even the upper part of the Hruštín valley bottom inclines to the subregion. Valaská Dubová is the place of encountering between the

influences of Ružomberok and Dolný Kubín. Similarly there lies even Kralovany in the border area.

2. The second one is the subregion of Nižná, Trstená and Tvrdošín. This subregion commences by somewhat depression, which reflects typologically in the agricultural-residential settlements of Dlhá nad Oravou — Krivá, and includes practically the former district of Trstená. Its economic core is formed by the industrial settlement of Nižná, the multifactoral town of Trstená and the residential town of Tvrdošín. Even here is a dissociated economic core surrounded by residential settlements (Podbiel, Krásna Hôrka, Medvedie, Horný Štefanov and Dolný Štefanov) and towards the sub-regional fringes there appear first agricultural-residential and then agricultural and agricultural-forestry settlements.

3. The third is the subregion of Námestovo. Its core is formed by still newly industrialized Námestovo. A stimulus in the development of services could be tourism in the area of the Oravian reservoir, near which two centres are being formed (Slanická Osada, Prístav). Except two residential settlements near Námestovo, the subregion is mainly formed by agricultural-residential and agricultural-forestry settlements. The pure mentioned functional picture of the settlement types points out a weak economic activity of the subregional centre. Even the partial functional transformation of the subregional settlements is not associated with an activity of the care, but more with the influence of the Ostrava land, where a great number of population of this subregion goes away to its work. The subregion includes the area of the former Námestovo district, except the settlements of the upper part of the Hruštín valley bottom attracted by the more active Lower-Oravian subregion. The subregion needs an activation, it has a considerable labour reserves. Regarding the position of the Námestovo and the transport separation of the southwestern part of the subregion, it is worth of considering to form an auxiliary centre in the area of Zákamenné—Lokca.

## CONCLUSION

From the mentioned analysis of the functional types of the settlements of Orava and of its using as a criterion in regionalizing the area both from the viewpoint of homogeneity and even of complementarity as well as of identical conclusions, concerning the viewpoint of homogeneity with J. Hromádka's division (11) and another work of the author (O. Bašovský, 4), where as a criterion the analysis of the commutation to work was used (confirming the division of the viewpoint of complementarity), the suitability of using the functional classification of settlements as one of criteria in regionalizing a territory may be considered as proved. Using this criterion, however, needs a detailed analysis of the functional structure of settlements and a prompt operating in the typological functional series, which is an idealized scheme in a certain measure, yielding to a strong modification in concrete areas.

It results from the the analysis further on that even in such a small area like Orava, we are to do in settlement geography not with separate things, but with functionally close connected units going far behind the administrative boundaries of communities, or towns, which are the matter in economic geography (complexes, axes, poles etc.). Finally a great usefulness of understanding the pattern of settlements as an integral system comes from it, too.

From the Slovak translated by A. K r a j č í r

## REFERENCES

1. Băcănaru I., Ștefănescu I., Deică D., Molnar E. și Tufescu V. (1963), *Contribuții la studial clasificării funcționale a așezărilor rurale R. P. Română*, Probleme de geografie X, 29—53, București. — 2. Bašovský O. (1963), *Ein Beitrage zur funktionallen Klasifikation de Städte und der übergangssiedlungen der Slowakei nach dem Stande der Jahres 1950*, Geografický časopis XV, 6—29, Bratislava. — 3. Bašovský O. (1966), *Genesis, Functions and Perspectives of Towns of East-Slovak Region*, Acta geologica et geographica Universitatis Comenianae, Geographica Nr. 6: 93—144, Bratislava. — 4. Bašovský O. (1968), *Commuting to Works as an Element of Enomic-Geographical Regionalisation of the Therritory (based on Orava)*, Acta geographica Universitatis Comenianae, Geographica Nr. 8, Bratislava (v tlači). — 5. Beluszky P. (1965), *Falusi településeink osztályozása*, Földrajzi Értesítő XIV, 149—163, Budapest. — 6. Cucu V. (1963), *Contribuții geografice la studial așezărilor omenesti din regionea subcarpatică dintre Gilort-Motru*, Comunicări de geografie VII, 119—136, București. — 7. Dobrowolska M. (1959), *Przemiany struktury społeczno-gospodarczej wsi Malopolski*, Przegląd geograficzny, 31; 3—32, Warszawa. — 8. Družkova V. P. (1966), *Sel'skije nesel'skochozjajstvennyje poselenija Boroviško-Okulovskogo rajona. Novgorodskoj oblasti*, Vprosy geografii naselenija, 236—250, Leningrad. — 9. Dziewoński K. (1967), *Baza ekonomiczna i struktura funkcjonalna miast*, Prace geograficzne Nr. 63, 135, Warszawa. — 10. Enyedi Gy. (1964), *Le village hongrois et la grande exploitation agricole*, Annales de Géographie, LXXIII: 687—700, Paris.
11. Hromádka J. (1934), *Zemepis Oravy*, Knížnica Našej školy XVIII, 243, Bratislava. — 12. Ivanička K. (1961), *Geography of Industrie of the Upper Nitra*, Acta geologica et geographica UC, Geographica Nr. 2, Bratislava. — 13. Ivanička K. (1962), *Changes in the Economic Structure of the District Žiar nad Hronom*, Geografický časopis XIV, 3—34, Bratislava. — 14. Ivanička K., Zelenská A., Mládek J. (1966), *Functional Types of Country Settlements in Slovakia*, Acta geologica et geographica UC, Geographica Nr. 6; 51—92, Bratislava. — 15. Jureček Z., Ullmann O. (1965), *Socio-Economic Mixture of Families and Classification of Dependent Persons*, Demografie 7, 308—320. — 16. Kosmačov K. P. (1962), *O chozjajstvennyh tipach sel'skogo rasselenija, geografija naselenija Vostočnoj Sibiri*, 144—155, Moskva. — 17. Kosmačov K. P., Nedeššov A. A. (1962), *O nekotoryh osobennostach formirovanija seti gornopromyšlennnyh poselenij, Geografija naselenija Vostočnoj Sibiri*: 118—125, Moskva. — 18. Kovalov S. A. (1963), *Sel'skoje rasselenije*, Izd. MGU: 370, Moskva. — 19. Lasis J. V. (1959), *Opyt tipologii sel'skogo rasselenija na primere Volgo-Achtibinskoj doliny*, Voprosy geografii, sb. 45, 113—137. — 20. Láznička Z. (1965), *La classification fonctionnelle des villes de la Tchecoslovaquie (avec plus de 5000 habitants)*, Zprávy o vědecké činnosti č. 5, ČSAV, Geografický ústav, Brno (rotaprint).
21. Láznička Z. (1966), *Contribution à la classification fonctionnelle des lieux d'habitation de campagne dans le département de la Moravie du Sud*, Správy Geografického ústavu ČSAV, č. 10, 1—6, Opava. — 22. Láznička Z. (1967), *Classification fonctionnelle des habitats ruraux dans le département de la Moravie du Sud*, Zprávy o vědecké činnosti 6 (Některé problémy ekonomické geografie ČSSR), ČSAV; 47—61, Brno. — 23. Lehmann H. (1956), *Die Gemeidentypen. Beiträge zur siedlungskundlichen Grundlegung von Stadt- und Dorfplanung*, Berlin. — 24. Mittelhäuser K. (1960), *Funktionale Typen ländlicher Siedlungen auf statistischer Basis*, Berichte zur Deutschen Landeskunde 24, 145—156. — 25. Mládek J. (1964), *Rural Settlements in the Region of the East-Slovakian Ironworks*, Acta geologica et geographica UC, Geographica Nr. 4, 339—352, Bratislava. — 26. *Stredoslovenský kraj v číslach*, Knížnica ÚKLKŠ, Praha 1965. — 27. Verešík J. (1966), *Contribution à la classification fonctionnelle des villes de la Slovaquie telles qu'elles existaient en 1961*, Geografický časopis XVIII, 18—43, Bratislava.