

## SUBURBANIZATION IN SMALL TOWNS – CASE STUDY OF MODŘICE U BRNO

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**Abstract.** The paper analyses how the suburbanization process impacts on small towns in vicinity of a big town. Modřice near Brno was chosen as a case study. The course of residential, commercial and industrial suburbanization is observed. A special commuting flows between Brno and Modřice were stated. It was concluded that suburbanization directed to small towns or large villages in the surroundings of a big city are more efficient from a set of reasons in comparison with suburbanisation into small villages or even urban sprawl. An efficient public transport network can be established, the suburbanized seats have their own basic infrastructure not depending on a big city, areas in between suburbanised settlements are free for suburban leisure activities. Following problems can occur: coexistence of original and new settlers, possible loosing of local identity among others.

**Key words:** suburbanization, small towns, Brno, Modřice

### INTRODUCTION

Suburbanization processes practically affect all European big and medium-sized cities, including Brno. The nature of suburbanization is not exclusively residential. It also involves a transfer of other functions (industry, commercial activities) into the city surroundings. The targets of suburbanization streams are usually rural municipalities or even unoccupied landscapes. The hinterlands of big and mid-sized cities nonetheless include small towns, too. To what extent do the processes under way affect the towns of less than 15 thousand inhabitants?

The paper sets out to analyse a specific case of suburbanization processes in a small town in the hinterland of a big city and their impact on the physical structure and functions of the small town and on the relationship between the big city and the small town in its hinterland. Our study also compares the ongoing processes in the inner city of Brno (surveyed within the framework of the Volkswagen Foundation project No. II/81150), and the processes taking place in the close hinterland of Brno.

The town of Modřice, situated to the south of Brno, was chosen for the purposes of the analysis because in its case the manifested suburbanization concurrently combines the residential, commercial as well as industrial tendencies.

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On top of that, a waste-water treatment plant for Brno is located in Modřice; a fact which further underlines the connection between the two towns. (Fig. no 1)



**Fig. no 1. Position of Modřice in the southern surroundings of Brno**

### **SUBURBANIZATION AND SMALL TOWNS**

The past surveys dealing with small towns (Vaishar 2003, 2004, 2005; Cigale et. al. 2006, Lampič-Špes 2007) singled out several types of this settlement segment. Suburbanized towns constituted one of the important types. The proximity of a larger urban centre assuring a wide variety of job opportunities, services, social contacts and transport options were considered to be among their main advantages. On the other hand, a possible loss of the identity of a small-town subdued by the big city was viewed as the main problem.

Suburbanization can be defined as a process of becoming suburban. Geographers understand suburbanization as transformation of the spatial structures, while sociologists see it as a change in the lifestyle. The suburbanization process can be thus perceived as a continuous transformation of the social and physical environments; from a rural to suburban environment (Ouředníček 2002).

One of the frequently cited motives for suburbanization is the departure from a polluted city full of concentrated human activities closer to nature, quiet and peace of the countryside (the middle-class myth of a house with a garden, Lisowski 2004). The real rational motive – chiefly in the post-socialist countries – behind this move after the years of collectivism is much more likely the desire to have a house and small plot of one's own in which the proprietor could be his own master and where his family would be relatively safe. This dream probably prevails over the need for commuting often on larger distances (Novák and Sýkora 2007).

The suburbanization process – once fashionable – is today already considered by the expert public as controversial (Sýkora 2003) particularly in its

uncontrolled spontaneous form referred to as the “urban sprawl” (Cheshire and Hay 1989, Meyer 2000, Jackson 1985, Frumkin, Frank and Jackson 2004, Hnilička 2005, Vicino 2008). Among “objective” issues rank inefficient utilization of the territory, appropriation of land suitable for agriculture or suburban recreation, questionable and energy-intensive provision of technical infrastructure, including roads, impossibility of organizing an efficient network of public transport etc.

It also seems, however, that suburbanization did not fully meet the expectations of people migrating into the surroundings of cities. They spend most of their free time in cars travelling between the cities and suburbia and behind walls or fences of their dwellings. They have little time and strength to make use of the declared merits of the countryside – closeness of nature and rural lifestyle values. Occasionally gated communities (either with an actual fence or a psychological barrier) become established which strictly separate the original inhabitants from the incomers who are often members of other social groups. In addition, the suburbs often dispose of rather limited services and commuting to the city becomes necessary not only because of work but also for commercial and social services and to do all the shopping. Such suburbs mostly do not have any public spaces and lack identity, symbols and dominants.

The United States represent an extreme case where mass suburbanization was taking place in the years after the end of World War II (roughly between 1945 – 1975). Beauregard (2006) even refers to it as the loss of city urbanity. On the other hand, a large part of the developing world suffers from uncontrollable city sprawl (e.g. Jenkins, Smith and Wang 2007). The growth of suburbia takes place there as well but they are often not an expression of a search for better lifestyle but a result of mass immigration of the weak social classes. The settlements on the fringes of world's biggest cities emerging in such conditions lack basic technical and social infrastructures. Even though this does not apply to Europe, this issue should not be ignored.

The European suburb in fact assumes certain drawbacks very similar to large prefab housing estates (monofunctionality, lack of public spaces). In contrast to housing estates, in the case of suburbia no one usually talks about humanization, additional construction of public spaces and services and about introducing high-capacity public transport systems. It is not excluded that in the long run, life in the suburbia, if viewed from the social perspective, can become even more problematic than it is the case with the housing estates which were, paradoxically, left behind by many people who moved to the surroundings of big and mid-sized cities. Even though a future growth is anticipated of non-financial benefits (such as time, space, silence, nature, safety), the emerging suburbs can provide them only partially.

Small suburbanized towns find themselves in a slightly different position. These urban units located in the close vicinity of larger towns dispose of basic municipal services, job opportunities, identity, monuments and adequate capacity of public transport. Their urban partner even extends this basic range of services to a great degree. Even if suburbanization is considered a controversial trend, this does not entirely apply to small suburbanized towns. It actually seems that if we manage to channel decisive suburbanizing streams to small towns, the process could become much more positive.

In the case of Czech Republic the trend so far does not involve foundations of new towns on the perimeters of the original big cities but utilizes the existing relatively dense network of small towns and in this way the process becomes at least partly regulated. The question remains what this type of suburbanization will have in store for the core town. Particularly in the USA, the next suburbanization stage is oriented towards the creation of new, relatively independent towns around the original city. To commute for work and services thus takes place not only between the new towns and their original centre, but also between the new towns – i.e. in radial as well as tangential directions. In the European conditions, it is likely that the *genius loci* of the original hub will continue to maintain its central position within the system of centre-suburbia.

### CASE STUDY OF MODŘICE

The cadastral area of Modřice (Modřice 2005) is immediately adjacent to the southern periphery of Brno and to the built-up area of Brno industrial and commercial sites. The town is situated on a low, slightly slanting terrace at the western edge of the Svratka R. floodplain. The town takes up the surface area of 1,005 ha, out of which 699 ha is farmland. The percentage of arable land reaches 74 %. A very extensive land area is atypically taken up by the orchards (112 ha), gardens (55 ha) and vineyards (10 ha). The built-up area of Modřice is almost 59 ha. The whole cadastre is nearly void of forests. The population density of 353 inhabitants per sq km corresponds to 60 persons per hectare of the built-up area.

Between the 13<sup>th</sup> and the 19<sup>th</sup> centuries, Modřice was in the possessions of Bishops in Olomouc. In the 13<sup>th</sup> century, Bishop Bruno introduced Germanic colonizers to the town. Up until the construction of the railway, the townlet was an agricultural settlement famous for cultivating cabbage and onion. Modřice benefited from its favourable position: In 1727, it became connected to the imperial road leading from Brno to Vienna and Znojmo. In 1839, the town became a stop on the first railway in the territory of Bohemia and Moravia. Thanks to the presence of the railway an industrial site became established the origins of which were formed by a brick making plant and a sugar mill. The majority of the population in the first half of the 20<sup>th</sup> century was German and in 1945, roughly 80 % of the inhabitants were displaced. In 1994, Modřice was bestowed town rights. Out of the economically active population, 2.5 % work in the primary sectors.<sup>2</sup> Industry provides employment for 33.5 % of working inhabitants. As regards other sectors, the most strongly represented are commerce and repairs (12.9 %), construction (9.7 %), education, healthcare, veterinary and social services (9.0 %), services for entrepreneurs (6.8 %), transport, postal services and telecommunications (6.7 %) etc. These facts characterize Modřice as an industrial satellite of Brno with less developed tertiary functions.

Daily 938 persons leave for work, out of whom 487 are men and an almost equal number (451) are women. A balanced proportion between men and women

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<sup>2</sup> The data in the following paragraphs are based on the Population and Housing Census elaborated by the Czech Statistical Office in Prague, 2001.

commuting for work is atypical and this probably results from the suitable position of Modřice, which lies within reach of the Brno tramway transport network. The 50.9 % share of commuters reveals that the village of Modřice represents a great part of the Brno labour market. Also, 241 pupils, students and apprentices commute from the village to schools in Brno. The highest proportion of commuters spends regularly a period of 15-29 minutes by travelling. An average time of commuting for work slightly exceeds 32 minutes.

The educational structure of Modřice involves 38.3 % of inhabitants with GCSE<sup>3</sup>, which is less favourable than it could be expected with respect to the proximity of Brno. The number of inhabitants who graduated from university amounts to 8.9 % of the population aged over 15. The proportion of people with a completed basic education only is 21.2 %. These data evidently reflect the original industrial nature of the town.

### **RESIDENTIAL SUBURBANIZATION**

The term of suburbanization is usually understood as a transfer of dwelling from big and medium-sized cities into their surroundings. Since the first postwar population census in 1950 – when it amounted to 2,423 inhabitants – the population of Modřice had been growing relatively quickly until 1980 (4,115 inhabitants). At the heart of this growth was probably still industrialization together with related urbanization and construction of tenement houses rather than suburbanization. Between the two censuses in 1980 and 1991 it came to a significant decrease in the number of inhabitants to the level of 3,484 persons. The southern direction from Brno, open into an intensively farmed landscape, did not belong to attractive areas. The lack of interest was underlined by the fact that farmland of this quality was subject to strict protection.

The year 1991 marked a slow change for the better and the number of inhabitants again started to grow: 3,504 inhabitants according to the 2001 Census and 3,963 persons towards the end of 2006.<sup>4</sup> It seems that residential suburbanization in the Modřice direction gains ground only at a slow pace or competes with other trends (it is also possible that another suburbanization process is taking place concerning the inhabitants of Modřice who from their position of a town population move into rural villages in their surroundings).

The Population and Housing Census in 2001 counted a total of 637 houses in Modřice, 570 of which had permanent residents. There were 69 flats in uninhabited houses and further 54 uninhabited flats were in permanently inhabited houses. The

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<sup>3</sup> GSCE – complete secondary education

<sup>4</sup> According to data published by the Czech Statistical Office (CSO) and based on results from censuses and population balance censuses. The number of inhabitants is in fact also monitored by the Ministry of Interior of the CR according to the applications for permanent residence. Based on these data, on January 1<sup>st</sup>, 2008 the population of Modřice totalled 4,509 inhabitants (including 764 foreigners). According to CSO, the data published by the Ministry of Interior are more accurate but they do not form a longer time series. The figure is comparable to the year 2006 when, according to the Min. of Int. CR, the population of Modřice was 4,132. Therefore in two years (2006 – 2007) the number of inhabitants increased by 9 %.

most frequent cause for the disuse of flats was temporary residence (39.8 %), building conversion (8.9 %) or unfitness to housing (8.1 %).

The pre-revolutionary Modřice consisted of the original rural centre with a village square and a tenement housing estate constructed in the 1950s and 1960s linking to the industrial sites of Fruta (cannery) and Kovolit (metal production). (Fig. no 2, 3)



**Fig. no 2. Old rural-style residential structures**



**Fig. no 3. New suburban residential part of the town**

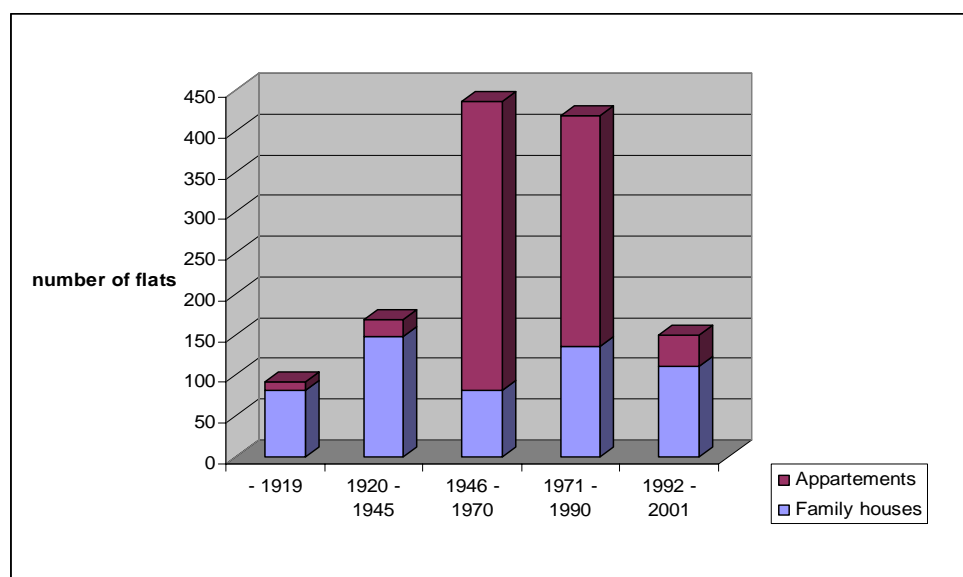
Table no 1

**Structure of permanently inhabited houses and flats for 2001**

HOUSE TYPE	PERMANENTLY INHABITED HOUSES		PERMANENTLY INHABITED FLATS	
	Number	[%]	Number	[%]
Family houses	514	90.2	564	43.6
Tenement houses	49	8.6	723	55.9
Other houses	7	1.2	7	0.5
In total	570	100.0	1294	100.0

Source: Population Census 2001

Although the proportion of family houses exceeds 90%, tenement houses represent more than a half of the housing resources in Modřice. An absolute majority of houses at the time of the last population census (2001) had one or two floors. Average age of the house was 45.5 years. In the ownership of natural persons were 519 houses (prevailingly family houses). In the ownership of housing associations were 13 houses with the prevalence of tenement houses. The flat ownership is rather varied. From the total number of inhabited flats 39.6% are located in owner-occupied (mainly) family houses and 23.5 % of flats are privately owned; 20.9 % of flats belong to housing associations and 10.3 % are rented.

**Fig. no 4. Modřice housing resources according to the time of construction.**

Source: Population Census 2001

It follows out from the Fig. no 4 that the history of family and tenement houses construction in Modřice is fairly varied. While the majority of family houses were built during the inter-war period, the absolute majority of flats in the

tenement houses were constructed in the socialist period of 1945–1990. In this era, the town also witnessed the peak of housing construction. The last decade starting with the year 1991 was again marked with the predominance of flats constructed in family houses, although some flats were still built in the tenement houses, too.

The size structure of the flats is quite favourable with a majority of them falling into the category of 3 dwelling rooms (48.5 %). The percentage of flats with 2 dwelling rooms is 30.4 % and flats with four dwelling rooms account for 8.8 % of the total. The proportion of flats with five and more dwelling rooms is relatively high (8.2 %), while flats with one dwelling room are very few (3.6 %). An average habitable surface area amounts to 81.4 sq m; in the family houses, this value reaches 105.0 sq m and an average tenement house can dispose of 63.3 sq m.

The data referring to the size structure of flats are in a strong contrast to the shrinking size of a mean household. On average 2.71 persons dwell in one flat; mean number of persons in a family house is 2.97, while it is only 2.51 persons in a tenement house flat. There are 0.94 inhabitants for one dwelling room larger than 8 sq m; this figure also varies depending on the location – 0.88 inhabitants in family houses and 0.99 in tenement houses. The average surface area per person is 19.53 sq m (22.65 sq m in family houses and 16.65 sq m in tenement houses). When the overall situation in the Czech Republic is considered, this situation presents very good areal standards of housing. Connection to the gas network is in 94.2 % of the flats, 98.7 % flats are connected to the water conduit and 86.8 % to the public sewage system. Flush toilet of one's own can be found in 97.0 % of the flats, 98.0 % have a bathroom or a shower bath, but central heating is present only in 69.6 % of the flats. Flats of lower standard technical equipment are located exclusively in the family houses.

Up until 2000, the manifestation of suburbanization tendencies was very mild because the southern edge of Brno did not enjoy very high popularity. In spite of this, at least two suburbia can be identified in the territory of Modřice. One of them (the locality of family houses *U hřiště* with one tenement house *Za Humny*) is situated right next to the urban area and it can be attended to by its services; the second suburb lies near the Bobrava R. and it is separated from the town by the R52 speedway and by an industrial zone. It is therefore a free greenfield suburb without any significant relations to Modřice and without public transport services. It can be expected that the people from the second suburb would gravitate to Brno even in the sphere of basic services.

Apart from other reasons, the lower intensity of residential suburbanization in Modřice can be explained by the environmental situation. The environment in Modřice is adversely affected by traffic in particular. Although only a small number of vehicles pass through the actual urban area, noise and emissions from the R52 and II/152 roads reach high values. In the conditions of northwestern winds a long-range transfer of pollution from Brno sources is likely due to the town's location south of Brno. Another problem is the overall environment aesthetics which is devalued by the fact that the town is almost completely located on a plain, hemmed in by extraordinarily busy roads and industrial and commercial



sites and because it lacks public greenery. Aesthetically attractive spaces we can find rather at a microscale of residential suburbs.

It seems that the original and incoming populations differ socially as well as demographically. The original population grows old and stands in opposition to the new activities. For that reason, it is for example a problem to construct a playground for children in the older built-up area. Although the *U hřiště* locality disposes of such facilities, the social barrier prevents their use by children from the older parts of town.

### **COMMERCIAL SUBURBANIZATION**

Even though the residential suburbanization of Modřice is not quite distinct, commercial suburbanization cannot be overlooked. The Olympia shopping and entertainment centre that was put into operation in 1999 is a continuation of its weaker competitor – the Avion Shopping Park – in the Brno cadastral area. It benefits from suitable location at the D2 highway near its crossing with the D1 and also from the proximity of the R52 speedway thanks to the II/152 road. It is the second largest shopping centre in the Czech Republic (after Prague – Letňany) with 140 shops and a floor space of 84 thousand sq m. When searching for the shopping park on the web, one finds it under the key word of “Olympia Brno” documenting threat to the identity of Modřice in its position of a suburban small town.

The heart of Olympia is constituted by the Hypernova hypermarket. Specialized shops, services and fast food establishments are attached to it. The complex also houses Palace Cinemas – the largest multiplex cinema of the Brno agglomeration (10 cinema auditoriums, 2,287 seats). The parking lot has a capacity of 3,200 car places. It is naturally a manifestation of globalization, which is made evident by the sort of companies that offer their services there. The construction is still in progress. The target floor area is 100 thousand sq m. It is expected that after its completion the annual number of visitors will reach roughly 8 million. The retail turnover so far totalled CZK 3 billion (EUR 110 million) annually. Interest in the remaining 55 ha of undeveloped land for the planned commercial and amusement centre is considerable. The town of Modřice regulates and decides about the realization of individual business plans on the still free land on the opposite side of the D2 highway.

The commercial situation in the town of Modřice itself can be characterized rather as a dispersed retail sale. Outlets are scattered across the town, apparently in relation to the links of entrepreneurs to the private ownership of family house, which are at the same time business premises. Competition from the Olympia shopping and entertainment centre scales down the assortment. On the other hand, no bankruptcies have occurred so far even in the case of groceries.

### **INDUSTRIAL SUBURBANIZATION**

Premises of the original Modřice industrial plants used to border on the residential parts. While the hitherto largest employer in Modřice, KOVOLIT – manufacturer of metal articles, is still in operation, the sugar factory closed down

in the 1930s and the Fruta cannery and brick factory practically ended their activities after 1990. The sites and buildings of the original industrial plants now serve as storehouses or spaces for medium-size or small enterprises.

The new Central Trade Park Modřice industrial zone was nonetheless established on the other side of the R52 speedway and the railway track, and in 2003, the site was elected industrial zone of the highest economic contribution in the Czech Republic. The zone is owned by a private developer from the Netherlands who offers sites for construction, turnkey halls and offices for strategic services and technological centres. It has attracted several important investors, such as Andrew Telecommunications, Danaher Motion, Tyco, IFE/Knorr Bremse and IMI Norgren. Not all of the firms are active in manufacturing industry; many of them are focused on logistics. The zone's surface area is 400,000 sq m out of which 45 % are built up. The currently existing 22 firms of the Modřice industrial zone employ approximately 2,000 people. In the majority of cases, foreign investments are concerned.

The Modřice industrial zone competes with the Brno industrial zones, such as the Černovice terrace. The most likely cause for the preponderance of Modřice in this relationship of competition is easier negotiating with the local authorities. Brno has a two-level administrative structure (the city and the city district). Moreover, the interests of both levels can be often much contradictory. The city is normally concerned about increasing the number of jobs while the city district is more interested in preventing the new industry from encroaching too much into the existing physical structure.

Thanks to the existence of the industrial zone and other available jobs, the number of available jobs in Modřice markedly exceeds the number of economically active inhabitants in the town. In 2007, Modřice had 6,281 engaged job opportunities<sup>5</sup>; a figure exceeding the number of economically active inhabitants of the town more than three times. It is interesting to note that at the time of the population census in Brno this ratio was around 1 : 1.3. The total number of people commuting for work to Modřice<sup>6</sup> is 2,614 persons; most of them come from Brno (1,317 persons), 823 persons come from other municipalities of the Brno-Province and 474 people from other districts. At the same time, none of the other individual municipalities is particularly significant with respect to their absolute number of commuters. Commuting distances to Modřice are rather favourable: 936 commuters need a maximum of 30 minutes and 328 commuters spend more than an hour. As of May, 2008 the unemployment rate in Modřice was 2.5 %, while in Brno it reached 5.7 %.<sup>7</sup>

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<sup>5</sup> Amendment to the Decree of the Ministry of Finance of the Czech Republic No. 232/2007 Coll. on the share of individual municipalities in the established percents of national gross receipts from value added tax and income tax

<sup>6</sup> Commuting for work and schools in Jihomoravský kraj (South-Moravian Region) – based on the 2001 Census. Czech Statistical Office, Regional representation Brno.

<sup>7</sup> Unemployment statistics of the Ministry of Labour and Social Affairs, CR Prague.

## **RELATION BETWEEN BRNO AND MODŘICE**

In terms of transport, Modřice is integrated into the city public transport system of Brno. It is serviced by two bus lines and a tram line of the Public Transport Company of the city of Brno. The interval between the connections ranges between 5 minutes (tram) and 10 minutes (buses) during the rush hours and 10 to 20 minutes in times with minimum traffic; between midnight and morning the interval falls within 30 to 60 minutes. Apart from the lines of the Brno public transport Modřice is also included in the integrated transport system of the South Moravian Region. This means that the town has a train connection with Brno every half an hour during the day (duration of the journey is 7 minutes). These transport options are further complemented by 22 bus lines with tens of connections assuring the availability of not only Brno but also of the other surrounding urban units. Olympia and several industrial zones also operate mass transport of their own.

Very interesting relations have developed with the city of Brno. Modřice represents the most important destination of commuting for the inhabitants of Brno. Up to 9.9 % of commuters from Brno head for Modřice. The proportion of people daily commuting from Brno is even higher (14.4 %). Modřice concurrently plays an active role in the mutual exchange on the labour market. Even if we add 259 pupils, students and apprentices commuting for schools in Brno to the number of people commuting for work from Modřice to Brno, the outgoing stream from Brno to Modřice in absolute numbers is stronger. The difference of course consists in the fact that 7.6 % of economically active persons leave Brno, while the share of people commuting in the opposite direction from Modřice accounts for 61 % of the employed population. People employed in industry form a majority in both directions.

Because the town of Modřice is situated very near to Brno, however, it has not developed any catchment microregion with respect to the labour market. Apart from Brno, Modřice does not present a predominant destination for any other municipality – the destination is most often Brno. Modřice therefore does not satisfy one of the basic municipal functions – to serve as a centre for the surrounding hinterland. On the other hand, because in Modřice job opportunities clearly prevail over the economically active population, unemployment is not an issue. Thanks to the adjacency of Brno, also the inhabitants of Modřice of less common professions and qualifications can find work.

With respect to the existence of Olympia, Modřice can be labelled a “centre of shopping recreation” for people from Brno – a relatively new phenomenon in our country. A typical one-day number of visitors in such a case is fairly equable throughout the whole year with a peak before the Christmas time, which is one of the characteristic features of shopping tourism.

Modřice can offer altogether four public accommodation facilities which provide 157 beds in 72 rooms. The index of tourist function expressed as a ratio of beds and the number of inhabitants is 4.5 %, which is a comparatively high number with regards to the tourism potential that can be, similarly to many other phenomena, explained by the closeness of Brno; specifically by the accommodation for the Brno

fairs which are quite easily accessible from there. Catering possibilities exist both in the town itself as well as in the Olympia centre.

The town itself is not overly attractive for tourism and recreation although cyclotourism can be of higher significance. From the centre of Brno runs a cycling route along the Svatka R., which one can take to reach the touristically exotic valley of the Bobrava R. A cycling route from the Starý Lískovec and Bohunice housing estates passes through the eastern part of the Modřice cadastre and leads to the Bobrava R. valley as well. These cycling routes further proceed towards the south and the south-west of South Moravia to the regions of Břeclav and Znojmo.

## DISCUSSION

The presence of the industrial zone and of the Olympia shopping and entertainment centre together with the closeness of Brno provide at least for the coming decade sufficient perspectives for the development of Modřice in the economic sense of the word. As a result, the municipal authorities can focus chiefly on the improvement of the population's quality of life. This should primarily concern development of social infrastructure – i.e. completion of the educational system, healthcare, construction of an old people's home. Another goal shall be enhancement of greenery and playgrounds, completion of a small forest park, ensurance of bathing possibilities (recreation at water). With respect to the fact that the interest in housing is increasing, the town should address the needs of interested parties by creating suitable conditions for the construction of family houses. Financial conditions are ideal as Modřice belongs to the richest municipalities in the Czech Republic as to property tax converted per capita.

One of essential tasks to be addressed is to shape the town's identity which is currently depreciated by two factors: Postwar exchange of inhabitants and the fact that the urban areas of Brno and Modřice have practically grown together. Hereby Modřice loses one of the most important comparative advantages of a small town and a real risk exists that in people's minds the town will be perceived as a suburb of Brno despite its administrative independence. It is thus very expedient to encourage local events, culture and solidarity among the local population. This is likely to be the most difficult and pressing job of the town hall for the near future. One of possible directions that this effort should take is the preservation of top-ranking sport (football tennis) but also the support to club activities and recreational sport. The question remains to what degree and in which context it is possible to take up the pre-war traditions and to cooperate with the original inhabitants of German nationality. If successful, such collaboration could boost the town's identity.

From the perspective of Brno, rather than to disperse the activities in its surroundings it is probably more useful to concentrate the residential, commercial and industrial suburbanizations into this small town with a good transport network connection in its hinterland. The time of commuting between the centre of Brno and Modřice is significantly more favourable than the commuting time needed for travelling from the centre of Brno to marginal parts in the north.

## CONCLUSION

The town of Modřice is a target of residential, commercial and industrial suburbanization processes. Suburbanization directed into this small town eliminates some problems connected with the aforementioned urbanization process. The suburbanization form is relatively concentrated which makes it more efficient with respect to appropriations of land, construction of technical infrastructure, power engineering and operation. Apart from passenger traffic, the town is accessible by public transport with an exceptionally dense timetable. The small town has its public spaces and dominant features and it is also in a better financial position to satisfy the requirements of its inhabitants.

However, there are at the same time some problematic issues, too. One of them is the preservation of the town's identity which in this particular case is accentuated by the postwar population exchange. Another issue can also consist in the cohabitation of the original and incoming populations differentiated by diverse social and demographic structures. The prices of plots in such an intensely suburbanized town are ballooning and the issue of completing the green spaces and playgrounds arises in connection to this phenomenon, as their direct economic effect cannot match the sale for construction. It can be nevertheless assumed that the suburbanization oriented towards small towns in the surroundings of big cities is more favourable from the social perspective than establishing suburbia in rural municipalities with minimal social infrastructure or than urban sprawl.

Modřice is not the only suburbanized small town in the surroundings of Brno. Let us mention for example Kuřim, situated 15 km to the north-west of Brno, which at the beginning of 2008 surpassed the figure of 10,000 inhabitants and where not only neighbourhoods of family houses are growing but also apartment houses. Expression of industrial suburbanization in Kuřim is the establishment of the Tyco Electronics Czech Ltd. plant with 1,900 job vacancies, while the former largest employer TOS (mechanical engineering) downsized its workforce from 3,900 in 1987 to 635 in 2006. Kuřim, similarly to Modřice, therefore does not present a new industrial zone but the industrial suburbanization brought about the replacement or enlargement of industrial enterprises, which used to be located in these towns in the past.

East of Brno (10 km) is a town of Šlapanice with 6,000 inhabitants that is connected with Brno by means of a trolleybus line. This small town fulfils certain delegated administrative functions also for several municipalities in the district of Brno-Province (including Modřice). This is why one of the buildings of the Šlapanice town hall is located directly in Brno where it is much more easily accessible to many of these municipalities than if it would remained in Šlapanice. The town is also the location of Masaryk University Conference Centre and it thus commences with the realization of its potential in the sphere of congress tourism.

Rosice (5,400 inhabitants), 19 km to the south-west of Brno, stands for another example of a suburbanized small town. The large rural villages in the surroundings of Brno disposing of their local market and basic infrastructure, e.g.

Střelice (12 km from Brno, 2,600 inhabitants), Bílovice nad Svitavou (10 km, 2,700 inhabitants) or Veverská Bítýška (22 km, 2,800 inhabitants) with a Rico-Hartmann plant (for the production of healthcare sanitary supplies) can more or less function in a similar way. All of the listed urban units are within the reach of the integrated transport system of the South Moravian Region, which guarantees the connection with Brno by public transport every 30 minutes during the rush hours and 60 minutes at the times of traffic valleys.

The linkage of new suburbia to the original built-up area is given by the economy of connection to civil infrastructure of the original settlement rather than by the quality of urban planning. In some cases, basic investments into the technical infrastructure (roads, electric current, water conduit, sewage and communication cables) come from the original municipality and the civil infrastructure are constructed all the way to the building plots. Such "inventorized" sites are then offered to developers for house construction.

A system of suburbanized settlements is emerging in the surroundings of Brno, which have their own history, identity, local market and to great extent also economic life, and which provide services at a basic hierarchical level. The concentration of inhabitants into a limited number of suburbia, sometimes separated from each other by remainders of valuable natural areas makes it possible to find efficient solution to the transport and technical infrastructure issues. Neither is excluded a mutually beneficial division of labour between the metropolis and the suburbia. This system is substantially more advantageous than the construction in space with limited control.

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