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A CONCEPTION OF THE TRAM-TRAIN - HOW TO CONNECT THE INHABITANTS OF THE OUTSKIRTS TO THE TOWN LIFE

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ABSTRACT: While examining the future and development of a settlement it is necessary to consider the roles of both the natural and social factors. They are basic needs for its survival and fate which are in a continuous interaction with each other, changes in one factor are followed by changes in the other, thus complementing and postulating each others. However, a part of the population lives outside the town, so the question is obvious: how can the population on farmsteads living on both sides of the road between Szeged and town called Hodmezovasarhely be integrated into the town life? The system of tram-train as a combination of railway and urban tram technologies can bring a possible solution. The equal opportunity for the population on the farmsteads and their subjective sensation of distance raise an interesting issue apt to be examined. In my article I am planning to examine the possibility to introduce the tram-train system.

KEYWORDS: rural development, tram-train, homestead, sustainable development, subjective distance

INTRODUCTION

Regarding the future of town Hodmezovasarhely it is worth considering its location, in the socio-economic space of the Southern Hungarian Plain, what role a town can fulfill which is referred by the public as the second largest town after Budapest because of its widespread world of farmsteads; it is a town with county rights having a particular position in Csongrad county. Regarding its spatial position, another interesting fact is that it is only 25 kms away from Szeged which is not only a regional centre but also a city with county rights. The two towns have always been competing with each other which can be clearly read in historical descriptions, everyday anecdotes and literary works, too.

Changes in the relationship between Szeged and Hodmezovasarhely can be observed mostly in migration and commuting of the population of the two towns. Their roles in the Southern Plain region and their relationship can be determinant factors not only in their development but also at a regional level. One of the most significant factors is the improvement of the traffic between the two towns which is supported by the large number of commuters from both directions. As a result, the safe public transport for a reasonable price and reduction of the vehicular traffic are important factors for the population commuting between the two towns.

Regarding the future of Hodmezovasarhely the idea of the so-called 'livable city' is getting more and more important role. According to the older generation of Hodmezovasarhely, these two towns have the strongest influences in the Southern Plain region: the busy and lively Szeged and the quiet Hodmezovasarhely giving peace for creation. In 2009 the Assembly of Hodmezovasarhely County Town decided to join the 'Cittaslow' movement - first in Hungary.

In my essay I am aiming to show the concepts of Hodmezovasarhely to become a 'livable city' and to improve the safe transport.

GEOGRAPHICAL POSITION OF HODMEZOVASARHELY

The advantages and disadvantages coming from the geographical position of a settlement are called positional energy, according to Mendol, Tibor. Each settlement has an absolute and a relative position. (Beluszky P. 1999, Koszegfalvi Gy. - Loydt T. 2001) The above mentioned facts give the absolute position of the town, however, from the point of view of its development its relative position is much more important since conditions of its surroundings determine its future. (Kovacs Z. 2001.) One of the determinant factors of Hodmezovasarhely was the vicinity to Szeged mentioned in the Introduction, while the other one was the transformation of the geographical environment.

POSSIBILITIES AND CONDITIONS IN HODMEZOVASARHELY

Plan of town-development of Hodmezovasarhely County Town says that „at the beginning of the 21st century political, socio-economic changes typical to both the wider and narrower regions,

culture, natural environment, infrastructure, reorganization of employment and incomes together determine the measure and directions of development outline-able up to 2020.” In addition, ‘the task of the Plan (i.e. Settlement Structure Plan, the Local Construction Regulations and Lay-out Plan) is to assure spatial-technical-ecological frames in order to realize and accomplish the objectives of the conception. Also, the task of the Plan is to reconcile the public and private interests in connection with the real estates in the area of the town.’ (Long-term Town-development Conception of the City Council of Hodmezovasarhely County Town) It can be read there that the conception should be revised in 10-15 years and it should be complied in a flexible way with the changing interests of the population. It considers important to create the conditions for the human environment and for sustainable development. Finally, all of them should be realized in respect to the spiritual and environmental traditions of the settlement.

The „Long-term Town-development Conception” of Hodmezovasarhely also refers to the Leipzig Charter: „The Leipzig Charter on Sustainable European Cities recommends -among others- things to do for the harmonic inner development of the cities. For Hodmezovasarhely it is important to contemplate and follow the principles described in ten chapters.” (Long-term Town-development Conception of the City Council of Hodmezovasarhely County Town)

For the last two years the population can read and hear the most about two issues from the local media, regarding town development, one of them is the construction of tram-train between Szeged and Hodmezovasarhely, and the other one is the ‘Cittaslow Movement’ urging on realization of the livable city. (sz.n. 2011)

TRAM-TRAIN BETWEEN HODMEZOVASARHELY AND SZEGED

The tram train is a vehicle of transport which makes it possible to connect railways (trams) serving the inner areas of a settlement and traditional railways located in the wider area beyond the confines of a town in a way that passengers should not change trains (trams) within the network between the town centre and the areas around the town. Its essence is to combine the local and regional railway systems.

Tram-trains have three types:

1. To transform the railway line into a public railway operation: the public railway runs on a line used earlier as a railway, the original railway track is transformed into a public railway line.
2. Tram-train operation: public railway vehicles run on a railway track, in mixed operation, two or more systems of energy supply (direct or alternating currents; or diesel-electric operation).
3. Train-Tram operation: railway vehicles run on a public railway line with one (diesel-electric) or more systems of energy supply.

The system has numerous advantages, such as the existence of the necessary railway lines, the number of changes is reduced, so it is comfortable in addition to saving time, the weight of tram-trains is smaller, so they load the tracks less, their energy consumption is smaller than the one of the traditional vehicles. Since the public railway vehicles are able to brake more effectively due to their special brakes, it is possible to build more stops along the railway line.

As they can run on both tram and railway tracks they have to fulfill the requirements of both vehicles of transport. For example, they are 30 m long as the tram, they run with current collectors inside the town, since they do not have an engine, but this way they can run in narrower streets as well. Their characteristic features of train-type are that they run with a diesel-engine between towns, their speed can reach 100km/h, so their running-time is quite favorable. There are more seats inside and it is possible to transport bicycles, too.

The first tram-train system was built in Germany in 1992 between Karlsruhe and Bretten, its length exceeds 400 kms. This system, called Karlsruhe-model in the specialized literature, had one single disadvantage: it was not accessible by the disabled. The first Tram-Train system was followed by more all over Europe. The first entirely accessible network was opened in Saarbrücken in 1997. This vehicle of transport of „mule”-type seemed to be a dream in Central Europe. Today it is used in the Czech Republic between Jablonec with population of 40.000 and Liberec with population of 100.000. There has also been an example for an international line since a tram-train connects Zwickau, Germany and Karlovy Vary, the Czech Republic.

Experiencing the European success even Hungarian professionals have proposed the idea of tram-train systems. Plans have been elaborated to realize them in our larger cities with public railway lines (in towns Szeged, Debrecen, Miskolc). A factual agreement has been reached only in the Southern Plain region so far.

The mayors of the two towns signed an agreement on 4 March, 2011 to build a tram-train railway line between Szeged and Hodmezovasarhely. At present, the study on its realization is under public procurement.

I have to mention here that Szeged applied for a grant - at the same time with the Hodmezovasarhely line - to build a tram-train system connecting towns Szeged and Mako but first it is

necessary to construct the so-called southern Tisza-bridge for it, so the traffic can start on this line only in 2018-2020 at earliest.

The tram-train would be nearly as frequent as the present coach traffic, and it would have a similar running-time. Its advantages are reliability, comfort and better safety conditions, its disadvantage, however, is the high expenses of construction. It is necessary to have detailed and expedient examinations in order to decide if this investment can be accomplished effectively. It would be important to make a survey among the commuting population if they would really use this service of transport. Other questions are how much the local public transport could adjust to the stops and the running-time, and also if it could be accessible both on foot and by bicycle easily.

A very flexible traffic system can be realized with the necessary development of infrastructure for the tram-train and with some traffic regulation. Its backbone would be the modern railway connection between Szeged and Hodmezovasarhely, or more accurately it would connect the centers of the two towns so that the starting point and the final stop would be either on the main square or at the railway station of the towns. The local bus-lines from more areas of the town would join it there having an adjusted timetable, and this way there would be less changing the trains/trams/buses.

The system itself has several advantages. It does not require construction of tram-lines in Szeged which results a significant reduction of expenses. There is no need to buy special, expensive vehicles, instead of them cheaper vehicles can be utilized. The routes of the joining bus lines can be changed and they can connect a large part of the town to the system effectively. What makes the tram-train really attractive is that it could guarantee a fast connection between the two town centers without changes.

In case of Szeged which has a relatively developed and multilateral public transport this concept is really acceptable. However, in case of Hodmezovasarhely this problem is not so simple. The local bus system should be more popular in Hodmezovasarhely because of its large extension. Mainly students and the elderly utilize it from autumn to spring in cold and rainy weather. The use of bicycles is very widespread and popular due to the geographical conditions of the plain, so in dry and less cold weather almost everybody chooses this type of traffic. Consequently, besides the joining bus-lines, it would be reasonable to build covered places for bicycles at the tram-train stops where passengers could leave their bicycles without hesitation.

The tram-train would run to Hodmezovasarhely southwards, in parallel with Road 47 on the towns Szeged-Bekescsaba railway line. One of the village-like area of the town (called district Oreg-Kishomok) is located here, and on the other side of the tracks the youngest part of Hodmezovasarhely: called district Uj-Kishomok. Both parts of the town is affected by the same problem: they are not connected to the public transport system of the town. Besides using cars, the only opportunity is going by bicycle- in case of the population under 18. Although a cycle path has been built along the Road 47 and so has been a new one connecting to the Centre, which leads to Uj-Kishomok across district Kertvaros, this kind of traffic can be utilized in a limited way in rain and in winter. The public transport cannot be solved with local buses since the streets are too narrow for it. Those people from Uj-Kishomok who do not use cars go to the nearest bus stop by bicycle but the temporary parking of their vehicles has not been solved yet.

SUMMARY

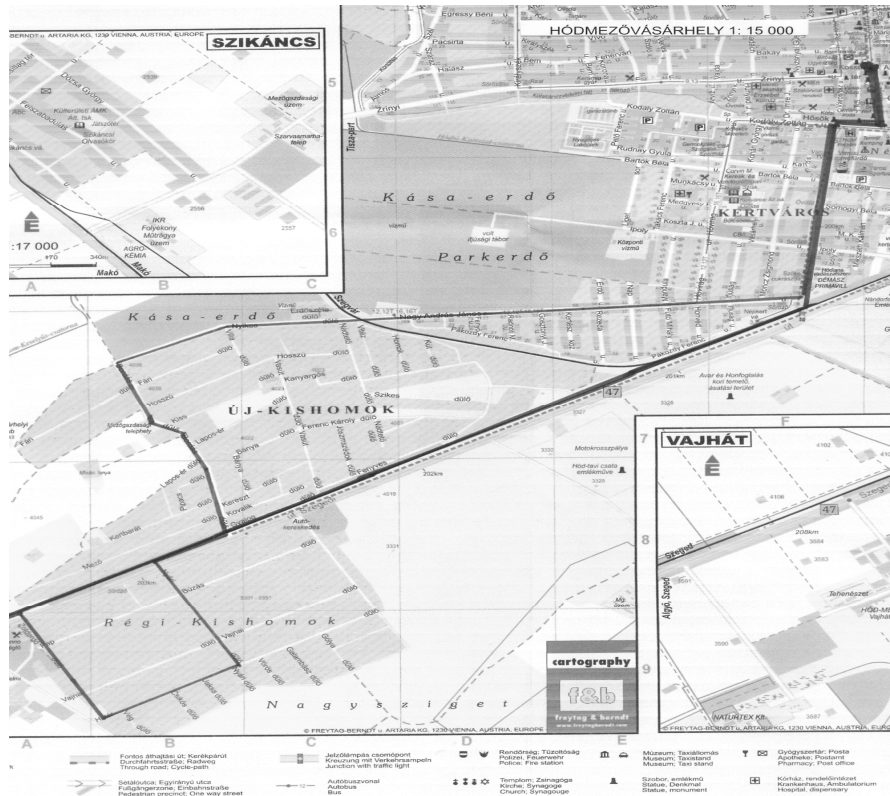
All in all, it can be seen that there are many possibilities in the Southern Plain region, in Hodmezovasarhely to form a pleasant, safe settlement. There is no need to build a new town from nothing since our ancestors established excellent basis, our task is to preserve and continue traditions. We should fill it with a content which provides the inhabitants with safe job, and it has to be done so that while utilizing the developed technology the old charm of the town could remain.

The task is difficult, since in case of smaller towns in the neighborhood of a busy city, Szeged, the development slows down and then declines. However, this process has missed the town so far.

According to the present concept the tram-train would turn from the Nepkert Railway Station in Hodmezovasarhely to Ady Endre street and then would run in the direction of the main square, Kossuth square. However, this line is the same as the route of the interurban coach which leaves from the bus station in Szeged and touches Kishomok only along the Road 47 but it is far from its inner area. If they built a side-line from the railway to Kishomok which first turned to Oreg-Kishomok and then across the road to Uj-Kishomok, it would be possible to connect these two areas to both the local and the interurban public transport. The original, planned line can be seen in black on the map, while the recommended one in grey (Map 1). Since a part of the inhabitants commute to Szeged, the majority work and study in Hodmezovasarhely, utilization of this line would be much higher this way. It can be often read in the daily papers that Oreg-Kishomok has always wanted to join the urban public transport, so I think; it would be a solution which could bring an unexpected success.

The effect of the tram-train on the development of the area and the settlement would be clearly seen, it would be especially profitable in case of Oreg-Kishomok since according to the latest

town-planning program the City Council would give cheap empty building sites for young families exactly in this area.



Map 1: The planned route of the tram-train on the railway line Szeged- Hodmezovasarhely (black - planned tram-train track; grey - recommended tram-train track) (Source: FRETAG&BERNDT, 2006)

However, it would be highly necessary to provide the bread-earners in the family with work opportunities which they could maintain the family from. Unfortunately, in the last ten years besides multinational traders only a few investors found the town. These investors have become bankrupt so there is less working place, making living insecure.

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