# APPLICATION OF MODELS IN GEOGRAPHY OF TOURISM BASED ON AN EXAMPLE OF BORDER TOWNS KOMÁRNO AND ŠTÚROVO

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Abstract: The paper deals with the creation of the geography models of tourism including those tourism preconditions, which are typical for cities Komárno and Štúrovo.

Keywords: modelling in geography, city tourism, tourism

## **1. INTRODUCTION**

Modelling represents a reduction of chosen qualities of a studied object, resulting in models, analogical objects constructed according to certain rules simulating qualities and behaviour of the original object.

In models the process of abstracting thoughts is in progress leading to simplified imitation of the reality (Benthien, 1997). They are used practically by all disciplines since they allow to reduce almost an infinite amount of parameters of spatial systems to scientifically manageable amount.

The positive assets of models are mainly represented by the fact that they allow certain generalization, they are transparent, they enable comfortable, quick and clear communication within geography, in the area of planning, where they represent certain bridge between the theory and objective reality which is possible to express via simple scheme (Zelenický, 2005).

 $reality \ \rightarrow \ hypothesis \ \rightarrow \ model \ \rightarrow \ theory \ \rightarrow \ reality$ 

Tourism is complex phenomenon based on mutual interaction of three functional poles – namely poles of localizing, realizing and selective preconditions. Their effect is very complex. Hence when trying to depict their qualities it is proper to use models as well.

The goal of this contribution will be a presentation of tourism models in the border towns of Komárno and Štúrovo based on significant preconditions of town tourism development. Besides these we are going to pay respect also their particular border-line location which has initiated specific forms of tourism in these towns.

### 2. APPLICATION OF MODELS IN GEOGRAPHY OF TOURISM

Modelling is used by geographers for example as working hypothesis and theory for ideal picture as well as concrete visual depiction of invisible relations. Brunet et al. (1989), Cabus (2000) a Lehotský and Mariot (1992) used modelling in their researches.

It is possible to express the phenomenons originating in connection with tourism. via models as well.

Models of Preobraženskij and others (in: Benthien, 1997) and Kostrowicky (in: Mariot, 1983) are still used nowadays to formulate basic relations of tourism's functioning. Lundgren's (1975) and Coppock and Duffield's (1975) models have similar theoretical character.

Graphic models can first of all express also the complex relations of tourism of a concrete area along with its own specifics. It was them which helped Mariot (1995) to illustrate aptly the spatial relations of High Tatra's tourism. As the fundamental parameters for the construction of this model the relations between the centre and periphery, gravitation, axis, existence of barriers etc. are used. On the ground of these he is able to depict and study the dynamic processes related to concrete situation of the studied area.

Graphical, respectively verbal models were also used in the works of Mišúnová (1994) in the analysis of travel agency tourism and Bučeková (1999) to document the spatial differentiation and localization of hotel-like accommodation facilities in the area of the town Bratislava. As fundamental parameters for the creation of the model she used the localization of the accommodation facilities according to the functional space structure of the town and also with respect to the networks crossing the town (main highways and the river Danube).

# 3. PRECONDITIONS OF TOURISM IN TOWNS KOMÁRNO AND ŠTÚROVO

To create models of tourism we used parameters relevant for the tourism in the towns of Komárno and Štúrovo which we are going to describe in brief here.

Thanks to its strategic location Komárno's main historic sights are of military character. The Old Fort on the confluence of Danube and Váh rivers is first mentioned in writing in 1218. After its rebuilding between  $16^{th} - 17^{th}$  century in connection to the Turkish expansion it became the most perfect fort of then Hungary (Haviarová, Uhrín, 1978).

In the time of napoleonic wars the pentagonal fortification system of New Fort was built to the Old Fort. Part of these objects were given to soviet troops which left these objects in desolate conditions after they withdrawal. Nowadays the discussions are in progress that the town Komárno would buy the heavily damaged fort which would then use these rooms for the recently founded university.

The second military object in the town which was declared to be a national cultural sight is the town's fortification system.

As for the worldly architecture we would like to pay attention to the late baroque district house and to the self – contained complex of baroque and classicistic citizen's houses which were declared to be a sight zone.

Among the sacral objects the late baroque church of St.Andrew stands out. Serbian refugees built in late baroque style their the then orthodox church equipped with rococo iconostasis from 1770 and icons from 17<sup>th</sup> and 18<sup>th</sup> century.

Courtyard of Europe – a complex of multifunctional houses decorated with elements of European countries and regions belongs to the modern architecture atractor of the town.

Collecting and care for moveable artefacts is the content of the duties of museums. Podunajské museum in Komárno is a specialized institution presenting the nature and history of the society in the south part of Danubian lowland as well as the development of Hungarian nation.

The museum also possesses treasurable roman collection of sarcophaguses and numismatic exhibits among other archaeological findings. These are parts of permanent exhibition "Komárno and its surrounding's History until 1848" This exhibition also presents work and defence tools used during defending the town against the Turks. Specialized part of the exhibition presents to the visitors crafts typical for this region – mills, fishery and panning for gold.

The gallery of Podunajské museum presents the art of sculptors from the 19<sup>th</sup> and 20<sup>th</sup> century whose art and life was bound with the town or its surrounding area. There are also sacral objects to be found in this exposition e.g. Madonna with baby Jesus from 18<sup>th</sup> century painted by an anonymous Italian painter (Okáli, Podušelová, 1994). The life and work of the well known natives of the town namely the writer Mór Jókai and the composer Ferencz Lehár presents another permanent exhibition.

The exhibition of sacral artefacts is concentrated in the Serbian orthodox church of the Most Holly Mother of God. The iconostas is decorated with older icons as well as baroque icons made by anonymous artist. The exhibition exposes treasurable exhibits such as ecclesial seals from 1511, late-gothic baptismal fonts, chalices, gospels, and guild's flags.

The presence of Romans on this territory is documented by an exhibition called "Roman Lapidarium". Via 85 exhibits it presents roman masonry from 1<sup>st</sup> to the beginning of the 4<sup>th</sup> century. The exhibition consists of tomb stones, reliefs, sarcophaguses, statues and different architectonic elements found on the territory of Komárno county's archaeological sites Brigetio, Celemantia. Original exhibits are supplemented with copies of the most outstanding findings from roman era discovered in Slovakia.

Tourism of the town Komárom, which came to exist after the separation from Komárno after the WWI (Bizubová et al., 2000) is based on the identical preconditions as in the town Komárno.

The town of Štúrovo does not dispose any historical sights which would initiate town tourism in the narrower sense of the word according to Schreiber (1990), i.e. a tourism based on visiting historical monuments.

The main tourist atractor is thus the thermal spring bound to, according to Vaškovský et al. (1982) mesosoic limestones and dolomites. This bicarbonate-sulphic-calcic-magnesium water of temperature 39 °C and with substantiality of 91 l/s is not precisely of balneologic effect, yet it is said to be beneficial for the patients suffering of different motoric diseases. Thanks to this spring the town has become an important centre of tourism.

The geographic location of the town is very attractive due to the close Hungarian town of Esztergom which abounds in both cultural and historical sights. Special importance has the basilica in Esztergom built in classicistic style in 1822 – 1856 which represents an important element having an influence on the total panorama of Štúrovo.

Tourism in the towns of Komárno and Štúrovo, respectively the forms of this tourism is influenced by the fact that both these towns are at the same time border towns with functional cross points.

## 4. MODELS OF TOURISM IN THE TOWNS OF KOMÁRNO AND ŠTÚROVO

Tourism in Komárno is based on its geopolitical location since the times of roman empire which is supported by the archaeological findings currently located at the museum. The strategic importance is documented by the preserved military and other architecture and the town has kept this strategic importance up to our days. It is on this bases that the town allows so called cognitive tourism. It is represented by the letter P in the PTNGV pentagram (Scheme 1).

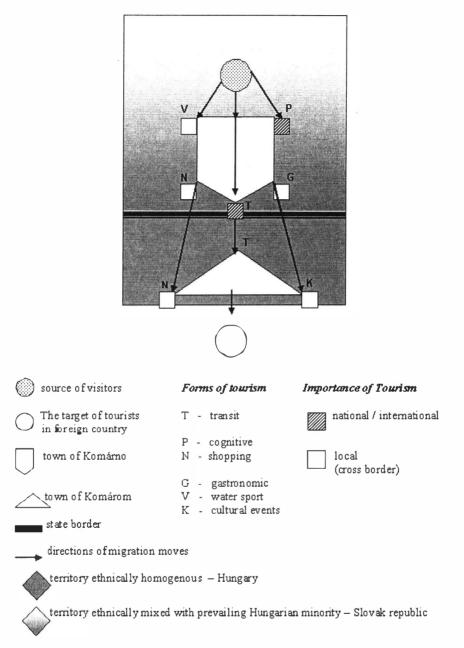
The other form of tourism comes out of the excellent transport position supported by road and railway border cross point to the republic of Hungary. The presence of transitional tourism (T) is thus logical.

The statute of border town is related also to the other forms of tourism present in Komárno (but in other border towns as well). This is namely both direction shopping tourism (N) The other form of tourism comes out of the excellent transport position supported by road and railway border cross point to the republic of Hungary. The presence of transitional tourism (T) is thus logical.

The statute of border town is related also to the other forms of tourism present in Komárno (but in other border towns as well). This is namely both direction shopping tourism (N) which functions due to different price relations in the towns of Komárno and Komárom.

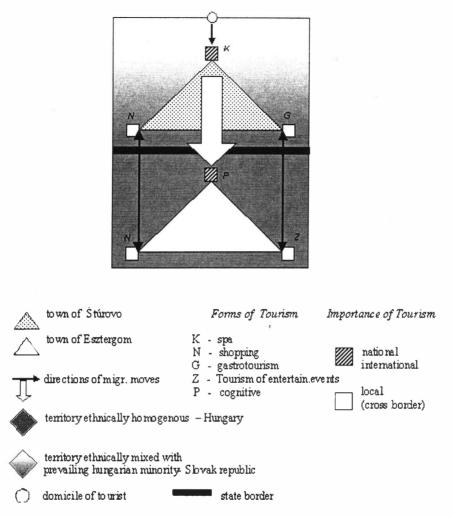
More favourable prices of catering on the slovak side of river Danube is the motivation for hungarians of Hungary for gastrotourism (G, having a nice cup of coffee or a dinner in a restaurant is a part of hungarian's lifestyle.

As for the opposite direction i.e. from Slovakia to Hungary it is a passive tourism / tourism of evening events. The inhabitants of slovak border territory (prevailingly hungarians) make use of their knowledge of hungarian language for visiting cinema to watch films either dubbed or with hungarian subtitles to see them sooner than they come into slovak distribution.



Scheme 1 Model of tourism in the town of Komárno

The last peak of the model (V) of tourism in Komárno represents so called water tourism while the inland port in the town is an outpoint for travels not only on international river Danube but via river Váh it is possible to apply these activities deeper into the studied region.



Scheme 2 Model of tourism in the town of Štúrovo

The model of tourism of the town Štúrovo is also an interesting one. It is presented via KNG triangle (Scheme 2).

The base of the tourism in this town are the thermal springs which provide the town with high number of visitors (K). The other forms of tourism are very similar to those of the town Komárno.

These are shopping tourism (N) and gastrotourism (G), firms which mainly exists thanks to the border cross points between Slovakia and Hungary. Both the previously mentioned forms of tourism were supported strongly after the reconstruction of Mária – Valéria bridge.

It is also important to give attention to the potential of cultural and historical preconditions of the nearby town of Esztergom which represent a dominant gravitational factor influencing the visitors of the town Štúrovo where similar potential is absent. It is for this reason that we made it a part of the model presented via NPZ triangle in the Scheme 2.

### **5. CONCLUSION**

Tourism is an apt alternative for building up of cross border cooperation. This is above all evident on the model of tourism of the town Štúrovo (and its cross border neighbour town of Esztergom). Their different preconditions of tourism due to their different genesis they are mutually complementary. For this reason it would be apt to present both of them as one common product.

In the case of the towns of Komárno and Komárom the tourism is base on identical forms i.e. the towns are competitors on the tourism market.

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# Aplikácia modelov v geografii cestovného ruchu na príklade pohraničných miest Komárno a Štúrovo

#### Resume

Pri zostrojení modelov cestovného ruchu v mestách Komárno a Štúrovo sme ako základ brali do úvahy lokalizačné predpoklady turizmu v oboch mestách. Dôležitá je v tejto súvislosti aj špecifická pohraničná poloha miest.

Lokalizačné predpoklady spolu so špecifickým polohovým potenciálom ovplyvnili formy cestovného ruchu v predmetných mestách. Tie sú tiež zobrazené v predkladaných modeloch a je zároveň rešpektovaný ich turistický význam.