## WESTERN SLOVAKIA SETTLEMENT EVOLUTION IN THE 6TH – 12TH CENTURIES

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Archaeological research of medieval Slovakia has more than 50 years old tradition. During this period tens of research works and hundreds of excavations were realised with vast source basis as a result.

Knowing the importance of reached informaton, Slovak archaeologists led by dr. Bialekova have done corpus of archaeological sources from the 6th to half of the 13th cent. from western and central Slovakia - it contains information about 1500 sites till 1985 (*Bialekova et al. 1989*; 1993). The last book - eastern Slovakia is prepared now. Absence of theoretical evaluation of this complex and permanent exploration of new archaeological sites have incited the project "Western Slovakia settlement evolution and its inner structure in the 6th-13th cent. in western Slovakia". Some of the first results are surveyed in this article.

The analysis was accomplished in three space-levels:

- macroregion the territory of western Slovakia, i.e. northwestern part of the Carpathian basin north of the river Danube
- mezzoregion (ca 20 x 25 km) the territory of upper Žitava river basin microregion (3 x 3 km) (Bajč village, Komárno distr.) place of the first and the only one explorated medieval site in Slovakia.

From a chronological point of view the period has been divided into 4 horizons:

- horizon I (the 6th-8th cent.) coming and acclimatation of old Slavs'first groups, first contacts with the Avarian empire (since half of the 7th cent.) and break up Avarian empire
- horizon II (the 9th-10th cent.) creation, development and breakup of the Great Moravian empire and impacts of old Hungarians
  - horizon III (the 11th half of the 12th cent.) formation of Early-Hungarian kingdom
- horizon IV (second half of the 12th cent. first half of the 13th cent.) the state establishment, Tartar raids.

Apparently, the division is a little schematic one, but more detailed classification in macroregion level based on individual criteria is not possible now nor comparison of information bulk of existing early-medie-val sites. Mainly problems with ununified chronological classification of the most frequent pottery finds are known already. This obstacle disappears in mezzo- and microregion levels, where it was already possible to evaluate the whole recently known material from both sites and cemeteries in unified way. On this base development in the 6th to half of the 13th cent. can be reconstructed clearly.

The project goal is to summarize and evaluate all recently known archaeological sources in comparison with basic information found in historical documents (first written record) and with dominant natural conditions - sea-level, water-sources propinquity, settled-area inclination, soil types, etc. To simplify this evaluation, a database (DBASE or PARADOX) was created. Location parametres of all sites were precisely verified and PC-usable coordinates (from military maps 1:25000) were given to them (PC-program "Microstation"). From the point of space-characterization view the sites were divided into 3 groups:

- first, exact location
- second, less exact location (e.g. north of a village)
- third, unexact location (only a village-cadastre is known). Thanks to this division selections of various database information can be evaluated cartographically.

The macroregion is of lowland character, with a sea-level 94 - 300 mm a.s.l. Approximately one sixth of the region has sea-level above 300 m.

Recently we dispose of information from more than 1200 sites inside the macroregion. Over 1900 of them are archaeologically evidenced (66 % of them are settlements, 26 % cemeteries, 5,6 % sacral constructions and 2,4 % unidentified more detailly).

Increase of particular archaeological sites number from 1950 till 1995 is illustrated on Fig. 1. While about 200 sites were known in 1950, the number rose to 1400 up to 1995. The diagram demonstrates quite a continuous growth of excavated sites with remarkable jump in the 80-ies caused by a reminiscence of systematic explorations in micro- and mezzoregion-types areas. They proved a lot of areas up to now considered to be populated only sparsely are bearing traces of relatively dense population. Cartographically evaluated sites known in particular decades show unbalanced research of some regions.

Chronological evaluation of macroregion sites shows gradual condensation of sites net with its first peak in the 9th cent., probably in connection with Great Moravia formation. After the empire's breakup the settlement declined in the 11th and the first half of the 12th cent. when the territory became a part of the Early-Hungarian feudal state. At the beginning of this time period most of hillforts ceased to exist, too, only the most relevant of them are surviving from which power and administrative centres are lately formed (Nitra, Bratislava, Starý Tekov). This situation may be explained by inability of Slavic economic and administrative structures in the 9th up to the 10th cent. to live familiarized with newly formed Early-Hungarian establishment. The situation has been consolidated in half of the 12th cent. already, when the settlement increases again together with economy development. This process is directly joint with gradual rise of towns. Increasing social differentiation of early-feudal society actuates building of castles (the most often they are small fortified areas with wooden or stone tower-shaped construction) serving both for military purposes and as a symbol of borning nobility.

Comparing archaeological and historical sources, archaeological excavations and research evidently are main information sources till the end of the 12th cent. (Fig. 1, diagram 2). From the 13th cent. both types of archaeological information has been balanced and historical sources are gradually prevailing over archaeological ones.

It could be quite interesting to observe relations between a settlement and climatic, geographical and ecological parametres. In all the 6th up to half of the 13th cent. horizons population is concentrated in river meadows. Long-term observations show that recently most fertile regions of chernozems were the least populated (merely unpeopled). This could be probably explained by less favourable climatic conditions (chernozems become more-less uncultivatable in drier periods with water-lacks). This situation is changed in the second half of the 13th cent., obviously after the climate became wetter and new ploughing tool was widely spread.

Important are results obtained by research of mezzoregion, the area where detailed surface exploration was done, recent information known from the Institute of Archaeology's documentation or from written sources was evaluated and all finds from collections of the regional museum in Zlaté Moravce were analysed (Ruttkayova - Ruttkay 1991). The mezzoregion under exploration can serve as an example of the territory where detailed research has fully turned ideas about its development (6 known sites in 1950, 18 in 1960, 184 in 1995). At the same time, this discovery could be a caution against definite decisions conserning settlement or unsettlement of particular regions without detailed exploration by various ways.

146 agrarian sites, 8 castles (small medieval hillforts), 10 sacral buildings and 18 burial places or cemeteries are archaeologically documented.

5 settlements are documented from the 6th up to the 8th cent. Similarly as in the whole macroregion, the settlement culminates in the 9th-10th cent. From this time span 72 settled sites are known, 37 of them extincted till the end of the 10th cent., 35 of them survived to next horizon. Populated-area border did not overreach 200 m a.s.l. In the 11th and the first half of the 12th cent. 17 new sites were formed (i.e. 52 settlements existed there). In comparison with the preceding period also regions of 200-250 m a.s.l. are settled, but density of population is lower. Till the end of horizon 40 sites, i.e. approximately four fifths, ceased. It may be probably explained by vanishing of old Great-Moravian settlement structure and gradual formation of new Early-Hungarian state. The crisis is surmounted during the 12th cent. when top-medieval settlement structure is definitely created (Fig. 2). It could be done both by inner power of home Slavic population (central sites have survived continuously from the 9th cent.) and by colonizing process in the second half of the 12th and the first half of the 13th cent. Inner and lessly outer colonization are proved by written documents, local names firstly - 1156 Nemcyc, 1235 Nemchen, 1258 Nempchen - German colonists (Varsik 1984, 162); Scelemsam - Silesian Germans (Uhlar 1989, 261). Other ethnic groups - Cumans, Pecheneghs, Kalizs and Hungarians are documented here, too (Ruttkay 1993, 357). In this horizon 61 sites were documented, 22 of them lost in the same horizon and 39 of them survive to the 14th cent. Central sites existing from the 9th cent. are quite clearly crystallized already. Establishing of christianity and creating of stable ecclesiastic

## Diagram 2 Diagram 1 1400 800 1200 600 1000 800 400 600 400 200 200 1950 1960 1970 1980 1990 11th c. 12th c. 13th c. 10th c. settlement

Fig. 1. — Diagram 1. Gradual growth of known archaeological sites from 1950 to 1995. 1 - settlement; 2 - cemetery. — Diagram 2. Relation of historical (2) and archaeological (1) sources in the 10th up to the 13th cent.

cemetery

power resulted in building of churches (10). In connection with differentiation of society fortified sites (8) are built in higher border areas of the region. The settlement net as the whole is shared more equally in contrast to preceding horizons and it is moved to higher regions (300 m a.s.l. is overreached only rarely).

Thanks to confrontation of historical and archaeological documents we have quite a comprehensive information about the population's occupation. Agriculture was the main occupation here; royal fishermen, cartwrights, hunters, etc. lived in some villages, too. The village names of Zlatno (1156) and Zlaté Moravce (1113) were probably connected with gold-washing or jewel-making. In the village villa Dusnak (1113) servants "pro anima" lived. The oldest written reference about a water-mill (even two-wheeled) on the territory of today's Slovakia - 1164-1165, Slepčany - has its origin in the mezoregion under investigation (*Hanušin* 1979, 11). Three another mills are documented in the 13th cent.

The results of microregion research in cadastre of Bajc village, Komamo distr., are very interesting, too. For the first time on the territory of today's Slovakia an island site (3,5 ha) inhabited from the 7th to the 9th cent. and then up to the 16th cent. with several discontinuations (see the map in the article of Habovštiak and Čaplovič in this book) was completely excavated (Ruttkay 1996, forthcoming). The research was of multidisciplinary character, result of which contains stupendous base of information from various disciplines (pedology, palaeobotany, palaeozoology, malakofauna analysis, geophysics, etc.). At the same time the site hinterland was explorated completely, too. Results of analyses prove the site environs in meadow consisted of deforested land. Field were not situated there on the meadow but on a terrace of the river Žitava 1 km distant from the site. Agriculture and stockbreeding (pigs, cattle, goats, sheep, poultry) were main components of nourishment. Fishing and hunting were subsidiary occupations. It was interesting to find out that from a half of the 9th cent. the settlement net in meadow has became thinner and that on the river terrace remarkably denser. This process was probably joint with gradual raise of water-levels (maybe caused by deforestation in higher areas) followed by inundations of sites in meadows (inundation horizons from a half of the 9th cent. are documented on the locality).

A lot of other analyses (mutual relations of settlements and cemeteries, settlement functions, settlement areas reconstruction, determination of central and satellite sites, administration structure reconstruction, ethnic relations, inhabitation occupations, ecclesiastic administration, road-net identification, etc.) are of interest, too. The article space does not allow us to mention them all here. Complete outputs of the research will be published in a monograph planned for 1997.

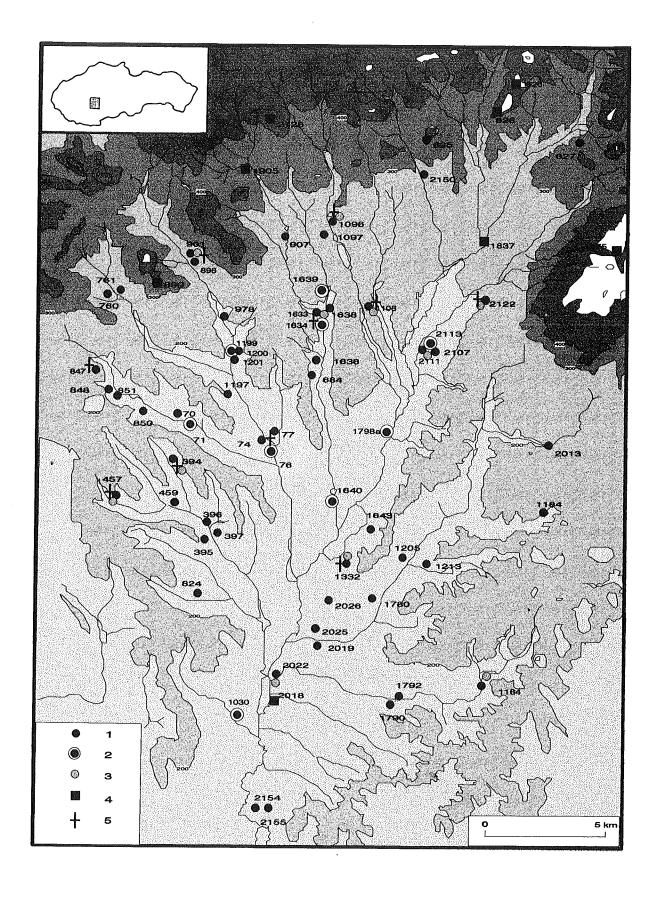


Fig. 2. Mezzoregion (upper Žitava river basin) settlement at the turn of the 12th and 13th cent. 1 - site; 2 - site existing continuously from the 9th cent.; 3 - cemetery; 4 - castle - small medieval fortification; 5 - church.

Bialeková, D. et al. 1989: Pramene k dejinám osídlenia Slovenska z konca 5. až z 13. storočia I. Nitra.

— 1993: Pramene k dejinám osídlenia Slovenska z konca 5. až z 13. storočia II. Nitra.

Hanušin, I. 1989: Najstaršie vodné mlyny na Slovensku (do konca 13. storočia). In: Dějiny věd a techniky 12. Praha, 9-23. Ruttkay, M. 1993: Vývoj stredovekého osídlenia na území horného Požitavia, Slovenská archeológia 41; No.2, 353-365.

— 1996 (in Druck): Frühmittelalterliche Siedlung in Bajč, Siedlungsforschung. Archäologie - Geschichte - Geographie 14. Ruttkayová, J. - Ruttkay, M. 1991: Súpis archeologických nálezov v zbierkach Mestského múzea v Zlatých Moravciach. Nitra. Uhlár, J. 1989: Toponymá utvorené od etnických mien a názvy Slovany, Slovinky a Sklabiňa, Slovenská reč 54, No. 5, 257-266. Varsik, B. 1974: Z osídlenia západného a stredného Slovenska v stredoveku. Bratislava.