Settlement Structure Research with Geomorphologic Approach on Hungarian Oppidums in the Kisalföld Flatland, with Special Regard to the Town Kapuvár

In this dissertation, research work is oriented to the broad-scale investigation – both in time and space - of historical settlements on the Western-Transdanubian part of Hungary, especially the development of villages and market-towns (oppidums) is dealt with. The research is focused on the settlement network and on the structure of certain individual settlements, mainly on street and square composition, parcel system, building-in of the parcels, as well as on the background of the historical changes from technical, social and economical points of view.

Chapter I: The Origin of the Problem

In Hungary, a special contrast can be observed in the historical settlement development characteristic for the Transdanubia (Dunántúl) vs. the Great Flatland (Alföld), particularly in that of the market-towns (oppidums). Till now, research works were directed mostly on the flatland settlements on the Alföld, and certain attention was paid to those on the South-Transdanubia, but no comprehensive work has been yet prepared on the market-towns on the Kisalföld region (i.e. North-Western Transdanubia). Only a few attempts are even made on the survey and comparison of market-town-like development on the county scale.

It is very actual to mention this regional unevenness of the research works since the significance of knowledge on settlement structure has been increased and is getting more and more attention. Namely, a mass of development needs arose in hundreds of villages and other settlements after the political change in the country when getting closer to the integration into the European Union. Huge increases are planned in the majority of the settlements for which no appropriate reaction can be given from the side of settlement designing owing to the lack of scientific preparatory works. There exists neither suitable measure nor refined and ripened method for the handling of the above situation in order to avoid any eventual inner structural explosion of the historical settlements.

Chapter II: Targets of the Research

In order to give well-based solutions to the above scheduled actual problems, as well as to the conservation, to proficient and competent further development of the settlement structures, scientific exploration of values from the point of view of the settlement structure is inevitably required, and in the same way, there is an urgent need to brush up the guidelines of settlement designing, to change the outlook and the approach, too. At the time of settlement development in our modern age, not only care must be given to the protection of certain individual monument buildings, or set of monuments, streets and squares but *joined protection* of the built environment and of the landscape vicinity must be provided, a so-called character-protection. Through authentic exploration of the historical development of settlement structure, appropriate support can be provided for this activity with keeping and developing character – and furthermore, it can strengthen the identity-feeling of the settlement, and help in increased achievement in tourism interests.

Chapter III: Structure of the Dissertation, Method of the Research

In the dissertation, comprehensive analysis is given on the development history of market-towns and villages both in time and space, from the Middle Ages up to our Modern Time. It seems very instructive to exploit the town-forming factors – from the aspects of history and geography, and the economic-business progress. The "how's and why's" of the fall or undergoing of certain market-towns, down to the village-level, have solemn questions even for the future, just like the process of the rise of other villages without any market-town prelude up to small town level is similarly wholesome.

Following the principle of greater-to-smaller progress, first the square structure on Western Transdanubia is analysed, with special regards to the settlement structure and traffic network. In certain smaller regions, square composition dissonance seems to be observed therefore a structural refinement of the settlement structure is proposed.

In the second part of the dissertation, analysis of the settlement vicinity is given from the points of view of wider region and smaller area, and shown on a case-work example of the town *Kapuvár* in the Kisalföld region, as well as the inherited structural development of the settlement is investigated, with special respect to the area utilization, the road- and railway-structures and the built environment.

The method used is comparative analysis, and the creative tool applied is computer technique. Lots of historical maps showing the actual states in different ages are compared through overlapping projection method using folio-technical measures. With this method, changes or modifications can be determined through much finer details than in the case of the traditional observational comparison. It is also a novelty that the investigation of a settlement is not localized to the inner area. The morphologic comparison deals with the development of the square composition in broader vicinity, and then with full-

scale analysis of the *settlement structure*, as well as the *parcel system*. During the investigation of lots of development factors, besides historical maps, also topographic maps and photos from the air were of great help. *Revelation of wider, deeper relationships in square composition makes also easier to explode the reasons of the processes inside the settlement*. This comparative research covered the investigations of the settlement history, population data, relationships in vegetation, relief and flood, and even on uncovering the property and economy backgrounds. Teachings from going-over and talks with local people have been utilized, too. – Next, different types of special streets, squares and green surfaces – all having values for the historical settlement structure – were collected and sorted, and an analysis was made for establishing the relationships among the historical settlement tissue patterns, on the one side, and the socio-economic situation of the population, on the other side. The results of the research work were organized into series of proceeding figures, typological tables and value surveys ("cadastres"), resp.

In the final phase of the research work, first, actual development proposals are issued on the ground of the development ideas regarding to Kapuvár, the analyses of arrangement plans, and, of course, the experiences gained from past processes found, and then theoretical statements and methodological recommendations are formulated in order to promote the formation of a settlement design approach having ever-increasing consciousness and appreciation of historical settlement values.

Chapter IV: Summary of Scientific Results, Theses

Thesis 1:

On the Supplementation of the Research in Historical Settlement Structure Contrast in the Regions Transdanubia (Dunántúl) vs. the Great Flatland (Alföld)

<u>The problem from scientific point of view</u>: The scientific explanation of our days for the contrast in the regions Transdanubia (Dunántúl) vs. the Great Flatland (Alföld) characteristic for the settlement structure of Hungarian villages and towns must be supplemented, as for the significance of topographic effects.

The formation of cluster-type settlements with double inlot composition - characteristic for the Alföld flatland region - is partly explained by researches made till now on the basis of a yet unproved genetic continuity theory going back to the age of the Hungarian home-conquerors (i.e. 950-1000 A.C.) or with farming or protection reasons, and in case of line-type (street-rich) settlements typical on the Transdanubian region, the role of settlement construction habits of people or population groups derived from Western Europe are emphasised, even the active play of engineers-managed planning and construction is stressed, and no topographic determination has been and is investigated in many cases.

Thesis text: Formation of historical settlements with near round shape, with lairages and farming yards, characteristic for the Alföld flatland region can mostly be explained with stock-farming type way of life, and in the contrary, those with streets-and-lines type can be based on the needs of agricultural farming and tillage husbandry. When investigating the prevalence and distribution of both main settlement structure types it can be also stated that relief and hydrological characteristics of the surface played – besides the differences in the ways of farming economy – a very significant role in the different settlement developments of the flatland regions of Alföld and of Kisalföld, as well. When making comparisons among the relief relationships of the county, and the prevalence areas characteristic for the cluster-type, and for the line-type main groups, respectively, so it seems clearly that the majority of settlements had been established on the hilly and mountain-covered areas of the county (i.e. in the Transdanubia region and in Northern Mountains Region), while cluster-type settlements are also formed out on the flatland areas of the Alföld.

The different relief conditions (altering from parts to parts of the county) return even on the inner parts of the settlements. While the average relief height differences on settlements on the Alföld flatland region reach only 1-2 metres, on the Kisalföld flatland region this value is 2-5 metres, on the Transdanubian hilly settlements 5-15 metres, and on the mountain settlements even 20-30 metres, resp. These differences in relief heights have also contributed to the fact that greater settlements with nearly perfect "round shape" (having advantages from numerous points of view, being less restrained by the surface area) could be formed out undisturbed even on the flatland

parts of the Alföld region showing no marked relief conditions. In the contrary, settlements topographically stronger determined are called into existence on the Transdanubia or on the Northern Mountains Region, or moreover, on the flatland Kisalföld. In the case of these last mentioned regions, settlements have been established on integrant dependence with relief and hydrographical relationships, mainly organized around one or more linear axes.

Thesis 2:

Introduction of a New Categorization System with Topographical Approach into the Research of Historical Settlemets

The problem from scientific point of view: The so-called "System of morphological village types" generally used for the categorization of the elements on the Hungarian historical list of settlements is not capable - owing to its being focused on plane ichnography - to demonstrate, to display one of the important factors for settlement formation and progress, namely the determination from the point of view of relief and hydrographical relationships. Therefore no categorization that fulfils the expectations of settlement sciences on differentiation and sensitivity can be obtained which seems as best observable in the case of settlements on the hilly and mountainous landscapes.

Some researchers – e.g. István Győrffy or János Bárth – have already pointed out that relief and hidrography had affected formation and development of the majority of Hungarian settlements in such an extent that seems impossible to ignore even on the flatland region Alföld. Besides the traditional (planeground) morphological categorization system for village types, Zsolt Máté introduced different separate categorization aspects as early as in 1998 but categorization on the basis of topography is not mentioned here.

Thesis text: Research on settlement structure can only be perfect and full when topographical determination of settlement formation and development processes should be surveyed and mapped by each settlement, and then be entered into a suitable scientific system. Relief and hydrographical conditions played innuendo a decisive role in ages before applying water regulation measures. Therefore it is being suggested that a new settlement categorization system based on landscape-specific topography should be installed and introduced.

The theoretical importance of a topography-based categorization system that may be used parallel to the morphological village-typed categorization lays in the possibility of being capable to provide information on the formation and development of settlements in hilly and mountain regions as differentiated and sensitive as expected from settlement science, thereby combining characteristic indicators of the traditional, technical-type settlement science with those of settlement geography and so giving support to a joined way of thinking of different scientific branches and achieving a

synthesis of their results. This categorization system based on topographical datas is suitable to be applied in international comparisons. It makes possible to investigate, too, what correlations can be achieved among certain topographical determination-types with other settlement features.

This system of categorization can be brought into practical existence in the most visible picturesque way that the actual relief and hydrographical features should be visualized (e.g. through coloured filling-in of the individual contour-line spaces) on each plane projection of a certain settlement ichnography (on the ground-plans), too. As initial example to this categorization system with topographical approach, a scheme is shown describing only some market-towns in the region Northern-Transdanubia while disregarding any further drawings. These altogether 20 typical market-towns were parted into the following main groups, and in each one, certain subgroup-types:

1.0 Group of Market-Towns on Flatland Regions:

- 1.1 Settlements formed out beside roads to water crossing-places on flatland regions (Mihályi, Halászi, Jánosháza, Marcaltő),
- 1.2 Settlements formed out on cut relief rise among river branches (Hédervár),
- 1.3 Settlements formed out on riverside terraces (Rajka, Körmend),
- 1.4 Settlements formed out on alone-standing shoulders emerging from waterlogged vicinity (soakage) (Mosonszentjános, Szany),
- 1.5 Settlements formed out on final section of an alluvial deposit layer intersecting into a waterlogged vicinity (Kapuvár),
- 1.6 Settlements formed out beside smaller creeks or fluents on flatland regions (Somlóvásárhely),
- 1.7 Settlements formed out on flood-free flatland regions (Szil, Csorna, Somlószőlős),
- 1.8 Settlements formed out on the edge of flood-free flatland regions (Lébény).

2.0 Group of Market-Towns on Hilly and Mountain Regions:

- 2.1 Settlements formed out beside valleys (Tata),
- 2.2 Settlements formed out on valley jaws (Várpalota),
- 2.3 Settlements formed out on hill peaks (Pápa),
- 2.4 Settlements formed out along ridges, by crests (Fertőrákos, Enying),
- 2.5 Settlements formed out on castle vicinity (Sümeg, Szentmárton i.e. today Pannonhalma).

This proposed categorization system with topographical approach could be expanded on the basis of classifying the total Hungarian list of historical settlements. Besides settlements of organically developed types, there exist villages settled in so-called engineered order, here the settlement structure system has been determined much better through economical or parcel formation aspects than by topographical conditions. Their categorization and analysis of the structural features need therefore separate research work. Historical settlements with combined or complex structure should be regarded as extra group since it occurs very often to find up some ancient village-kernels in the settlement structure thereby more categories may be concerned at the same time during categorization.

Thesis 3:

On the Necessity of Introducing a Separate Settlement Category for Smaller Towns

<u>The problem from scientific point of view</u>: In areas where no town were established there is a kind of organizational-institutional chasm having formed out after ceasing the category of market-town and its effect can be felt up till now.

Actually, this lack of towns was aimed to reduce through nominating villages (that hardly achieved minimum requirements) to town. The towns of this kind were (and are), however, capable to maintain a service-supply-institution level only on a much lower performance than those existing since long, therefore a "quality thinning" (a decrease) of the town supply network is resulted.

Thesis text: Having recognized the inherence inhomogeneity of the Hungarian town network and their differences in scales, it is hereby suggested to introduce a new category of independent smaller town with number of inhabitants up to say 10,000 and with having the capability of supply on partly a medium level. It must, however, be cleared up whether this category of smaller town be integrated into the common regulatory order and/or into the non-official market-oriented and supply-managed group – with special respect to the future regional system of EU to be harmonized with.

These smaller towns – up to a total population of about 10,000 – should (or in the future, could) fulfil the role of a small supply-centre within the smaller groups of villages in the region (the small region), in a circle of some 10-20 km of cohesive distance of attraction, in dependence with the actual settlement density. Such smaller towns could be certain erstwhile existing market-towns having today also regional supply role, as well as other settlements without past history as market-town but able to fulfil the requirements for small regional centres on today's town-deficient areas. One of the targets of square structure development is to promote a proper distribution of small regional centres and thereby to make possible a quite even distribution in the whole country, and to motivate for establishment of new working places. Criteria for a future smaller town category inevitably require further research on the field in order to be more detailed.

Thesis 4:

On the Need of Introduction a Section of Development History of Square Composition and Settlement Progress in Settlement Designing Plans

The problem from scientific point of view: In our days it often occurs regarding settlement designing that there is lack of integrating the tasks to be solved into a coherent system of context being local, regional, countrywide or international. Similarly, the approach, the point of view of historical continuity of the settlement is also not present in settlement designing works. Therefore correct acknowledgement and proper appreciation of values of historically formed square composition and settlement structure suffers significant detriment.

In the designing plans of today, in accordance with the present settlement design practice, only a survey on the actual settlement state is generally made therefore any development with future connection should be also more or less groundless. Integration and fitting of the settlement into the square composition is examined only in a very moderate number of cases, and taking into account changes in historical scale of the square composition and settlement structure occurs even more rarely. Past of a settlement is analysed only in general studies on settlement history. Protection of historical settlement values was restricted over a longer period on monument protection of individual buildings, or later, on character-protection of certain built-in blocks, in more recent years, however, character-protection of settlement parts or historical gardens, and landscapes is possible in the wider meaning of the conception, too.

<u>Thesis text:</u> It seems well grounded to introduce a new, so-called "development history of square composition and settlement structure" section into the settlement designing plans in a compulsory way. Analysis of historical processes of the settlements helps to settlement designers in acknowledgement of deeper relationships, in providing properly grounded proposals, in appreciation and further development of already existing values.

This section, as mentioned above, has two major parts, namely development history of square composition, and development history of settlement structure.

In the first part of the section (i.e. development history of square composition), wider regional vicinity is studied up to 30-50 km distance, and on the other hand, smaller regional surrounding reaching up to the neighbouring settlements, viz. 5-10 km. Main moments are traced back in the changes of road and railway network, waterbeds, settlement spots, suburban lived places, occasionally areas of mining cultivation and other special significance, their contour lines, form, importance, eventually ownership relationships. All that is made with geomorphologic approach, at least 6-10 consecutive phases of age: beginning with the 1780's on the maps of the

military land-surveys Nos. I, II and III of Vienna, then on refreshments, updates of further military maps, on cadastral maps and on the maps of our days – and anything one can read to the topic from the written history.

Second part of the section deals with development history of settlement structure, where the formation of and changes in area (surface) usage within built-in area of the settlement, street and square composition, functions of major institutions, erection and construction features, parcel system, parcel sizes – and many similar factors are being followed up – and of course with geomorphologic approach, too. On-surface "wandering" of certain settlement functions can also be checked, individual development or structure-modifying actions can be studied, or even alterations in common areas as for quantity or quality can be evaluated.

In the section of development history of square composition and settlement structure, exploration of geomorphologic relationships in settlement development helps, among others, in understanding of today's – sometimes curious – networking and area usage conditions. The teachings and consequences can lead to conscious changes in settlement structure, or just oppositely: to acceptance or acquiescence of abnormal and deformed situations, and to leaving it unchanged. In knowledge of conditions regarding landscape and relief, well grounded proposals can be made on the fields of surface aggradation and water drainage, public park and garden establishment, or formation of water-covered surfaces.

After a certain time, teachings from historical process analyses can result in modified approach of practical settlement designing since they teach us to believe and trust in long-term development concepts – as opposed to small-step development phases – over the boundaries of centuries and country borders. They teach us to recognize and acknowledge the importance of outside connections to a settlement or a settlement part, i.e. to the need and necessity of thinking in larger scale (sometimes even regional scale) relationships over the "designated" planning area. They teach us to appreciate the values of Hungarian settlement structures formed out historically constituting a part of European traditions treasury, as well as to re-establish them in an intuitive, further developed way on newly designed settlement parts.

Thesis 5:

On the Initiation of a Hungarian Thesaurus of Settlement Structure Elements

<u>The problem from scientific point of view</u>: During the research and planning works executed till our times, there is no attempt made in order to collect and to categorize (in a comprehensive way) the numerous typical characteristic features to be found in Hungarian settlements.

In recent research works, some typical settlement tissue patterns were taken out, collected and organized in some kind of system, mainly from settlement structures corresponding to the appropriate morphological settlement types. It has already been set by Tamás Meggyesi at the time of his comparative morphological analysis of settlement tissue patterns from cluster-type settlements in the Alföld region that changes and modifications of morphological formulae as determined during the historical progress survived should similarly be investigated (cf. Meggyesi T. 1994).

Thesis text: It seems well grounded to establish a so-called "Hungarian Thesaurus of Settlement Structure Elements" (in Hungarian: "Magyar Településszerkezeti Formakincstár", meaning a treasury of values with settlement morphology dependence) in which more or less typical settlement tissue patterns collected and categorized in a comprehensive way from cadastre maps representing different phases of age should be integrated by each settlement. Patterns that should be marked on review mappings and collected into thematic tables would mainly show different types of streets, squares and green surfaces, etc. as found in a certain settlement structure, representing different functions and forms, organized in an order of historical development and progress. It seems advisable to accompany these settlement ground-plan patterns with the appropriate sectional views and schemes describing the characteristic and typical relations in air-space (air view) for the streets and squares.

On the basis of this thesaurus of settlement morphological values it would be possible to make scientific comparisons of characteristic features on international level, and comprehensive scientific investigations on occurrence frequencies.

Through this thesaurus of values, better acknowledgement and recognition of characteristic features typical for landscape units and for the individual morphological settlement types should be promoted, and conscious appreciation of the rich structural choice of historical settlement elements. Settlement designers should be encouraged and inspired to develop our settlements on the basis of this rich and wide treasury of settlement structural elements – already existing –, in the contrary of the previous practice, in an intuitive way for further progress.

Formation and establishment of this "Hungarian Thesaurus of Settlement Structure Elements" (Magyar Településszerkezeti Formakincstár) can be easily made on the basis of already

available research achievements. This thesaurus could be integrated, for example, into the "Hungarian Regional Information System" (Országos Területi Információs Rendszer, TEIR), and access should be ensured for researchers, as well.

In order to promote the establishment of this above mentioned "Hungarian Thesaurus of Settlement Structure Elements", value cadastres showing and describing different types of streets, squares and green surfaces characteristic for the town of Kapuvár have been prepared within the framework of this research.

Thesis 6:

On the Actuality of Comprehensive use of Computer Technique in the Future Researches for Settlement Structure and Parcel System

<u>The problem from scientific point of view</u>: In the majority of the scientific researches on settlement structure and parcel system, enormous surplus possibilities given by the use computer technique are not utilized properly – partly owing to the lack of modern computers with high performance and of appropriate software.

In the research works performed till now, there are mainly utilizations of traditional comparison methods based on plane sectional views and ocular estimations, inspections, and more recently, certain simple or easier computerized methods (e.g. comparisons and transformations of scanned bitmap pictures) are only used. Practical settlement designing has already been drastically changed through interactive mapping (so-called space informatics map preparation) and spatial modelling, owing to the accelerated development of computer technique, all that can, however, not be considered as general in the researches of settlement science.

<u>Thesis text:</u> Computer technique must be one of the basic tools of the future for researches (becoming ever more and more complex) of settlement science – and within that, researches on settlement structure and parcel system – and practical settlement designing on a higher level. Through the use of computer technique, up-to-date databases can be available for settlement science and other scientific branches, and this method makes it possible to construct and to analyse interactive settlement mappings and spatial settlement models. All that is in total harmony with one of the most recent targets of settlement science and practical settlement designing, namely with the one that aims the analysis of a settlement as versatile as possible, and the protection of the values in a settlement or in the vicinity – similarly, as perfectly and completely as possible.

With the use of computer-made plane views and spatial sectional views it is also possible to make comparisons of historical phases from different ages, or e.g. to compare alternative development ideas for future decisions. On spatial (3D) models, a given settlement contour can be analysed by virtual going-over and virtual on-the-spot admittance checking, then the event order of

the streets and squares that compose a settlement structure can be controlled, with regard to the effect of settlement relief conditions on settlement landscape, as well. Scales of space walls and proportions of air-spaces can, similarly, be investigated, as well as dynamics, rhythm and appearance of built-in environment, or harmony of building-blocks with the landscape and vegetation in environment. Moreover, thematically layered space informatics databases can be worked out; with the possibilities for numerous kinds of report preparations (map, figure, table, etc.) or analyses (correlations, operations in sets or clusters, and mathematics, etc.).

The researches made with the use of computers on the fields of settlement science would be even today - possible to be mainly realized with the help of the special software packages applied in practical settlement designing. Internet-based databases seem to be developed and widened in the future, as they serve both scientific and practical purposes. A digital map of all and every settlement must be prepared in a scaling (1:2000) suitable also for scientific research, and appropriate space informatics databases constructed on this ground, where a fine relief model (with level steps of at least 1 m for mountain settlements, 0.5 m for the Transdanubia region, and 0.25 m for the Alföld flatland region) could not be cancelled.

Chapter V: Final Ideas

Both developing the Hungarian settlement networking and settlement design science, and strengthening the historical settlement continuity approach can be supported even in many ways through further explanation and interpretation of the ideas raised in the dissertation. All that research works need a wide-range joined thinking and tolerant cooperation of experts from the fields of technical and engineering sciences, social sciences and economy. This kind of research may even be continued later with international comparisons – with special respects to the opportunities becoming ever wider after the integration of our country into the European Union.

Settlement design in the future seems to be more successful when it should show greater environmental sensitivity, and besides it, should gain inspiration from a treasury of values of historical settlement structures selecting the ones characteristic for that certain region, landscape or settlement. So settlement structure features satisfying modern requirements can be associated and combined with a rich choice of settlement structure treasures of far bygone ages thereby constructing a bridge between present and past. Through this continuity shall it be assured that we really do feel at home in our new settlement parts, as well.

VI. List of Publications on the Fields of

Settlement Heritage Protection and Settlement Development

Work for Scientific Competition

Kisalföldi mezővárosok településszerkezetének geomorfológiai szemléletű múltfeltárása, értékvédelme és jövőképe (in Hungarian)

A Geomorphologic Approach to the Exploration of the Past, Value Protection and Vision on Settlement Structure of Oppidums in the Kisalföld Region

(2002) Competition work for a joined MTA-VEAB scientific competition, p. 65 R 1. Price.

Articles

Győr vízpartjai (in Hungarian) Watersides and Coaches in Győr (1998) Értékmentő, No. 4, pp. 5-7.

Nyúlhegy népi építészete: romlás és újjáéledés (in Hungarian) Folk Architecture at Nyúlhegy: Destruction and Resuscitation (2000) Értékmentő, No. 6, pp. 8-11.

A domborzat és a folyómeder-vándorlás szerepe Győr római kori és középkori településszerkezetének alakulásában (in Hungarian)

Role of Relief and Riverbed-Drift in the Formation of Settlement Structure of Győr in the Roman and the Middle Ages

(2001)

Falu Város Régió, No. 1, pp. 22-28 and p. 48 (Summary). R

Historical Settlements' Structure Research in North-Transdanubia, Hungary (2002) Hungarian Electronic Journal of Sciences (http://heja.sze.hu) – Architecture Section, 10 p., 10 January R

Kisalföldi és alföldi mezővárosok különbözősége, kisvárosi értékek védelme (in Hungarian) Dissimilitude Among Market-Towns in the Flatland Regions of Kisalföld and of Alföld, Protection of Values of Small Town Type (2002)

Tér és Társadalom, No. 1, pp. 59-97 and p. 98. (Summary). R Laudated by the Rector of Széchenyi István University on the Competition 2002 for Publications

On Conceptional Questions of the Development of the University Quarter in Győr, Hungary (2002) Hungarian Electronic Journal of Sciences (http://heja.sze.hu) – Architecture Section, 14 p., 3 May R

Lectures on International Conferences Published in Full Content

A domborzat szerepe a dunántúli települések szerkezetében (in Hungarian) (2001)

Művelődés (RO), No. 4, pp. 21-24.

Integrated Conservation of Built Heritage – 10th Built Heritage Conservation Conference, Tusnad, Rumania, 6-12 May. R

Geomorphology Based Settlement Structure Research on Nearly Flat Grounded Hungarian Cities (2001) 3rd International Congress of PhD Students – Engineering Sciences, Volume II., pp. 771-778, Miskole, 13-19 August. R

Total number of publications: 9
Total number of refereed (R) publications: 7

The full list of publication actually covering a total of 17 publications related partly to other fields of science can be viewed on and downloaded from our university homepage in English and Hungarian: http://www.sze.hu/~somfai

VII. Works of Non-Publication Value

Presentations on Conferences Published Only in Abstract

Településszerkezeti kutatás Kapuvár példáján (in Hungarian) Research on Settlement Structure on the Example of the Town Kapuvár (1999)

Tavaszi Szél '99 – III. World Meeting of Young Hungarian Researchers and PhD Students, p. 53. Zrínyi Miklós University of Defence, Budapest, 14-16 May

Lectures Held in Scientific Institutions

Kapuvár településszerkezetének és telekrendszerének fejlődése (in Hungarian) Development of the Settlement Structure and Parcel System in Kapuvár (1999)

University of Sopron, Environment Engineering Faculty, 4 November, 10 o'clock

Településszerkezeti kutatás Kapuvár példáján (in Hungarian)

A Settlement Structure Research on the Example of the Town Kapuvár (1999)

University of Sopron, Doktori Iskola, 4 November, 15 o'clock

Történeti településalapraiz kutatás a Dunántúlon (in Hungarian)

Researches on Historical Settlement Ichnography in the Region of Transdanubia, Hungary (2001)

Széchenyi István High School, Győr, Science Days, 9 November, 15 o'clock

This lecture was reviewed with acknowledgement in the Hungarian-language article "Folytatódnak a selmeci hagyományok" (Traditions of Selmec Are Continued) of the journal "*Nyugati Kapu*" issued on 30 November 2001, page 7 (by: Á. L.)

Észak-dunántúli települések történeti fejlődése, különös tekintettel a Kisalföldre (in Hungarian) Historical Developments of Settlements in the Region of North-Transdanubia, With Special Respect To the Flatland Kisalföld (2002)

Committee for Architecture History and Theory of the Hungarian Academy of Sciences (MTA Építészettörténeti és Elméleti Bizottság), Budapest, 6 May, 14 o'clock

Kisalföldi mezővárosok településszerkezetének geomorfológiai szemléletű kutatása, különös tekintettel Kapuvárra (in Hungarian)

Settlement Structure Research With Geomorphologic Approach On Market-Towns in the Flatland Region of Kisalföld, With Special Respect To the Town of Kapuvár (2003)

University of Sopron, Doktori Iskola, 4 February, 14 o'clock

Other Lectures

Joint Hungarian-language lecture with Prof. Gábor Winkler entitled: "Győr őstörténete és építéstörténete (2002)" (Prehistory and Architecture History of Győr)

Held within the series of lectures "Days of European Cultural Heritage" (Európai Kulturális Örökség Napjai),

Art Museum (Városi Művészeti Múzeum), Győr, 21 September 2001, 10 o'clock

Expertise Works and Concepts on Town Architecture

Széchenyi István High School, Institution Development Plan (2000)
Published by the Institution (12 p.) and presented with the help of a computer animated film
The concept is cited and reviewed with illustration by the Chief Architect of the Town Győr: Dr. Iván
Németh in the article entitled "Egyetem – Város" (University – Town) in the journal *Koktél*, No. 4, 2001, p. 18.

Az új egyetemi negyed városszerkezetbe illesztése (in Hungarian) Integration of the New University Quarter into the Town Structure (2000)

Development Concept for Long-Range Time Perspective, presented in the Publications of the Institution, 6 p.

Chapters on investments in the book: "Institution Investment Plan of Széchenyi István High School" (Intézményberuházási Tery) (2001) pp. 60-137

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