

DOCTORAL THEISIS

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Szent István University

**Methodology of analyzes of the layers of main streets in case of  
small towns along the river in the Great Plain**

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## **RESEARCH HISTORY AND OBJECTIVES**

The topic of the research is based on the personal and professional interest of the author. As an architect born in Vajdaság (Serbia), the genius loci and the development path of the settlements of in the Great Plain has been in the focus of the interest and made deep impact on the choice.

The basic hypothesis of the research is that the settlement can be known owing to its main street, in other words analyzing the main streets sections the parts (zones) of the settlement to which the main street sections are related can be known. It shows not only the character of the settlement, but also the influencing factors, which determined the development of the settlement. Therefore, the street becomes not just an urban architectural element, but a tool which contains the imprints of different periods and developmental stages. Defining the main street as a tool is the basis of the research. This is manifested into defining the layers of the main street and defining the connection points that clearly connect the main street with the settlement.

To analyze the main street and its development path is a part of the character study of the settlement. Therefore the TAK can be completed, moreover the results can make a base for further analyses.

To sum up, the research identify 5 aims:

Aim 1:	Definition of the main street. Define the characters that distinguish the main street.
Aim 2:	Spatial definition of the main street.
Aim 3:	Determining the structure of the analyzed settlements and their main streets. Defining the connections between the main street and the structural units of the settlement.
Aim 4:	Defining a new method for main street analyzes. Defining the connection between the settlement and the main street.
Aim 5:	Possibilities of usage of the developed methods in practice.

1. figure: identified aims

## **THE STRUCTURE OF THE RESEARCH**

The first step is to define the concept of the main street. This phase of the research is based on the study of the relevant literature completed with got by defining the area of the main street.

The next step is to define the frame of the main street. One of the aims of the research is to involve the human-subjective factor in the main street analyses, which was done during the definition of the main street boundary. In addition to the physical framework of the main street, the research also formulates a subjective so-called perceptual framework.

After defining and delimiting the main street, the research has changed in scale and no longer speaks of the main streets in general, but defines the area to be studied and focuses on the settlements of the Great Plain and their main streets.

The purpose of the delimitation of the area to be analyzed is to determine the settlements that morphology shows a homogeneous picture. The Great Plain is a great example as it has a homogeneous settlement population not only at the level of settlement structure, but also in age and life path of the settlements.

The next step is to determine the settlements of the Great Plain that the research intends to analyze. These are selected based on several criteria. Based on the size and life path of the settlements.

It was important to select the settlements in which the main street followed a similar life path, and its development and role show a homogeneous picture. Thus, the research excludes the need to examine the historical past.

The research deals with those settlements of the Great Plain, which, although not identical, have similar landscape, infrastructural and economic features, thus presumably the individual findings can be generalized and it is not necessary to apply an individual method for each settlement or main street.

Based on the analyzes of the settlement forming factors, the research selected a type of settlement to create the research method, which was influenced not only by the same development factors but also played a similar role in the settlement network and the principle of settlement structure. These are the settlements along the river in the Great Plain.

In order to prove the *“main street is a mirror of the settlement”* hypothesis, it is essential to create a research framework that connects the settlement and the main street elements, in other words it defines the connection points of the settlement and the main street without analysing each settlement individually.

The method is appropriate for exploring the connections between the settlement and the main street.



The first step is to analyze the development of settlements. The next step is to find the connection points between the layers of the settlement and the layers of the main street. To do so, the verifiability of the main street had to be established first. It is necessary to define the *parameters* of the main street, which can be well defined and analyzed. These parameters determine the general *characteristics* of the main street. The characteristics carry features that appear not only at the level of the main street but also at the level of the settlement not necessarily in the form of layers, but in the form of phenomena, factors or components. To analyze the relationships between the layers of settlements and the layers of the main street, the research divides the main street into layers and analyzes them.

## SCIENTIFIC RESULTS

Objectives set at the beginning of the research:

Aim 1:	Definition of the main street. Define the characters that distinguish the main street.	<b>T3, T5</b>
Aim 2:	Spatial definition of the main street.	<b>T4</b>
Aim 2a:	Defining the area of the main street.	
Aim 2b:	Determining the area of the main street to be analyzed.	
Aim 3:	Determining the structure of the analyzed settlements and their main streets. Defining the connections between the main street and the structural units of the settlement.	<b>T6, T7, T8, T9</b>
Aim 4:	Defining a new method for main street analyzes. Defining the connection between the settlement and the main street.	<b>T1</b>
Aim 4a:	Determining the parameters of the main street that are used to analyze the street.	
Aim 4b:	Determining the characteristics of the main street using the parameters of the main street.	
Aim 4c:	Defining the layers of the main street by categorizing the characteristics of the main street.	<b>T2</b>
Aim 4d:	Defining the layers of the settlement.	
Aim 5:	Possibilities of usage of the developed methods in practice.	

2. figure: objectives set at the beginning of the research and the results (summary)

The theoretical and practical results are formed in form of thesis and practical results.

### **THESES 1:**

**The layers of the main street are empirically perceptible imprints of the settlement forming factors which defined the character and developing process of the settlement.**

In order to define the connection between the settlement and the main street, a new method of the main street analyzes is created. The method explores the different connection between the main street and the settlement, for which the research uses the concept of the layers of the main street. It is proved that the settlement forming factors that affected the development of the settlement and the main street are the same, so the development of the settlement can be known by the layers of the main street.

### **THESIS 2:**

**The characteristics of the main streets of the small towns of the Great Plain can be classified into five layers: the physical layer, the historical layer, the social layer, the layer of the landscape, and the layer of the transport and trade.**

The definition of the layers of the main street is based on the systematization of the characteristics of the street, during which the

properties that were mainly influenced by a settlement forming factor are placed in a category.

### **THESIS 3:**

During the research, the definition of the main street was defined as: **the main street is a central, linear urban architectural element, a promenade - type public area, which primary role is to provide space for social interaction. The main street reflects the effects of settlement forming factors, makes the history, cultural, and habits of the society readable.**

The main street is constantly changing, adapting to new needs. Its central role is decisive, in many cases it replaces the settlement center or functions as an extension of it, which is manifested not only in the presence of public institutions, but also in the social activities.

### **THESIS 4:**

**The area of the main street extends beyond the boundaries of the public area and includes all areas on the street line used by people.**

The demarcation of the main street is particularly important because one of the key points of the research is to include personal experience of the environment, in the research. Therefore the area of the street does not end at the physical border of it. The area of the street includes all the semi-private and private spaces and the interactions between them, so it is the place of life on the street.

## **THESIS 5:**

The research formulates seven aspects to define the main street of the small towns of the Great Plain.

**In order to be distinguished as the main street of a small town in the Great Plain, the following conditions must be fulfilled at the same time:**

- 1. historicity**
- 2. urban area**
- 3. presence of the city center and commercial function and service**
- 4. Area adapted to the pedestrian speed**
- 5. direct contact with the town center**
- 6. presence of public institutions**
- 7. promenade character**

## **THESIS 6:**

**Within the small riverside towns of the Great Plain, the twin-towns and the classical riverside towns are divided not only morphologically but also socially into structural units, the so-called zones.** In the case of small towns, the research defines three zones: central, transitional, and peripheral zone. These structural units are defined by the built environment, social stratification, and various social activities.

## **THESIS 7:**

**The main streets of the small towns along the river in the Great Plain consist of three different sections, which show the characteristics of the zones of the settlement. The research defines three characteristic street sections - first, second, third.**

Based on the character the study divides the main street into units, which means the spatial segmentation of the street in order to interpret the development processes and the effects of the settlement forming factors. It defines each section as a unit based on the dominant function, characteristics, street width and uniform installation and space use.

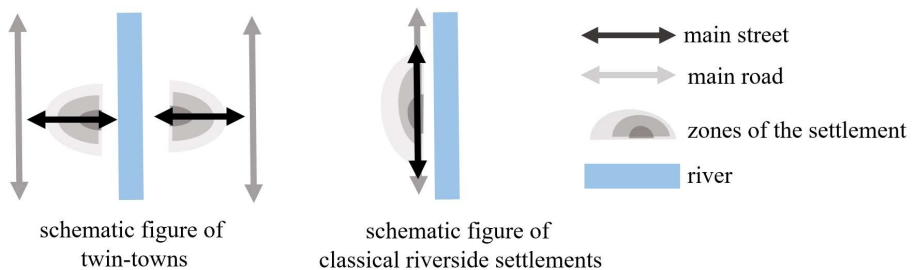
## **THESIS 8:**

**The small towns along the river in the Great Plain can be divided into two groups based on the morphological features of the settlements. The defined types are twin and classical river settlements.**

## THESIS 9:

**Among the riverside small towns in the Great Plain, in the case of the classic riverside settlements, the sections of the main street appear symmetrically, while in the case of the twin-towns they appear asymmetrically on the main street.**

The reason for this is the dominant growth direction of the settlement and the position of the settlement center. For both types of settlements, the settlement center is located close to the river, the classical riverside settlements usually grow parallel to the river in two directions, parallel to the river, while the twin-towns grow in a dominant direction perpendicular to the river.



3. figure: the schematic view of the dominant direction of the settlements

## **PRACTICAL RESULTS:**

**The criteria used to define the main street can be used as a base to define the main streets of villages and medium and big cities.**

In the case of medium-sized and big cities, the system of criteria used in the examination of small towns can be applied to define the main streets.

In the case of villages, owing to the nature of the settlement, the central role is incomplete, therefore the central zone, the urban development, the supply of public institutions are moderate, sometimes incomplete. In the case of these settlements, the basic functions defining the settlement are, for example, a school, a general practitioner, a village house, and a general store on the main street.



Due to the structure of the research, some of the formulated theses are true in general case, while some are true in the case of the examined settlements.

This is shown in the figure below:

<b>thesis:</b>	<b>type of the settlement:</b>
<b>T1</b>	general case
<b>T2</b>	in case of the riverside small towns in the Great Plain
<b>T3</b>	general case
<b>T4</b>	general case
<b>T5</b>	in case of the riverside small towns in the Great Plain
<b>T6</b>	in case of the riverside small towns in the Great Plain
<b>T7</b>	in case of the riverside small towns in the Great Plain
<b>T8</b>	in case of the riverside small towns in the Great Plain
<b>T9</b>	in case of the riverside small towns in the Great Plain
<b>PR</b>	general case

4. figure: to which type of settlement are the thesis related to

## APPLICABILITY OF THE METHOD

The research approaches the connection between the main street and the settlement from a new perspective in several respects. The main street is not only examined as an element of the settlement, but is a tool that helps to get to know the settlement.

The method is set up and tested in the case of the small towns along the river in the Great Plain. However, this spatial and typological delimitation is only necessary for the development of the test method it can be expanded.

Furthermore, the examination method may be suitable for completing the Hungarian Design Guidance (*Településképi Arculati Kézikönyv - TAK*). First, as part of the chapter on the history of the settlement (Chapter 2-3 of the TAK), the research can be used to complete the chapter with the research about the settlement forming factors. Furthermore, the methodology of defining the sections of the main street can serve as a basis for defining areas of the settlement with different character (TAK Chapter 4), but it can really serve as a basis for completing the recommendations on the quality of the settlement image for streets and main streets (TAK Chapter 5).

## **AUTHOR'S PUBLICATIONS RELATED TO THE TOPIC:**

### **Journal Articles:**

PECZE A.: *The Layers of the Main Street*, 4D Tájépítészei és Kertművészeti folyóirat, 48. szám, 48-63.o., 2018, ISSN 1787-6613

PECZE A, BALOGH P. I.: *The Method of Defining the Frame of the Street*, 4D Tájépítészei és Kertművészeti folyóirat (in print), 2020

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PECZE A.: *A települések fejlődésére ható természet-földrajzi tényezők / Natural-geographical factors influencing the development of settlements* (in print), Újvidék, 2020, ETO: 32-008-81-82

### **Conference Proceedings and Online Publications:**

PECZE A.: *Some Twin-Towns in the Habsburg Empire-Evolution, Preservation and Revitalization*, International Scientific Conference Cultural Heritage-Possibilities for Spatial and Economic Development, 640-645.o., Zágráb, 2015, ISBN 978-953-8042-10-2

PECZE A.: *Main Street of „Twin-Towns” in the Habsburg Empire*, Preservation And Improvement of Historic Towns, Third International Conferene, Karlóca, Szerbia, 2016, ISBN 978-86-80929-36-1

PECZE A.: *The Main Street as the Soul of the Town*, Preservation And Improvement of Historic Towns, Fourth International Conferene, Karlóca, Szerbia, 2017, ISBN 978-86-80929-38-5

PECZE A.: *Vajdasági ikertelepülések a Tisza mentén / Twin-towns along the river Tisa in Vojvodina*, 96-98.o.Vajdasági Magyar Tudományos Diákköri Konferencia, Újvidék, Szerbia, 2014, ISBN 978-86-85245-27-5, COBISS-ID 291289607

PECZE A.: *Az alföldi települések „fénykora”/ “The Golden Age” of Settlements of the Great Hungarian Plain*, 116-117.o. Vajdasági Magyar Tudományos Diákköri Konferencia, Újvidék, Szerbia, 2015, ISBN 978-86-85245-30-5, COBISS-ID 300716039

### **Lectures on the Topic:**

Open meeting of the Hungarian Academy of Sciences in honor of Tamás Meggyesi "SYMPTOMS OF OUR SETTLEMENT CULTURES" symposium, 2016

Lecture organized by the Hungarian Cultural Institute of Vojvodina, held within the framework of the action program for bringing monument protection to life and preserving our cultural heritage in the homeland, Zenta, 2016