Revitalization or death of farms? Cognition and attitudes in the Great Plain

Andrea Székely
University of Szeged, Hungary
Research group HABITER, URCA, France
szekelyandree@gmail.com

Draft version 28/02/2017, not to be quoted

Abstract

From geographical point of view, the farms are organic part of the rural territories. Their situation is double-faced, they are vulnerable because of their size and production capacity; but their opportunities in value creation based on local resources and leisure capacity can be transformed into advantages. Their future is closely related to the new development patterns in rural and peripheral areas. The question is how the new development policy can motivate the farm owners to continue their everyday life there and use more environmental friendly their territory and create new essential high quality product? The research aim was to have actual information about farms on both sides of the border (abandoned level, infrastructure, farms types, development, European aid use, future) and discover the mental cognition about farms through sketch maps made by the focus groups. Three focus groups (people living on farms, agriculture related people, and not related people) were involved.

We analyzed the attitude of the three focus groups about farms; and their mental cognition about farms. By the farm owners, the most critical points are continuous abandon of farms, and the low level of infrastructure. The opinion of the three focus groups about farms and its future is highly correlated. The differences of cognition can be observed on the drawings (elaboration, number of objects, their relative location); and we offer a typology based on spatial statistics.

Keywords: farms, sketch maps, cognition, Hungary, Serbia

Introduction

From geographical point of view, the farms are organic part of the rural territories. The scattered farms are worth to examine in the global-local context when the sustainability of the Earth is more and more important, and this type of settlement is near to the nature since the early history of the two countries. Their situation is double-faced, they are vulnerable because of their size and production capacity; but their opportunities in value creation based on local resources and leisure capacity can be transformed into advantages. Their future is closely related to the new development patterns in rural and peripheral areas.

Cognition about farms are uneven among the whole population. Everyone has knowledge about the farms, Hungarian and Serbian population, because they are present as a very special settlement type located in the Great Plain (Alföld). The aim of this research is underlying the differences of mental cognition of scattered farms by the inhabitants and by the whole population.

1) We suppose that with the function changes of the farms the cognition about new functions of farms of the whole population has not appeared.

2) We suppose that with the function changes of the farms the cognition about new functions of farms of the concerned population has appeared.

3) We suppose that the concerned population recognize more details about the farms.

To reach these goals, we used questionnaires and interviews in three focus groups: people living on farms, agriculture related people, and not related people.

The structure of the paper is the following. In the first part, we give a short introduction to scattered farms theory with a special interest to Hungarian literature on Hungarian particularities. Later, we take care of mental map and place perception theory related to our research. After we demonstrate our database and the applied analytical tools. After the detailed presentation of results, we conclude.

Scattered farms in the Great Plain

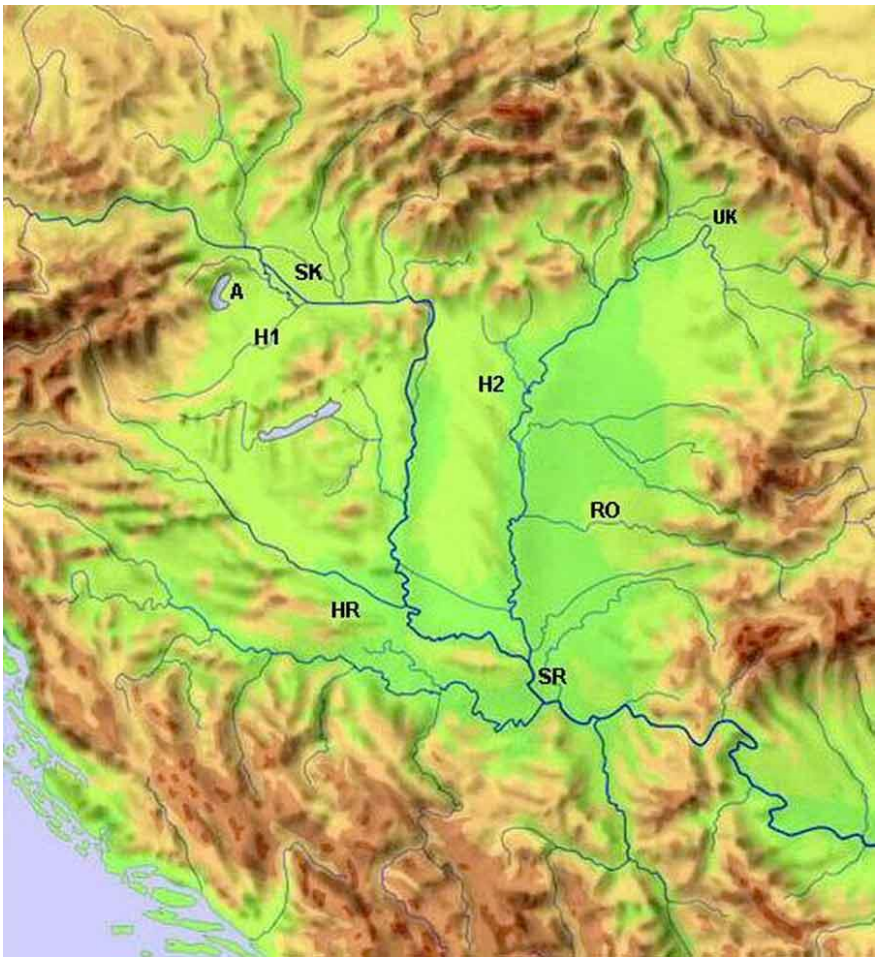
Scattered farm (in Hungarian “tanya”) is

Historically a type of isolated settlement in rural zone belonging or not to a village center or a little town, the inhabitants working in agriculture in the same territory around the farm. The farms are the centers of the agricultural management.

Several morphological typologies of farms exist in the Hungarian literature. The most commonly mentioned types of farms (identified on their morphology) are scattered farms – “szórt tanya”, farms in line – “sortanya”, farms in a form of arbuscle – “tanyabokrok”.

Geographical situation of the Great Plain (Pannonian Basin) lies in Hungary, in Serbia and in Romania

Map 1: The Great Plain



* H1: Small Plain, H2: Great Plain, A: Austria, HR: Croatia, RO: Romania, SK: Slovakia, SR: Serbia, UK: Ukraine

Brief History of Scattered farms

After the 2nd World War collectivization all farms started in Hungary as in all countries in Eastern Europe. Due this this process and a purposive neglection of infrastructure, between 1950-1986 we can observe a continuous destruction of farms. However, the survival of certain farms is due to the agribusiness organization of the government, not to the free market.

After 1990, the reprivatization of arable land, changing of land use, resulted to renewal of farms on certain territories, but also to a high number of abandoned or ruined non-residential buildings.

Functions changes of farms

Originally farms had residential and economic function related to the agriculture.

Today several variants are present:

a) residential and agricultural function, but main job in the nearby town
b) residential and agrotouristic functions at the same time (accommodation services and other possibilities e.g. animals, events, traditional goods fabrications for tourists)
c) residential and social service function
d) not residential, only stocking
e) use as a second home (only in the summer season for recreational purposes for the owner)

Mental Maps and Place Perception

To be added

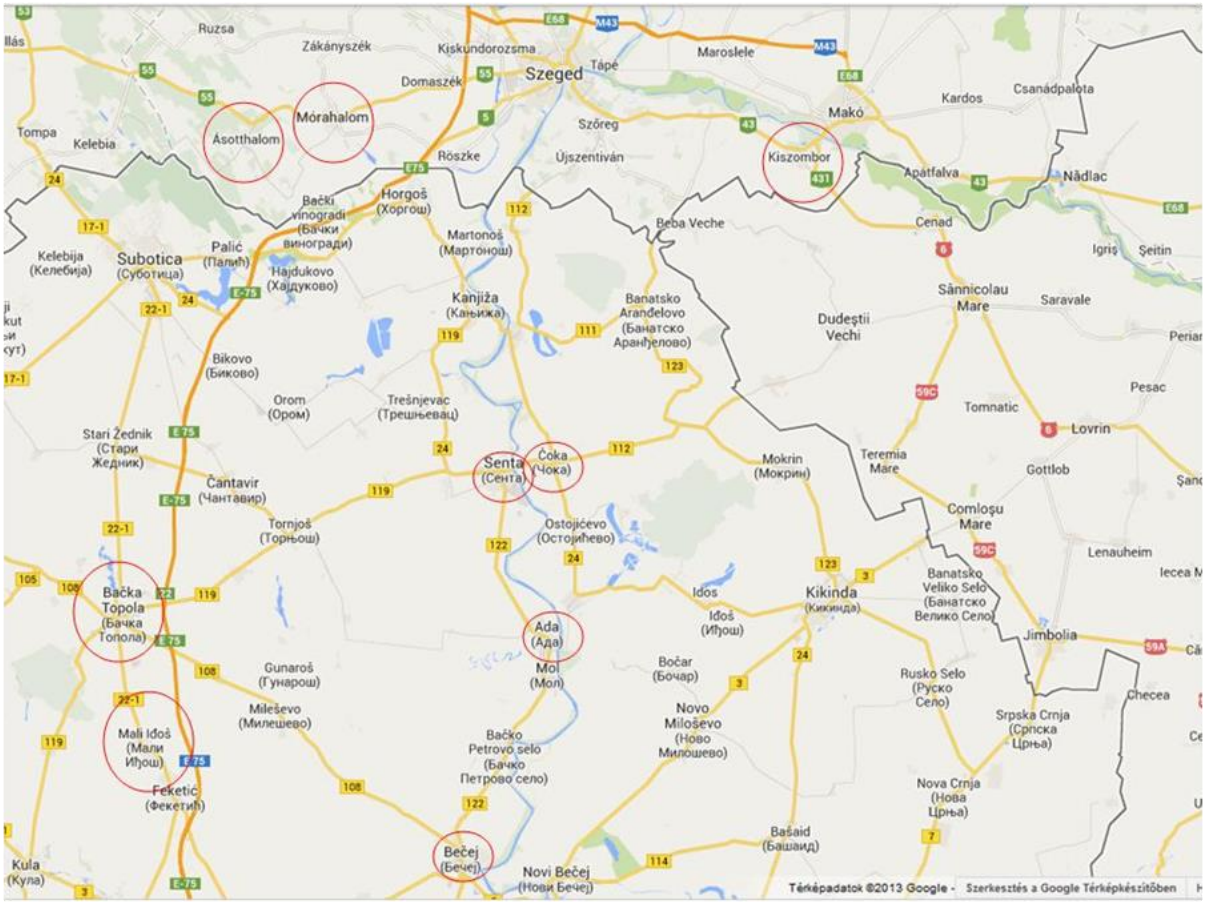
Data and methodology

We made the research in two phases. A pilot project was launched in 2013, based on personal field work and interviews in Hungary and in Serbia with a focus on the two countries' border zone[1]. Map 2 shows the settlements included in this phase of the research. Over the personal interviews made in 12 farms, mental maps were made drawn by different populations:

- people living on farms – 12 persons
- agriculture related students – 42 persons
- not related people as a control group – 141 persons

[1] In Hungary in Csongrád county: Ásotthalom, Kiszombor and Mórahalom.
In Serbia in Voivodine – Backa county, in Backa Topola, Mali Idos, Becej, Ada, Coka, Senta.

Map 2: Territorial scope of Phase 1 research



The second phase of the research has been realized in the first semester of 2017. Based on earlier personal interviews, a questionnaire was constructed to collect data about perception of farms. The questionnaire included the question of "What does the farm means for you? Please, draw it."

In 2017, the questionnaires filled and mental maps drawn by different populations:

- people living on farms – 24 persons
- people living in rural area, but not on farms – 90 persons
- agriculture related people – 90 persons
- not related people as a control group – 150 persons

Map 3: Territorial scope of Phase 3 research

TO BE ADDED

At the current stage of the research, we analyzed questionnaires by standard descriptive statistics tools (measures of centrality, dispersion, distribution).

The differences of cognition can be observed on the drawings (elaboration, number of objects, their relative location); and we offer a typology based on spatial statistical analysis.

Analysis can be made on

• elaboration of the drawing,

• number of objects on a mental map,

• what objects are on the mental map (farm-house, buildings, garden, people, animals, plants, , tractors, tools, special object or phenomena) and what is their relative location on the map.

Empirical Evidence

The empirical evidence is bi-dimensional. Once, the questionnaires are analyzed by usual statistical methods, second, the drawing reflecting the mental cognition of farms are analyzed by the tools of mental mapping.

detailed results of questionnaires TO BE ADDED

In the first phase of the research:

The average number of objects appearing on the mental maps of people living on farms is: 6,9

The average number of objects appearing on the mental maps of agriculture related students 5,8

The average number of objects appearing on the mental maps of the control: 5,1

Figure 1: Typical ground-plan of a farm

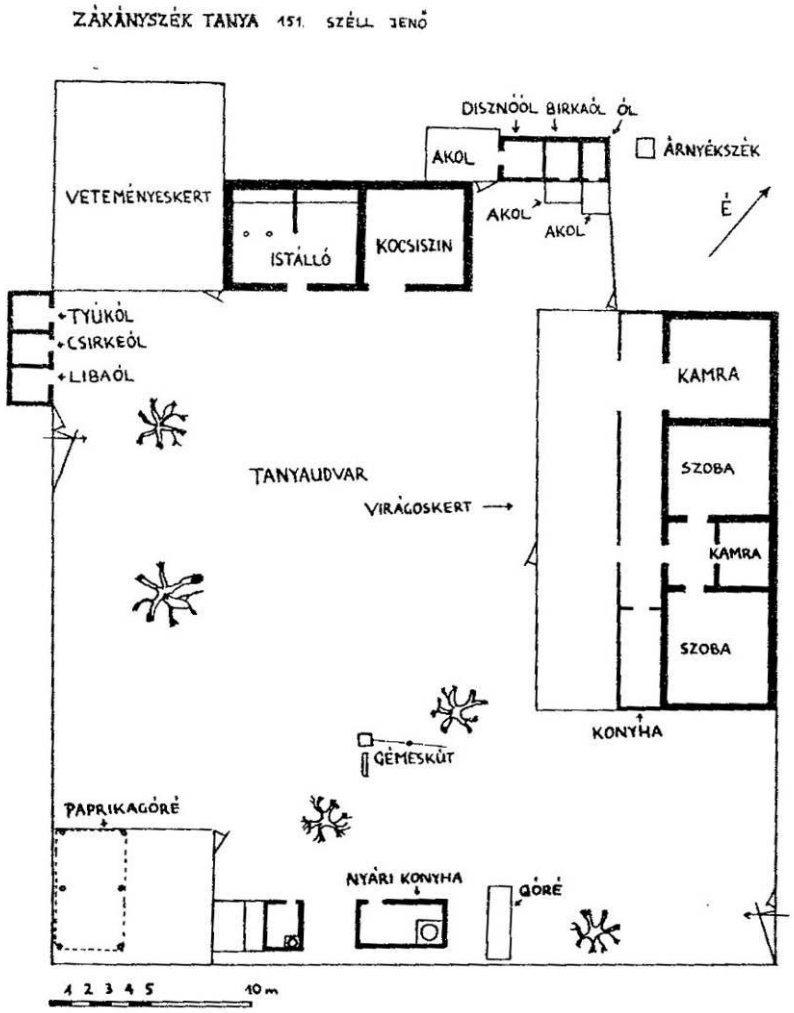


Figure 2: Typical 3D drawing

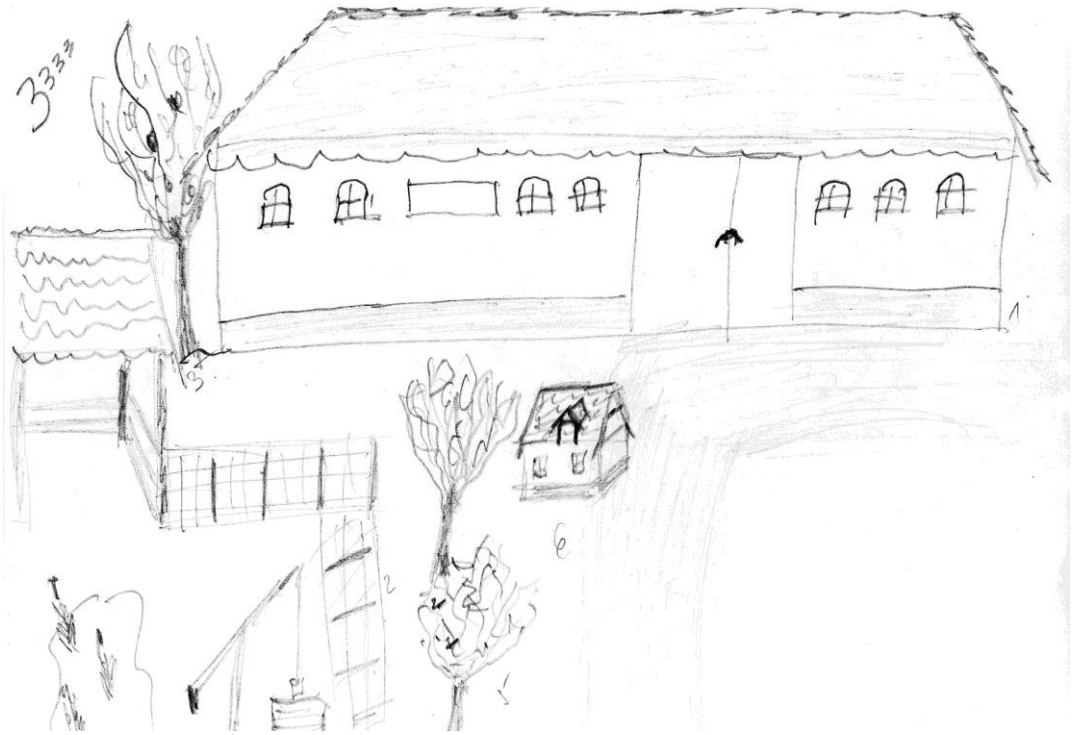
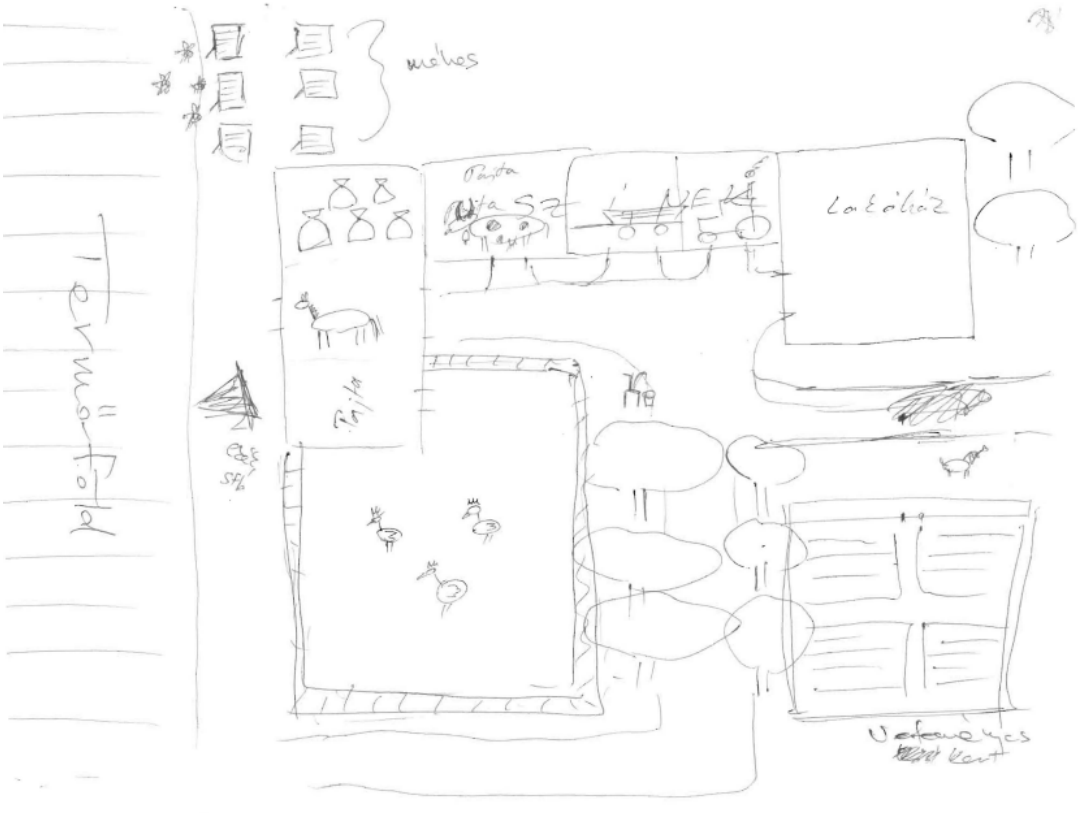


Figure 3: Typical 2D drawing



Conclusion

The literature review, the field work, and the interviews confirmed the changes of functions of farms, new ways of utilization (social care, tourism, secondary home) appeared, but only people strongly related to farms (owners, their family members, neighbors) know these new forms. Distance matters, more related people have more detailed information. This difference confirms our first two hypotheses.

The questionnaires opened the possibility to a more shaped picture on farm use. A clear feedback on the desolation and depopulation of these rural settlements arrived, and this trend is foreseen for the future. In a 30-year perspective, only a tenth of these farms will stay in their traditional functions, and we estimate the same number of farms to transform to other usage. By the questionnaires, it can be mainly explained by the poor level of infrastructure: active actors of periurbanization need well-working hard infrastructure and nearby services.

In the case of mental maps, the traditional use of farms is predominant, we can say unique. In this case, more related people draw more detailed pictures, so relatedness is present in the spatial integrity of farms. Thereby our third hypothesis is proved.

As a next step of the research, international comparison with Western European countries will be made where the same questionnaire (slightly adapted to local conditions) will be applied. This research can open the possibility to determine more explanatory variables in the perception differences.

References (provisional, to be expanded)

Balogh, I. (1965): Az alföldi tanyás gazdálkodás. in: Szabó I. (szerk.): *A parasztság Magyarországon a kapitalizmus korában 1848–1914*. I. köt. Akadémiai Kiadó, Budapest, 429-479.

Becsei, J. (1993): A tanya-fogalom tartalmáról. *Földrajzi Értesítő*, 42 (1-4): 35-39.

Becsei, J. (2004): *Népességföldrajz*, Ipszilon Kiadó, Békéscsaba.

Beluszky, P. (1999): *Magyarország településföldrajza*. Dialog Campus, Budapest-Pécs.

Bíró, M. (1999): Római villagazdaságok a Balaton körül. *História* 21 (5-6): 5-6.

Csatári, B. (1999): A tanyák szerepe a vidékfejlesztésben. *A Falu*. 14 (4): 45–52.

Csatári, B – Farkas, J. Zs. – Lennert, J. (2013): Land Use Changes in the Rural-Urban Fringe of Kecskemét after the Economic Transition. Journal of Settlements and Spatial Planning, 4 (2), 153-159

Downs, R. M. – Stea, D. (1973): Cognitive maps Spatial Behaviour: Process and Products. In: Downs, R. M. – Stea, D. (eds): *Image and Environment: Cognitive Mapping and Spatial Behaviour*. Aldine Transaction, New Brunswick, 8-26.

Enyedi, Gy. (1984): *Az urbanizációs ciklus és a magyar településhálózat átalakulása*. Akadémiai Kiadó, Budapest,

Erdei, F. (1942): *Magyar tanyák*. Athenaeum, Budapest.

Erdei, S. (1974): Az alföldi tanyarendszer történeti szemlélete. *Agrártörténeti Szemle* 16, 287-294.

Györffy, I. (1937): A magyar tanya. *Földrajzi Közlemények*, 65 (4-5): 70-93.

Hassink, J. – Hulsink, W. – Grin, J. (2012): Care Farms in the Netherlands: An Underexplored Example of Multifunctional Agriculture – Toward an Empirically Grounded, Organization-Theory-Based Typology. *Rural Sociology*, 77 (4), 569-600.

Kaplan, S. (1973): Cognitive maps in perception and thought. In: Downs, R. M. – Stea, D. (eds): *Image and Environment: Cognitive Mapping and Spatial Behaviour*. Aldine Transaction, New Brunswick, 63-78.

Milan, M. J. – Bartolomé, J. – Quintanilla, R. – García-Cachán, M. D. – Espejo, M. – Herráiz, P. L. – Sánchez-Recio, J. M. – Piedrafita, J. (2006): Structural characterisation and typology of beef cattle farms of Spanish wooded rangelands (dehesas). *Livestock Science* 99, 197-209.

Mendöl, T. (1963). *Általános településföldrajz*. Akadémiai Kiadó, Budapest.

Nagy, G. – Dudás, G. – Bodnár, G. (2016): „Megfogyva bár…" Egy tanyafelmérés tanulságai Békés megyében. Tér és Társadalom, 30 (1), 93-111.

Prinz, Gy. (1922): *Magyarország településformái*. Hornyánszky, Buadpest.

Romány, P. (1973): *A tanyarendszer ma*. Kossuth Könyvkiadó, Budapest.

Rosset, P. M. (1999): The Multiple Functions and Benefits of Small Farm Agriculture in the Context of Global Trade Negotiations. *Food First Policy Brief*, No 4.

Saqalli, M. – Caron, P. – Defourny, P. – Issaka, A. (2009): The PBRM (perception-based regional mapping): A spatial method to support regional development initiatives. *Applied Geography*, 29, 358–370.

Tavernier, E. M. – Tolomeo, V. (2004): Farm Typology and Sustainable Agriculture: Does Size Matter? *Journal of Sustainable Agriculture*, 24 (2), 33-46.

van Winsen, F. – de Mey, Y. – Lauwers, L. – Van Passel, S. Vancauteren, M. – Wauters, E. (2013): Cognitive mapping: A method to elucidate and present farmers' risk perception. *Agricultural Systems*, 122, 42-52.