

The Functional Transformation of Settlements in Central Serbia

Tamara LUKIĆ^{1*}, Tanja ARMENSKI¹, Svetlana VUKOSAV¹, Nevena ČURČIĆ¹

¹ University of Novi Sad, Faculty of Science, Department of Geography, Tourism and Hotel Management, Trg Dositeja Obradovica 3, 21000 Novi Sad, Serbia

* Corresponding author: snstamara@yahoo.com

Received on <10-08-2011>, reviewed on <08-12-2011>, accepted on <20-02-2012>

Abstract

Because of its natural differences, the Goč Mountain and its foothill was respected and taken as experimental space of Central Serbia. This territory covers 402.1 square kilometers and is spread between 166 and 1127 m above the sea level. Exactly 26 settlements on the territory of the Goč Mountain and its foothill were observed. Functional characteristics were determined for every single settlement. Determination has relied on the data of employees, by fields of activities. The results from the 1971 census were compared with those from 2002. At the end, the results were illustrated on two different ways. One has had the form of triangle and other has the form of a map. The triangle from 1971 clearly shows that the majority (53.8%) of settlements had "agriculture – industry" characteristics. After thirty years, only two settlements in the mountainous part of the territory didn't change their characteristics. Most of the settlements have "industry – service" or "service – industry" characteristics. In comparison with the micro-regions from Central Serbia, the Goč Mountain and its foothill have very good conditions for agricultural development. More than 45% of the territory does not exceed 300 m above the sea level. Climate conditions are optimal. The space is rich in underground waters and small river streams. The agricultural fields account for more than 41% of the Goč Mountain and its foothill. About 13% of territory covers fertile alluvial soil etc. However, in 2002, there was not registered a single settlement with "agricultural" characteristics.

Keywords: *functional changes, Central Serbia, the Goč Mountain*

Rezumat. Transformările funcționale ale așezărilor din Serbia Centrală

Ca urmare a diferențelor naturale, Muntele Goc și zona adiacentă a fost respectat și considerat un spațiu experimental pentru Serbia Centrală. Cu o suprafață de 402,1 km², se desfășoară între 166 și 1127 m deasupra nivelului mării. Pe acest teritoriu au fost identificate 26 de așezări, pentru fiecare așezare fiind determinate caracteristicile funcționale. Această determinare s-a făcut pe baza datelor statistice privind numărul de angajați, pe domenii de activitate. Rezultatele de la recensământul din 1971 au fost comparate cu cele din 2002 și în final ilustrate diferit, rezultând o nomogramă a funcțiilor așezărilor și o hartă a arealului studiat. Nomograma realizată pentru anul 1971 arată clar că majoritatea (53,8%) așezărilor aveau funcții agro-industriale. După 30 de ani, numai două așezări din partea muntoasă a arealului analizat nu și-au schimbat funcțiile. Majoritatea așezărilor au profil industrial și de servicii sau terțiar cu pondere importantă a industriei. Comparativ cu cellalte micro-regiuni din partea centrală a Serbiei, Muntele Goc și zona de la poalele sale prezintă condiții favorabile pentru dezvoltarea agriculturii. Peste 45% din teritoriu nu depășește 300 m înălțime. Condițiile climatice sunt optime, iar resursele de apă, atât cele de suprafață, cât și cele subterane, sunt bogate. Terenurile agricole acoperă pentru 41% din Muntele Goc și poalele sale, peste 13% având soluri aluviale foarte fertile. Cu toate acestea, în anul 2002, nu a mai fost înregistrată nicio așezare cu profil agricol.

Cuvinte-cheie: *schimbări funcționale, Serbia Centrală, Muntele Goc*

Introduction

Changes of settlements in Europe, as well as in Central Serbia are numerous (Rey, Bachvarov, 1998, Antrop, 2004). The article provides some of them, precisely functional changes. Two registered years have been taken under consideration, 1971 and 2002. The results of the census from the year 1971 show the condition of "welfare" in Central Serbia. It is the time of deagrarianization, industrialization, development of urbanization, the time when the generations born after WW 2 were growing up and taught in the socialistic spirit of the time, it is the period when the population standard was on the rise (Ianoş et al, 2010, 163). In the meantime, from 1971 until 2002, in only thirty years, in Serbia there were great social, economic and political changes (Agh, 1999, Bieber, 2004). First, there came the saturation with manpower, because people continued to move from mountain and rural environments into industrial centers (Jordan, 2009, 91). In that way the sense of stagnation was produced. Unemployment "led" half of the population to Western European countries in the next decade. Then, political changes occurred. Following the separation of ex-Yugoslav republics and wars in their territories, Serbia felt in the form of imposed embargo, economical crisis, monetary instability, and influx of large number of refugees and displaced population etc. (Kovačević, Kicošev, 2007, Stepanov and Lazar, 2002, 137). All that time, the country remained the economic subject and the owner of the most important economic factors. After NATO's "Merciful Angel" operation from 1999, political changes occurred, favouring the development of pro-democratic ideas (Jansen, 2001, Vukmirović et al, 2001, Kovačević et al, 2010, 66). This change triggered the process of transition, which was also seen in owners' transformation (Bartlett, 2009). The year 2002 is chosen because that was the last time a census was organized, so there are no newer data. With the owners' transformation, all economic resources have gone in "private hands".

Study area

The Goč Mountain and its foothill are situated in the middle of Serbia. This territory covers 402.1 square kilometers and is spread between 166 and 1127 m above sea level (Kovačević, 2008, 7, 214). The Goč Mountain belongs to the system of the Kopaonik Mountains which are on the north

bounded by the valley of the West Morava, to which the northern foothill of Goč belongs. That is, the territory of Goč and its foothill is divided on southern mountain and northern valley territory. The mountainous half, because of its relief, before all, is marked by a small number of population and settlements. The infrastructure is not developed. Local roads are rare and scarce. The valley of the West Morava, known by the highway M-5, which connects western and eastern parts of Serbia, has more population, i.e. has higher population density than the Serbian average. These natural differences represent the reason why the Goč Mountain and its foothill have been taken as an example in researching the influence of entrepreneurial initiatives on functional transformation of settlements in Central Serbia.

Methodology of research

Settlements can have different functions, agrarian, industrial, tertiary and quarterly (Ćurčić, 1992, 139-140). According to Grčić (2002, 266), they are classified into three large groups: agrarian, industrial and service. The only data according to which it is possible to determine functions of settlements are statistical data about the working activities of the population. For example, if majority of population of certain settlement earns their financial resources working in industry, it means that that settlement has dominant industrial function. Every one of three Grčić's (2002) groups matches one economical sectors.

According to Three-Sector-Hypothesis, economy is divided into three sectors. The primary sector consists of agriculture, forestry and fishing, mining, and extraction of oil and gas hunting. The secondary sector comprises activities of producing manufactures and other processed goods. This sector is often divided into light industry and heavy industry, while the tertiary sector means service, handicrafts, traffic, tourism and trade (Clark, 1957, Bell, 1976, Kenessey, 1987, 361, Mayhew, 1997, 373, 415, Ehrig, Staroske, 2009, 262). Every settlement, in that way got three absolute numbers, which showed the number of population that earn their living in primary, secondary or tertiary sector.

Considering the fact that settlements with different number of population were compared, received absolute data were not comparable (Savezni zavod za statistiku, 1972, a,b,c and Internal documents of Statistical Office of the Republic of

Serbia, 2004). Because of that they were transformed into relative, i.e. all of them were shown in percents, i.e. it bore the value of share that the population of certain settlement in certain sector takes. In order to make it more obvious, the graphical method was used, being the simplest way show the functional transformation of settlements. Because of the existence of three data for every settlement, the geometrical picture of equilateral triangle was used. By dividing the equilateral triangle using the methodology of Vujadinović (2006, 264), its space has been divided into three small equilateral triangles and six irregular trapeziums. By positioning some of the settlements in certain triangles it means that there prevails the population that lives from the activities which belong to one of three groups of sectors. If a certain settlement is located in the area of a trapezium, it means that there the majority of population earns their living in two of the three sectors. Depending upon which trapezium the settlement is situated, there is the possibility to establish which transitional type characterizes that settlement. This process is called determination of functional typology of settlements.

Results and discussion

According to the previously stated facts, the basic presumption was that, according to the census from 1971, most of the population was employed in secondary activities. Consequently, it was expected that most of the settlements had industrial functions. Strong industrial centers of Central Serbia, Kragujevac, Kraljevo, Trstenik and Kruševac etc. are situated outside the territory of Goč and its foothill, at the distance of 10 to 40 km. Ever since they were established, they have attracted young and reproductive population from the entire Serbia. Daily migrants from the region of Goč and its foothill have at that time earned their financial resources for living exactly in the centers mentioned above.

The economic and political crisis and transition during the last decade of the 20th century had a negative influence on the industrial production (Veremis, 2008, Hirt, 2008). Enterprises were often in stagnation or went bankrupt, so they had to fire their employees, which led to high unemployment rate (Đurić-Kuzmanović, Žarkov, 1999). In function of preserving tradition and achieving additional financial resources, population was, even in the period of welfare, engaged in small-property agriculture, so they were selling some of their

products (Vujadinović, 2006, 264). However, because of the economic crisis, when people were struggling to survive because of the high unemployment rate, it was expected that on the region of Goč and its foothill there would dominate agricultural activities, i.e. that settlements would have agrarian functions.

The most developed and the most visited spa in Serbia, Vrnjačka Spa, is located at the contact between the Goč and its foothill. Spas are also one of the symbols of Serbia, because it is estimated that on its territory there are 14 spas that are often visited by tourists (Statistički godišnjak, 2008, 325) and over 70 unrecognized spas (Rodić, Pavlović, 1994, 168). That is why the influence of services could have also been predicted. The third postulate was that the service functions had to be also according to the census in 1971 and 2002 noticeable.

In Serbia, especially during the last decade of the 20th and the beginning of the 21st century, entrepreneur business became more attractive. It was born out of need of people to survive, but also as a way to preserve the capital during the devaluation of dinar. However, it was not possible to "ad hoc" predict their importance and whether it had influenced the function of settlements at all.

It was necessary to find adequate numerical data, in order to perform wanted analyses. Besides that, it was possible to find some data for this paper only by conducting the poll of the local population.

The results of the research have been shown according to graphical results in the form of a triangle, based on a special analysis and on questionnaire polls.

1. The results of triangle

Regional centers of Western Pomoravlje, Kraljevo, Trstenik and Kruševac, which are the closest to the Goč Mountain and its foothill, have attracted and still attract population. After the World War II, when there began the process of industrialization in Serbia, as well as in the region of Western Pomoravlje, the population working in agriculture gradually shifted towards non-agricultural. Consequently, there also occurred socio-economical and functional changes of the Goč Mountain and its foothill. The young population left their settlements up on the mountains and went towards the mentioned regional centers, Vrnjačka Spa or built their houses in the valley of the Western Morava, by the road M-5 (Kovačević, 2008, 8, Popescu, 2008, 150).

The analysis of functional typology of settlements was performed according to settlements of the Goč Mountain and its foothill for the year 1971 and 2002. In only three decades, settlements have completely functionally changed. Only Kamenica, a settlement in the gorge valley of the Ribnica, and Dragosinjci, a settlement on the foothill of the Goč, have stayed in the same functional typological group during the observed period, keeping their agrarian-industrial character. Their population has lived partly on agriculture, and partly they earned their living by working in industrial entrepreneurs of Kraljevo.

Only six settlements (23.1%) had agrarian function according to the results of the census from 1971 on the territory of the Goč and its foothills (Fig. 1). Those were Vukušica, Goč, Otroci, Stanišinci, Brezovica and Stublica. Those are settlements that are far away from the busiest lines of

communication of the Goč and its foothill, mountain settlements, settlements in the Basin of the Popinska River and settlements on the Goč mountain (Fig. 2).

The drawing for the year 1971 predicted their aspiration towards the settlements of agrarian-industrial functions. According to the data from the 2002 census, five out of the six settlements mentioned above found themselves in the category of agrarian-industrial settlements. Their population got employed in the industry of Vrnjačka Spa and other regional centers.

The last census did not register even one agrarian settlement, i.e. not one settlement in which people live only from primary activities, on the territory of the Goč and its foothill. Due to the employment of population of Otrok in secondary activities, they found themselves in the year 2002 in the category of industrial-agrarian settlements (Fig. 1).

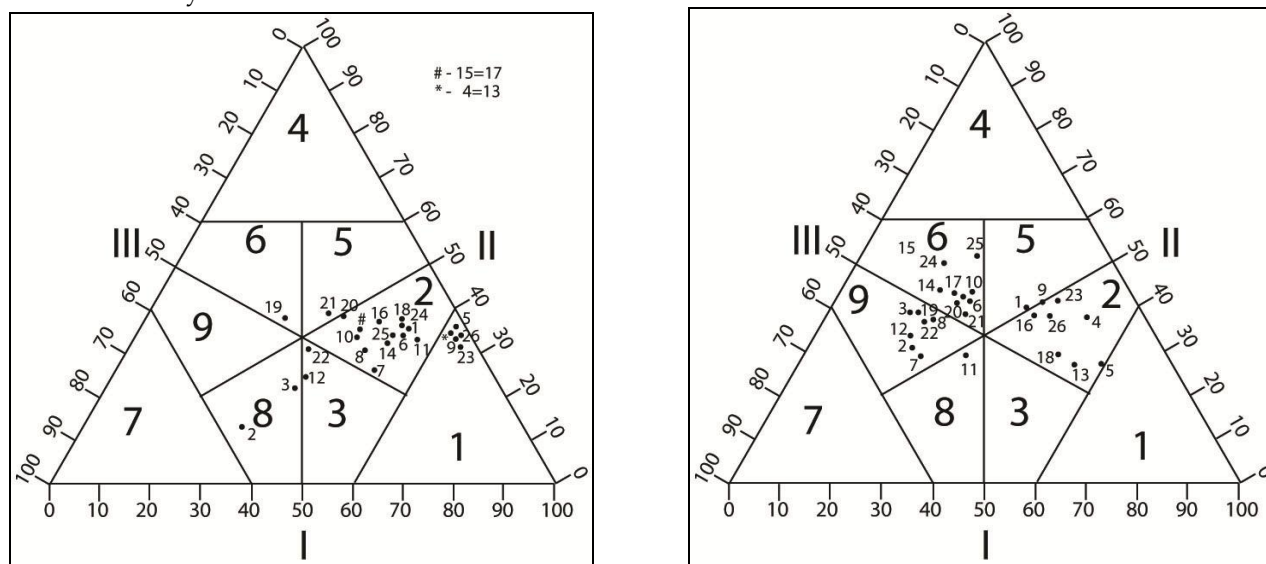


Fig. 1: Functional types of settlements of the Goč and its foothill, according to the censuses from 1971 and 2002

Legend: Economic sectors: I, II, III; Functional types: 1. agrarian, 2. agrarian-industrial, 3. agrarian-service, 4. industrial, 5. industrially-agrarian, 6. industrially-service, 7. service, 8. service-agrarian and 9. service-industrial; Settlements: 1. Vraneši, 2. Vrnjačka Spa, 3. Vrnjci, 4. Vukušica, 5. Goč, 6. Gračac, 7. Lipova, 8. Novo Selo, 9. Otroci, 10. Podunavci, 11. Rsavci, 12. Ruđinci, 13. Stanišinci, 14. Štulac, 15. Vrba, 16. Dragosinjci, 17. Zaklopača, 18. Kamenica, 19. Kovanluk, 20. Metikoš, 21. Ratina, 22. Ribnica, 23. Brezovica, 24. Dublje, 25. Popina, 26. Stublica

In 1971, more than half (53.8%) or the fourteen settlements of the Goč and its foothill had agrarian-industrial functions. According to the census of 2002, only Kamenica and Dragosinjci have kept this functional character. In 2002, eight settlements belonged to the category of industrial-service settlements (Gračac, Podunavci, Štulac, Vrba, Zaklopača, Metikoš, Ratina, Dublje and Popina). Lipova and Novo Selo became in 2002 service-

industrial settlements. Lipova connected itself to Vrnjačka Spa and included tourist services, offering rooms to spa's guests in affordable prices. Novo Selo developed service handicrafts. The remaining two agrarian-industrial settlements, Vraneši and Rsavci found themselves in other categories. Vraneši has become an industrial-agrarian settlement in 2002, the number of non-agrarian population being higher than the agrarian one. Although many people from this

settlement began commuting to work in secondary economic jobs, agriculture remained the additional profession of its population. Rsovcı is situated partly on the mountain, and partly along the valley. Due to the higher number of population in the valley, in 2002 it became a service-agrarian settlement.

Two settlements of the Goč and its foothill, Ruđinci and Ribnica had agrarian-service functions in 1971. Agriculture was at that time the dominant functional typological category. Ruđinci as suburban area of Vrnjačka Spa offered services in tourism, and Ribnica near Kraljevo service handicrafts. Urbanization and industrialization influenced the change both in Vrnjačka Spa and Kraljevo, so these two areas in 2002 belonged to the category of service-industrial areas.

In 1971, Ratina was the only industrial-agrarian settlement withing the study area while in 2002 it was one of the eight industrial-service settlements. Obviously, the secondary activities stayed profitable, and tertiary activities were more profitable than the primary ones, before all agriculture. Kovanluk was in 1971 the only industrial-service area in the observed territory. Three decades later, Kovanluk was transformed into an industrial-service settlements, just as other six settlements in the analysed area. It can be said that the most developed areas of the Goč and its foothill belong to this category, and that the others long for it.

Vrnjačka Spa and Vrnjci were in 1971 service-agrarian areas, and in the process of industrialization, they were transformed into service-industrial areas, according to data of the census from 2002.

2. Spatial analysis

As it was confirmed by the territorial analysis, the natural factors influence the functional typology of settlements. Mountain settlements and the less accessible areas that are the far away from the lines of communication were agrarian in 1971. Most of the settlements belonged to agrarian-industrial category, except Vrnjačka Spa and its suburban areas which more or less had certain service functions. The other group of settlements in 1971 consisted of three suburban areas of Kraljevo, and closest to it Kovanluk did not have agrarian characteristics. The other two more distant had also industrial (Ratina) or service (Ribnica) activities (Fig. 3).

According to figure 2, the year of 2002, population of mountain settlements (Dragosinjci, Kamenica, Goč,

Stanišinci, Brezovica and Stublica) besides the agriculture, worked also in industry. These settlements gained agrarian industrial character. Industrially-agrarian character had settlements equally away from Kraljevo and Vrnjačka Spa (Vukušica and Otroci). Industrially-service functions are dominant in the areas which are connected to the suburban areas of Kraljevo (Metikoš, Ratina, Zaklopača and Vrba) and Vrnjačka Spa (Podunavci, Gračac from the western side and Štulac, Dublje and Popina from the eastern side). The gravitational center of the Goč and its foothill, Vrnjačka Spa, and its suburban areas (Lipova, Ruđinci, Vrnjci and Novo Selo), as well as the suburban areas of Kraljevo (Ribnica and Kovanluk), belonged in 2002 to the group of service-industrial settlements.

3. Survey research

By conducting the survey among the population within the analysed area, it was realized that among the industrial branches there prevail wood-processing and machine industry, then textile, food-processing and liquor industry. According to the census from 2002, 4077 people work in the industrial branches on the territory of the Goč Mountain and its foothill (Republički zavod za statistiku, 2004). Factor analysis should not be done with less than 100 observations (Bartlett et al, 2001). But, in interview studies, sample size is often justified by interviewing participants until reaching 'data saturation' (Francis et al, 2010). One hundred respondents, who were between 20 and 65 years old and half of them were women, have been interviewed on the field. The questions had open character, and the answers not predictable. Enough competent respondents were necessary for the sample. Hence, interview was organized with few managers in every single enterprise. Their answers were compared. Only verified responses are shown in the results. According to this, it could be concluded that some branches of industry, such as wood-processing industry, have developed on the basis of source of raw materials. Exactly 51.1% of Goč and its foothill is covered with forests, but this material is not exploited anymore, instead the lumber is brought from territories out of this region (Kovačević, 2008, 310).

The machine industry was never based on the source of raw material of Goč and its foothill, but it was inherited from the more developed regional centers. Namely, when regional centers began to

lower their production, someone had to satisfy the market demands. Those demands were recognized

by entrepreneurs, who estimated that they could financially sweeten such expensive industrial branch.

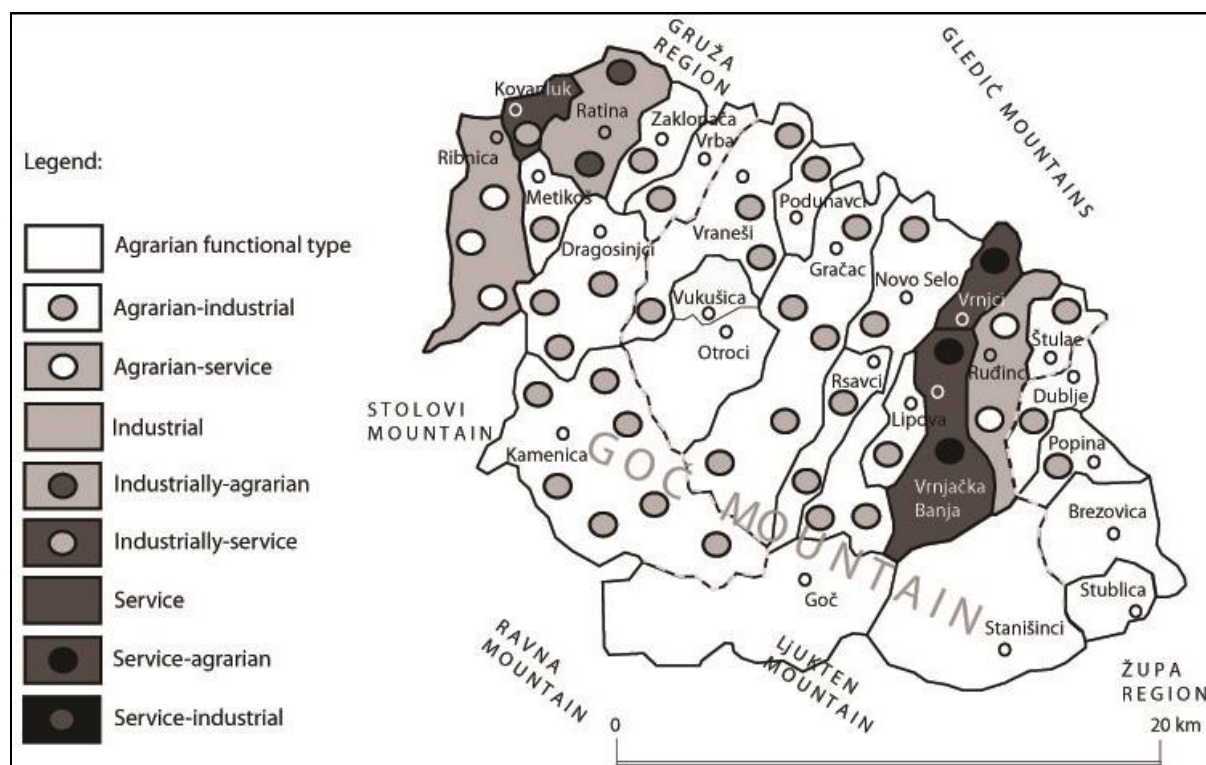


Fig. 2: Functional typology of settlements within the Goč and its foothill in 1971

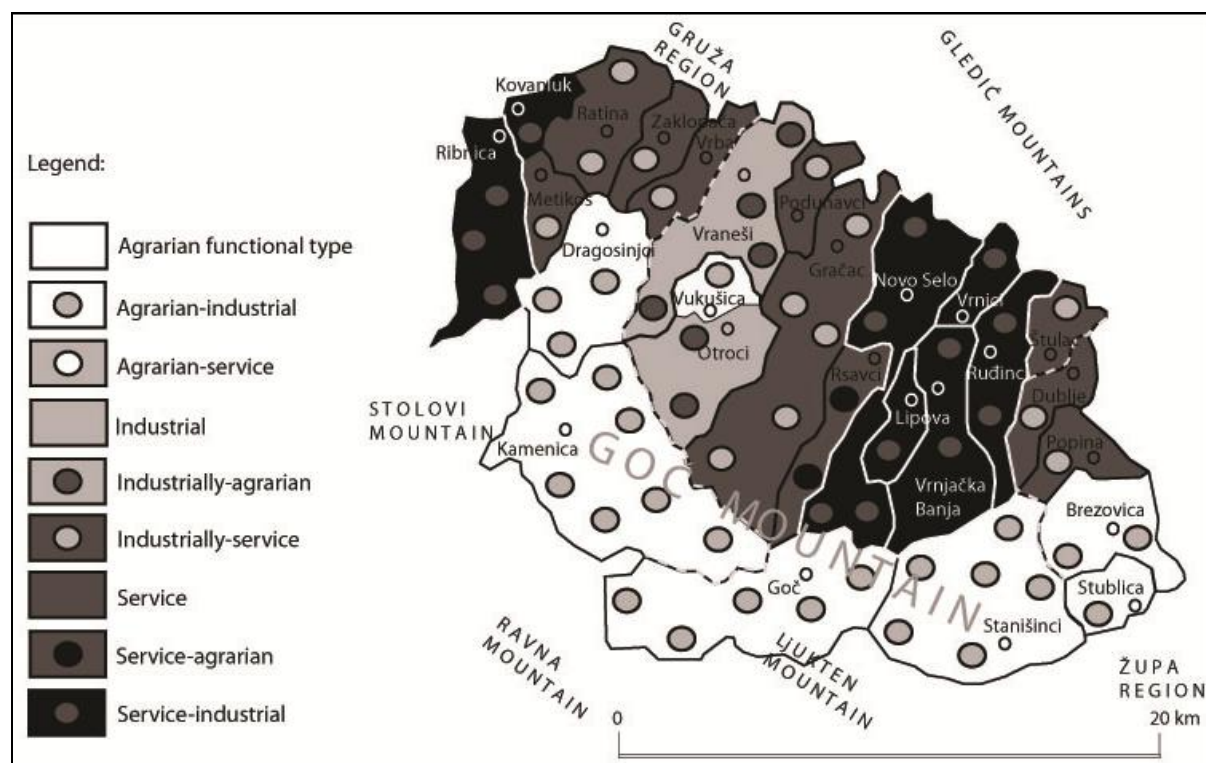


Fig. 3: Functional typology of settlements within the Goč and its foothill in 2002

The textile industry has come from craft production, while the food-processing and liquor industry was inherited from the socialistic period and

it mainly uses raw materials from the territory of the Goč and its foothill. Among them, symbols of this territory are factories for bottling mineral waters.

Construction work is also one of the dominant economic branches. The majority of the raw materials is received from the territory of the Goč and its foothill, such as pebbles and sand from the riverbed of the Western Morava, rock that is gained in several quarries on eastern and western mountain sides, or even lime from the valleys of the Popinska and the Brezovačka Rivers. The exploitation of construction materials began with the widening of Kraljevo and Vrnjačka Spa as urban centers, and then with the construction of spa's hotels during the seventies and eighties of the 20th century. Construction of objects for individual living was, in the same period, made easier with the help from the state in form of allowing credits for the development of private rooms and services in tourism of Vrnjačaka Spa. People who worked abroad have, for

Who are the entrepreneurs?

The concentration of entrepreneur business has in past been connected to Vrnjačka Spa. So, the development of the Spa was laid upon the ideas of rulers (Herder, 1846), influential clergy and aristocracy (Lindermayer, 1856), who had means for such investments. Later the region of the Goč Mountains and its foothill attracted high state clerks and intellectuals (Borović-Dimić, 2005). They mainly developed activities of tertiary sectors.

From the World War II until the disintegration of SFRJ, entrepreneur business did not exist in the right meaning of the word. It was "in hands of the state". The state equally developed activities of secondary and tertiary sectors.

From the beginning of proprietor transformation there appeared new profiles of entrepreneurs. Among them, there should be a distinction between those who formed new companies, and those who used privatization to become the owners of existing ones. The founders of new companies are most often those people who were the leaders in state institutions. Experience and business contacts of these people have appeared as comparative advantage. The owners of former state companies are most often entrepreneurs without experience, but with influential family or political connections.

By analyzing the origin of entrepreneurs it was determined that the largest number of them came from the regions that are distant from Goč and its foothill. The largest number of entrepreneurs came from Kosovo and Metohija. The other entrepreneurs who are citizens of Serbia mainly have origins in

example, their money earned in Western Europe invested in construction of objects for living in their native region.

Service functions of settlements are based upon the fact that population earns their income in tourism and hotel management, i.e. hotel and restaurant management, then trade, traffic and handicraft. Although it may seem that the development of tourism in Vrnjačka Spa influenced the development of other tertiary activities, it is not the case. However, entrepreneur business influenced the establishment of numerous trade and transport companies. Entrepreneurs develop service handicraft. Traditional handicraft has been put in the function of tourism, in such way that it nourishes production and preservation of souvenirs.

Raška region. From foreign citizens the dominant ones are Montenegrins, population that fled from the territories of former Yugoslavia and Serbs from Diaspora, i.e. the regions of European Union (Germany, Austria, France, Sweden etc.) and North America (Canada and the USA). However, it is public secret, as it was found out from the survey polls that entrepreneurs from Diaspora do not succeed to buy state companies.

Conclusion

Results of researches have partly refuted the stated postulates. According to the results of census from 1971 about the working activities of the population, applying the methodology of Vujadinović (2006, 264), it was determined that in most settlements of Goč and its foothill dominated agrarian functions, and not industrial as it had been postulated. From 26 settlements, 6 belonged to agrarian type, 14 to agrarian-industrially functional type, and 2 to agrarian-service type. On the basis of that it can be said that the influential process of industrialization came to the territory of Goč and its foothill later.

Functions of settlements Goč and its foothill have according to listed data on working activities of the population from 2002 been changed into 24 from 26 settlements. All settlements have found themselves in mixed functional types. There should be the distinction of functional transformation of mountain settlements, which is older, from transformation of settlements in the valley.

Functional transformation of settlements on the mountain Goč and its foothill is the consequence of

the process of industrialization and other mentioned that dominated during the seventies and eighties of the 20th century, i.e. social events before the newest entrepreneurial initiatives. Namely, about the third of the settlements in Goč and its foothill has remained in dominant agrarian functions, i.e. agrarian-industrial function. Suburban areas of Kraljevo and Vrnjačka Spa, which made about one third, have received service-industrial function. Settlements in the valley of the West Morava in general, especially in the settlements around the highway M-5, which are also present with around one third, have received industrially-service functions.

Using field researches and observations it was determined that the functional transformation of settlements which was identified according to data from 2002 could have been influenced only the development of entrepreneurial business, which came as a result of changes of proprietor's transformation and the development of small and middle companies, which started after 1990. The newest entrepreneurial initiatives are, compared to those in the past; the most intensively transformed the region of Goč and its foothill. The newest generation of entrepreneurs mainly has no family tradition in entrepreneurial business. The money they own has been gained fast and usually in unfamiliar way.

From the original postulates the influence of Vrnjačka Spa was confirmed, which is the result of its postwar affirmation, urbanization and appointing administrative functions, on its surrounding in that sense that its suburban areas, especially according to data from 2002, gained service-industrial functions.

Every region in Serbia is unique and has certain degree of individuality. In case of Goč and its foothill, the most distinguished feature represents Vrnjačka Spa. On the basis of that we can say that it is very hard to find ideal sample which could completely show the state of entire region in Serbia. However, it was concluded that generally main trends could be registered.

Acknowledgements

This paper is financed by the Ministry of Science of the Republic of Serbia.

The authors are grateful to the reviewers, whose comments and criticisms have ensured the quality of the paper.

References

- Ágh, A., (1999), *Processes of democratization in the East Central European and Balkan states: sovereignty-related conflicts in the context of Europeanization*, Communist and Post-Communist Studies, Volume 32, Issue 3, September 1999, Pages 263-279
- Antrop, M., (2004), *Landscape change and the urbanization process in Europe. Development of European Landscapes*, Landscape and Urban Planning Volume 67, Issues 1-4, Pages 9-26
- Bartlett, E., J., Kotrlik, W., J., Chadwick, C., H., (2001), *Organizational Research: Determining Appropriate Sample Size in Survey Research*, *Information Technology, Learning, and Performance Journal*, Vol. 19, No. 1, p. 43-50
- Bartlett, W., (2009), *Economic development in the European super-periphery: Evidence from the Western Balkans*, *Economic Annals*. Volume 54. No. 181.
- Bell, D., (1976), *Die nachindustrielle Gesellschaft*, 2nd ed. Frankfurt/M: Campus
- Bieber, F., (2004), *Institutionalizing Ethnicity in the Western Balkans Managing Change in Deeply Divided Societies*, European Centre for Minority Issues (ECMI), Flensburg Germany
- Borović, Dimić, J., (2005), *Tragovi trajanja – Kulturno istorijsko nasleđe Vrnjačke Banje*, Ministarstvo kulture Republike Srbije, Zavod za zaštitu spomenika kulture Kraljevo, Društvo konzervatora Srbije, Beograd – Kraljevo
- Clark, C., (1957), *The Conditions of Economic Progress*, 3rd ed. London: Macmillan
- Ćurčić, S., (1992), *Geografija naselja*, UNS, PMF, Institut za geografiju, Novi Sad, pp. 139-140
- Ehrig, D., Staroske, U., (2009), *The Gap of Services and the Three-Sector-Hypothesis (Petty's Law): Is this Concept out of Fashion or a Tool to Enhance Welfare?* in *Social Innovation, the Social Economy and World Economic Development*, Harrisson, D, Széll, G, Bourque, R, (eds.), Democracy and Labour Rights in an Era of Globalization, Labour, Education & Society, Vol. 17, p. 262.
- Francis, J., J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, P., M., Grimshaw, M., J., (2010), *What is an adequate sample size? Operationalising data saturation for theory-based interview studies*, *Psychology and Health*, Vol. 25, No. 10, December 2010, 1229–1245, Routledge, Taylor & Francis Group
- Grčić, M., Grčić, Lj., (2002), *Mačva, Šabačka Posavina i Pocerina*, Geografski fakultet, Univerziteta u Beogradu, Beograd

- Đurić-Kuzmanović, T., Žarkov, D., (1999), "Poverty and Directed Non-development in Serbia", in *Anthropology of East Europe Review: Central Europe, Eastern Europe and Eurasia, Special Issue: Reassessing Peripheries in Post-Communist States*, 17:2, 31-38.
- Herder, V., S., A., (1846), *Bergmanische Reise in Serbien*, Budapest
- Hirt, S., (2008), *Landscapes of Postmodernity: Changes in the Built Fabric of Belgrade and Sofia Since the end of Socialism*, Urban Geography, Bellwether Publishing, pp. 785-810, 2008
- Ianoș, I., Tălângă, C., Braghină, Cr., G., Andra, C., (2010), *Characteristics of the Industrialization Process around the Moment of Collapse of a Centralized Political System. Romania as a case study*, Forum geografic, S.C.G.P.M., Year 9, No. 9, pp. 161 – 172
- Jansen, S., (2001), *The streets of Beograd. Urban space and protest identities in Serbia*. Political Geography, Volume 20, Issue 1, Pages 35-55
- Jordan, P., (2009), *Development of Rural Space in Post-communist Southeast Europe after 1989: a Comparative Analysis*, Revija za geografiju - Journal for Geography, 4-1, 89-102
- Kenessey, Z., (1987), *The Primary, Secondary, Tertiary and Quaternary Sectors of the Economy*, *Review of Income and Wealth*, Vol. 33, Issue 4, p. 359–385.
- Kovačević, T., Kicošev, S., (2007), *Influence of Global Changes on Micro European Regions, on the Example of Vojvodina*, Third International Conference, 28-29 April 2006, Sofia University „St. Kliment Ohridski“, Faculty of Geology and Geography, Sofia, Bulgaria, pp. 305-309.
- Kovačević, T., Zakić, L., Bubalo-Živković, M., (2010), *Age-Gender Structure of Croats in Vojvodina Province*, Human Geographies, 4.2, pp. 63-78, Bucarest: University of Bucharest.
- Lindenmajer, E., (1856), *Opis mineralnih voda u Kneževini Srbiji*, Beograd, str. 93
- Mayhew, S., (1997), *Dictionary of geography*, Second edition, University press, Oxford, 460
- Popescu, L., (2008), *Urbanization and Internal Migration within Oltenia during the 1977-2002 period*, Forum Geografic – S.C.G.P.M., year 7, no. 7 / 2008, pp. 145 – 150
- Republički zavod za statistiku (2004), *Stanovništvo, Delatnost, interna dokumentacija*, Beograd
- Rey, V., Bachvarov, M., (1998), *Rural settlements in transition – agricultural and countryside crisis in the Central-Eastern Europe*, GeoJournal, Volume 44, Number 4, 345-353
- Rodić, D., Pavlović, M., (1994), *Geografija Jugoslavije*, I knjiga, IŠP „Savremena administracija“, Beograd, pp. 168
- Savezni zavod za statistiku, (1972a), *Aktivno stanovništvo prema delatnosti*, Popis stanovništva i stanova 1971, Rezultati za stanovništvo i domaćinstva, po naseljima i opštinama, SR-SAP uža teritorija, opština Vrnjačka Spa, 3371, XIV, tabela 3-4, SFRJ, Beograd, str. 53
- Savezni zavod za statistiku, (1972b), *Aktivno stanovništvo prema delatnosti*, Popis stanovništva i stanova 1971, Rezultati za stanovništvo i domaćinstva, po naseljima i opštinama, SR-SAP uža teritorija, opština Trstenik, 3436, XIV, tabela 3-4, SFRJ, Beograd, str. 148-149.
- Savezni zavod za statistiku, (1972c), *Aktivno stanovništvo prema delatnosti*, Popis stanovništva i stanova 1971, Rezultati za stanovništvo i domaćinstva, po naseljima i opštinama, SR-SAP uža teritorija, opština Kraljevo, 3389, XIV, tabela 3-4, SFRJ, Beograd, str. 78-80
- Statistički godišnjak Srbije, (2008), *Površina Republike Srbije i Autonomnih pokrajina*, Geografski pregled, Poglavlje 1, Republički zavod za statistiku Srbije, Beograd, 18
- Stepanov, R., Lazar, Ž., (2002), *Savremene koncepcije regionalizma i problem statusa Vojvodine*, Sociološki pregled, vol. 36, br. 1-2, str. 129-145, Beograd: Sociološko društvo Srbije.
- The internal documents of Statistical Office of the Republic of Serbia which have acquired in 2004.
- Veremis, T., (2008), *The Balkans in transition and the great powers*, European View, Volume 7, Number 1, Pages 121-128, Springer
- Vujadinović, S., (2006), *Regionalnogeografska proučavanja Gruže*, doktorska disertacija, Geografski fakultet, Univerzitet u Beogradu, Beograd
- Vukmirović, B., Z., Unkašević, M., Lazić, L., Tošić, I., (2001), *Regional air pollution caused by a simultaneous destruction of major industrial sources in a war zone. The case of April Serbia in 1999*, Atmospheric Environment, Volume 35, Issue 15, Pages 2773-2782