

University of Pécs
Doctoral School of Earth Sciences

**POLITICAL GEOGRAPHICAL CONSEQUENCES OF THE
BREAK-UP OF YUGOSLAVIA AND IT'S IMPACT ON THE
SETTLEMENT SYSTEM OF THE REGION**

Theses

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Distinguished areas of research of political geography are the state and the parts / segments constituting it, the state borders in particular. Such political geographical elements of space may be influential in respect of regional / territorial impacts and extensions of all social changes. The effects depend on the nature of the state border, varying from alienated to cooperative, integrated border regions (HARDI T. 2004). Thus changes of borders may heavily impact on social and territorial processes.

One of the most tangible effects of border changes relate to the cities, the most distinguished areas of social activity. The increase in the length and the changes of the running of state borders - in other words, the territorial fragmentation - alter the natural intercity relations.

Several new states were born due to the breakup of former Yugoslavia, the running and length of state borders changed significantly. The region demonstrates several outcomes which derive from these impacts affecting also the cities. Furthermore, the method and the process of the state's break up impacted the transformations of the settlement heavily. Today one can see the political geographical processes as the most important factors of the long-term development of the settlements of the former Yugoslavia.

The settlement network of the peninsula was often and considerably influenced by the political geographical changes also from a historical point of view, represented mainly by the periodically changing regime structures just as much as the modifying state borders and spheres of interest which derive from the previous.

The currently influential factors of political geography impacting the settlement network of the region are the disintegration of former Yugoslavia and the integrative intention of the European Union. By the early 21st century the region reached such a fragmented state which has never been experienced before, the previous intercity relations changed dramatically.

The outlines of the reintegration are already visible. The European integration provides the biggest opportunity for the states of the region to achieve stability and prosperity, due to this the interregional cooperation is extending which is actually the internal cooperation of the former states having become international.

Beside the alteration of the settlement network, the shifts in the positions of the individual cities is a characteristic feature as well. It is possible to identify both winners and losers of the changes having taken place, experience of growth and also of decline which are all indicated mainly by transformations of and shifts in the functions.

Our hypothesis is that processes of political geography significantly impact the settlement network of former Yugoslavia both historically and from the point of view of recent flows. We attempt to introduce these processes and to pinpoint their major impacts affecting the most distinguished social areas, the cities.

OBJECTIVES

The objective of the Ph.D. thesis is to reveal the connection between the processes of political geography and the changes within the settlement network in the Yugoslav succession states with emphasis on reviewing the most significant impacts: the disintegration of the state, the military activities it led to, and the process of new states coming into existence and changing the state borders on both the settlement network and the individual cities and discover the connections.

To fulfill the above described main goal of the thesis we need to complete several sub-objectives which are as follow:

- *The alterations of the settlement network of the Balkan Peninsula due to previous significant political geographical changes.* Since one of the major features of the Balkan Peninsula is its 'empire switcher' characteristic (HAJDÚ Z. 2002), we considered it important to review the previous (19th century events in particular) changes of the settlement network since these are considered to be antecedent of the

topic of this thesis, to draw parallels and to point out to the fact that the changes that took place at the end of 20th century is a regional characteristic of the Balkan.

- *Evaluating the political borders of the region and identifying the tensions relating to them.* The borders, the youngest ones being not even a year old while the oldest ones came into existence 130 years ago serve as the most important element for the hypothesis. Regardless of the nature of the comparison, these borders are the youngest ones among all the Europeans. Furthermore, they count as the most important reason for all the issues relating to the settlement network. In order to complete this sub-objective did we examine given border sections and define the relating tensions.
- *Reviewing and analyzing the impacts of the breaking up of Yugoslavia on the individual settlements .* We selected three factors for our analysis on the changes the individual cities have gone through.
 - demographical alterations, whether the population increased or decreased during the examined period and if it has any regularity
 - changes in the ethnic composition, specifically if there is any regularities in the alterations. We considered relevant to implement an indicator which can be put into comparison and statistically analyzed in the most objective manner instead of reviewing the actual changes in the proportions of the ethnic groups - not because we would consider such an analysis irrelevant but it is due to the fact that several such works discussing this aspect have already been prepared before to us.
 - physical destructions of settlements in the frame of which we did not intend to give a thorough picture of the damages from a financial point of view but rather concentrating on defining the political geographical damages namely the destruction of symbols, places of symbolic value both on a global scale and on group level, communal buildings.
- *Investigating the effect the breaking up of Yugoslavia had on the settlement network.* We considered during our investigations highly important to analyze in details what changes occurred within the settlement network. The fragmentation of the state territory and the modifications of the borders were most of all influential on the intercity relations. Functional alterations, changes of the hierarchy structures within the settlement network and modifications relating to the agglomeration are all due to the disintegration of the state and the differing share of responsibilities which results from the previous.
- *Explaining sub-national dividedness via the example of Bosnia and Herzegovina.* In this section of the dissertation we were looking for an answer to the question of what deformities are caused by ethnical oppositions to the organization of space and the spatial flows and processes of a state which is highly divided ethnically and kept together artificially.

REASON FOR CHOSING THE REGION OF INVESTIGATION

The interest in the Balkan Peninsula is partly a subjective choice but it is largely based on the recognition that this region has to be primary partner for Hungary. Partner in (obtaining and) sustaining security and stability, partner in economical cooperation and partner in social, cultural, regional development matters. Looking at Hungary from the Balkan it is already the West, a specific part of it which knows, understands, and treat the Balkan as it is. For the region the road leading to Europe is via Hungary being just as much an opportunity as it is a responsibility. Parallel to this, for Hungary the Balkan serves as a market, is one of the most important places of tourist attraction, a part of our history, a natural target of our foreign policy. The Balkan Peninsula is definitely a place where the Hungarian economy and

diplomacy can vindicate their interests, be successful and prove competitive advantages for a EU based comparison. Thus exploring and becoming familiar with all structures of the region is Hungary's interest.

From the 1990s however such events took place in the Balkan region, specifically in its western part, that cannot be left unnoted, regardless of which part of the world those would have happened. Our southern neighbour completely dissolved in 15 years, leaving several states and politico-territorial formation behind, the latter if which only demonstrated stately features and did not prove viable thus have ceased to exist since then.

Parallel to the political changes dramatic alterations also took place, millions migrated mainly due to the violent acts. Various relation networks, social, economical and political formations were radically altered as result of these sudden / quick changes. The states, the communities, the cities have still been trying to find their own places, not even the process of nationalization has finished necessarily.

Hungary is having eminent interest in each of the succession states in the lives of which it has an essential part. Even though the title makes reference to the whole South Slav region - (for the sake of simplicity) - the analysis of the thesis deals with Slovenia and the Slovenian settlement network only marginally. Reason being the fact that the crisis of Yugoslavia found the settlement network of Slovenia in a significantly different starting position comparing it to all the other succession states, furthermore even the course and the outcomes of the crisis were different for them. Also, Slovenia is by now a member of EU and NATO thus its development is based on /due to different factors. Succession states of similar positions are not the focus of this study.

The decomposition of the federal state can be a mutual point in the comparison however the restricted effects of the war, the rapid Euro-Atlantic integration, successful joining into the globalizational processes and the basically ethnically homogenous region induce more differences than similarities in comparison to the political geographical events of the rest of the Yugoslav succession states and autonomous territories.

APPLIED METHODS

Due to the complex and wide spread problems, a wide range of tools is need for the analysis on the settlement structure; tools of both social science and natural science.

The starting point of our work was the examination of the hitherto prepared both national and international studies on the topic. The data from the 1991 and 2000 censuses and the estimates of the national statistical institutes and those of international organizations present in the region were our primary source. In the case of the census it has to be noted that the surveys were executed in a different method in the framework of the 1991 census than that of the 2000. Thus the calculations based on these numbers cannot be considered accurate, still, they prove to be a reliable source for the comparison since they reflect the tendencies, the directions and the volume of the changes.

Further primary sources are the analysis and reports run by various international organizations and Think Tanks (specialized organizations of the UN, OSCE, International War and Peace Reporting, International Crisis Group, Balkan Investigative Reporting Network, Bosnia Institute, etc.), the EU's reports on regional development, security, integration and the documents of the affected countries on regional development.

The field works we conducted in the target region also proved essential in our work.

Two tools were borrowed from mathematical statistics since the impacts on cities can be divided into two groups: impacts on individual cities and on cities as a network; both needing different specific mathematical tools.

One of the most significant of such impacts is the changes of the ethnic content; the previous mosaic structures cease to exist and the ethnic spaces, the cities becoming homogenous. Since

the ethnic groups differ from region to region we consider insufficient to rely on the approach of merely describing the migration of ethnic groups with identifying both old and new locations and establishing the fact whether they formed in the new territories minorities or majorities. We led the examination based on the so-called diversity index since almost all regions in the analysis are affected by homogenous tendencies in which all ethnic groups are involved. The so-called Simpson diversity index, originally coming from the field of Biology indicating the species present in an ecosystem then applied to geography in Hungary by Péter Bajmóczy, shows the chances of a member in a community belonging to a given ethnic group meeting other members of the same or different ethnic groups (BAJMÓCZY P. 2004). Applying the following mathematical formula we get to values between 0 and 1, where 0 indicates a completely homogenous population while 1 the community where everyone is of different ethnicity.

$$EDI = \frac{L * (L - 1) / 2 - \sum_{i=1}^n e_i * (e_i - 1) / 2}{L * (L - 1) / 2}, \text{ where}$$

L: a population of settlement (općina)

e_1, e_2, \dots, e_n : number of persons belonging to the ethnic groups

EDI: ethnic diversity index

Comparisons of homogenous ethnicities of the individual states lead to false results due to the fact that not the same number of ethnic groups the census of 1991 and that of 2004 dealt with. However these censuses contained the same ethnic groups in relation to the states thus we can compare the diversity indices and the extent of the changes on the level of the states which can also be carried out on settlement level. So it is not only the diversity index (EDI) but its alterations (ΔEDI) which is our most important measure evaluating the ethnic changes of settlements.

For tracking down the changes in the settlement network we chose Auerbach's rank-size method, a typical method of settlement geography (HAGGETT P. 2006, CSÉFALVAY Z. 1994). This describes the correlation between the size based on the population and the position in the list within the settlement network based on the population. Deviances from this indicate disorder and disproportion of the given settlement network. The index thus provides important and easily comparable data for settlement network examinations, describing the type of centralization and the internal structure of the settlement network and can be calculated as follows:

$$N_{(n)} = \frac{N_{(1)}}{R_{(n)}}, \text{ where}$$

$N_{(n)}$ = the population settlement of nth rank within settlement hierarchy

$N_{(1)}$ =population of biggest settlement

$R_{(n)}$ = nth rank within settlement hierarchy (Cséfalvay Z. 1994)

We examined the impacts on the settlement structure with other primary tools as well; compared and evaluated traffic data of various means of scheduled transportation (train and air transport) taken from the last year of peace and from the early 2000. Combined with individual traffic indices and with statistics on traffic of ports, these can efficiently present the fragmentation and alienation of the settlement network. The number border crossing points in

operation, their ratio per 100 km, and the comparison of the border crossing points to the number of public roads crossing the republic's borders can be indices of fragmentation, just as much as linear infrastructure elements (electricity system, water supply system, railroads) breaking off at new border lines

Analysis on the alterations within the institutional structure can also be indicative of fragmentation; these can be new administrative and governmental organizations of new states, new international airports, establishing universities, the HQ's of professional and administrative organizations (chambers, statistical institutions), courts, cultural institutions etc.

OUTCOMES

Historical dimensions of the political geographical changes affecting the settlement network of the Balkan

This section of the research relies completely on evaluating the relating literature, still trying to aiming to enforce an approach which focuses not only on settlement history but also on the political geographical changes impacting the settlement network. We came to the conclusion that the changes in the settlement structure of the West Balkan at the turn of 21st century is not a new phenomenon; there has been several repeating phases of integration and disintegration during history.

The most convincing example is the period closest to us, from the 1820s to the Great War. In the disintegrating Ottoman Empire the same features could be visible (growing nationalism; homogenous ethnicities; transformation of symbolic buildings of settlement; fragmentation of the unified Ottoman market; separative borders coming to existence; establishing new national capitals, regional centres; decline of previous macro regional centres; thinning of intercity relations; etc). We can thus conclude that the changes in the settlement network due to political geographical impacts are characteristic of the Balkan.

Analysis on the political borders and identifying the relating tensions in the post-Yugoslav region

One of the most important political geographical and security political issues which is also the most diversified in its effects relates to the border. We need to distinguish between external (large part of which overlaps with the state border of the former Yugoslavia) and internal borders (which show similarities with the internal administrative borders of the former Yugoslavia) of the region. The issues regarding external borders can more or less be considered settled with the few exceptions of illegal migration (of people, illegal goods, crime) and that of the tension relating to the Schengen, these being the two main security risks.

The new state borders of the region represent a completely different type of risk which is actually compiled of several factors being present with the top most elements being the constant questioning of the legitimacy of the new state borders, the fact that the political borders do not overlap with the ethnic borders and the hostilities of recent history the breaking out of which is due to the border issue and even if the hostilities are currently suspended, the real reason got only partially rectified. The consequences of the issue are really diverse. Unresolved ethnic tensions oppress the interstate relations, nonconformists destabilize the region, seclusion within an ethnic based state paralyze countries.

The increase in the length of state borders of the region (the state borders only show an increase from 3052 km to 6222 km in total, excluding the IEBL¹ and the new borders of

¹ Inter Entity Boundary Line – dividing Bosnia-Herzegovina into two entities: Bosnian Serb Republic and Republic of Bosnia and Herzegovina

Kosovo), and the growth in the number of the states as well brought significant change for the distinguished spaces of society and economy, the settlements. *The disintegrating state space fragmented the settlement network as well.*

The internal borders of Yugoslavia did not almost at all overlap with the ethnic borders. This hit the Serbians the hardest due to their significant presence in all succession states and autonomous entity, except for Slovenia, often forming serious minority groups. There were other ethnicities as well living on significant areas but outside their own states. Furthermore, this lack of overlapping underlines also the fact that - again with Slovenia as exception - there are no ethnically homogenous regions.

The national autonomy and the inviolability of borders were the two opposing principles emerging while settling the border issues which arose with the disintegration. The parties involved obviously interpreted these paragraphs based on their own interests. The Badinter Commission of international lawyers which were called upon taking stand in the border issues approved the borders of the succession states based on the *Uti possidetis*² principle (HOFFMANN T. 2007).

Due to this the ethnic tensions which did not result in the outbreak of the conflict but predestined the course of the conflict did not cease to exist. Almost all former succession states (with Slovenia as exception) inherited ethnic tensions relating to the new state borders, which, as we see, essentially contributed to the lingering hostilities. *Thus instead of solving the problems they got relegated to a lower administrative level.*

The hostilities which broke out during the disintegration all aimed at adjusting the ethnic and the political borders to each other. Due to the mosaic ethnic structure this simultaneously meant driving away other ethnic groups living in own given areas and violently occupying of territories with reference to the ethnic principle belonging to other political entities.

The above outlined ethnic situation the disintegration of the state resulted in *all Yugoslav succession states having undergone ethnic homogenization.* The main difference derives from whether this process happened *within the new borders, with enclaves and internal ethnic borders coming to existence* (Bosnia-Herzegovina, Macedonia, Kosovo) or by the territory getting rid of the significant segments of its minorities (Croatia, entities of Bosnia).

The impact of Yugoslavia's breakup on the individual settlements

Changes within population

We consider the changes of population in numbers the most important demographical alterations. Since World War II. the biggest European population move happened relating to the Balkan Wars. On the hostile regions the population declined (the vast majority of Bosnian cities, Krajinas) while on the other hand the population on some parts of the peaceful regions due to the exiles increased.

In proportion, the most significant decline was that of the Croatian Krajina territories due to the expelled Serbian population whose place was only scarcely filled up by Croatian settlers. The population in Central and Eastern Slavonia decreased as well but with a smaller extent; because of the peaceful return of East Slavonia (Erdut Agreement, 1998) and of larger scale Croatian settlings induced by the favorable natural and settlement circumstances.

In Bosnia-Herzegovina mainly the following regions experience decline in population: settlement of Central Bosnia, Bosnian Krajinas, settlements along the Drina and the so-called Posavina corridor. The Serbian, the Bosniak and the Croatian ethnic regions adjoin at the Central Bosnian settlements with maximum ethnic diversity presenting thus not only two- but three-sided struggles.

² After the collapse of the colonial structure in Africa, this principle was applied when redrawn of borders, practically the administrative boundaries already in existence became international, regardless of other features of regional structures (ethnicity, language, religion, etc.)

City (općina)	persons	City (općina)	Rate of decline
Nagy-Szarajevó (BiH)	-123 162	Donji Lapac (Hr)	-76,62%
Peć (Kos)	-45 943	Bos. Grahovo (BiH)	-70,03%
Brčko (BiH)	-43 816	Dvor (Hr)	-60,73%
Nagy-Belgrád (Sr)	-41 610	Glamoč (BiH)	-59,90%
Vukovár (Hr)	-21 346	Obrovac (Hr)	-58,65%
Knin (Hr)	-20 655	Kupres (BiH)	-58,57%
Zavidovići (BiH)	-20 461	Vrginmost (Gvozd) (Hr)	-57,55%
Maglaj (BiH)	-19 744	Benkovac (Hr)	-57,42%
Jajce (BiH)	-19 246	Glina (Hr)	-57,00%
Travnik (BiH)	-19 033	Novo Brdo (Kos)	-56,74%
Benkovac (Hr)	-18 973	Gračac (Hr)	-54,70%
Zenica (BiH)	-17 082	Vareš (BiH)	-54,33%
Osijek (Eszék) (Hr)	-16 975	Brčko (BiH)	-50,17%
Zadar (Hr)	-16 949	Knin (Hr)	-48,93%
Kotor Varoš (BiH)	-16 740	Bos. Petrovac (BiH)	-47,23%

Table 1: Cities with the highest absolute and relative population decline, 1991-2004. Source: Own calculations from data from Statistical institutions

However, the population in the third region where serious armed clashes happened did not decline. During the early 1991 and early 2000 the post Yugoslav region's most significant population increase can be seen in Kosovo, only with few settlements as exceptions. Kosovo is the only administrative entity where the figures were only estimated or politically influenced thus showing unreliable data for population changes. On the other hand, however, the Albanian's highest natural reproductive index in Europe should also be taken into consideration.

Even more mosaic is the picture for Serbia; generally speaking, the population is declining in the eastern and southern settlements while the cities and the area of Novi Sad experience positive changes even if the Belgrade agglomeration suffers from significant losses.

We cannot make such strict distinctions for Macedonia. There are both cities with increasing and with decreasing population, but no sharp contrasts can be detected unlike in case of the other succession states. While the highland areas are declining demographically, unsurprisingly the areas with Albanian inhabitants show positive tendencies.

Further areas of positive tendencies besides the already mentioned Vojvodina are the cities, the urban areas and coastal areas which provide good living. In Croatia these positive poles are the Zagreb agglomeration, the coastal area of Istria and the Kvarner Islands, the Split agglomeration and the South Dalmatian towns and cities. In both cases the positive emigrational balance is the main reason for the increase and can be both push factor (escaping from hostile territories) and pull factor (prospect of better living).

The areas in *Bosnia-Herzegovina* which remained safe from the armed conflicts did not suffer from significant decline in population and also accepted large numbers of refugees from less fortunate areas. Banja Luka and Bijeljina, western part of the Posavina Flatland became the most desired targets for the Serbians. The southern rim of the Posavina corridor was the shelter of the Muslim population, the least fierce battles happened in this area. Herzegovina's eastern settlements grew in number due to Serbian migrations while the western ones due to Croatian settlers. The area was not severely impacted by war thus the ethnic diversity there is smaller just like the number of people leaving the area.

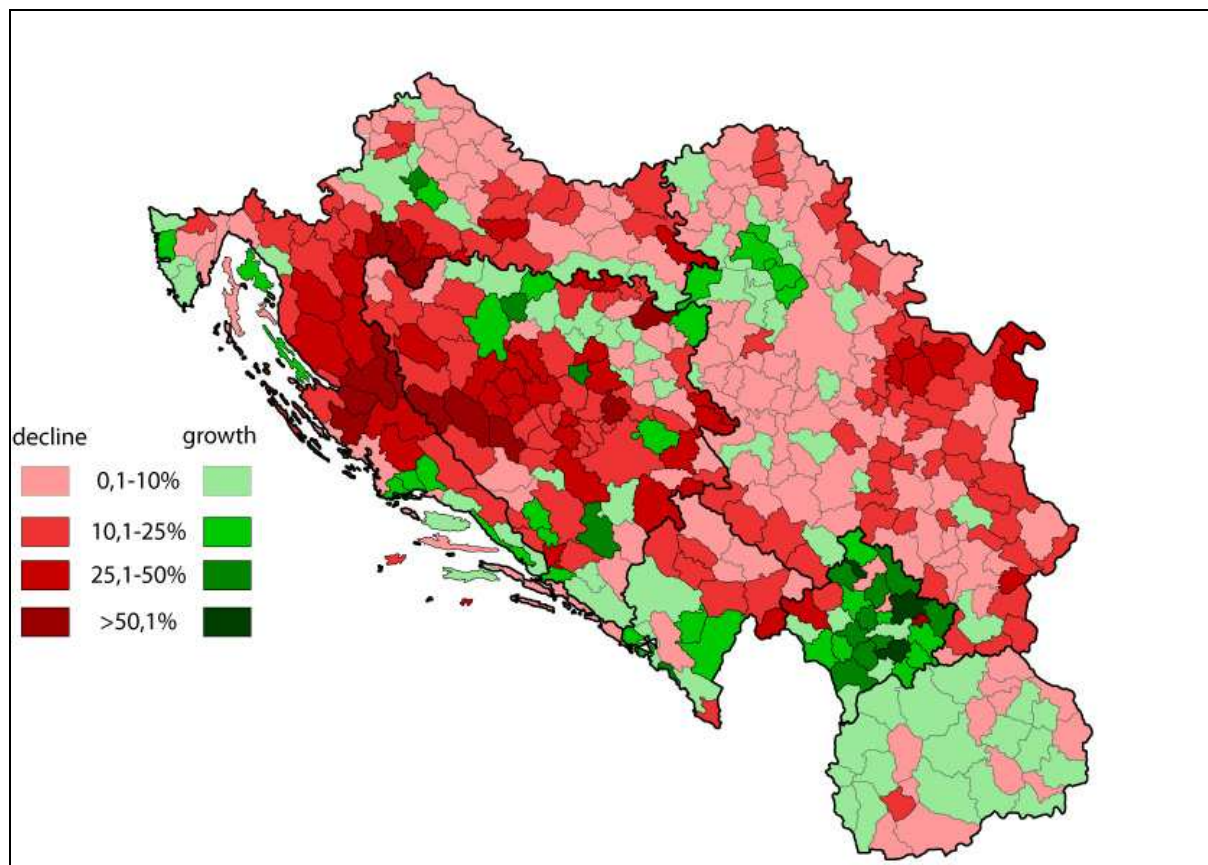


Fig. 1.: Population changes of Yugoslav succession states on settlement level, between 1991 and early 2000. Source: data and estimates from statistic institutions; cartography: Németh Á.

Ethnic homogenization

The primary objectives of the war accompanying the breakup of the state were securing political independence of occupied areas, satisfying nationalist territorial needs and homogenization of the owned and the occupied territories. Since the ethnic composition of the region prior to 1991 was the most diverse in all Europe, the individual national objectives could only be achieved at the expense of other nations (JUHÁSZ J. 1997).

The fear and the conflict itself forced millions to leave their homes. This forced /constrained migration is *undoubtedly of ethnic nature* and generally but not in all affected regions has led to *ethnic homogenization of the area*. As a result the *multicultural region of the West Balkan have disappeared just like the ethnic mosaic structures of several areas*.

The statistically provable homogenization is detectable not on the level of larger territorial units (West Balkan, republics) but rather on territorial meso-levels (entities, communes, counties) and settlement level, while the ethnic homogeneity of the former state hardly changed. *The succession states of the former Yugoslavia - Slovenia excluded - show a growth of only 0.3 % in the homogenization index.*

From evaluating the data we came to the conclusion that primarily it is not the proportion of various ethnicities, *not the region's ethnic diversity that got modified by the war but the settlement areas of the region began to become clearly distinguishable*. This is supported by the fact that the ethnic homogenization of the former Yugoslavia can be considered insignificant, that of the individual succession states and the territorial units within them are highly considerable / important.

Republic / entity / autonomous area	ΔEDI (pp)
BOSNIA AND HERZEGOVINA	-5
Federation of Bosnia and Herzegovina	-22
Bosnian Serb Republic	-26
CROATIA	-18
MACEDONIA	2
MONTENEGRO	11
SERBIA PRIOR 2008 (Serbia Proper + Vojvodina + Kosovo)	1
SERBIA AFTER 2008 (Serbia Proper + Vojvodina)	-5
SERBIA PROPER	-4
KOSOVO	-13
VOJVODINA	-9
YUGOSLAVIA (EXCLUDING SLOVENIA)	-0,3

Table 2: The change of ethnic diversity index of Yugoslav succession states and other sub national territorial formations between 1991 and 2004. Source: statistic institutions

The Yugoslav succession states based on the ethnic diversity index can be grouped into two categories; the change in the ethnic diversity is either only minor, easily supported by natural processes such as assimilation or the Yugoslav as category cessation or considerable which results in significant homogenization.

The ethnic homogenization of the population that happened in Croatia and Kosovo was due to the majority driving out the undesirable minorities by force and overcoming them with demographical means.

The population of Serbia has undergone slight homogenization as well as a collective result from the decrease in the number of people that chose Yugoslav as category, Serbs driven out of Croatia, Bosnia-Herzegovina and Kosovo and the natural process of assimilation. Due to demographical processes opposite to homogeneity - higher reproduction rates of the Albans and Bosniaks and growing numbers of the Vlachs lead towards diversity - the ethnic homogenization of the Serbs was of smaller degree that could have been expected based on the large number of refugees coming to the country.

As several researches concluded (KICOŠEV S.–KOCŠIS K. 1998) the refugees from the succession states of former Yugoslavia ending up in Serbia chose in large proportion Vojvodina to settle down. This, and the number of Hungarians leaving the territory are visible in the 9% drop rate of the diversity index of Vojvodina. The absolute value of this rate is quite small but *Vojvodina is the former Yugoslav region after the war hit entities where the highest homogenization can be seen.*

The ethnic diversities of Macedonia and Montenegro also increased but due to two different reasons. The quarter of Macedonia's population is Albanian, their higher reproductive rate and opposition to assimilation, the country shows a pattern of growing ethnic diversity since it is about the growing proportion of one minority within the population as whole. In Montenegro the aim for independence divided the society extremely, choosing an ethnic identity also meant a political choice and vice versa. In 1991 the majority of the population identified themselves as Montenegrin but in 2003 those who were for maintaining the federal state called themselves Serbs and the opposing ones Montenegrin.

Despite the fact that no official data is available for Bosnia-Herzegovina on the actual ethnic proportions, it can be assuredly stated that on state level the diversity changed little, the 5% rate is the same as that of Serbia.

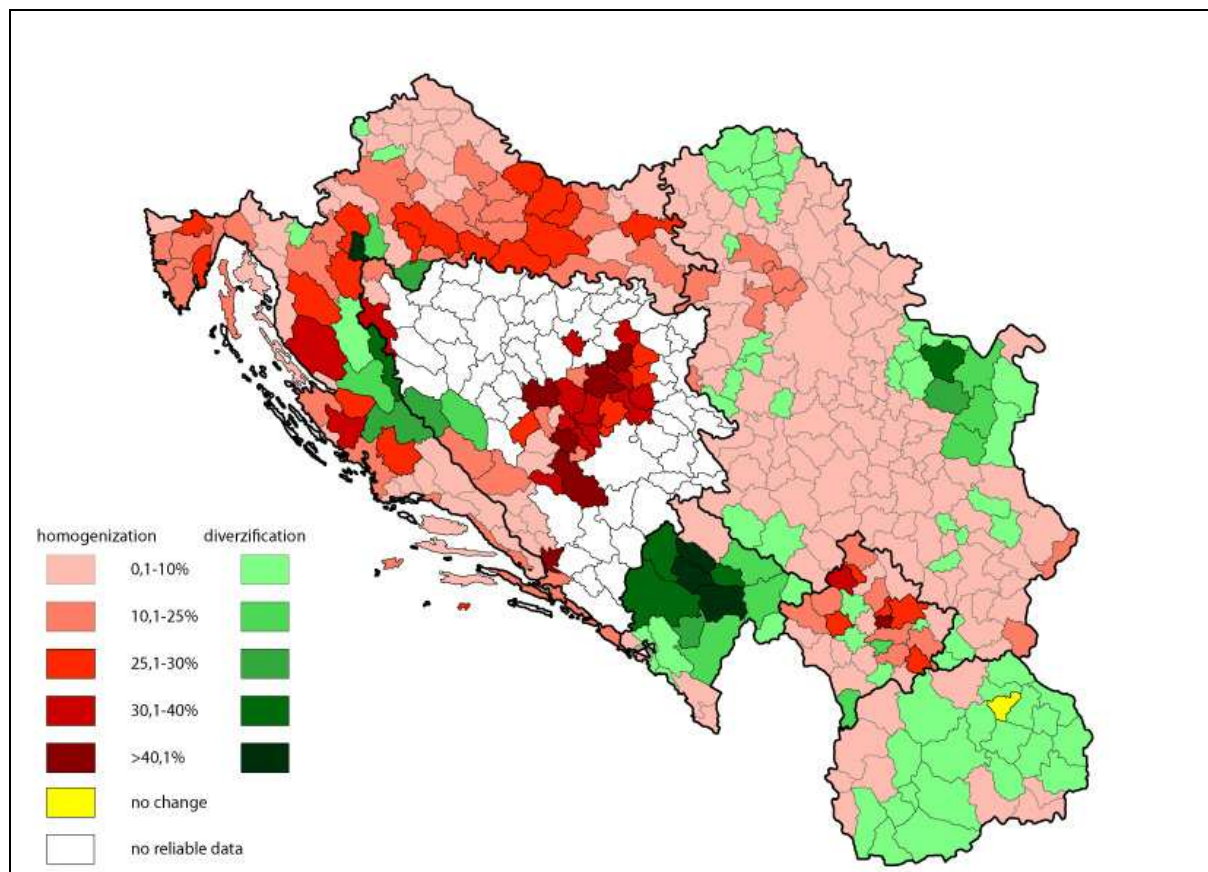


Fig. 2: Ethnic homogenization of succession states of former Yugoslavia (based on alterations of ethnic diversity index) between 1991 and early 2000. Source: own calculations from data and estimates of statistic institutions. Cartography: Németh Á.

The ethnic structures with slight changes on state level present a larger alteration on sub national levels. Due to the Dayton Agreement, an extreme and legitimized version of separation came into existence in Bosnia-Herzegovina. Serbs live in Republika Srpska, while the other two major ethnic groups in the Federation in absolute majority. Further homogenization can be seen in the federal communes indicating extreme ethnic segregation of the country.

Name of canton	Ethnic changes (pp)			Δ EEDI (pp)
	Serbian	Croatian	Bosniak	
Unsko-Sanski	-17,53	-1,02	21,95	-32
Posavski	-9,44	12,27	0,98	-18
Tuzlanski	-9,94	-1,56	20,08	-30
Zeničko-Dobojski	-12,25	-5,38	25,11	-31
Bosansko-Podrinjski	-26,48	-0,06	29,84	-42
Srednjobosanski	-9,23	0,63	14,24	-13
Hercegovačko-Neretvanski	-11,58	9,81	9,18	-14
Zapadno Hercegovački	-0,09	1,97	-1,07	-4
Kanton Sarajevo	-15,94	-0,31	28,79	-30
Kanton 10	-23,26	27,54	-2,21	-24
alltogether	-13,1	-0,37	20,52	-22

Table 3: Ethnic changes and diversity indices for the communes of the Federation of Bosnia and Herzegovina, 1991-2004. Statistical institutions

Analyzing ethnic homogenization on settlement level we can identify several other settlement types. *Homogenization affect those settlement in the most extreme way which suffered from armed activities*, e.g. Slavonia, Kosovo, several settlements of Croatian and Bosnian Krajinas, Middle Bosnia, majority of Bosnian Serb Republic (no reliable data available for the whole region). In these areas homogenization is mainly due to the minorities leaving the regions. *In Dalmatia, Istria, Novi Sad it was not the minorities' absolute value declining but the growth in the majority*. They are the peaceful areas where large number of refugees arrived.

	ΔEDI (pp)	Croat	Bosniak	Serb	Yug..	CG	Alb.	roma	other	Total
Zavidovići (BiH)	-53	-7429	1572	-10959	-2703	0	0	0	-942	-20461
Travnik (BiH)	-46	-21893	14629	-7269	-3688	0	0	0	-812	-19033
Kos. Polje (Kos)	-45	-37	-1675	-5107	-65	-898	16626	-2996	-672	5127
Konjic (BiH)	-44	-9506	3468	-5763	-1379	0	0	0	-447	-13627
Fojnica (BiH)	-43	-5806	2212	-98	-396	0	0	0	-1028	-5116
Lukavac (BiH)	-41	-609	11813	-11585	-3384	0	0	0	-1087	-4852
Čapljina (BiH)	-40	2187	-5767	-3510	-1018	0	0	0	-342	-8450
Z. Potok (Kos)	-40	-1	0	7749	-5	-26	-4711	0	-11	2995
Busovača (BiH)	-39	1332	-7726	-374	-505	0	0	0	-159	-7432
Tešanj (BiH)	-39	-8237	12680	-2743	-1038	0	0	0	-379	283
Jablanica (BiH)	-39	-2063	3611	-387	-573	0	0	0	-178	410
Kladanj (BiH)	-36	-6	3710	-3667	-272	0	0	0	-14	-249
Benkovac (Hr)	-36	-474	-26	-18142	-165	1	-18	0	-161	-18973
Olovo (BiH)	-34	-344	-17	-3154	-282	0	0	0	-100	-3897
Banovići (BiH)	-34	24	8316	-4021	-1925	0	0	0	17	2411

Table 4: The top 15 settlements with highest rate of homogenization in the territory of former Yugoslavia (the Bosnian Serb Republic excluded ³), with the changes of numbers in the top ethnic groups. Source: statistic institutions

Whereas in areas where the absolute majority was not the state majority, the change in the ethnic composition was the opposite, diversity increased. Such areas are the core territories of the Croatian and Serbian Krajinas, where the Serb / ian population was 90% of the whole ante bellum and during the war not all of them fled and neither came large numbers of Croatian refugees.

Diversification characterizes Vojvodina's settlements with Hungarian (Subotica, Kanjiža, Senta, Čoka, Bačka Topola, Bečej, Mali Iđos) and Slovakian majorities (Bački Petrovac) which results from decreasing population not because of the war but as a collective outcome of Serbs from the Krajinas settling here and of the majorities' (Hungarians and Serbs) assimilation and moving into the mother country. Though the Serbs settling among the Hungarians strengthen the diversity on a local level, the same phenomenon on the other hand in Vojvodina or Serbia means ethnic homogenization. Further diversification is visible for reasons stated previously in settlements of Montenegro. The East Serbian diversification is the result of the strengthening of the Vlach ethnicity.

³ Not even officially estimated data can be found in connection to RS, unofficial estimate figures are dealt with due foresight.

	ΔEDI (pp)	Croat	Bosniak	Serb	CG	roma	Yug.	Other	Total
Vojnić (Hr)	43	1882	1	-4673	3	0	-131	220	-2702
Šavnik (CG)	43	1	-4	1224	-2082	0	-16	127	-749
Kolašin (CG)	41	-4	-22	3966	-5304	0	-114	340	-1147
Žabljak (CG)	40	1	0	1776	-2681	0	-47	254	-696
Mojkovac (CG)	39	-3	-33	3600	-4457	0	-114	320	-708
Plužine (CG)	37	-3	-17	2219	-3404	0	-20	261	-968
Donji Lapac (Hr)	35	431	-32	-6457	-8	0	-64	-15	-6160
Kučevo (Sr)	32	-206	-7	-11299	-55	-23	-262	5064	-6841
Nikšić (CG)	31	4	-1357	15875	-18842	335	-1075	5603	461
Danilovgrad (CG)	28	8	-62	3345	-1893	5	-227	793	1951
B. Grahovo (BiH)	28	387	-12	-6047	0	0	-128	-15	-5815
Knin (Hr)	27	10167	-37	-30289	14	0	-508	-33	-20655
Dvor (Hr)	26	553	-16	-9033	-14	8	-322	-61	-8879
Žagubica (Sr)	24	-6	-3	-5393	-7	-7	-102	2577	-2954
Gračac (Hr)	17	1698	-6	-7490	-11	0	-133	-111	-6061

Table 5: Top 15 settlements suffered biggest diversification with changes of numbers in the top ethnic groups. Source: statistic institutions

Devastation of infrastructure

The other impact armed conflicts are having on settlements is the devastation of infrastructure, categorized as follow:

- Strategic devastation of infrastructure, i.e. destruction of facilities which „needed” to be destroyed in order to achieve military objectives (factories, roads, bridges, communicational infrastructure, military facilities etc.)
- Collateral damages, additional losses unforeseen and unplanned during achieving military objective (non strategic, civil buildings)
- Damage done to settlements which cannot be explained with military necessity and with scale which excludes contingency, to places of distinguished importance for an ethnic group, symbolic spaces of religious communities; sacral facilities, churches, cemeteries, parish registers, archives, where we cannot think of anything else but violent and artificial redefinition of history (RIEDLMAYER, A. 2002)
- Urbicide; not a completely new but a forgotten phenomenon reappeared and received the terminology based on the Bosnian experience: genocide (SHAW, M. 2000). The idea that lies behind urbicide is that the cities are the citadel of liberal thought, tolerance, coexistence, multiculturalism and as such are in opposition to the nationalist territorial ambitions thus the destruction of settlements and all features of city life (museums, market places, post offices etc.) is a way to achieve ethnic homogenization.

During the war an estimated 350-400 billion USD (SITO-SUCIC, D. 2007; B92, 2008; WASS VON CZEGE, A. 2000) of damage was caused in the artificially created environment (only in Serbia, Croatia and Bosnia-Herzegovina). The rebuilding of the damaged infrastructure is still ongoing with international support. Such restoration is more interesting in case of symbolic buildings; the religiously and culturally determined relations are conspicuous in case of supported communities and the buildings to be renovated (rebuilding Catholic churches with Italian support, renovating Orthodox establishments with Greek and Russian aid, concrete mosques reappearing from monies coming from Saudi Arabia or Kuwait)

Impact of Yugoslavia’s breakup on settlement network

The breakup of Yugoslavia had a similarly shattering effect both on the settlement structure and on the individual cities. Paradoxically, *the network was tried harder by peace than by*

war. A new political situation emerged in the West Balkan region due to the two previous states having been replaced by seven fully sovereign states and several territorial formations of temporal status, also the length of the borders doubled.

Neither this latter, as a factor inducing fragmentation nor the independent states aiming at internal integrity did aid the survival of the settlement network once in existence. The regional division of labour which was getting international was replaced isolationist (but often ignorant of the once enemies of the region) relation network. All states for the sake of internal stability and aiming at establishing national institutions, national economy, national elite etc. consciously broke with the former Yugoslav relation network.

Based on the shifts in the network, the settlements can be groups as either winners or losers, depending on three factors:

- the absolute number of functions,
- the number of those resorting to these functions,
- the difference between the hierarchy levels of the old and that of the new state

The settlements (new capitals - Zagreb, Sarajevo, Podgorica, Skopje, Pristina; entity centres - Banja Luka; commune centres - Tuzla, Zenica, Mostar, Goražde, Odžak, Bihać, Livno, Travnik, Široki Brijeg) *which could step forward from an administrative perspective within the new nationalization processes experienced an unambiguously positive effect on their positions.* For these settlements the widening of the functions is embodied in becoming centres of a previously non existing political unity.

The succession states where administrative reform took place following the independence are in a unique situation. Due to processes governed by the aim of decentralization several settlements in Croatia, Macedonia, Bosnia-Herzegovina with previously restricted or no administrative roles at all gained such functions.

In comparison to 1991, the number of administrative units (općinák) reached 543 which also means an increase in the number of „centre settlements” with the smallest central administrative functions (općina-centres). Several of them has a population of only a few thousand and with very poor still constitutional central functions. The Macedonian administrative reform had similar effect.

We can also list here a few unofficial administrative centres that improved their positions in the hierarchy as centres of certain ethnic groups. Examples are Tetovo, centre of the Macedonian Albanians, Novi Pazar, of the Sandzak Bosniaks, Mostar, of the Bosnian Croats, they were centre before the war but in the new states their relative importance increased. Earlier, in the joint state the Bosniak (Muslim) centre was Sarajevo, Pristina the Albanian, Zagreb the Croatian one. Now however the Bosniaks are the largest minority of Serbia, Croatian is the third largest nationality in Bosnia and a quarter of Macedonia is Albanian still their previous centres got into different states. Thus the new centres of the minorities of the new state need to establish an institution structure with ethnic base in order to fill up the empty space left behind by the previous centres which ended up in new states on the other side of the borders (e.g. Southeastern University of Tetovo (basically an Albanian university), established in 1995, the (Croat) university of Mostar from 1992/93, the International University in Novi Pazar from 2002, or the university in Pristina, moved to Kosovska Mitrovica that was divided in 1999 into a Serbian and an Albanian sections).

Parallel to that, the agglomerations of previously mentioned traditional cultural-religious-ethnic centres (Sarajevo, Zagreb, Pristina), the population utilizing the functions decreased since significant proportions the Yugoslav Albanians, Bosniaks and Croats remained outside Kosovo, Bosnia-Herzegovina and Croatia.

Belgrad, in respect of administrative functions *can as well be consider as a loosing party* since this is the only city whose administrative functions diminished. The decrease is relative

as it is still a capital of a sovereign state however its position as the federal capital and the federal functions and (re)resources relating to it ceased, its institutions remained without duties. More significant is the decrease in population (from 21m to 10m then 8m), resources and agglomeration territories belonging under the federal functions.

Due to the changes in the region's state geography several settlements gained additional functions or extensions into the areas of transportation, communication and traffic. this can be explained by multiple factors still all those are rooted in establishing the communicational channels among the independent states and the demand for keeping contact with partners stuck outside the borders.

Several Adrian ports' transportational functions and role as a gate city increased significantly since in Yugoslavia the largest segment of sea traffic went through a small number of ports only. In the new political structure each state with a coastal area is trying to develop an own sea exit, thus creating extra functions or extending the already existing ones.

At the same the performance of the ports previously transacting the shared Yugoslav business traffic declined and though their functions hardly changed, their hinterlands shrank.

Port	1984 (thousand)	2007 (thousand)	Change	Comment
Rijeka	12 971	5623	-56%	Primary port of Yugoslavia hard-bitten by war and loss of the Yugoslav monopoly
Omišalj	5413	7684	+41%	Petroleum port with significant Mid European hinterland
Ploče	3425	4214	+23%	Due to the war the business done in 1994 was 268k tons, still the growth is of 1472%
Koper	2890	15362	+431%	Takes over Rijeka's macro regional role and partly its Mid European partners as well
Split	2475	1650	-33%	The decline is already setting off in the 1980s parallel to improving Koper, Bar and Ploče
Bar	2012	1800	-10%	2006 estimate. Full sea trade of the country is 1988k tons
Šibenik	1249	1245	-0,3%	Mostly ports with local interests serving the industrial formations of hinterland, no significant macro regional role
Zadar	702	449	-36%	
total	31 137	39 409	+26%	

Table 6: The change in the traffic of former Yugoslav ports Source: websites of ports

Gate cities can emerge not only on coasts but along the new state borders as well. The previously clean border crossing got replaced by a structure in which business transactions could be performed only at restricted points which put these points into distinguished positions (Užice, Kumanovo, Kosovska Mitrovica, Bosanski Šamac, Brčko)

The shifts in the economic functions are not due only to the disintegration of Yugoslavia but to various other factors as well such as globalization or privatization. We can speak of a late transformation of market economy other post social states have undergone too. *Secondly, war accompanying the disintegration had negative impact on the economy of the whole region.* The effects varied of course; was slighter for Slovenia where the war only cast its shadow while for Bosnia it was much more severe, putting the economy into an impossible situation, destroying the manufacturer and human infrastructure. Serbia's situation is unique since the NATO aimed the air attacks strictly at essential economic infrastructure (roads, bridges, plants, petroleum refinery, Zastava factory in Kragujevac etc) and the country was under economic embargo for years. *Thirdly, the shifts in the economic functions of the region's*

settlements were influenced by the type of capital which entered the country after the war ended and stabilization began. Investing the import capital was often decided not only by or instead of economic rationality but by specific political and cultural interest and relations (e.g. Russian investments in Serbia and Montenegro; Islamic countries putting capital into Albania and Bosnia; Turkey and Austria taking interest in the whole region investing into financial sectors).

Population changes impacted by certain settlement functions were also influenced by the ethnic groups in question leaving or entering the area for settling and cutting through agglomerations by redrawing state borders also influenced

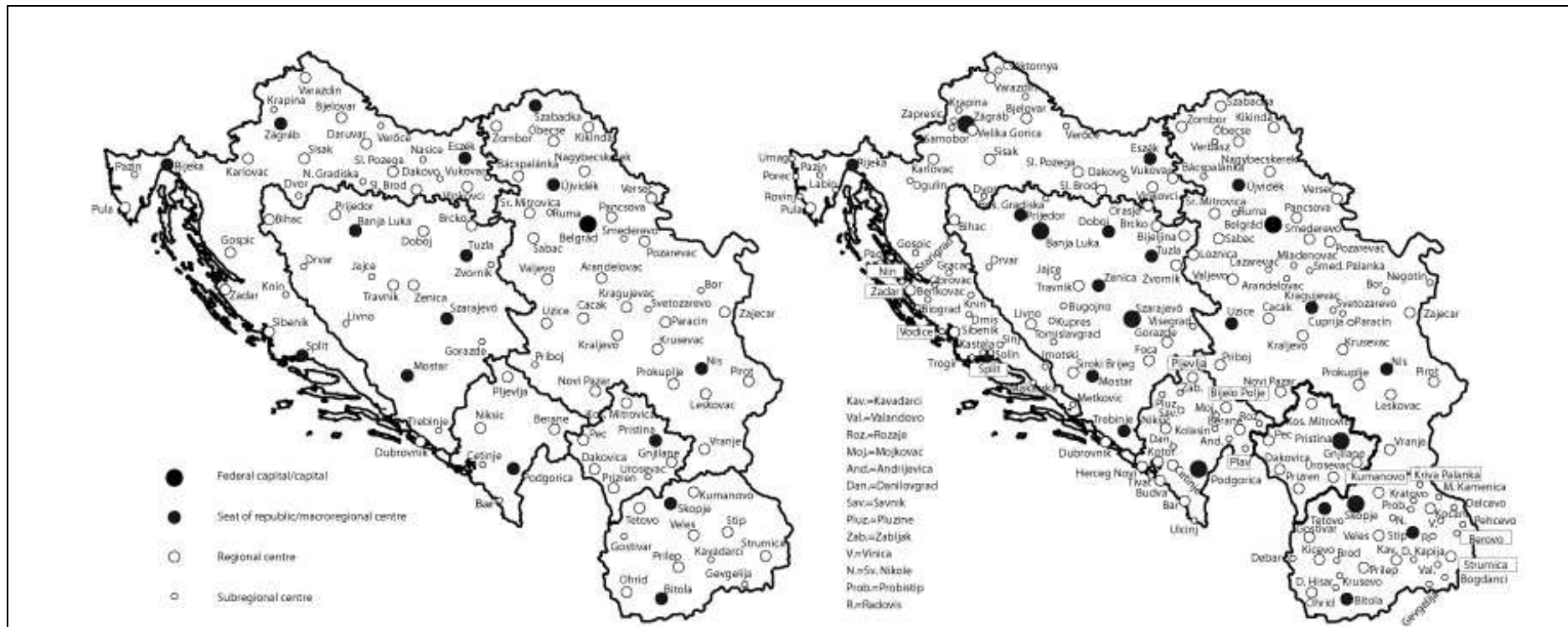


Fig. 3: Settlement hierarchy of Yugoslavia and the succession states in 1974 and early 2000. (Source: Rogić 1974, Prostoren Plan na Republika Makedonija 2004, Prostorni Plan Republike Srbije, 1996, Spatial Plan of Kosovo 2006, Prostorni Plan Republike Crne Gore 2006, Izvešće o stanju u prostoru Republike Hrvatske, 2003, Prostorni Plan Republike Srpske do 2015 godine, 2008, since no accepted document for regional development for FBiH, this hierarchy is based on the changes in administrative functions), own compilation

The most significant cut through of agglomeration happened in the areas where a kind of structure (mostly ethnic) crosses the newly established border. In previous centuries the centres and the agglomeration had problematic relations in such areas. In Yugoslavia this seemed to settle however nowadays it is making it difficult again to establish harmonious relations. Such areas can mostly be found in between Mid Dalmatia and West Herzegovina (Croatian ethnicity), along the Drina (Serbian ethnicity) or between Sylvania (Croatian and Serbian ethnicities), Krajina (Serbian ethnicity) or even Kosovo and Macedonia

The new capitals and the cities of the succession states as well stepped up in the hierarchy even if this does not necessarily mean shifts in administrative functions. Settlements in the former Yugoslavia were third or fourth line settlements based on both population and functions. In the succession states however they are right under the new capitals in the hierarchy, being the macro regional centres next to the capitals (e.g.: Rijeka, Niš, Kragujevac, Bitola, Tuzla etc).

The regional centres increased in numbers as well resulting from state disintegration and regional deepening equivalent to international processes. Stepping up the hierarchy is characteristic for regions where a sudden loss of centres appeared after redrawing the borders thus these centres had to be created artificially (Loznica, Livno, Trebinje, Doboj, Bijeljina, Uroševac, Priboj, Užice, etc.)

Impact on the network

The settlement network of the Yugoslav succession states developed under state supervision between 1921 and 1991, except for the 'interlude' during WW II. A certain structure emerged relating to regional division of labour which was only partially attentive to where the borders of the federal republics were drawn (this changed after the 1974 constitution). With the breakup of Yugoslavia this more or less unified structure broke up fell into pieces too.

Since it is hard to measure the intensities of relations only transcriptional data can prove the loosening of intercity relations. The shaping of transportation relations in the region counts as such indirect evidence. *The extremely low numbers of new state border crossings* - which can of course be justified by several factors, still supports the fact of loosening relations - *is eye catching*.

Comparing the data from 1990 and from 2000 on vehicular traffic shows that the traffic on the tracks crossing the new borders significantly declined in areas where opposing parties are located on the two sides of the borders and there is no ethnic settling area reaching over. However some relations grew stronger mostly where the ethnic patterns require so, between the mother country and its political-ethnic satellite states.

Similar decrease can be seen in railroad traffic as well, several former centres now capitals are not in direct railway connections. There are destinations which are not in direct scheduled railway nor air connections (e.g.: Sarajevo–Skopje, Podgorica–Sarajevo, Podgorica–Skopje, or Pristina and any other capitals), thus transportation options are highly restricted.

Further support is provided by data from air traffic. The internal air traffic of Yugoslavia used to have those routes in preference which were not in operation in the new political geographical constellation. In 1986 the most frequently used scheduled route was Belgrad-Split, Belgrad-Dubrovnik came second - none of these is in operation by now (BERTIĆ, I. 1987, TINER T.2007).

1990/91	Zágráb	Belgrád	Szarajevó	Skopje	Podgorica	Pristina
Zágráb		20	6	5	0	1
Belgrád	20		6	11	7	6
Szarajevó	6	6		0	0	0
Skopje	5	11	0		0	6
Podgorica	0	7	0	0		0
Pristina	1	6	0	6	0	

2008	Zágráb	Belgrád	Szarajevó	Skopje	Podgorica	Pristina
Zágráb		5	2	0	0	0
Belgrád	5		0	2	2	0
Szarajevó	2	0		0	0	0
Skopje	0	2	0		0	0
Podgorica	0	2	0	0		0
Pristina	0	0	0	0	0	

Table 7.: Direct trainpairs linking the West Balkan capitals on a daily basis in 1990/91 and 2008.
Source: JŽ 1990 and international train schedules of Deutsche Bahn on website:
<http://bahn.hafas.de/bin/query.exe/d>

The loosening relations are also backed up by data on commerce, comparison of the data prior and after the breakup drastically transformation is visible. State and customs borders minced the former shared markets into pieces due to which the previously established commercial relations could no longer operate though these relations contributed to the maintenance of the unified settlement structures and state cohesion.

The newly established national settlement networks are all monocentric, often to an extreme degree (Kosovo due to its unique development is an exception). The rank-size distribution in Yugoslavia was almost ideal based on 1991 data. In case of the succession states however the depressive predominance of the capital was characteristic everywhere which cannot be evened out by the macro regional centres elevated with administrative means.

The region's cities transformed into modern metropolis in the frameworks of the South Slav state and settlement network thus they are not proportioned to their own national region but to the Yugoslav territory as a whole. The regional politics of the new states were thus from the point of view of harmonious regional development challenged by the operating of the previously described settlements, by decentralization

Explaining sub national dividedness via Bosnia-Herzegovina's example

The new quasi state borders fully neglected the region structures based on settlement agglomerations which came into existence and are still valid up to this day emerging from the Yugoslav period based on territorial processes and economic regularities. With the introduction of the multilevel administrative structures several cities with administrative functions are able to take the territorial energies into service for own development. In Bosnia which consists of two state entities there are at least three of each offices which 'normally' counts as state institutions - a national, a federal, both mostly based in Sarajevo, and a Serbian in Banja Luka. We can also assume the coming to existence of a further one, a 'shadow institution structure' in the Croatian populated region.

Sarajevo, the capital undoubtedly stepped up on the settlement hierarchy, as the centre of a new state it has a jurisdiction with effect of the whole country though its reach due to the extreme decentralized state is highly restricted. Sarajevo is probably the weakest capital of Europe with the smallest vindictive capability, its sovereignty does not cover all the processes of the whole state, not even in theory. It has more power (though within a smaller region) as federal partner capital than as the main capital of the whole state. It even lost most of its agglomeration and a piece of its city territory (Istočno Sarajevo).

In the settlement hierarchy it was Banja Luka in the last decade that improved its position the most. The centre of the Bosnian Serb Republic is the quasi partner capital of the country the 49% of which is under direct governance of Banja Luka. As per the peace treaty the really important decisions in an extremely decentralized state are all made on the entity level, that is in Banja Luka and Sarajevo (not as the state capital but as the centre of the Federation of Bosnia and Herzegovina which is 51% of the state).

The cities can be divided into two categories depending on whether the after war settlements impacted them positively or negatively. *The former macro regional centres (Tuzla, Mostar, Zenica) got into disadvantageous positions since significant part of their agglomeration was lost thus became peripheral. Reviving their regional relations seem a long and difficult task. Banja Luka and Sarajevo also lost most of the agglomerations still the improved rankings within the hierarchy (capital - partner capital) evened out this negative fact.*

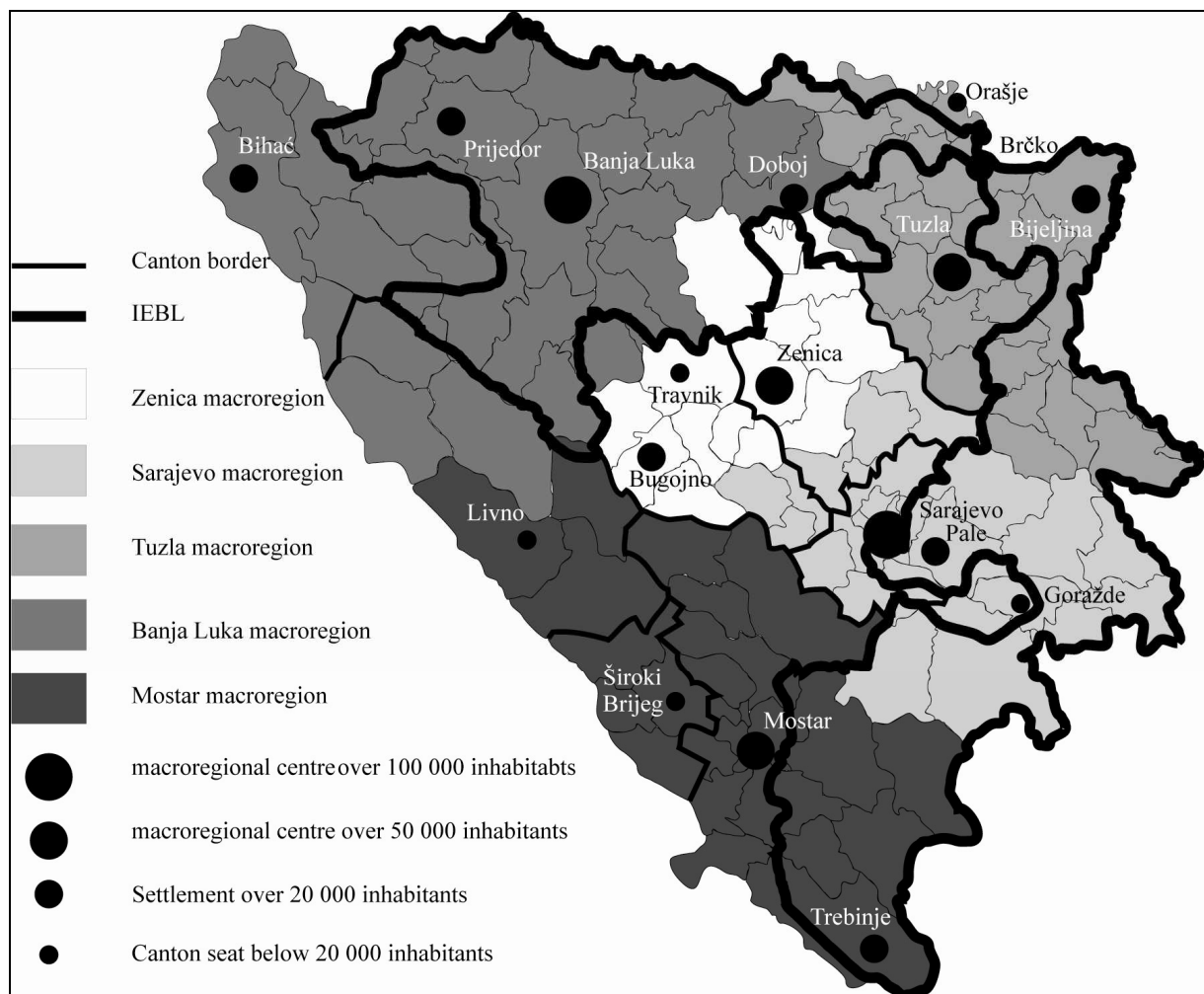


Fig.4: Territorial units of administration and regional development of Bosnia-Herzegovina.
Source: Federalni Zavod za Programiranje Razvoja, ed.: author

Those settlements that took over the role of regional centres which got moved to the other side of the borders can be considered as advantageous. These are mainly cities of the Bosnian Serb Republic. Doboј, Bijeljina, Trebinje were not considered centre regions previously still in Serbian section of the Tuzla and Mostar agglomeration their functions are in operation. There is a new emerging regional centre in the federation area: Bihać, the new centre of the northwestern area of Banja Luka.

From an administrative point of view the other winners of the Dayton Agreement are the

commune centres even if their situations are different just like the way how they lived through the war. Several of them count as regional centres of the state due to their demographic and economic strength (Tuzla, Zenica, Mostar). The previously missing administrative role can still speed up their development.

The other group of commune centres are settlements which previously were not distinguished settlements. Goražde, Bihać, Orašje, Travnik, Široki Brijeg, and Western Hercegovina's three centre Kupres (capital and commune administration), Livno (government), Tomislavgrad (parliament) from which only Bihać and Travnik has population of above 50 000.

The most disadvantageous situation among the agglomerations that lost their centres is the Bosnian area along the Drina, a narrow strip rimmed by a state border and an administrative-ethnic border without centres or proper transportation. No serious centres were formed before the war, Sarajevo and Tuzla filled in this space. Nowadays Bijeljina, Zvornik and Pale are trying to do so.

Similarly to the area along the Drina, Eastern Herzegovina too remained without centre. Mostar, its natural centre, also one of centres of Bosniak-Croatian opposition ended up in the federal region while its other natural centres (Dubrovnik, Nikšić) in other states. In the area that was left without a centre it is the small town of Trebinje trying to fulfill central functions.

Outcome summary

1. The alterations within the settlement network of the Balkan due to political geographical changes are typical of the region

During our research we came to the conclusion that the transformation of the West Balkan settlement structure at the turn of 20-21st century is not a new phenomenon, similar processes has happened during the cyclic change of integration and disintegration in the region's history accompanied by similar results (state border changes, ethnic homogenization, transformation of settlement structures)

2. The administrative boundaries of the Yugoslav succession states - being directly responsible for the fragmentation of territories and settlement structures - are oppressed by several political tensions

The lengthening of borders and the increase in the numbers of the states brought significant changes for the distinguished places of economy and society, the cities. *The disintegrating state fragmented the settlement network as well.*

The internal borders of the succession states of Yugoslavia almost never overlapped with the ethnic borders. Large sections of the population were living outside the borders of their home country. The borders of the succession states becoming national borders did not ease the ethnic tensions, instead of solving them, these problems slipped down with an administrative level.

Ethnic homogenization has undergone in all the independent entities of former Yugoslavia due to ethnic diversity and disintegration of state. The difference depended on whether it happened within the new borders, with evolving ones for communes and ethnicities (Bosnia-Herzegovina, Macedonia, Kosovo) or the region 'got rid' of most of its minorities (Croatia, Bosnia's entities).

3. The breakup of Yugoslavia and the phenomenon accompanying it fundamentally influenced the cities' possibilities for development

The settlement network of the Yugoslav succession states was severely impacted by the transformations of the early 1990s unlike the other cities of the Peninsula. The disintegration of the state is only one of the factors affecting the settlement. Parallel to this the way the breakup happened (the protracting civil war) drastically altered the structures and functional

systems of the individual cities and regions.

3.a. The region's population was significantly restructured due to the political geographical changes

The most significant modifications can be seen in the demographical changes which are also the hardest to reverse. The region's demographical map thus the human factor influencing region processes were massively altered by forced urbanization and certain areas becoming demographically empty since the locations of the population changed.

Based on the alterations in the numbers of the population it can be declared that the armed assaults fundamentally predestine the directions of the changes though not in every case. In large parts of Slavonia and Bosnia-Herzegovina the population as can be expected during war decreased which could go to an extent of a loss of half or two thirds of ante bellum population. Certain parts of Vojvodina, the Croatian coastal areas, the Sava regions of Bosnia (i.e. territories saved from armed assaults) show a decrease mainly due to having refugees settled in these zones. The changes in the settlements of Kosovo are however atypical where despite the war significant increase can be seen.

Regularities can also be identified based on settlement types. In general, but especially in regions hit by war the population growth is more significant in the cities and is less so in the land / countryside just as it happened in Bosnia-Herzegovina.

3.b. The ethnic changes due to the conflict were of differing degree on the various administrative levels

In case of ethnic homogenization we find it important to outline the regular changes in the extent of homogenization per region levels. The maximum degree of homogenization from the level of former Yugoslavia through meso-levels to settlement level increased from which we can conclude that this is a process that can be apprehended typically on settlement level and is primarily the outcome of ethnic changes within a region. *The ethnic diversity of Post Yugoslav region changed very little, however there is hardly any settlement where the ethnic composition did not change.*

The cities of Bosnia-Herzegovina, Slavonia, Kosovo stand out from all the settlements that suffered from armed assaults and homogenization. The changes in the ethnic structures in these cases derived from escaping from and settling in the given areas. Homogenization is also traceable for settlements in areas not impacted by war, e.g. Vojvodina as an area with already Serbian majority is due to further settlements of refugees. On the other hand, in relation to the settlement in Vojvodina with Hungarian majorities just like in case of the cities of Croatian and Bosniak Krajinas with Serb majorities, the diversification was strengthened by incoming minorities and leaving majorities.

3.c. The strategic, collateral and conscious destruction of infrastructure modified the political maps of war hit regions

The destruction of the artificially created, built environment of the enemy, its symbolic (religious) buildings and symbols, was an essential method in reaching military objectives. The Yugoslav wars added a new political geographical phenomenon to the glossaries: urbicide describing the conscious and methodical destruction of city spaces and their attributes (heterogeneity, tolerance, multiculturalism etc.).

4. The breakup of Yugoslavia and the lengthening of borders fragmented the region's settlement network and altered previous territorial processes

The positions (economic, transportational, relating to the power structure) and the role within the settlement hierarchy of the cities got fundamentally modified among the new state

geographical conditions.

The agglomeration and the agglomeration's population of several cities have been altered as well resulting in functional shifts for the settlements of the regions based on which the cities can be categorized as winners or losers.

In several cases events affecting the whole settlement network negatively (fragmentation) proved to be a positive factors on the levels of the individual settlements. There was a significant growth in the number of cities with central cue in all succession states as an outcome of both disintegration and decentralization.

At the same time the agglomerations of such cities shrank notably. Furthermore, certain settlements which functioned as ethnic centres suffered loss in their influence due to the redrawn borders while balancing this tendency new functions appeared for cities on the other side of the border.

The transformation impacted not only the administrative and central functions but also segments which were organized on a more rational base such as transportation. The state borders lengthening drastically, the problem of their permeability dramatically transformed the traffic conditions as a consequence of which previously frequently used routes became peripheral.

With the decomposition of the state frames and the eliminating of ethnic diversity the two main elements of the region's integration ceased to exist. The state frames contributed to the integration through the maintenance of shared administration, shared institutions and shared macrostructures, while the ethnic diversity through culture, language, identity.

The newly established national settlement structures are all monocentric, sometimes to an extreme degree (Kosovo due to its unique development is an exception). The rank-size distribution in Yugoslavia was almost ideal based on 1991 data. In case of the succession states however the depressive predominance of the capital was characteristic everywhere which cannot be evened out by the macro regional centres elevated with administrative means.

5. The space and settlement network of Bosnia-Herzegovina were completely fragmented by the sub national dividedness, the division of labour on state level became irrational

The new quasi state borders fully neglected the region structures based on settlement agglomerations which came into existence and are still valid up to this day emerging from the Yugoslav period based on territorial processes and economic regularities. With the introduction of the multilevel administrative structures several cities with administrative functions are able to take the territorial energies into service for own development.

Sarajevo, the capital undoubtedly stepped up on the settlement hierarchy, as the centre of a new state it has a jurisdiction with effect of the whole country though its reach due to the extreme decentralized state is highly restricted.

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The cities can be divided into two categories depending on whether the after war settlements impacted them positively or negatively. The former macro regional centres got into disadvantageous positions since significant part of their agglomeration was lost. Those settlements that took over the role of regional centres which got moved to the other side of the borders can be considered as advantageous. From an administrative point of view the other winners of the Dayton Agreement are the commune centres even if their situations are different just like the way how they lived through the war.

6. *The European perspective though contains several question marks as a mid term solution with an optimistic scenario will aid the reconstruction of the former settlement network of the region*

The settlement structures of the region have never been this fragmented, indicating that the region is approaching a degree of decomposition never before experienced in its history. On the peripheries however the new, external, integrative 'empire' - the European Union - has already appeared and encircled as a commune the western half of the peninsula. *The political integrity above nations may with time lead to functional integration of settlement networks,*

7. *In case of proper and reliable input data, evaluating the alterations of the ethnic diversity index is an objective tool in analyzing and describing ethnic homogenization*

The benefit and further direction of the research

The outcomes can be beneficial in four specialties

- Preparation of diplomatic decisions. The work could be utilized not only in connection with interstate relations but with local and regional international relations, with peacekeeping and other international missions
- Preparation of economic decisions. The research may be useful for both economic diplomacy and private sector for preparing investments, choosing location for parks.
- As source for other studies on the settlements, smaller areas of the region.
- In higher education in connection with Balkan-related studies for departments of international relations, geography etc.

The work started for the dissertation should be continued for several reasons which also indicate the directions the further investigations shall take:

- The statistics on the region are still incomplete, hopefully the growing numbers of primary researches and the 2010/2011 census will rectify. Evaluating and adding the result of the latter to this work will extend it with two new the intervals. (1991-2011, 2001-2011)
- the economic transformation of the settlements of the region was not in focus of this work, however as the political situation stabilizes it will become one of the major factors with influence on settlements. A detailed analysis of this offers several possibilities as well.
- The region joining the EU is I believe likely to bring forth a new type of integration among the West Balkan settlements. The piquancy of this is that the succession states within the same integrity are most likely the establish cooperative formations similar to those in the former Yugoslavia. The follow up and the comparisons with other regions (Czech - Slovakian, Hungarian - Hungarian, Austrian Hungarian Monarchy) is an interesting challenge.
- In our current work the emphasis was on cities. The transformation of the rural areas of the is again a complex and time consuming procedure which serious attention.

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