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Hungary's place on Eurasian rail land bridges and the eastern opening[1]

Z. Andrew FARKAS[2]–Norbert PAP[3] and Péter REMÉNYI[2]

Abstract

In the early 21st century the global financial crisis changed the economic position of many states, including the EU, which is only slowly recovering, and the quickly emerging economies of Asia. Several factors in global transportation have driven countries to find alternative transport links and methods, including between Europe and Asia. Since 2010 government of Hungary has shifted the focus of Hungarian foreign policy towards "the East", which can be perceived as an interest-based real policy. The above factors and Hungary's landlocked position gave a renewed impetus to the so-called Eurasian land bridge issue, which intends to connect Central and Eastern Europe and East Asia on land. As the authors argue, after comparing foreign strategies of CEE countries, "eastern opening" of Hungary is not a unique move in the region, neither is the renewed interest in rail land bridges. However, after examining all the possible land routes towards East Asia, the authors agree with those who see these routes as unsustainable in the short run. On the other hand, the moves of Chinese private and state-owned companies in Southeast Europe and CEE, the "New Silk Road" concept of the Chinese diplomacy and expansion of the Suez Canal may foresee the establishment of micro land-bridges from SEE ports via Hungary towards Western Europe, significantly shortening the routes and avoiding congested northwestern ports. In this regard Hungary may play an important role on these alternative routes providing economic and geopolitical benefits.

Keywords: transportation, rail land bridges, foreign policy of Hungary, China, Southeast Europe,

Introduction

In 2010 Hungary saw the start of a significant restructuring in foreign policy. The main reasons behind it – among others – were the FIDESZ forming a new government that year, the global financial and economic crisis at the end of the previous decade, its consequences in Hungary and the specific economic and political reactions to it. The new foreign policy and economic relations brought a change in the orientation of Hungary to the East (Magyarország Külügyminisztériuma 2011). In addition to developments in diplomacy a number of concrete, practical steps are also needed, including the development of the physical transport infrastructure links between Hungary and the target countries of the "eastern opening." One of the links which are currently under-utilised for various reasons is continental rail corridors.

Significant transformations started in global communication and transport sectors at the end of the 20th and early 21st centuries, which have been fundamentally influencing sea and land transport possibilities. During

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[2] National Center for Transportation Management, Research and Development, Morgan State University, 1700 E. Cold Spring Lane, Center for Built Environment and Infrastructure Studies 327, Baltimore, MD 21251, E-mail: andrew.farkas@morgan.edu

[3] Department of Political Geography, Development and Regional Studies, Institute of Geography, Faculty of Sciences, University of Pécs, H-7624 Pécs, Ifjúság út 6. E-mails: pnorbert@gamma.ttk.pte.hu, remko@gamma.ttk.pte.hu

the 1980s a new competitive order in the maritime industry and railway speed, efficiency and deregulation diverted some international container shipments to North American rail land bridges. While all-water transport from Asia to the United States East Coast continues to cost less than land bridge service, land bridges are typically faster (Talley, W. 2010). In addition if networks and rolling stock can be used more efficiently, the costs of railway transport over long distances can be reduced significantly (Ilie, E. 2010).

Land bridges operate in Canada and the U.S. and attempt to operate in Eurasia, but geography, policies, and infrastructure are very different between North America and Eurasia (Vassallo, J. and Fagan, M. 2007). One major innovation that facilitated land bridge development in North America is double-stacking of shipping containers on rail cars, which essentially doubles rail car capacity. No significant double-stacking occurs in Europe, because weight limits, bridge/tunnel heights and overhead electric wires are too low. North American rail densities (multiple tracks) and unified private ownership of rights-of-way and terminals are not likely to occur in Europe for quite some time, which makes it difficult for European railroads to increase freight market share (Rodrigue, J.-P. and Notteboom, T. 2010). In Asia insufficient investment in infrastructure and rolling stock; incompatible systems, gauges, and operations; and numerous border crossings add to the challenges of land bridges (Rodrigue, J-P. *et al.* 2013; Islam, D. *et al.* 2013).

Despite the challenges interest in Eurasian land bridges continues to grow. Almost all of the trade between China and Europe travels by sea and can take up to 40 days, resulting in high in-transit inventory costs (Vellenga, D. and Spens, K. 2006). Only 3.4 percent of Chinese exports reach the European Union (EU) by land (Bajor, T. and Erdősi, F. 2013). Many seaports in North Europe are highly congested, and Central and Eastern Europe (CEE), strategically located between Western Europe and China, could provide links, origins, and destinations for land bridges. CEE countries have implemented national investment programs for railway infrastructure and rolling stock development to ensure connections to the Trans-European Railway Transport Network (TEN-T). Countries in Central Asia and in the Caucasus region have tried to invest similarly (Ilie, E. 2010).

China has invested in transport and distribution networks and logistical and assembly facilities throughout CEE. Its New Silk Road concept (presented in 2013), a network of various sea and land routes from China to the West, includes CEE as a potential gateway to Europe (Kaczmarski, M. 2015). Recently, China has agreed to finance upgrades to the Budapest–Belgrade railway line. It is also investing in Greek ports and national railway's land-side infrastructure as a way to open a gateway to European markets and reduce shipping times (Kakissis, J. 2014).

The authors' objectives are to summarise the transformation of Hungarian foreign policy since 2010 that has been in conjunction with changing global economic and transportation processes and describe and assess the opportunities for inland rail corridors linking Hungary with the Far East.

Eastern opening in Hungary

Hungary is a relatively small country with an open economy, where international trade plays a significant role in the creation of gross national product. In addition, from 2007 foreign trade has generated a surplus, and its volume has been growing steadily (except for 2009). In the foreign trade of Hungary, the EU Member States own a share of more than two-thirds of the total volume, while the share of the rest of the world is between 20–30 percent (KSH 2014).

The economic crisis in Hungary brought – as in other countries – a decline in the volume of foreign trade, followed by, as a response, the intentional and unintentional transformation of the geographic dimensions of foreign trade. Because the European economic space was slowly emerging from the crisis,

Hungary was looking for other directions toward seemingly more dynamic economies (Éltető, A. and Völgyi, K. 2013).

In 2011 the foreign policy strategy officially formulated the then-called "global opening" as a new foreign policy direction. The idea was that Hungarian foreign policy should not be confined to the mostly nearby traditional partners – in part because of more interdependent systems as a consequence of globalization, the rapidly increasing economic importance of some previously neglected geographical areas in the world economy, and should open towards less traditional partners (Magyarország Külügyminisztériuma, 2011).

According to the original idea, the East was only one direction of global opening; however, in practice it became the primary direction. Both the media attention and practical diplomatic activity were concentrated here. Key target countries were the eastern developed and developing states, China, Russia, India, Japan, South Korea, Vietnam, Kazakhstan, Georgia, the Gulf States and Turkey. The opening toward the East was born first of all as a classic, hypothetic foreign policy strategy, building on a perceived ancient, common national origin (based on the supposed Eastern or Asian origin of the Hungarians), where economic considerations were of secondary importance or did not appear as the responsibility of the apparatus for foreign affairs.

From the summer of 2012 (the change of the Minister of State in charge of the international relations of the Prime Minister's Office), and more prominently from the fall of 2014 (starting with the change of the leadership at the Ministry of Foreign Affairs), the global opening policy has been fully transformed to an eastern opening. Parallel to the above, the abstract and sophisticated diplomatic goals and means have been replaced by short-term economic interests, diplomatic goals have been subordinated to them, and instruments have been adjusted to accomplish them. This change has been received ambivalently both in Hungary and among its allies. The most common critique reproached Hungarian diplomacy for the transformation from a value-based approach to an interest-based approach. In this new direction, above all, China, Russia, other post-Soviet republics and some Gulf States were included in the priority group.

The reception of the Hungarian eastern opening policy in the target countries is controversial. In Russia, because of its involvement in the Eastern Ukrainian crisis (Karácsonyi, D. *et al*. 2014) and the intensified international isolation as a result, the Hungarian "opening" earned a positive reception, which has or had tangible economic results (South Stream, Paks II etc.). However, this positive reception may carry serious political risks for Hungary, since for Russia it is first of all a tool used to evade political isolation maintained by Hungary's allies. Thus, Hungary has found itself in between its "old" (allies) and "new" (Russia) friends. To meet the expectations of both is very difficult.

In Turkey the Hungarian aspirations were similarly well received. They are also linked to the strategic depth concept coined by Ahmet Davutoglu (Prime Minister of Turkey, then Minister of Foreign Affairs) and the neo-Ottomanism which aims to increase the influence of the Republic of Turkey in Southeastern Europe (Fekete, J. 2014). The increased interest and openness from Hungary fit well into this concept. Turkey, however, is expected to show a significantly lesser "hard" (trade/investment) activity, but rather focuses shifts on "soft" diplomacy, strengthening cultural relations and renovating Ottoman heritage in Hungary, which has been manifested in many places in the form of tangible projects (Budapest, Szigetvár, Pécs) (Pap, N. 2014).

The attitude of other major target countries towards the opening efforts of Hungary is also ambivalent. The primary geopolitical objective of the Chinese pragmatism is to move towards a multi-polar world order in which the EU is interpreted as an important partner. In these efforts Hungary is necessarily perceived as an EU member and a CEE state, and not individually as a country of 10 million with a small and open economy. Furthermore, CEE (despite several multilat-

eral meetings of China and CEE countries) plays a subordinate role in the China–EU relations. However, it is undeniable that from 2003 on Hungarian–Chinese relations are moving on an improving track (Matura, T. 2012), Hungary traditionally describes itself as the center and gateway for Chinese interests in CEE. This gateway effect appears to be supported by both the significant Chinese diaspora in Hungary; the established formal and informal Chinese institutions, structures and networks; the growing volume of trade; and the planned Chinese investments and acquisitions in Hungary (Chinese schools and media, railway construction contracts, acquisition of BorsodChem, Bank of China, etc.). As for the other major powers in Asia (India, Japan), Hungary and its eastern opening policy is not significant to their scope of strategic directions and partners. These powers have other and fundamentally regional types of commitments.

Eastern openings in Central Europe and the geopolitical constraints of Hungary

After the economic crisis a turn towards the economies less affected by the crisis has been observed not only in Hungary. The other post-socialist CEE countries (among others) introduced "eastern openings" similar to that of Hungary's, directed towards the same regions as the ones in the Hungarian global opening strategy.

In Poland, the "eastern dimension" has always been one of the most important parts of foreign policy; relations with Russia and Polish minorities living in neighboring countries are important elements of it. Poland's openness to the east, its historical experiences and being in the neighborhood of great powers are all underpinning Poland being one of the main brokers of the Eastern Partnership within the EU (Gács, O. 2009). In addition the Tusk government (2007–2014) implemented a policy of rapprochement in both the German and Russian directions. Poland is in a key geostrategic location regarding inland relations between Western Europe and the East, as much as (or even more than) Hungary, since the shortest route between Moscow and Berlin (which has repeatedly caused disasters in Polish history) leads through Warsaw.

In 2011 Slovakia – similarly to Hungary – adopted a new strategy of foreign affairs with a clear focus on "global" opening (in the directions of China, India, South Korea, Japan, Indonesia, Mexico, Brazil, Argentina) (Ministry of Foreign Affairs of Slovakia without year). Also, the Czech Republic in 2011 adopted a new concept of foreign policy, which, along with the EU and NATO obligations, envisaged the strengthening of relations with Russia (Ministry of Foreign Affairs of the Czech Republic 2010). The Romanian strategy of foreign affairs (adopted in 2009 for ten years) aligns its efforts in the Caspian and Black Sea region to the EU's strategy on Central Asia. However, one can observe here, due to the Romanian inhabited regions of Moldova and Ukraine, a kind of detachment as well.

A common feature of CEE "eastern openings" is that instead of accepting a European economy in crisis, they have turned attention to other directions to find trade partners and investors. Apparently, they find more or less the same target countries and thereby a sense of rivalry for eastern markets and investors. A further common feature is that the wide social support of the new foreign policy directions can be questioned. While in some of the Slavic countries (e.g. Slovakia) there is a kind of pan-Slavic sense of common interests regarding the relations with Russia (Marusiak, J. 2013), Hungary is experiencing a renaissance in referencing its East Asian roots when improving relations with Asian states. However, in reality these ideas are rarely suitable to influence decisions of real economic or political benefit.

For Hungary – which may be true for Slovakia and the Czech Republic as well – the new inland dimensions of eastern relations have an additional significance which can be explained by the country's land-locked position. Hungary's international trade with

the Far East uses today the European transit ports. They are either on the North Sea or the North Adriatic or to a lesser extent, can be found on the Black Sea. Creating and operating a direct, active connection of inland routes with the Far East is, therefore, not only of economic, but also of geopolitical/geo-strategic significance (Pap, N. 1999; Pap, N. *et al.* 2012).

Maritime transport

According to Rodrigue and Notteboom North American and Eurasian land bridges are being challenged by increasing economies of scale in maritime shipping. Over the past 20 years, the number and average size of container ships has increased significantly, and fleet capacity is expected to expand further (Rodrigue, J.-P. and Notteboom, T. 2012). Rising maritime fuel prices provided the incentive for building much larger ships to reduce fuel costs per unit. The impact of this expansion in capacity will be a reduction in shipping rates in general, until small ship capacity is reduced (Garratt, M. and Teodoro, A. 2013).

The growth in number and size of container ships has encountered the physical constraints of the Panama Canal. The maximum capacity of ships that can currently transit the canal is about 5,000 TEUs (Twenty Foot Equivalent Unit containers) and the size class ranging from 4,000 to 5,000 TEUs is designated as "Panamax". Ships have been built to realise economies of scale on routes that did not include the Panama Canal – in particular, the East Asia–Europe and East Asia–U.S. West Coast routes. The potential economic advantages of even larger container ships (Suezmax) coupled with U.S. rail land bridge operations have been major factors behind a Panama Canal expansion program (Panama Canal Expansion Study 2013).

Once the world economic recovery and Panama Canal expansion are complete, larger container ships and supply chains may impose competitive challenges on long distance rail service, but there are divergent opinions on the extent of competition. Global freight distribution, trade flows, shipping network configurations and transshipment, strategies of maritime shipping companies and terminal operators, and supply chain management have become so complex and interrelated that it is unclear what the canal expansion will ultimately do to transport cost structures and trade routes (Rodrigue, J.-P. and Notteboom, T. 2012).

The maximum-sized ship that could transit through the expanded Panama Canal will have a capacity of up to 13,000 TEUs or more (Post-Panamax). A major U.S. Department of Transportation study found that although only 12 to 14 additional vessels per day can be accommodated in the new canal lock system, the increased size of vessels will result in doubling Panama Canal throughput from 300 million tons to 600 million tons (Panama Canal Expansion Study 2013).

After Panama Canal expansion, there may be opportunity for more "round-the-world" liner services. Some global carriers may deploy Post-Panamax ships eastbound from East Asia through the Panama Canal to the U.S. East Coast, to a few Mediterranean ports, through the Suez Canal and then across the Indian Ocean back to East Asia (Panama Canal Expansion Study 2013). Such services may also run westbound from East Asia to the Suez Canal and one or two Mediterranean transshipment ports, then across the Atlantic to the U.S. East Coast, and return to Asia via the Panama Canal.

The Suez Canal in any case already dominates container ship traffic between East Asia and Europe and has abundant capacity to accommodate Post-Panamax ships. Yet, as container ship sizes grow above the 13,000 TEU limit of an expanded Panama Canal and as economic growth in Southeast Asia leads to more container cargo along a westbound route, the Suez Canal will likely become even more important (Panama Canal Expansion Study 2013).

Two factors besides transport costs are generally considered to be the prime determinants of how and which way goods are

moved: reliability and transit time. Transit time is important in determining how goods move, because high-value, "just-in-time" cargos typically demand faster shipping, while low-value cargos do not. An important consideration in defining costs is load imbalances by direction. For example, there may be a huge imbalance in direction for shipping cargo between two locations. Staging of vehicles at route origins and destinations is more problematic. Excess capacity in one direction must be compensated by the cargo shipped in the other direction. Given all the variables in the geography and economics of maritime and rail transport, *could Eurasian land bridges succeed over the long-run?*

Eurasian land bridge issues

One rail corridor often comes to the fore when Eurasian land bridges are discussed. While the Trans-Siberian Railroad has provided rail service between Vladivostok and Moscow since 1916, the development of a true Eurasian land bridge began in the late 20th century. Geopolitical considerations and the collapse of the Soviet Union in the early 1990s created instability within Russia and its former republics, as well as a lack of investment in and maintenance of facilities, so the corridor as an international trade route was essentially abandoned (Rodrigue, J-P. *et al.* 2013). The Trans-Siberian in the 1980s carried over 11 percent of container traffic between Asia and Europe, but by the early 2000s, it carried only 1–2 percent (Vellenga, D. and Spens, K. 2006).

The beginning of the 21st century has brought renewed interest in the Trans-Siberian Railroad, especially because of the booming Asian trade with Europe and the increasing pressure to ship containerised freight in a time sensitive manner over long distances (Rodrigue, J-P. *et al.* 2013). The „Beijing–Hamburg Container Express" was initiated and tested in 2008 to avoid congestion at Chinese coastal ports. The 10,000 km service can take 15 days to link the Chinese capital to the German port city, traversing Mongolia, the Russian Federation, Belarus and Poland, a duration half that of the maritime trip of 30 days (Rodrigue, J-P. *et al.* 2013). A variation of this service, the "Antwerp Chongqing Rail Freight Service," tested at the end of 2011, takes 20 to 25 days. Yet, service as of June 2014 is from East to West only with no goods shipped West to East, so profitability is doubtful (Rail offers… 2014).

As in previous years, there are continuing impediments to the Trans-Siberian Railroad: excessive bureaucracy, government inefficiency and corruption; insufficient investment in transport systems; limited rolling stock; and poor customer service (Vellenga, D. and Spens, K. 2006; Bajor, T. and Erdősi, F. 2013). In addition, several countries on a Eurasian route, including Russia, apply discriminatory fees to international rail shipments.

Islam, D. *et al.* (2013) compared three often discussed Eurasian land bridge alternatives: 1) Trans-Siberian Corridor with various alternative routes, 2) Central Corridor and 3) TRACECA Corridor with two alternative routes (*Figure 1*). Each corridor could have branch lines that originate or terminate in CEE, but the technical capabilities vary significantly *(Table 1).* The authors found that the Trans-Siberian has shortages in container and handling capacity. The central corridor through Kazakhstan, Romania and Hungary has differing electrical systems, obsolete roll-

Table 1. Technical capabilities of the three routes

Corridor, route	Distance km	Double tracked and electrified	Average speed km/h	Loco changes
Trans-Siberian corridor with 3 routes	9,288	Most part	76	3
Central corridor	3,930	One-eighth	40	3
TRACECA corridor with 2 routes	5,000	Less than half part	40	2 or 4

Source: Islam, D. *et al.* 2013.

Fig. 1. Trans-Siberian, Central and TRACECA corridors with railway routes between China and Europe and major maritime routes. *Source*: Islam, D. *et al.* 2013. Cartography: Nagy, B.

ing stock, and insufficient cargo handling equipment. The TRACECA corridor does not yet exist as an integrated system and has the least reliable transit time.

Islam, D. *et al.* (2013) conclude that despite the difficulties, the Trans-Siberian Corridor offers the most advantages to compete with maritime service. The second best route is the Central Corridor and TRACECA has the least potential. Bajor, T. and Erdősi, F. (2013) seem to agree with this ranking. Yet, all three corridors are characterised by gauge changes, "… unreliable transit time, higher transport cost, loss, damage, and theft of cargo…" (Islam,

D. *et al*. 2013). Another study concluded that new rail lines for international freight traffic through Ukraine or Russia "…would be very risky ventures, and doubts should be raised as to whether those services could ever be economically viable without massive subsidies" (Combined Transport Group 2010). The recent geopolitical conflict in Ukraine calls into question for the near future reliance on a Trans-Siberian Corridor.

Hungary's railways

Hungary has been innovative in seeking new management and ownership models for international rail service. It has participated successfully in the establishment of private sector rail service through the EU-sponsored RETRACK demonstration project, consisting of viable service between Hungary and the Benelux countries (van Rooijen, T. *et al.* 2012). The demonstration focused on bulk freight, such as grain and chemicals, not intermodal containers, but lessons learned can be applied to other product shipments.

All main railway lines in Hungary have sufficient capacity now and in the future. The highest capacity use rates are 60 to 70 percent, while most are 30 to 50 percent (Combined Transport Group 2010). Hungary has sufficiently high height limits to allow high cube containers and semi-trailers on flat cars (but not double stack). However, most of Hungary's railways have train axle load limits of up to 20 tons, which limits shipping of cargos heavier than maritime containers. Also, there are several sections with speed restrictions resulting from lack of rail maintenance (Combined Transport Group 2010).

The Hungarian government has focused on expansion of intermodal transport and connectivity in an effort to improve its railways. It has provided funding for construction of intermodal terminals, invested in logistics centers' accessibility, and subsidised transport services. Most intermodal container traffic in Hungary will continue to be centered on Budapest, but other locations could play a bigger role, as the geography of traffic flows changes (Combined Transport Group 2010).

New transport and logistics infrastructure can transform economic geography and initiate development, especially where intermodal transfers (break bulk) occur and particularly in less developed locations. Such is the case historically at the intermodal terminal on the Ukraine/Hungarian border at Záhony, where rail gauges change, and terminal, trans-shipment and warehousing activities occur.

The Russians have recently suggested building a rail line with their wider gauge all the way to Vienna to facilitate a Eurasian link. Such a rail line could bypass Hungary entirely, if built through Slovakia, for example, and Bajor, T. and Erdősi, F. (2013) express concern that such an alignment would mean no economic benefit to Hungary. Even if a wide-gauge line were built through Hungary, it would pass Russian freight shipments through the country with perhaps no intermodal transfer and, thus, create little economic benefit beyond transit fees, once construction is complete. Such a proposal also begs questions of who would build it and whether nations crossed by it would approve in light of geopolitical and transport economics concerns.

It is expected that intermodal container traffic will expand greatly in Hungary by 2020, generated by East Asia and Europe trade and freight transport through the Balkans (Combined Transport Group 2010; Ruppert, L. 2011). A significant part of this container traffic could come through the Suez Canal to the ports of the Mediterranean, Adriatic and the Black Sea to be unloaded (Ruppert, L. 2011). Hungary (and Budapest in particular) is well endowed with intermodal service providers and its central location within trans-European transport corridors, serving freight trips to the west, northeast and southeast (Combined Transport Group 2010) *(Table 2).* Yet, Hungary has concerns over the uncertainty regarding the port or combination of ports that would be of most benefit. Hungarian routes can be by-passed

Table 2. Selected ports' traffic and transport links to Budapest in 2011

Port	Capacity	Capacity utilisation	Number of containers, 1000 TEU per year	Distance from Budapest by rail, km	Rate of double-tracked railways, %	Rate of express roads, %
	million tons per year					
Trieste	65	52	2,650	680	70	100
Koper	22	15	500	650	69	100
Rijeka	25	10	140	595	17	100
Thessaloniki	28	16	273	1,104	11	95
Constanta	68	46	670	1,126	100	36

Source: Erdősi, F. 2013.

and transport infrastructure in the Balkans is currently inadequate (DTZ Research 2008; Ruppert, L. 2011).

Southeastern Europe transport links to Hungary

Balkan railways have been fragmented, have suffered from disinvestment and are competing with refurbished roads (Ruppert, L. 2011). Disjointed and short lines, many borders, poor infrastructure, and competition with roads are anathema to railways. Yet, as has been noted, Greece is considered as an East Asian gateway to European markets (DTZ Research 2008; Kakissis, J. 2014). Shipments through Piraeus and CEE can save between four and ten days compared to all water shipments to northern European ports (Palaiologos, Y. 2015). China Ocean Shipping Company (COSCO) has signed a 4.3 billion EUR agreement to manage the Port of Piraeus for 35 years (Jing, F. 2011). COSCO has decided to spend another 620 million euros on improvements at the port and on construction of a new pier. These investments, management and excellent access to CEE have brought more business to the port (Alkis, J. and Papachristou, Y. 2013).

A route that could compete with other Balkan corridors to Hungary or become an integral part would be a new high-speed rail line from Rijeka to Zagreb, including an upgrade of the current line from Zagreb to Botovo on the Hungarian border (Erdősi, F. 2013; Gebrüder Weiss… 2014). Rijeka is a major maritime container port on the Adriatic that can accommodate deep draft ships. However, the current rail connection in Croatia is old, slow and low capacity, so much trucking of containers occurs. The Croatian Government is planning to seek private investment and concessionaires for a railway tender estimated to cost 5 billion EUR (Gebrüder Weiss… 2014). China has expressed to the Croatian government some interest in the port and its railway to Zagreb as an additional gateway to Europe (News staff 2012; Yuhuan, L. 2013).

Slovenia and Romania have also attempted to attract foreign investments to improve and expand the ports of Koper and Constanta, respectively (Jing, F. 2011). The port complex of Trieste (Italy) and Koper is already served by double tracked railways and thus has an advantage over Rijeka and good prospects for future container traffic. Turkish firms have developed and operate a roll-on roll-off terminal at the port of Trieste for ships hauling vehicles made in Turkey. The vehicles would then be shipped by train and could travel through Hungary. Constanta in Romania also has a major container terminal. China has established a 6.5 billion USD financial arrangement with Romania, which could result in substantial investments in infrastructure.

Because of the EU's East–West transport investment focus in the past and the Euro financial crisis in 2008 and 2009, a resulting investment vacuum and Chinese budget surpluses encouraged China to make strategic transport investments in Greece and the Balkans (Matura, T. 2014). China has indicated through its investments that it wishes to avoid the congested North Sea megaports

and not rely on the Trans-Siberian Railway partly because of concerns over the geopolitics of Ukraine. As noted, a southern railway corridor in Central Asia, while of interest to China, has even more challenges.

The Chinese have different investment objectives from the EU and expect that there will be explicit short and long-term returns to their loans and investments. In addition, Chinese transport infrastructure investments promote Chinese consulting and construction firms and rail manufacturing exports and increase international market shares for those sectors of the economy (Kaczmarski, M. 2015).

Conclusions

The challenges to building and operating full rail land bridges across Eurasia are enormous, logistically, economically and politically. Land bridges are being challenged by increasing economies of scale in maritime shipping. The physical and operational constraints in Eurasia, including no double-stacking of containers, are major obstacles to land bridge efficiency. Full Eurasian land bridges may play a minor role for unique charter shipments, but significant, regularly scheduled common carriage is currently unsustainable.

The land bridge corridor which appears to have the most potential for the foreseeable future is the Trans-Siberian Railroad with connections to China. In addition to the huge economic and logistical challenges, corruption and the geopolitics of Ukraine interfere with this corridor's potential. The current sanctions on Russia may preclude initiatives for more container traffic on the Trans-Siberian to the West.

Westbound shipping rates should remain very competitive with alternative overland modes and routes because of overcapacity of large container ships and abundant capacity in the Suez Canal. Expansion of the Panama Canal will create complementarities with the Suez Canal for East Asia originated round-the-world service and the Suez Canal will continue to dominate East Asian traffic to Europe.

If container ships continue to increase in size and Suez Canal capacity remains sufficient, then there would be opportunities for more intermodal traffic from Greek, Black Sea, and Adriatic seaports through the Balkans and to the rest of Europe. Indeed, one could expect that more Suez Canal traffic would create opportunities for Eurasian micro land bridges from these seaports to locations within CEE, as CEE grows economically.

China seems to have made its intentions known by investing in Balkan rail connections and Greek ports and railways, but more railways improvements are required in the southern Balkans. Maritime container shipping through the ports of Constanta, Koper, and Rijeka (Croatia) could be alternatives to shipments from Piraeus and Thessaloniki, but significant rail enhancements from all of the ports are necessary.

It is obvious that changes in the foreign policy of a state of the size of Hungary are insufficient to modify transport routes determined by global economic considerations. Hungary's 'eastern opening' and Eurasian rail land bridges fall into this 'rule' too, no significant near future increase in the volume of the goods transported by them are expected. However, leaving the possibility open to operate such links, which may end in Hungary, bears geostrategic significance.

On the other hand, with the Chinese global economic expansion and the various plans included in the 'New Silk Road' concept may increase the significance of Hungary on the Western Europe–East Asia trade, including the increase of the volume of rail transport, since Hungary is also an important land transportation hub on the routes from the Balkans to Western Europe. As the various Chinese investments in the Balkans (port of Piraeus, Budapest–Belgrade high speed railway development, overall upgrade of Serbian railway infrastructure etc.) start to take shape and form an interconnected network Hungary would find itself in a similar position as with the Eurasian rail land bridge: becoming an important transit/logistic hub on the East Asia–Western Europe trade.

Classic ports-based transport development models suggest that when inland transport networks develop, some ports become gateways and thrive, while others languish. While it is beyond the predictive powers of Hungary to forecast which Balkan ports will ultimately attract the needed high speed rail connections and develop the most container traffic (besides Piraeus, China is interested in Greek ports Thessaloniki and Igoumenitsa, Montenegrin port Bar and other Adriatic ports as well).

Hungary and the other CEE countries and Balkan neighbours should coordinate their "eastern openings" and focus on north-south rail links, distributive road networks and intermodal facilities, in order to utilise and benefit from the supposedly increased transit flows in the region.

Hungary's role, furthermore, should be to create an economic and political environment to facilitate investments in North–South land transport infrastructure and networks to raise weight limits and speed. Also, Hungary should monitor transport developments in her neighbours and coordinate policies with them to attract additional EU and Chinese intermodal transport investment. An important task for Hungary is to cooperate with its southern neighbours in the facilitation of border crossings, its physical and political environment, which may be a challenge due to the recent migration flows using very similar routes and causing political dissent among states in the region. An elaborating a coordinated and joint 'eastern opening' of the relevant CEE and SEE states would also be welcomed since it would give the small European states a somewhat larger lobby power, cost-effective ways of developments and more coherent planning.Currently the Chinese planned developments are in line with the aims of the EU, since majority of them coincide with the EU's TEN corridors (first of all Corridor 10). Should it change, Hungary would have other important tasks: to mediate between EU's and China's interests, and try to be a beneficiary, a link between the EU and China.

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Regional identities of Czech historical lands

Antonín VAISHAR and Jana ZAPLETALOVÁ[1]

Abstract

Bohemia and Moravia are historical lands, which constitute Czechia (together with a small part of Silesia) since the 10th century. Two entirely different settlement systems can be identified in Czechia: the centralistic Bohemian settlement system surrounded by a ring of mountains, and the transitional and polycentric Moravian settlement system. The two lands were physically divided by a border forest. Although they have belonged always to the same state, their autonomy was relatively high until the formation of the Czechoslovak Republic in 1918. In 1948, a new administrative division was introduced, which did not respect the border between the two lands. Bohemia and Moravia kept their importance as different cultural units only. The main research question addressed in this paper is how the Bohemian and Moravian identities are perceived by the people today and whether it makes any sense to consider the historical lands seriously when rethinking the idea of the Europe of regions.

Keywords: regional identity, administrative division, historical lands, Bohemia, Moravia, Czech Republic

Introduction

The idea of nation-state was introduced as a result of the Treaty of Westphalia (1648). Its purpose was to change the old dynastic system into a new territorial one. Nationalism, developing in the subsequent two centuries, became the main ideology all over Europe. Many times, the idea was abused for provoking wars and conflicts. In (western) Europe, the conflicts among nation-states were overcome by creating the European Union, which governed relations between two traditional enemies: Germany and France among other things. Recently, the power has shifted from the level of nation-states to multinational corporations and banks. In 2010, Herman van Rompuy, president of the European Council, declared that the idea of nation-states is over. European integration is the most important challenge in this process.

The problem of nation-states in Europe consists of – among other things – the fact that the Union is formed by countries of very different size. Small countries fear that the decision making power is dominated by the large ones. Conversely, big countries fear high participation of small countries in the decision-making process, although they provide the majority of resources for EU level programmes. The solution could be a unified Europe divided into historically grounded regions, which can be more comparable in size. Applegate, C. (1999) writes: *Europe has always been and remains very much a continent of regional identities.*

Keating, M. (1998) explains that regions are no longer confined with the borders of their nation-states but have become actors in European and international politics, and they find themselves increasingly in competition with each other. In this way regional identity has been increasingly identified in the EU´s cohesion policy as an important element for regional development (Paasi, A. 2009).

Of course, regional identity is subject to a long term development process. Nation-states are deeply ingrained in people's minds. Nationalism is also a tempting card in the hands of populist politicians. The first

[1] Institute of Geonics, Czech Academy of Sciences, Department of Environmental Geography, Drobného 28, 602 00 Brno, Czech Republic. E-mails: vaishar@geonika.cz, zapletalova@geonika.cz

attempts to give some political power to the European regions can be traced back to the Maastricht Treaty in 1993 and the establishment of the Council of Regions one year later. Painter, J. (2002) pointed out that the idea is more top-down than bottom-up and, thus, it is a question whether it will resonate in the regions themselves. Paasi, A. (2001) expressed the idea that European regions are the results of regionalization processes more than historical and cultural products. Thus, the question arises whether regions, which are mostly embedded in the history, are perceived as relevant entities by their inhabitants.

Czechia consists of two historical lands: Bohemia and Moravia. In the course of history, small and discontinuous parts of Silesia were connected with the territory of the state. Since the administrative autonomy of the historical lands was gradually degrading, they have not created any administrative unit neither their borders have been kept within the borders of lower level units (regions, districts, communes).

On the other hand, it seems that cultural characteristics and differences have survived. The question is whether the borders between these historical lands are kept in the mind of people and whether this historical memory can be used to create regional and local identities and, thus, enhance regional development and cohesion in general.

The identity of European regions

Regional identity relates to the concept of *us – and the others* (see e.g. Neumann, I.B. 1999). According to Paasi, A. (1986), regional identity could be divided into two parts: subjective (images of the region held by its inhabitants and those living outside of the region) and objective (based on physical or economic indicators). According to Sedlacek, S. *et al*. (2009), regional identity relates to regional consciousness and regional solidarity: *Regional solidarity is an aspect functioning as a landmark of a particular region, which implies a specific relationship with the region. Inhabitants are proud to be part of the region and have a strong territorial connection.* In addition, the authors' idea on regional solidarity likely acting as a factor of regional identity is also relevant for our case study.

The concept of identity has been used since the 1980s – regional identity being a special manifestation thereof (Paasi, A. 2003). The author defines regional identity as a relationship between a group of people and the bounding region. Regional identity is understood as an abstraction that can be used to analyse links between social actors and the process of institutionalisation (Paasi, A. 2002). According to Chromý, P. and Janů, H. (2003) *a particular territory with the specific social, economic or developmental conditions (specific historical development) serve as a base for forming the territorial/regional identity*. Such regions are neither economic nor administrative constructs but rather realistic territorial units embedded in the mental memory of people. As Odehnal, J. and Šerý, M. (2012) note, *regional identity is closely related to regional borders. These boundaries play an important role in shaping the regional identity because they help to define the region, thus helping people to perceive "their" region.* Toušek, V. *et al.* (1991) dealt with the problem of boundaries between the Czech historical lands just after the political change.

The problem of borders and borderlands is relatively frequent in the contemporary European geography. The research is focused mostly on the consequences of the elimination of borders within the framework of European integration and later within the Schengen zone. In the mainstream literature the emphasis often lie on the changes from physical barriers to a psychological or mental one (e.g. Newman, D. 2006 and many others). As Lundén, T. and Zalamans, D. (2001) pointed out *there has been a geographical refocusing of the border away from the level of the State down to internal regions, municipalities and neighbourhoods*.

Which territorial units come into account to understand Europe as a unity of regions? Such units should be large enough to have

related economic and political powers, they should be more or less comparable in size and should have some historically rooted identity. Such historical regions exist in all larger (West) European countries (*Länder* in Germany, *Provinces historiques* in France, *Comuninades autónomas* in Spain, *Regioni* in Italy, *Regions* in England, etc.). The boundaries of some of them are clear and unchanged during centuries; in other cases, their size was slightly changed in the past. Nevertheless, also in the western part of Europe, problems of regional identity occur as e.g. Fichtner, U. (2006) shows on the example of the Southern Upper Rhine Valley.

The situation in Central and Eastern Europe is more complicated. Boundaries of individual states often changed in the history; historical lands were often divided by different countries. The second problem is connected with the fact that many countries in this part of Europe have gained (or regained) political independence only a short time ago. These countries are much more anchored in the perception of nation-states. Nevertheless, also in these countries, historical regions do exist and could be identified.

After the fall of communism, many questions, which were tabooed in the past, were put forward including the problem of ethnicity. In the 1991 Czech population census, respondents were offered to declare the Moravian or Silesian nationality. About *1.4 million inhabitants of the Czech Republic identified themselves as Moravian or Silesian nationality, which was not allowed before. They expressed their awareness of belonging to the historical provinces of Moravia and Silesia and, thus, belonging to the Czech nation. Thus, a new social division has developed in the ethnically nearly homogeneous environment of the Czech Republic, which constitutes a potential threat for the further splitting of the State* (Daněk, P. 1993). It is probably the most important reason why politicians refuse a return to the original division of the country based on the historical lands.

Šerý, M. and Šimáček, P. (2012) analysed the boundaries of regional identity on the example of the Moravian-Silesian divide in the Jeseník district based on the concept of mental maps. They stated that regional identity is relatively weak. However, it is necessary to note that the original population of the Jeseník area was almost completely replaced after World War II; therefore, its regional identity became weakened in general. On the other hand, it is also important to emphasise that the land's identity is only a part of the regional identity.

In the 1991 population census, it was possible to declare the Moravian and Silesian ethnic background besides the Czech nationality. At that time, about 1.3 million inhabitants declared the Moravian nationality (13% of the population). It was partly connected with the efforts of some Moravian microregions to be connected with Moravian districts or regions and with the political ambitions of some Moravian politicians. In the 2001 census, only 400,000 people declared the Moravian ethnicity (3.7% of the population). The issue of some administrative changes was not on the agenda at that time. In the 2011 census, answers to questions about ethnicity and religiosity were voluntary. As a consequence, about a quarter of the respondents did not replay to that question. Yet, the number of "Moravians" (in the English, and namely in the US literature, the term Moravian is connected more with the affiliation to the Moravian Church which originated from the Unitas Fratrum Church) increased to 522,000 (5.0%). The main research question addressed in this paper is how the Bohemian and Moravian identities are perceived by the people and whether it makes any sense to consider the historical lands seriously when rethinking the idea of the Europe of regions.

Bohemian-Moravian relations, differences and perceptions

Bohemia and Moravia are historical lands, which constitute Czechia since the 10th century. The two lands used to be physically divided by a border forest. On the one hand,

since the eclipse of the Great Moravia Empire Moravia has always been peripheral in relation to Bohemia (due to multiple reasons and conditioned by supranational culture represented by the Catholic Church). Nevertheless, the subordination of Moravia has never been absolute (Šedo, J. 2002). On the other hand, Moravia has always been an important hinterland for Bohemia and its peripherality provided a good basis to keep some traditional culture.

In spite of having always been parts of the same state, the two lands had relatively great autonomy until the formation of the Czechoslovak Republic in 1918. In the period between 1918 and 1938, Bohemia and Moravia (later Moravia-Silesia) were two of the four main administrative units of the state, Slovakia and Carpathian Ruthenia being the other ones (*Figure 1*). Only in 1948, a new administrative division was introduced, which did not respect the border between the two lands. Bohemia and Moravia always kept their importance as different cultural units whereas the role of Silesia became less clear. *The historical lands of Bohemia and Moravia are two regions whose existence the Czechs recognise without a question, while Silesia is in a weaker position and gains only two-thirds of the recognition of the other two historical lands* (Siwek, T. and Bogdová, K. 2007).

After 1989, some political parties and movements focusing on the Moravian issue arose. The Movement for Self-Governing Democracy – Association for Moravia and Silesia was the most successful among them. Moravian ethno-regional parties mostly supported the idea of the European integration and the Europe of Regions – often in contrast with some leading nationwide parties like the Civic Democratic Party (Mareš, M. 2002). The country was newly divided into 12 administrative regions, which did not respect the historical borders and did retain any historical identity (*Figure 2).*

The issue of Moravian autonomy was gradually replaced by other questions. In general the low level of political interest of people (expressed by extremely low participation of people in elections; e.g. in 2014 in the last elections to the European Parliament the turnout rate was only 18.2%) and re-orientation towards consumption could be the main reasons. A certain resignation to regional issues in relation to social problems (economic crisis, unemployment, low incomes, and poverty) could also be mentioned.

Are there some measurable cultural or social indicators of differences between the two lands? Investigating the social capital in Czechia, Pileček, J. and Jančák, V. (2010) talk about the polarisation between Bohemia and

Fig. 1. Lands of the First Czechoslovak Republic, 1918–1938. (Drawn by J. Pokorná.)

Fig. 2. A comparison of historical lands and the present administrative division of the Czech Republic. (Drawn by J. Pokorná.)

Moravia (at a district level) – highlighting the difficulties of measuring. The cultural identity of Moravians is often reflected in the establishment of clubs focusing on the promotion of Moravia as a historical territory with the effort to keep or renew Moravian identity. There are 12 such clubs registered by the Ministry of Interior.

If Moravia is a periphery of the Czech state, is the Czech part of Silesia a periphery of the periphery? Siwek, T. (2006) answers the question positively reasoning with the remote geographical position, major economic problems (transition from heavy industry) and the mental distance of people. In our opinion, he does not take into account enough the fact that Silesia is more urban than Moravia which could also play a role in the conditions of peripherality.

From an urban geographical point of view, two different settlement systems can be identified in Czechia: the centralistic Bohemian system surrounded by a ring of mountains and the transitional and polycentric Moravian urban system. The dominant position of Prague, its economic power, and the low competitiveness of Moravian centres is probably the main reason for Moravian backwardness. Moravia (being more rural) was more able to keep some ethnographical traditions. It is divided among several ethnographical regions whereas Bohemia is ethnographically more or less homogeneous an exception is being Chodsko in the Domažlice district (see Siwek, T. 2012).

Differences are also emphasised in the presentations of individual regions in the media – which has to do with the image of individual regions. Sucháček, J. *et al*. (2013) show that Moravian (NUTS 3) regions are much less presented in national TV (in relation to their population numbers) than the Bohemian ones *(Figure 3*).

Nevertheless, it cannot be said that the main reason is a discrimination of Moravian regions. Individual regions are usually presented as regions – not as parts of Bohemia, Moravia or Silesia. The frequency of the contributions depends on cultural and economic activities as well as on the social conditions of individual regions. In this respect Prague the capital city plays the most outstanding role.

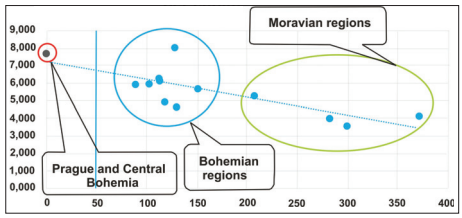

Fig. 3. Linear regression model expressing relations among distances, populations and the number of contributions per capita for all NUTS 3 regions (Prague and Central Bohemia united). $y = -0.0102x + 7.21$; $R^2 = 0.6033$. *Source*: Sucháček, J. *et al.* 2013.

The issue of historical lands is probably perceived differently from the Bohemian and Moravian side (similarly as the perception of Czechoslovakia from the Czech and the Slovak side). On the one hand, for Bohemians (who feel themselves as the leading power in the country) the problem does not exist and if so, it is perceived as a decentralising separatist tendency. On the other hand, in Moravia, the issue is understood in different ways, sometimes as an ethnic problem, another time as a regional problem or cultural difference. Moreover, Moravia (unlike Bohemia) features greater ethnic diversity.

Chromý, P. *et al*. (2004) tried to investigate regional identity in Czechia. They concluded that a visible dichotomy exists between the "traditional" Moravia and the "modern, quickly changing" Bohemia. They came to the conclusion that traditional historical regions persist long in the mind of people. However, it does not seem that the same would apply for the borderline itself (depending on the situation of individual sections of the border). To put it short, the centres of historical regions are clear, while the borderline is fuzzy. In reality, the borderline is often equated with administrative boundaries.

Mental manifestation of borders between the Czech historical lands

The border between Bohemia and Moravia has partly natural character. It more or less respects the limits between the Labe (Elbe) River and Danube River basins. Originally, it was covered by a border forests. The borderland between Bohemia and Moravia belongs to the Czech inner periphery. According to Musil, J. and Müller, J. (2008) inner peripheries can be generally defined as *territories that are not economically expanding, are losing population, are demographically ageing, have lower socio-economic status, have worse technical and social infrastructure compared to that in other parts of the country, are less accessible, have older housing stock, and are experiencing specific exclusion-related social problems.*

It is more or less true for the majority of border sections between Bohemia and Moravia and for the western part of the Moravian-Silesian borderland. The situation is supported by the fact that the borderline leads through the highland terrain far from the regional centres. The weakest regional centre of Jihlava (Vysočina – Highland Region) is the only exception, being situated just on the borderline. The eastern part of the Moravian-Silesian borderland has different conditions. It is situated in a relatively urbanised area not far from the Ostrava Basin – the third largest regional centre in Czechia.

In our research ethnicity declarations of local residents in 199 communes in the Bohemian-Moravian borderland were analysed (103 in the historical Bohemia, 96 in Moravia). Problem arose from the fact that the Czech language has the same word "*český*" for both meanings – Czech and Bohemian. Thus, it is not clear whether respondents declared themselves Czechs in terms of nationality, or Bohemians or Moravian in terms of ethnicity in the population censuses of 1991 and 2011 as shown in *Table 1* (share of the two ethnicities decreased because ca. 25% of inhabitants did not declare any ethnicity in 2011).

It is clear that the mixing of terms of the Czech/Bohemian nationality and ethnicity does not allow operating with the shares of individual ethnicities. However, it is more or less clear that although the ratio of Moravian ethnicity is higher on the Moravian side of the border, its share has decreased during the last two decades.

Table 2 shows the situation in detail in selected communes just on the border. All the communes are originally Moravian towns located outside of typical Moravian administrative regions or just on the borderline. Only one of them (Jevíčko) shows a clear tendency to be affiliated with Moravia.

It can be concluded that not only the share of Moravians decreased by 2011 in comparison with 1991 (see *Table 3*), but the attention paid to the issue of ethnicity has also become much less in the Bohemian-Moravian borderland. Nevertheless, since the Czech population and the Czech language do not differ between nationality and ethnicity, it is difficult to formulate robust conclusions concerning regional identity.

Regarding the fact that the administrative structure of Czechia does not respect the traditional border between historical lands, the question concerning the affiliation of 51 selected towns to Bohemia or Moravia was put forward (of them, 3 towns are situated just on the borderline – partly in Bohemia, partly in Moravia) and a survey using the method of random sampling among respondents between 20 and 80 years old with secondary or tertiary education was conducted. We thought that these people could have some geographical and historical knowledge including the Bohemian-Moravian relations. We received altogether 49 responses where only a small part of the answers was correct. Mistakes were made partly in cases where historical Moravian towns are situated in regions falling more to Bohemia. In addition, geographical knowledge was poor because the knowledge of people depends very much on the size of the individual towns and distance from respondents' home.

As a next step, members of the Voluntary Associations of Communes were checked. Under Czech conditions, small (200–500 inhabitants) and very small (under 200 inhabitants) municipalities participate in such associations very frequently, especially in the peripheral areas, including the Bohemian-Moravian frontier zone. The question was whether the associations created within this process respect administrative or historical borders. Altogether

Table 1. Ratio of people declaring Bohemian and Moravian ethnicities on the Bohemian-Moravian borderland in the 1991 and 2011 censuses

Communes	Total population, person	Bohemian		Moravian	
		person	%	person	%
1991					
Bohemian	74,491	70,670	94.9	2,563	3.4
Moravian	154,410	132,885	86.1	14,837	11.8
2011					
Bohemian	77,247	53,348	69.1	644	0.8
Moravian	148,737	98,905	66.5	9,360	5.0

Source: The Czech Statistical Office, Prague.

Table 2. Ratio of people declaring Bohemian and Moravian ethnicities in some Moravian towns in the 1991 census

Town	Total population, person	Bohemian		Moravian	
		person	%	person	%
Dačice	7,970	6,363	79.8	1,502	18.8
Slavonice	2,543	2,328	89.0	213	8.1
Jihlava	50,439	48,007	91.9	2,423	4.4
Svitavy	16,860	15,752	90.3	1,107	6.3
Jevíčko	2,615	1,490	55.4	1,123	41.8
Moravská Třebová	11,700	8,912	73.8	2,756	23.1
Žďár nad Sázavou	25,198	20,439	79.8	4,755	18.6

Source: The Czech Statistical Office, Prague.

Table 3. Ratio of people declaring Bohemian and Moravian ethnicities in some Moravian towns in the 2011 census

Town	Total population, person	Bohemian		Moravian	
		person	%	person	%
Dačice	7,492	5,388	71.9	153	2.0
Slavonice	2,455	1,533	62.4	25	1.0
Jihlava	50,075	35,495	70.9	737	1.5
Svitavy	16,670	11,821	70.9	404	2.4
Jevíčko	2,886	1,737	60.2	324	11.2
Moravská Třebová	10.543	6,669	43.3	941	8.9
Žďár nad Sázavou	22,328	15,300	68.5	1,364	6.1

Source: The Czech Statistical Office, Prague.

27 associations were checked. In the vast majority of the cases, the associations prefer to respect district borders (although districts are only of statistical importance since 2003) also when the district border is different from the historical one. It is understandable: the collaboration across the administrative border would be probably more complicated. On the other hand, the historical borders were crossed only in five cases.

Discussion: Do historical lands have some importance today?

The European Union should be a political body (re)establishing historical borders. The process has two sides: a top-down approach is necessary in the case of public administration. Everyday practices of local people should also be taken into account. Forming voluntary associations of municipalities manifests a bottom-up approach. It is interesting that association crossing the state borders (euro-regions) developed relatively intensively whereas association crossing the regional borders are very rare. The reason lays in financial issues. Whereas euro-regions are financially supported by the EU, the chances of associations do not increase in the case of cross-regional purposes.

Due to the abandonment of the historical division of the state in 1949, changes in social and cultural values of people as well as the transformation of the educational system (i.e. less importance of regional specialties), the awareness of the historical affiliation to Bohemia, Moravia or Silesia has gradually declined in Czechia. People do not doubt that these historical lands exist, they are able to define their core territories and they have some imaginations about differences in language or some habits, but they are not certain about their borderlines. In spite of this, some enthusiasts try to assemble boards, characterizing former borderlines in certain border sections.

We do not suppose that the Moravian or Silesian ethnicity means a creation of a special Moravian ethnicity at the expense of Czechs (or penetration of Silesians from Poland to the Czech territory). The Moravians and Silesians are no minorities in their own territory. If the declaration of Moravian or Silesian in the population census means a creation of a new ethnicity, the decrease of Moravians and Silesians between the censuses should not be so significant. We believe that such statements meant mainly the expression of regional identity and a requirement of deeper subsidiarity at the regional level in response to the centralism of Prague.

Iščuk, R. (2011) maintains that Moravian identity is declining at the present time. Nevertheless, he is of the opinion that regional politics of the European Union should provide new impulses to the Moravian issue by leaving the centralizing tendencies and asking for new regional identities. He sees three possible options for the future development: (1) *option of the Balkans* – a change of the regional principle into the ethnic one; (2) the *European option* – weakening the nation-states and strengthening the regions; or (3) the *homogeneous option* – leaving the European ideas

and returning to the nation-states. Together with the author, we prefer the 2nd option.

In this connection, let us put a legitimate question: Would the restauration and preservation of the Moravian (and Bohemian, possibly Silesian) identity be really an engine for some regional development? Semian, M. and Chromý, P. (2014) mention different types of regional identity in relation to regional development:

– regional identity as a successful driver in regional development (which is realized mostly in the field of tourism development and/or as a support of collaboration among actors);
– regional identity as an unsuccessful driver in regional development (especially in cases when the identity is directed to visitors or newcomers – not to permanent residents);
– regional identity as a barrier to regional development (when the identity is directed inwards the community and does not allow a penetration of new ideas).

It follows that if the Moravian or Bohemian identity should be successful, differences must not be overemphasised. Regional identity should be the identity within the Europe of regions rather than against the Europe of regions. It has to keep particularities but must be also opened to new ideas at the same time.

With which territorial units does Czechia want to join such an idea? With the whole country? With small regions? With some statistical units (NUTS 2) without their own identity, self-government or territorial logic?

The historical lands are large enough for the competition among historical European regions; they have long historical roots, contain autonomous settlement systems. The question is whether it is not too late to return regional identity to their inhabitants.

If so, the borderlines should be defined newly. There should be only one difficult problem to solve: the NUTS 3 region of Vysočina (Highland). The region has been created in the territory of the Bohemian-Moravian Highland as an area unifying peripheral parts of both Bohemia and Moravia. Its centre Jihlava is the weakest centre among regional capitals (Karlovy Vary is in similar position in many sense). The city of Jihlava is not able to organise the whole territory of the region – large parts of it gravitate in reality to neighbouring Bohemian and Moravian regional centres: Brno, České Budějovice, Pardubice. However, the region connecting two peripheries is strangely not the most problematic one within Czechia. Although objective conditions are poor, probably the social capital of people living there for ages caused that present indicators rank the Highland with the prospective areas.

Jihlava is a historical royal mining town, the centre of which is situated in Moravia. However, some suburbs and a big part of its catchment area belong to Bohemia. Restoration of the historical border would interrupt relatively firm relations within the micro-region of Jihlava. But if it is the only obstacle, it should be solved: either to keep the historical border or to keep the micro-region of Jihlava and affiliate it either to Bohemia or to Moravia. A similar situation (at a smaller scale) can be found for example in the micro-region of Žďár nad Sázavou. The solution could be similar.

The decision is a matter of political will. The return to the historical division would mean some reduction of the power of Prague as a centre for 14 small regions. However, if the European politics is directed towards the limitation of the power of nation-states and towards increasing autonomy of regions, some decisions will be necessary.

Disagreement could also come from the other side. Whereas Bohemia is a centralized, ethnically homogeneous land with the prominent centre in Prague, Moravia is different. The land consists of more ethnologically different parts like Moravian Slovakia, Wallachia, Horácko, Haná, Lachia, Moravian Silesia etc. Will the inhabitants of all these parts agree with the creation of a unified land? And which city should be the capital? Olomouc, Brno and Znojmo were the first historical competitors for this position. Later, Olomouc as a seat of the Moravian archbishop gained the role, which was lost in the 17th century in favour of Brno. Later, with the increasing importance of heavy industry,

Ostrava grew as a competitor of Brno. At the present time, Olomouc has fallen to the level of middle-sized city and Ostrava in the marginal position fights with structural and environmental problems. It seems that Brno with quaternary functions is a clear Moravian centre. But will other cities respect this situation? There are many unclear aspects in this regard. It does not mean, however, that it makes no sense to think about them.

Within the Austro-Hungarian Monarchy, the administrative division according to historical lands was no problem. It was probably due to the fact that the empire was a multi-national state. The First Czechoslovak Republic (1918–1938) kept the historical lands too – although it originated as a nation-state (not taking into account relations between Czechs and Slovaks and the German problem). The abolition of historical lands could be linked to the rise of the nation-state and hard centralism of the post-war Czechoslovakia. Does the European Union represent a chance for the return to the historical identity?

Conclusions

To answer the research question, we can conclude as follows: there is no doubt that the perception of historical regional identity is gradually decreasing. In contrast with some other cases like the Basque country, Catalonia, Scotland, Wallonia/Flanders etc., Moravians are interested neither in the separation from Bohemia nor in some level of political autonomy. The differences are understood rather as cultural modifications in terms of dialects, customs, folk culture etc. Efforts were directed rather to the unification of historical lands – similarly as e.g. in Brittany. We can also conclude that the Bohemian/Moravian issue is not a problem of nationality.

However, awareness about Moravia among people exists and it does not seem to be weakening. Its centre of gravity moves from the ethnic and regional concept to the cultural one – similarly like earlier in the case of ethnographic groups, e.g. Moravian Slovaks, Wallachians etc. It is typical for the regionalisation of such groups that the core of their territory is generally known but the borders are fuzzy. It follows that when regional identity is not reflected in the administrative division of the country, it loses the strict delimitation by borders in the geographical sense, although the awareness of identity sustains or even increases.

Utilisation of historical lands for European regionalisation is another issue. There are clear evidences that subnational or regional scales have become much more important as a locus for social and political life over the last 30–40 years (Jeffery, C. 2014). Nevertheless, it is hardly possible without a corresponding regional government. Czechia is one of the few countries, which is actually not divided into historical regions with long-term identities. Administrative regions, the delimitation of which changes every 20 years are not able to play such a role.

If we think about the Europe of Regions, historical lands seem to be optimum regions concerning their size, historical development and cultural features. Further research should be focused on the Bohemian/Moravian issue as a problem of regional division based on historical roots – rather than as a problem of Moravian nationality.

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Minsk and Budapest, the two capital cities

Edited by

László Jeney and Dávid Karácsonyi

Department of Economic Geography and Futures Studies, Corvinus University of Budapest; Geographical Institute RCAES HAS; Faculty of Geography, Belarusian State University; Institute for Nature Management, National Academy of Sciences of Belarus

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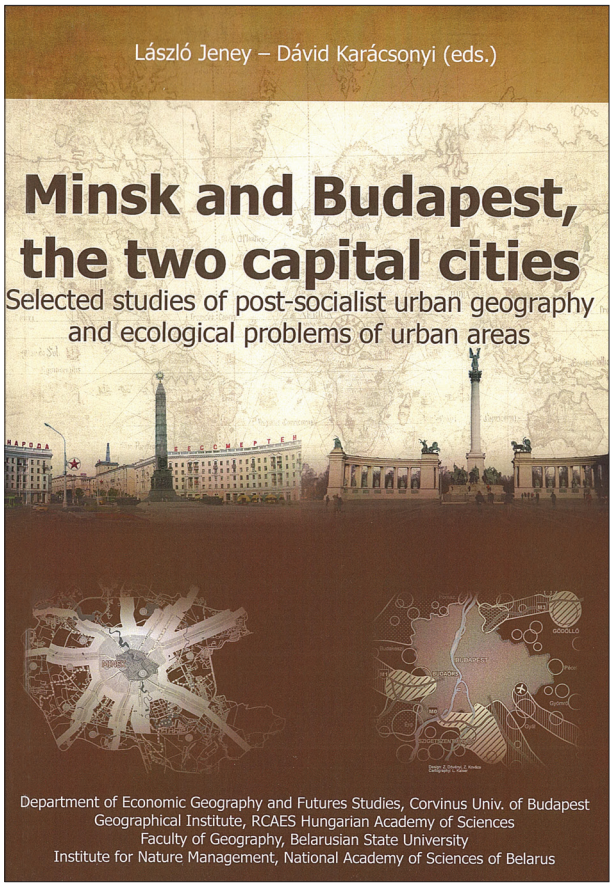
While Budapest used to be the bridge between the West and East in Central Europe, Minsk seems to be in a similar role between the Russian and the EU–Polish influence zones. It means that both capitals are situated on the frontiers between the Euro-Atlantic and the Euro-Asian macro regions. Besides their situations, their similarity in size renders the comparison and the cooperation obvious to proceed. This book is based on the mutual co-operation of Hungarian and Belarussian geographers and gives a scientific outlook not only on the socio-economic development of the two cities but on the urban climate, environment and ecology as well. Hungarian authors of the book introduce Budapest as a Central European metropolis with its historical trajectories and the results of the post-socialist transformation. They also demonstrate the main features of large housing estates and the results of their rehabilitation. Authors from Belarus show the major issues of spatial structure planning of Minsk in a similar context, describing the past and the present changes taking place in the spatial structure of the metropolis. The integrated assessment of the state of urban environment in Minsk is examined also focusing on the ecological frame of the environmental planning in urban agglomerations. The volume serves as a good starting point of a fruitful co-operation between Belarussian and Hungarian geographers dealing with a social and physical urban environment, the state of which deserves extra attention especially in East Central and Eastern Europe.



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Library, Geographical Institute of RCAES HAS, H-1112 Budapest, Budaörsi u. 44.
E-mail: magyar.arpad@csfk.mta.hu

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Narrative interviews in research on post-war socio-historical processes as formative factors of regional identity of the population – Case study of the Svitavy region, Czech Republic

Pavlína SLOVÁKOVÁ[1] and Miloslav ŠERÝ[2]

Abstract

The aims of the paper are twofold. The first aim is a methodological one, the article presents the possibilities of using narrative interviews in research on post-war socio-historical development. The second aim is to evaluate the experiences of eyewitnesses who experienced the expulsion of the German-speaking population and the process of resettlement in the distinctive region of Svitavy. Being the largest migratory population movement in the 20th century in the Czech lands, the displacement of the Germans and the subsequent process of resettlement brought significant social, cultural, and economic consequences. Their influence on the inhabitants of the affected regions and regional identities of these inhabitants is evident even now. The method of narrative interviews contributes to unveiling the importance of these processes in witnesses´ minds. The successful fulfilment of both objectives allows evaluation of the appropriateness of the methods applied in research on regional identities of the population, as well as a better understanding of the importance of post-war events for the eyewitnesses to them. As these events occurred in a specific region (Svitavy), it is possible to identify important factors that contributed to the formation of regional identities of these witnesses. The article is a contribution to the existing knowledge about the phenomenon of regional identity of populations, which is understood as a process. In addition, it also contributes to a deeper knowledge of the role of the (dis)continuity of settlement in this process.

Keywords: narrative interview, regional identity of population, migration, Svitavy region, Czech Republic, transfer of Germans from Czechoslovakia

Introduction

The transfer of the German population from Czechoslovakia and the subsequent resettlement of the borderland by inhabitants of mostly Czech nationality is a subject that is still to some extent controversial and is widely discussed (Staněk, T. 1991; Kural, V. 1994; Beneš, Z. 2002; Čapka, F. *et al.* 2005; von Arburg, A. and Staněk, T. 2010). In addition to debates about the correctness of the transfer of the German citizens, its manner and course, and the possibly rather chaotic course of the subsequent resettlement, recent discussions have also focused on the social, cultural, and economic consequences of the largest migratory movements of the population in the Czech Republic in recent history. A partial interest in the evaluation of the possible consequences of such continuity up to the present day is also evident within Czech geographical research projects (Daněk, P. 2000; Chromý, P. and Skála, J. 2010; Kučera, Z. and Kučerová, S. 2012; Šerý, M. and Šimáček, P. 2013; Šerý, M. 2014).

However, research on the very development and immediate effects of the above migratory movements has remained somewhat out of the spotlight of Czech geographers. For research on the actual intensity

[1] Department of Geography, Faculty of Science, Masaryk University, Kotlářská 2, 611 37 Brno, Czech Republic. E-mail: pzrustova@mail.muni.cz

[2] Department of Geography, Faculty of Science, Palacký University Olomouc, 17. listopadu 12, 771 46 Olomouc, Czech Republic. E-mail: serymilos@gmail.com

of the migration flows and their spatial differences, as well as the social and economic structure of the population that participated in these migrations, the statistical sources of data from the pre-war and post-war periods are very important. Here we mean primarily three censuses in the Czechoslovak Republic (1 December 1930, 1 March 1950 and 1 March 1961) (State Statistical Office 1935a,b, 1955, 1966), the Survey of Municipalities in the Bohemian and Moravian-Silesian lands of December 1, 1945 (State Statistical Office 1946), and, last but not least, the Registers of Citizens in Czechoslovakia in 1946 and 1947 (State Statistical Office 1951). Using these resources of aggregate, quantitative data we can gain a general idea of the above-mentioned processes and these ideas can be combined with archival research, which is particularly desirable at regional level. This approach, which allows us to create a more synoptic image of the post-war development, has been used by authors (Skřivánek, M. 1995; Káňa, O. 1976) who strove to analyse the issue in question within their case studies of selected border regions.

However, if we seek a more comprehensive understanding of the processes of the transfer of the German-speaking citizens and the resettlement, the specific regional features, and the consequences so far, we have to extend the above-mentioned methods. We consider one of the alternative approaches to be the method of narrative interview with people who lived through these processes, or at least were affected by these processes. The method of narrative interview has the potential to identify phenomena that are hard to understand. Here we mean primarily the perception of post-war processes by eyewitnesses to them, mostly based on their own experience of these processes, which determines the future development and formation of a number of aspects.

These must include the relationship of individuals to the area they live in, or the level of identification with the community which the individual is a part of. We should not forget the perception and understanding of the symbolism that represents this living space. Similarly, the post-war experience may have affected the willingness of individuals to participate in the organisation and functioning of institutions that are linked to their living space. If we start from the intentions of the new regional geography (Thrift, N. 1983; Pred, A. 1984), all these aspects can be understood as essential dimensions of the phenomenon of regional identity of the population (Paasi, A. 1986, 2002), which has been developed, reproduced, and transformed on a long-term basis (Macleod, G. 1998).

Despite the potential of narrative interviews to facilitate the understanding of the formative factors of regional identity of a population (Houžvička, V. and Novotný, L. 2007), this method does not have a strong position in research carried out in the framework of Czech geography so far. Therefore, the first (methodological) objective of this paper is to evaluate the importance of narrative interviews for research on the formative factors of regional identity of population.

The second objective of the paper is then to assess the specific formative factors of regional identity of population, which include the experience of eyewitnesses of the resettlement of the German-speaking population and the colonisation process in the Svitavy region.

To meet the above objectives successfully, we will seek answers to the following research questions:

a) To what extent is the narrative interview an appropriate method to gain qualitative data on phenomena shaping the process of regional identity of the population?

b) What is the opinion of witnesses to the post-war resettlement of the German-speaking population? Did they maintain friendly relations with the German-speaking inhabitants before the war and after it?

c) Did the respondents themselves participate in the colonisation process? How do they evaluate this process?

We believe that by fulfilling the objectives of the paper, we can methodologically and factually enrich the existing geographic re-

search focused on the possibility of understanding the above-mentioned formative factors in the process of the creation of regional identity of the population. In addition, one part of the Svitavy region faced the post-war migrations while another part of it was not affected by these transfers, and, on the contrary, served as the source area for the resettlement. Thanks to this, it is possible to understand Svitavy as a distinctive region with an internally differing continuity of socio-historical development. As a result of this nature of the region in question, the fulfilment of the above objectives may also contribute to a better understanding of the role of the dis-/continuity of settlement in the process of the creation of regional identity of the population.

Methodological aspects of narrative interviews

In the social sciences, qualitative research indicates the type of research that focuses on how individuals and groups perceive, understand, and interpret the world. According to other criteria, qualitative research is research that does not use statistical methods or techniques. In this concept, it is contrasted with quantitative research, which is not suitable for research conducted on a smaller scale, when the categories and theories applied by a researcher may not correspond to local particularities or the knowledge that is acquired is too abstract and general for direct application in local conditions. A researcher may also be limited by a reductive method of data acquisition (Hendl, J. 2008).

The most widely used qualitative methods in geographical research include direct observation, participant observation, grounded theory, keeping a research diary, and, especially, interviewing subjects. These methods are potentially able to provide the data needed for a research study (Hendl, J. 1997). The way in which the subjects are interviewed may vary, depending on the object and purpose of the research, the nature of the survey data, or, for example, on the time capacity and financial resources of the researcher. As Dunn, K. (2005: 79) states, interviews are verbal interchanges where one person, the interviewer, attempts to elicit information from another person. On the one hand, we can use a precisely structured questionnaire, which results in easily comparable answers; on the other hand, a free interview without a predetermined structure and with only a primary topic of conversation may also be an appropriate method (Hendl, J. 2005). A compromise between these two methods is a semi-structured interview (Longhurst, R. 2010).

A narrative interview is based on the free narration of the person being interviewed, with important information being reflected by the interviewer only during the interview. This open type of interview is based on the assumption that narration has been an essential component of human communication since the very beginning of modern civilisation and describes the everyday activities and problems of an individual in the best possible way.

As already mentioned, the narrative interview can be structured, semi-structured, or completely unloaded with any structure, with the interviewer responding exclusively to the narration of a particular respondent (Given, L.M. 2008). The nature of the narrative interview is strongly interdisciplinary. The respondents' experience and the information obtained during the interview are a useful source of data for sociology, psychology, geography, philosophy, and cultural studies, but, in a sense, also for economic and marketing disciplines (Wengraf, T. 2001).

According to Schütze, F. (1987), who was the first to describe the narrative interview method, the form of the interview consists of several stages. First, it is important to inform the respondent about the topic of the interview and the reason why it is being conducted. It is necessary to inspire confidence and make the interviewee interested so that he/she tries to recall events that might not be mentioned in direct questioning.

At the stage of the actual narration, the interviewer should not interrupt the inter-

viewee's monologue, but only listen intently, and use gestures or not to invoke a feeling of concernedness and being interested in the story being narrated. After the end of the narration, it is appropriate to use narrativising questions that respond to the events mentioned by the interviewee and aim to develop them in a certain direction.

The prerequisite for these questions is the expectation of further narration. From the experience of other interviews, the questions can be formulated in a way that takes into account the information received from the other interviewees, but has not been mentioned by the current respondent. After all the topic-related questions have been exhausted, the interview should continue with additional descriptive characteristics of the persons presented in the story, with an effort to relate the events that have been described and their possible consequences to the present (Jovchelovitch, S. and Bauer, M.W. 2000; Bates, J.A. 2005).

The purpose of the narrative interview is the rejection of the classical scheme of the question-answer type of interview and, on the contrary, minimum communicative involvement of the interviewer in the narration. The positive effect of the narrative interview is the presentation of events in the life of the interviewee in his/her own words, which, according to the supporters of the narrative interview approach, could not be covered during a normal structured interview (Jovchelovitch, S. and Bauer, M.W. 2000; Atkinson, R. 2001).

The narrative interview is primarily used to capture the course of events that took place in the past, which develops in a certain way. This is an important feature of the method with regard to the fact that regional identity of the inhabitants is always rooted in the past (Graham, B. 2000) and its formative factors are subjected to developmentally continuous reproduction and transformation (Vainikka, J. 2012).

On the contrary, the narrative interview approach is totally inappropriate if the researcher requires obtaining quantitative information or opinions on phenomena that are not related directly to the respondent and his/her story. The essence of a narrative interview is his/her experience and subjective perception of facts that influenced the interviewee to some extent and to which he/she attaches some weight. The advantage of the narrative interview is in its putting the emphasis on the individual and his/her subjective perception of processes and phenomena in time and space, against the background of a characteristic social framework.

Jovchelovitch and Bauer (2000) pointed out two problematic aspects of narrative interviews. The person being interviewed can create his/her own hypothesis about what the interviewer wants to hear and what he/she probably already knows.

The consequence can be partially conscious non-disclosure of information which would represent a contribution to the research. They may also show some doubts about the phases of a narrative interview. In particular, difficulty in stimulating the interest of the person being interviewed in the topic relates largely to the experience of the interviewer and the narrative part itself is then heavily influenced by the confidence in the researcher and his/her work.

It is also important to understand that for many people the narration itself, on which the whole interview is based, may be an unnatural activity that is not easy to manage. Another important factor is the process of forgetting, which is influenced by many factors, e.g. protection of mental capacity from overload and congestion, a long period of time having passed since the event happened, or an effort to displace unpleasant memories (Čermák, I. *et al*. 2007).

The data processing (time-consuming transcription) and especially the evaluation of the interviews are relatively difficult. From the huge amount of the texts of the interviews, it is necessary to select only those pieces of information that are relevant for the research, which are then broken down in an appropriate manner according to their content and compared with each other (Bates, J.A. 2005).

Narrative interview and geographical research on regional identity of populations

In geography, qualitative research methods are relatively widespread and the qualitative approach is certainly not unknown to geographers interested in issues of regional identity (Kneafsey, M. 2000; Everett, S. and Aitchison, C. 2008; Antonsich, M. 2010; Zimmerbauer, K. 2011). According to Wiles, J.L. *et al.* (2005), semi-structured interviews are widely used, while much less attention is paid to alternative methods of investigation. These methods include the narrative interview, which is suitable for the detection of facts that are unobtainable from other available sources.

Because of this feature and the characteristics of the method described in the previous chapter, we attempted to use the narrative interview approach in our research on regional identity of the population of the Svitavy region. More precisely, this method was used to identify the way in which the post-war experience can influence the process of the creation of regional identity of the inhabitants of the area concerned.

The specific features of the coexistence of two or more nationalities in certain regions have their roots in the distant past and have undergone many changes during the development of the region.

The form of a free and open interview can help to gain an understanding of the unique feelings, perceptions, and opinions of the inhabitants of the border areas regarding the dramatic post-war events that are often difficult to describe objectively and analyse as a result of the lack of a sufficient amount of data and sources.

Although the subjectivity of those interviewed is considerable, the information obtained through narrative interview can paradoxically be used to add greater objectivity to the research (Jovchelovitch, S. and Bauer, M.W. 2000).

For example, we can start from the assumption that we have only inaccurate statistics on a certain village affected by the transfer of its German inhabitants with regard to the number that were transferred and a few references on the course of the displacement found in archival materials or a secondary publication that deals with this topic.

The narration of the witnesses may to some extent explain the course and the circumstances of the involuntary exodus of the German population, especially in those cases where the statements of individual interviewees overlap or coincide. The experiences and memories of witnesses are often the only source of information and, though they should be treated with critical distance, are priceless for research on the conditions under which regional identity of the population was formed.

Regional identity of inhabitants

From a broader perspective the very existence of regional identity of a population can be understood as a manifestation of human needs, specifically, the need to belong somewhere, which Maslow, A.H. (1943) sees as the most important social need of any individual.

Through a successful fulfilment of this need, a person gets an idea of his/her position and role in a complex environment and builds and realises his/her own identity. If the sources of the identity of individual persons and the process of the creation of these identities show the same characteristics, we can talk about the generation of collective identity.

The concept of collective identities and the processes of their formation are tackled by Cerulo, K.A. (1997: 386), who suggests that, *so rooted, the notion addresses the "we-ness" of a group, stressing the similarities or shared attributes around which group members coalesce.*

The above-mentioned attributes can be determined, for example, by ethnicity, religiosity, sexuality, cultural characteristics, and, last but not least, by spaciousness. Spaciousness consists of the daily activities of people within the various spatial categories, either

in particular places (Tuan, Y.-F. 1974; Relph, E. 1976) or regions (Paasi, A. 2002).[3] Spatial categories are then used in the process of building human identities. In this context, regional identity of a population can therefore be understood as one of the essential forms of collective identity.

Regional identity of a population is a relatively complex and elusive phenomenon. In this paper, we start from the conceptualisation established by Paasi, A. (1986). Its essence is the classification of this phenomenon within three subsets. The first one is *identification with regional group or community*. This subset consists of both the *factual identification* and the *ideal identification*.

The former is based on actual relationships between individuals who are in some way connected with the region. In this case of community, an important fact is that the individuals are acculturated and are familiar with *structures of expectations*. In the latter case we are talking about a certain image of identification, which is communicated and represented in the institutional practice of the region and its community. In the latter case, the purpose is the reproduction of awareness of regional community.

Typically, these two types of identification are not in agreement, but this discrepancy does not preclude their importance for the formation of regional identity of the population. In the post-war period, it is possible to observe tangible differences between the *factual identification* and *ideal identification* of the population in a number of Czech regions. These were mainly the border regions affected by the replacement of their residents.

This process brought about a transformation of the *factual identification with the community*, as well as of the *ideal identification with the community*, in the latter case mostly as a result of the influence of regional institutions (the press, etc.) that responded to the newly created conditions. These transformations significantly determined the further formation of regional identity of the local residents.

Besides the *idea of community,* the individual components of regional identity of the population also include the process of the identification of the population with the region. This process helps the residents to attribute *the role of the region in regional hierarchy of consciousness*, which Paasi, A. (1986) considers to be a second subset of regional identity of the inhabitants of the region. The third formative subset of regional identity is the so-called *image of the region*. This subset is formed not only by the population of a particular region but also by the communities living outside the region, which logically leads to discrepancies: the image of a region sensed inside the region usually differs from the external image of the region. However, these different images influence the broader concept of regional identity rather than regional identity of the population of a particular region.

None of the three above-mentioned components of regional identity of the population can be understood as static entities. On the contrary, they are dynamic aspects that develop in a long-term process, in the course of which the final form of regional identity of the population can consciously or unconsciously (Zich, F. 2007) be consolidated or transformed, or even cease to exist in extreme cases. Regional identity as a process is shaped by a number of formative factors. These factors include the experience of post-war migration events. These seemingly distant experiences in fact virtually continue to function in the minds of individuals in the form of individual historical consciousness, which has an obvious relationship to the formation of regional identity of the population (Houžvička, V. and Novotný, L. 2007).

Brief characteristics of the region under study

The Svitavy region, a district officially established in 1960, was chosen as the area of interest for several reasons. Svitavy is an example of an area that is historically hetero-

[3] For the conceptualisation of the relationship between a region and a particular place, see, for example, Paasi, A. 1986, 2002; Chromý, P. 2003; Šerý, M. 2014.

geneous, with different territorial, administrative and linguistic affiliations. Half of its territory was part of the largest German language island in the Czechoslovak Republic (hereinafter CSR) called *Hřebečsko*, while the Czechs and Germans coexisted here from the mid-13th century (Fikejz, R. 2003). The area of interest is crossed by the relict land border between Bohemia and Moravia. The political districts of Litomyšl and Polička lay in Bohemia, while the political district of Moravská Třebová, which was formed by the sub-districts of Svitavy, Moravská Třebová, and Jevíčko, belonged to Moravia (Macková, M. 2009). The border was deinstitutionalised in 1949 in connection with extensive administrative changes (Daniel, J. 2013).

The above-mentioned political districts were maintained, while the boundary between Bohemia and Moravia, which was deinstitutionalised at the same time, was respected. With effect from 1960, when a major administrative reform was adopted, the existence of the relict land border was not respected and a new district structure was established. One of them was the Svitavy district, into which all the above-mentioned political districts (Litomyšl, Moravská Třebová, and Polička) were integrated. Therefore, the new district of Svitavy was crossed by the relict land border (*Figure 1*).

In *Figure 2* it can be seen clearly that the linguistic border, which has been also relict but was not, however, identical with the land border, because there were also German municipalities located on the Bohemian side of the area of interest. Svitavy district cannot be described as a "typical" border or inland district (according to various definitions only a part of the today's district was defined as a borderland).

From a historical point of view, the Czech borderland may be defined as an area of pre-war German settlement. According to the Decree of President Beneš no. 121/1945 Coll. on the territorial organisation of administration carried out by national committees, as well as according to a definition of borderlands by the Resettlement Office in June 1946, the political district of Moravská Třebová was included in the borderland, while the districts of Polička and Litomyšl were not (Velešík, V. 2000).

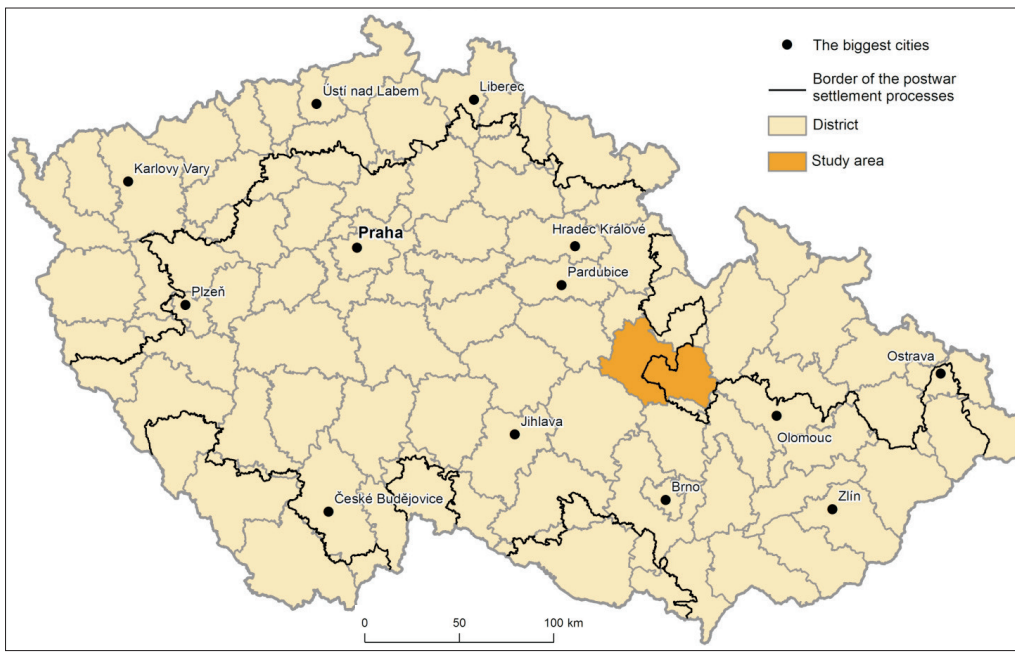

Fig. 1. The area under study. *Source*: Čapka, F., Slezák, L. and Vaculík, J. 2005. Authors´ own processing

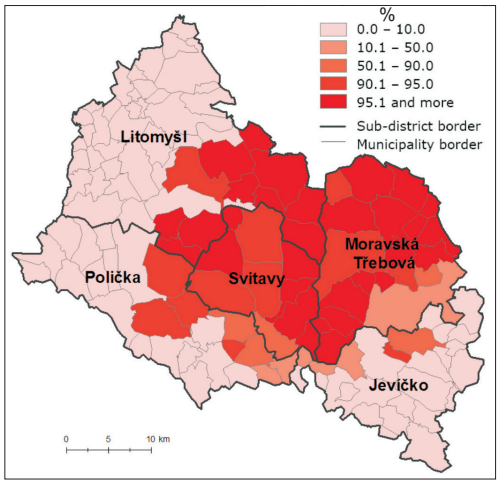

Fig. 2. The proportion of German speaking population in the municipalities of the area under study in 1930. *Source*: State Statistical Office 1934, 1935. Authors' own processing

In connection with the borderland, the terms Sudetenland or external border regions are also used to describe the area affiliated to the German Reich (the district of Moravská Třebová). (The term Sudetenland has a more complicated history and is used in different contexts, see Král, V. 1992.) The complicated history, heterogeneous nature of the region, and uneven development of its nationalities together created the distinctive nature of the region, lying in the inner dichotomy of the continuity of its socio-historical development (*Figure 2*).

In 1930 the districts of Moravská Třebová, Svitavy, Jevíčko, and Litomyšl were inhabited by 156,506 people in total, of whom 72,400 were of German nationality. After the war, in the summer months of 1945, about 21,000 Germans became victims of unorganised transfer, which, from regional perspective, was part of the "cleanup" of the Hřebečsko linguistic island. During the "organised transfer" which took place in the period 1946–1947, about 46,000 German inhabitants left the area in three stages (Skřivánek, M. 1995). Simultaneously with the transfer, the region was resettled with a new population. However, the overall quota set for the newly arriving inhabitants was not fulfilled and in certain municipalities there was a lack of interest in resettlement. In May 1947, only 119,147 inhabitants lived in this territory, which is a quarter less than in 1930. In resettled municipalities, the population was 43 percent lower than before the war. The number of inhabitants also dropped in Czech municipalities not affected by the transfer as a result of their participation in the resettlement process and ongoing urbanisation trends (*Table 1*).

Between 1930 and 1961 the area in question underwent complex economic, social, and demographic changes and also, as a result of some administrative changes, suffered a loss of about a third of its population, which turned out to be permanent, with the numbers remaining more or less the same until today. Considering the fact that this region is partly influenced by the historical factor of a population exchange after the Second World War and the resettlement of municipalities and homesteads whose previous owners differed from the new settlers in terms of nationality, way of life, internal culture, and

Table 1. Number of inhabitants in selected districts

Administrative district	Number of inhabitants				1961/1930 rate in %
	1930	1947	1950	1961	
Litomyšl	46,690	29,336	28,763	24,586	52.7
Polička	33,070	28,734	28,309	20,864	63.1
Moravská Třebová	37,797	32,695	32,393	29,125	77.1
Svitavy	38,949	28,382	29,641	30,767	79.0
Total	*156,506*	*119,147*	*119,106*	*105,342*	*67.3*
Total Czech lands	*10,674,936*	*8,765,230*	*8,896,133*	*9,756,429*	*91.4*

Source: State Statistical Office, 1935a,b, 1955, 1966; Census of Population in Czechoslovakia in 1946 and 1947, 1951; Modified by the author. NB: Districts in administrative organisation as of 1949.

economically and socially, the diversity of the population in a previously ethnically mixed area offers an opportunity to compare and confront ideas.

Narrative interviews: conditions, course and findings

Within the qualitative research, a total of twenty individual narrative interviews with eyewitnesses were carried out, mostly in nursing homes in Svitavy, Moravská Třebová, Litomyšl, and Polička. The potential communication partners were selected on the basis of the recommendations of hospital attendants, according to their health and willingness to communicate. About one third of the respondents, suggested by medical officers as appropriate people to carry out the interviews with, refused to participate in the interviews. The interviews took place in the afternoon (between 1 and 5 hours pm), usually in the room of the respondent or in the common room of a nursing home. So it was their natural environment, to which they were accustomed and which did not put them in a stressful situation. After being informed of the purpose of the interview for the needs of scientific research, and the anonymisation of sources, the communication partners gave us their consent to the realisation of the interviews. The average length of the interviews was three quarters of an hour up to an hour. Then the interviews were transcribed using the Atlas.ti software and the large amount of data thus acquired was further processed and filtered.

All the recordings and transcripts of the interviews are stored in the archive of the authors. From the large amount of information collected during the interviews we selected as relevant information only that related to the research topic. Any information concerning the personal life of the communication partners (many of them started talking about their youth, former occupation, family, etc.) and are not related directly to the research was filtered out. Of the twenty communication partners thirteen were born in the district of Svitavy and seven came from more distant regions of the country and participated in the resettlement of the district after the war.

The quality of the interviews varied because of the poor memory of some respondents, or their unwillingness to talk about certain topics (especially about events shortly after the Second World War and the relations with the Germans). It turned out that the biggest problem was the large amount of irrelevant information stemming from the need of the respondents "to tell the tale". Other issues that could have had a negative impact on the performance of the narrative interviews included the inadequate verbal skills associated with the advanced age of the respondents and possible partial errors in the processing and interpretation of the interviews. We tried to eliminate any potential errors occurring within the processing and interpretation of the interviews by a careful study of methodological procedures and thorough inspection of the transcripts of the interviews.

The face-to-face interviews provided us with the following information. All the witnesses, except for one, agreed with the transfer of the Germans from Czechoslovakia, in accordance with public opinion at that time, which strongly supported the transfer of the Sudeten Germans, regardless of their political affiliation. The nature of their statements indirectly indicates the importance of the role of the structures that had command of the mechanisms helping to influence the views of the population in general at that time. Obviously, the aim of these structures was to substantiate, justify, and defend the mass deportation.

"Transfer was righteous, it was not vengeance and it contributed to calming the situation down. It was a difficult time for the citizens of German nationality, but it was not easy even for people who came and took a step into the unknown." (male, b. 1914, Moravská Třebová). *"I do not think that the transfer was fair; it was mostly those who were not at fault who had to leave – old men, women, and children. The Czechs plundered their assets, ravaged the borderlands, and displaced the experts. It was not right, but perhaps understandable, that hatred against the Germans was huge. Can we blame them, however, for succumbing to totalitarianism, when we succumbed to the same thing only ten years later?"* (male, b. 1936, Polička)

From these statements, on the other hand, the respondents' personal experience of the displacement processes is felt strongly. This was reflected, inter alia, by the fact, that although they agreed with the displacement, most of them sympathised with those who were displaced. For them, they were not nameless people, but neighbours. They realised that it was mostly single-parent families that were leaving, especially women, children, and old people, because the men were killed in the war, did not return, or were sent to labour camps.

In several cases, the Czech and German families lived together in one house before the transfer, which allowed them to establish distinct bonds with each other. The abovementioned situation was often found in the Polička region, where a detention camp for Germans was established. The interviews also often showed resentment over the looting of German property immediately after the war, during the so-called unorganised transfer.

"*Most Germans had already left. An old grandmother lived next to us, she could barely walk or see, her son died in the war, but she had to go too. It was mostly the old people, women, and kids who had to go, I felt sorry for them.*" (female, b. 1936, Svitavy). "*In June 1946, we moved from Borová to a semi-detached house in Pomezí. In the other part of the house, some Germans lived for a month and were waiting for transfer. Many other Germans were haughty or angry that they had to go away. But we got on well with 'our Germans'. They did not have anything valuable left in the house; they gave everything to Germans from mixed marriages who remained here. We did understand this... It was the end of June and the harvest began, there was nobody to reap. Then we drudged like never before. The first year we reaped for two farms. We paid, I think, 78,000 crowns for a house. But I know families who plundered the houses, and when they were supposed to pay for them, they left.*" (female, b. 1932, Pomezí). "*The Germans had nice farms here. But those adventurers who came after them laid waste to them. Finally nearly all the houses were resettled; after all, we are not a borderland.*" (male, b. 1936, Polička)

The penultimate interview also illustrates well the expectations of new settlers regarding possessions to which they felt they had some legitimate right (see "they did not leave us anything of value in the house; they gave it to the Germans from mixed marriages who stayed here"). The narratives also document how the post-war events in the Svitavy region influenced the subsequent development of one of the key dimensions of the process of the formation of regional identity of the population, i.e. the so-called "idea of community" (Paasi, A. 1986). The transformed post-war interaction between the Czech and German-speaking natives, and especially the new interaction between the Czech-speaking natives, German-speaking natives who did have to undergo resettlement (anti-fascists and Germans from mixed marriages), and the newly incoming residents, created quite specific conditions for transformation and for the establishment and subsequent reproduction of that „idea of community", whether in its ideal or factual nature.

The memories of the communication partners were more influenced by their current health status and former socioeconomic status than by their age or sex. In general, the better-educated people provided more complete and accurate statements, their insight into both processes was not only black and white, and they were also able to reflect on the negative consequences of the transfer of the Germans from the region.

A common feature of all the interviews was a reluctance to talk about the excesses, cruel events, and unorganised transfer. The communication partners preferred to talk about the war (e.g. about the arrival of the Russian army or the lack of food) than about the post-war events, which were harder to recall. Many respondents, even after repeated attempts to return to the theme, refused to talk about the events immediately after the Second World War, and especially those that occurred during the unorganised transfer. However, this topic is very sensitive, and to open it up requires the establishment of extraordinary confidence, which is difficult to gain in the short duration of one interview.

A significant difference lies in the territorial differentiation of the respondents. The majority of the eyewitnesses were born and lived

in the regions of Polička and Litomyšl for the most of their lives. The Moravian part of the district, however, had a higher representation of communication partners who came to the region after the transfer. However, the frequent migration in the years 1945–1949 was typical for the whole region, as local residents who were not affected by the transfer of the Germans often participated in the resettlement process somewhere else.

We recorded a variety of views on the newly resettled population, but although the resettlement was finally successful according to the majority of the respondents, we noticed differences in the ratings between the residents and the new settlers. It can, therefore, be concluded that the different experiences of resettlement which are reflected in these statements correlate with the length of the stay of the inhabitants in the territory concerned.

The newcomers usually understood the resettlement as the beginning of a new life. It was an opportunity, especially for young couples who got married and could get a „starter" property or for families with small children. These groups are quite flexible and adaptable and from a distance they do not recall this period in a negative manner.

On the other hand, people who were born there perceived the new settlements of the region negatively and often pointed out that it took quite a long time (years) to consolidate conditions in the region and mentioned the occasional emigration of newcomers back to the areas of the country that are remote from the border or the unsuccessful settlement of several municipalities by foreign repatriated people. The narratives of the respondents in this case partly illustrate the importance of the length of their residence within the territory within the process of the population of the territory identifying with their lived space.

"Most of the new settlers came from Jaroměř, Vysočina, Nové Město na Moravě, and particularly from Bystřice nad Pernštejnem. The new residents assimilated quite well with each other. It was much worse in the Jeseník region, for example, where the Czech minority was weak. Today, the fourth generation lives here and nobody knows the word borderland." (male, b. 1924, Moravská Třebová)

From the interviews that were accomplished we can also read about the participation of the power structures in the process of identification of the inhabitants with their region. The methods by which these structures modified the economic character of the region, especially manifested in collectivisation, along with a negative attitude towards traditional cultural elements of the region, changed the value that the inhabited space represented for the local population. The transformation of the extent of the identification of the inhabitants with their region then corresponded with the symbolic shape of the region as transformed by the power structures.

"I've worked as a vet in Polička since 1961. I had, I think, nine German municipalities in my working area: Koclířov, Opatov, Opatovec, and Kamenná Horka in the Svitavy region and Pomezí, Květná, Stašov, Modřec, and Jedlová in the Polička region. Lots of Germans stayed in these villages; they were either from mixed marriages or they were anti-fascists. The rest of the population were the new settlers. In Koclířov, some Greeks and Yugoslavs came there. The communists founded collective farms, but the Germans did not want to join them. They regretted that they had stayed. In my opinion, the success of the resettlement was mainly negatively influenced by the communists. Their government had a negative impact on the overall level of the society, but in particular on the consolidation of the relationships in these municipalities. The old habits, customs, and traditions have never been restored, it was not desirable. And it makes a difference whether you are taking care of your own property or you have to be in a collective farm." (male, b. 1930, Litomyšl)

Another common feature of the interviews was the tendency of the respondents to enumerate the events of their lives without evaluating them. From the interviews, we learnt where they came here from, where they lived, where they then moved, who their neighbours were, etc., but not so much about their attitude to these events or what they meant for them.

"After the war, we also wanted a new house. We went to see Liberec. We stayed there with a German woman. She wanted us to plead for them so that they could stay here.

She had two small children and her husband was killed at the front. But we could not do anything for them. My father was then looking for a house near Lanškroun, but my mother and us did not want to leave Rybná and eventually we stayed here. Many families, however, went to resettle." (male, b. 1924, Pustá Rybná)

The narrative interviews brought important findings for understanding whether the respondents, before the war and after it, maintained friendly relations with the German-speaking citizens. The interviews showed that, before the war, the respondents mostly had rather neutral or negative relationships with the Germans; friendly relationships were exceptional. Some respondents who participated in the settlement process experienced personal contacts with the German-speaking population only just after the war.

"*My mother (born 1908, Polička) remembered how nobody liked the Germans here. They acted as if they were superior to us and grumbled at the lazy Czechs. Therefore, we did not talk to them. But, of course, some respectable German families lived here too."* (female, b. 1941, Polička). Another woman (b. 1922), who lived in Hradec nad Svitavou (Gransdorf), where the German population prevailed, said: "*We had no friendly relations with the Germans.*"

None of the respondents spoke of friendly relations with the Germans after the war. Only one woman (b. 1941, Polička) commented on the situation as follows:

"*In Limerk (Pomezí), there were plenty of hard-working and decent Germans. We got food from a couple of them during the war. After the war, the situation obviously changed. But there were some Czechs who helped them. Mr. Dudek, an apothecary from Polička, gave them medicine for free while they were waiting for resettlement. But he was labelled a collaborator. He took it very hard and later, at a trial, he committed suicide, he shot himself..."* The feelings of other respondents were sympathetic or rather negative. "*Most Germans left. We lived next to an old grandmother; she could hardly walk and had poor sight, and her son died in the war, but she had to go, too. I felt really sorry for her.*" (female, b. 1936, Radiměř)

It is certain that the Czech-German relations did not definitively perish as a result of the resettlement of the Germans. Although they have undergone a substantial, mostly power-motivated transformation, they continue to develop in a transformed form. The personal post-war relations between the Czech-speaking population and the German-speaking population had two different forms in the Svitavy region. The first was based on personal contacts between the Czech residents and new settlers with the German-speaking natives who were not resettled. The data derived from narrative interviews may imply that it was not a very positive interaction:

"*In 1961, I went to Moravská Třebová, to the cooperative farm. The people on the square still spoke German and did not want to tell me the way. That hostility was obvious.*" (female, b. 1941, Polička)

The second form was based on personal contacts between Czech residents and new settlers with the German-speaking people who were resettled after the war, and occasionally returned to their former homes later on, for example, the regular visits of the Sudeten Germans to their native villages or the well-attended Days of Czech-German Culture held annually in Moravská Třebová. This is demonstrated by the following:

"*I also taught German children and children of mixed marriages who were waiting for resettlement. Some of them still come here and come to see me.*" (male, b. 1914, Moravská Třebová)

Therefore, it is evident that the process of the development of one of the crucial dimensions of regional identity of the inhabitants, the idea of community, had highly specific features, and not only in the period before World War II and the period immediately following the end of the war. Similarly, in the region in question, even a period quite far from the end of the war is quite distinctive regarding the coexistence of the Czech-speaking and German-speaking populations. It seems that here this coexistence had a rather dichotomous character in the sense of "us" and "them." Obviously, as a result of the resettlement, any interaction occurred to a

lesser extent than it used to before. However, the role of these interactions in the process of the establishment of a specific form of the idea of community in the Svitavy region is evident.

Discussion

The survey being presented here, i.e. a research based on the experiences of natives with the resettlement of the German-speaking population and the colonisation process in the Svitavy region, is internationally rather exceptional and entirely unique in the Czech context, in terms of geographical science. A similar narrative research study took place on the Russian-Estonian border (Proser, A. 2014). However, in the Czech Republic, there are no geographical projects that cover the personal experience of the inhabitants of the resettlement and new settlement of a specific region in the form of narrative interviews.

In the field of sociology, we can find several works that are directly related to the research topic of this paper and we can say that the findings of our survey conducted in the Svitavy region correspond with the findings of those works.

Houžvička and Novotný (2007) published a study which referred to research into the mutual perception of the inhabitants of Bavaria and Western Bohemia. The analysis of the impact of historical consciousness on the creation of regional identity was based on an empirical survey of biographical identities. The forms of cross-border cooperation and the mutual perception of Czechs and Germans were also evaluated. The motivation of the new settlers to come to the borderland instead of the former homes and the formation of their regional identity are described by Zich, F. (2007). In his earlier works, Zich (2000, 2006) also deals with regional identity of the population on the Czech-German border in connection with the origin of cross-border communities. However, the process of the formation of regional identity of the inhabitants of a particular region has never been surveyed using narrative interviews. This method, therefore, offers great research potential for the future.

Conclusions

The paper had two objectives. The first was to assess the importance of the method of narrative interviews for research on the formative factors of regional identity of a population. The latter was an evaluation of the specific formative factors of regional identity of the inhabitants, represented by the experience of witnesses to the resettlement of the German-speaking population and the process of new settlement in the Svitavy region. To meet the two objectives successfully, we formulated two research questions at the beginning of the paper to which we tried to find answers. With regard to these research questions, it is possible to state the following findings.

Despite some negative concomitant effects, the use of narrative interviews in research on the formative factors of regional identity of the population seems to be an appropriate complementary research method. These negative effects include a high amount of irrelevant information that the method generates. This irrelevant information must be eliminated, which quite considerably complicates the processing of the relevant data. It is also necessary to mention the aspect of the (dis-)trust of respondents, which influences the character of the required data quite significantly. It is absolutely essential to establish mutual trust between the researcher and the interviewee, which in itself requires a certain time and is not always feasible. However, a suitable application of this method can detect experiences expressed in the memories of respondents. However, it is always an individual experience and its generalization is quite difficult. Therefore, narrative interviews cannot be considered to be a building block for research.

On the other hand, the number of witnesses who experienced the above-mentioned events is rapidly decreasing and we have one

of the last opportunities to conduct research based on the narrative interview. It is necessary to keep in mind that it is a narrative of so-called "interested spectators", i.e. people who perceived the events of the time immediately and were not involved in the decision-making process. Through interviews, we can determine what the impact of the political decisions taken then on citizens were at the local level and whether the information listed in the primary sources and literature matches the statements of the witnesses.

Considering the second research question, we can state that the majority of the respondents agreed with the resettlement of the Germans; however, they did not conceal their sorrow over the course of post-war events and the form of the resettlement. This sorrow was expressed despite the probably not very harmonious coexistence of the Czech-speaking and German-speaking inhabitants of the region in the period before the post-war resettlement, which is implied by the narratives of some respondents. It is clear that for many natives, the German residents were not strangers but neighbours who they knew very well. Many respondents also talked about the effects of resettlement on farming and industry and about the so-called "gold-diggers" who enriched themselves at the expense of the Germans. The data obtained from the interviews confirmed that the relations between the Czech-speaking and German-speaking inhabitants in the Svitavy region did not perish even after the resettlement. It does not seem, however, that there were optimal relations between the post-war Czech population and those Germans who were not resettled. The respondents showed in the interviews that for many of them this is still a sensitive topic, or even a taboo, even after more than sixty years. The acquired knowledge, thus, points to very specific conditions of the formation of the idea of community as a key dimension of regional identity of the population.

Considering the second research question, we can state that the presentation of the respondents' experience of the resettlement process was not such a difficult task. The recorded statements evidence the post-war transformation of a number of key dimensions of the complex phenomena of regional identity. This was particularly obvious in relation to developmental changes in the process of the identification of the population with their territory, or in the "idea of community" processes. The interviews, then, reflect the post-war transformation of the symbolic shape of the region of Svitavy. The method of narrative interview that was applied, or rather the findings that were obtained by this method, indicate differences in declared experiences in terms of the dichotomy of natives or indigenous inhabitants vs. newcomers. This knowledge can be used in a discussion of the importance of the socio-historical development of the region for the formation of the sense of regional identity of its inhabitants.

As a conclusion, it is clear that if we want to get a more complete view of the process of the formation, as well as the current form, of regional identity of the population of the Svitavy region, it is of course necessary to extend our current knowledge. The same is also true for more general statements relating to the role of the continuity of socio-historical development in the process of the formation of regional identities of the population. Another suitable research approach in this context seems to be narrative interviews with German-speaking people who were transferred from the Svitavy region. It is evident that the links of these people to the Svitavy region have not disappeared, but continue to develop in a certain form. Examples include the visits of Sudeten Germans to their native villages and the annual days of Czech-German culture in Moravská Třebová. Another suitable method for the enhancement of existing knowledge could be a field survey of a qualitative-quantitative nature of the current population of the Svitavy region.

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An analysis of the latest trends of the complex development of the Croatian-Hungarian border area

Tvrtko Josip ČELAN[1]

Abstract

This paper analyses the geographical feature of the Croatian-Hungarian cross-border area, focusing on recent changes and socio-economic trends of the last decade. In the paper current demographic, cross-border traffic and mobility trends are examined. Special attention is devoted to the spatial structure of the area and its key demographic indicators, modified during the last intercensal period between 2001 and 2011. Demographic data are analysed on the level of NUTS III units, as they provide the statistical basis for planning and they are designated as co-operation units in the joint bilateral cross-border operational programme financed by the EU. The transition that has taken place in the last years is observed in relation to the Croatian accession to the EU and to the full membership achieved in 2013. The Croatian-Hungarian cross-border co-operation has been intensified since 2007. More EU funds became available than before, which brought about the possibility for stronger cohesion in the area and, accordingly, it has triggered territorial transformations. The main goal of this research is to define whether changes having taken place in the border region since 2007 created a genuine transborder region. The assumption is that current development trends, although the most intensive in the last 100 years, are still not sufficient enough to mitigate the huge geographical handicap, the transport and language barriers and in general the strong periphery status of the border area in comparison to the capital cities Zagreb and Budapest.

Keywords: peripherality, geographical handicap, regional policy, transport geography, EU cohesion policy, cross-border co-operation Croatian-Hungarian border area.

Introduction

The term "border" often has a negative connotation for being a separating line, a warning signal not to cross a line between the allowed and the forbidden (Stokłosa, K. *et al.* 2014). The awareness of both mental and factual borders in our life has made them a research topic in almost all disciplines – including geography. Since the end of the 1980s the status of state borders has become a rather popular topic in European geography and border areas have been continuously analysed and discussed. Cross-border co-operation is one of the most popular subjects in the border research (van Houtum, H. 2000). Despite the wide scientific interest in the problems of state borders the Croatian-Hungarian border area has not attracted special attention in the literature during the last 20 years. In Croatia it has almost exclusively been published by the researchers at the Department of Geography of the Faculty of Science of the University of Zagreb (Čelan, T.J. 2014). In Hungary, the Hungarian-Croatian border and its related developments have gained wider attention and have been in the focus of research at the Centre for Economic and Regional Studies of Hungarian Academy of Sciences in Pécs and the Institute of Geography at the University of Pécs as well.

The question of state borders (separating vs. integrating) have been in the centre of academic attention in Central Europe due

[1] PhD-student, University of Pécs, Doctoral School of Earth Sciences; presently employed at the Joint Secretariat of the Interreg V-A Hungary-Croatia Co-operation Programme. Address: H-9707 Szombathely, Szabó Imre u. 31. E-mail: tvrtko_josip_celan@yahoo.com

to historical traditions, and it has further strengthened with the boom of EU integration in the period between 1995 and 2007. After the fall of the communist regimes, the countries of the region joined to the EU one by one, and, as a result, cross-border relations have increased both in numbers and in intensity (Gulyás, L. *et al.* 2013). Due to the intensification of the co-operation between former communist countries and well-developed EU states, border areas became important fields of economic development, with a role to connect the neighbouring areas and even to form transborder regions (Opačić, V.T. *et al.* 2004).

According to Buffon (1993) and Opačić (2004) transborder region can be defined as a special form of peripheral region, socially and economically affected by the border and characterised by a significant level of transborder connections and integration (Buffon, M. 1993; Opačić, V.T. 2004). According to Martinez (1994) transborder region is a functional region, being the result of a complex development. Martinez also made difference between different types of border areas, like: alienated, co-existing, mutually co-operating and integrated border areas. According to Perkmann (2003), a cross-border region is a territorial unit that comprises contiguous sub-national units from two or more nation states. Cross-border regions differ from basic ceremonial contacts to long-lasting and effective co-operations, attached or integrated into the multilevel policy implementation networks constituted by EU regional policy. In this paper we would like to examine whether the Croatian-Hungarian border area has attained the status of transborder region, or still exists just as a cross-border area.

The demographical conditions and the spatial structure of the Croatian-Hungarian border was analysed in the latest planning process[2] and significantly more weaknesses were pointed out than strengths. They included: a decreasing population, negative balance of migration, ageing (see: Planning documents of the Interreg V-A Hungary-Croatia Co-operation Programme 2014–2020). Negative demographic trends increase towards the borderline on the both sides of the national frontier. This reflects that in case of the Croatian-Hungarian border the border position is not an advantage but rather a handicap (Opačić, V.T. *et al.* 2004). The size and the structure of settlements, which generally have a rural character, the dominance of small villages and the lack of larger centres directly influence depopulation. The primacy of both capitals (Budapest and Zagreb) has also negatively contributed to the development of other regions, including border areas. The economic position of Budapest has become clearly stronger in the last two decades and its economic primacy increased (Pirisi, G. *et al.* 2012).

The Hungary-Croatia Cross-border Co-operation Programme 2007–2013 (hereinafter HU-HR (IPA) CBC Programme) as an instrument for minimising the existing border handicap has been one of the possible financial sources for overcoming problems in the area, from demographic issues to cross-border traffic and mobility. In the period 2007–2013. The instrument for pre-accession assistance (IPA) brought significant changes to Hungarian-Croatian cross-border co-operation. The question is whether the established bilateral programme and the 169 joint projects brought about a balanced development, or it could be considered artificial to a certain extent.

Geographical characteristics of the Croatian-Hungarian border zone

The 355-kilometre[3] stretch of the border between Croatia and Hungary is the most unique and complex section of the Hungarian boundaries, and this is the only one that has a long historical tradition. Despite fre-

[2] Situation and SWOT Analysis: Interreg V-A Hungary-Croatia Co-operation Programme 2014–2020: http://www.huhr-cbc.com/en/official-documents.

[3] The same figure is also indicated by State Geodetic Administration, Zagreb, Croatia. CIA (The World Factbook) gives different data on the border length (*Figure 1).*

quent disputes the border retained its peaceful character (Hajdú, Z. 2004). The Croatian-Hungarian boundary, colloquially often identified with the Drava river, as a typical natural boundary, has been on its major parts one of the oldest European borders. Still, it is a complex border with diverse origins and significant deviations from the present Drava river bed, as the consequence of its frequent changes in the past (Klemenčić, M. 1991). Typical lowland river meanders altered the river bed. Rivers Mura and Drava are among the last remaining wetland habitats in Central Europe (UNESCO trans-boundary biosphere reserve from 2012). Several border sections such as Međimurje, Baranja and Prekodravlje[4] (Crkvenčić, J. and Crkvenčić, M. 2003) have different historical background.

The unique shape of the Croatia has a clear impact on the length of its state borders. Although Hungary comprises significantly larger area than Croatia, the longest Croatian land border with Bosnia and Herzegovina (47% of all Croatian land borders) is even 256 km longer than the longest Hungarian border[5] (*Figure 1).* Except for the Hungarian, all other Croatian land borders derive from the former internal SFRY (Socialist Federative Republic of Yugoslavia) borders, resulting in disputes among the new states and all remained partly unsolved. During the SFRY they were only borders of the federal units and were not confined properly like the Yugoslav border with Hungary. Their recognition as state borders was based on the conclusions of November 1991 formulated by the *Badinter Arbitration Committee* (Čelan, T.J. 2014).

Long parts of the boundaries with Bosnia and Herzegovina, Slovenia and Serbia are passing alongside various river beds, but nowhere present an obstacle at such extent as

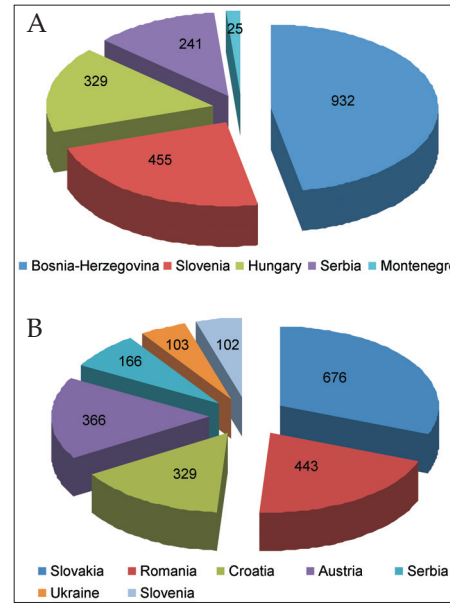

Fig. 1. State land borders of the Republic of Croatia (A) and Hungary (B) per neighbouring countries (in km) *Source*: CIA-The World Factbook: total land borders of the Republic of Croatia and Hungary.

in the case with Hungary. As of Croatia, its border with Hungary (*Figure 1,* A) is the 3rd longest (16%) and as of Hungary (*Figure 1,* B), its border with Croatia is the 4th longest with the share of 15 percent (https://www.cia.gov/library/publications/the-world-factbook).

Geographical and transport barriers of Hungary are the strongest with Croatia, having only four cross-border river bridges. Border areas with different geographical endowments have various chances for creating integrated cross-border regions (HARDI, T. 2010). Out of the 355.2 km of the Croatian-Hungarian state border the major part in the length of 226.4 kilometres (64%) goes alongside the river beds of Drava (180 km) and Mura (44.6 km). A short 1.8 km strip passes across the small river Krka (in Hungarian: Kerka) close to the village Alsószemenye[6].

[4] In Hungarian the names are Muraköz, Baranya and "Répás-kerület" (according to Hajdú, Z. 2006).

[5] Data have been compared based on the same source, not to have discrepancies as of the different methodology. *Source*: CIA-The World Factbook, https://www.cia.gov/library/publications/the-world-factbook.

[6] *Source:* Državna geodetska uprava/ State Geodetic Administration, Zagreb, Croatia: http://www.dgu.hr official answer of 25.2.2014 on inquiry (Class: 015-02/14-01/03, Number: 541-02-3/1-14-2).

Changes and trends in the development of the Croatian-Hungarian border area

In this section we examine the development of the Croatian-Hungarian border zone in the light of several aspects, like language barrier, spatial structure and current socio-economic trends, transport, mobility, and EU funded cross-border co-operation.

The Croatian-Hungarian border area as a language barrier

Although Croatia formed different types of state union with the Kingdom of Hungary from 1102 until 1918, neither the Hungarian language in Croatia nor the Croatian language in Hungary was significantly widespread. Their usage is limited only to the relatively small communities of national minorities. The share of these minorities in the population of Hungary and Croatia is quite low, at 0.3 percent. The number of native speakers is even lower than the representation[7] of national minorities in both Hungary and Croatia. With the abolition of the official use of Latin (as the *lingua franca*) in the 19th century, Croatians and Hungarians could no longer understand each other because both nations were very keen and persistent on using their own national languages and none of them deemed it necessary to learn the language of its neighbour (Heka, L. 2007).

Croatian and Hungarian languages belong to very different families (Indo-European and Uralic/Finno-Ugric) and the language barrier is particularly strong. All these factors led to the fact that bilingualism is not a typical feature of the cross-border area. The number of bilingual population, especially on the Croatian side is negligible. Without English or German proper communication is almost impossible nowadays. The only area where bilingualism is partly identifiable is the border zone of Baranya County (HU) and Osječko-baranjska County (HR), with two major cities of Pécs and Osijek. The largest group of Croatian or Hungarian minorities live there and that is the only location where geographical handicap does not exist. Pécs and Osijek are the two major regional centres where it is possible to study Croatian and Hungarian as foreign languages on university level[8]. Comparing the censuses in 2001 and 2011, there is a slight decrease of Hungarian minority in Croatia (16,595 vs. 14,048) whilst in Hungary the number of Croatians (25,730 vs. 26,774) has statistically[9] increased.

The spatial structure and the current socio-economic trends in the Croatian-Hungarian border area

The development of the spatial polarisation (inland vs. borderland) of an integrated state formation is mostly dependent on the character of a borderline (open or closed) and it is not only conditioned by economic aspects. Actual peripherality has a long and complicated history (Havlíček, T. 2007; Lang, T. 2015. Prior to the change of regime, the development of cross-border tourism was hindered by administrative obstacles which made settlements in border regions peripheral. Negative effects also emerged at the border section with Croatia (Dávid, L. *et al*. 2011). During the second half of the 20th century the border was a strict and clear dividing line, supported with the development of the *Southern Defence System*. This background negatively influenced the development of the border area (Čelan, T.J. 2014).

Between the last two censuses (2001–2011) the total decrease of the population in the border area was 102,864 (55,332 on the

[7] *Sources*: www.dzs.hr and www.ksh.hu (Censuses 2011 and 2001).

[8] In both towns there are also Croatian and Hungarian Education Centres (with kindergarten, primary and grammar school). Several pre-school programmes and primary schools in Hungary can offer minority language or bilingual trainings, http://www.hrvatiizvanrh.hr/hr/hmiu/hrvatska-manjina-u-republici-madjarskoj/9 but on university level only Pécs and Osijek offer teaching of Croatian and Hungarian as foreign languages.

[9] *Sources:* www.dzs.hr and www.ksh.hu (Censuses 2011 and 2001).

Hungarian and 47,532 on the Croatian side). Counties (i.e. NUTS III areas) are different[10] in their size, but they can indicate the demographic trends. Both sides of the border zone have higher population decrease (in percent) than the national averages. Three Hungarian border counties (Zala, Somogy, Baranya), have similar relative decrease of the population (average 5.32%). The average decrease is a bit higher (7.13%) in the four Croatian counties, but it significantly varies, from 3.91 percent in Međimurska to 10 percent in Virovitičko-podravska. In the previous intercensal period between 1991 and 2001 population decrease showed a total of 82,730; significantly higher in the Croatian part (54,313) than in the Hungarian (28,417). The relative fall of population (2.7%) in Hungarian counties proved[11] to be much lower than in the Croatian counties (7.5%).

The intensity of depopulation is strongly influenced by the characteristics of the settlement pattern, which is significantly better on the Hungarian side. One of the main reasons for stronger depopulation on the Croatian side[12] has been the fragmented settlement pattern (*Figure 2*).

The average size of settlements is approximately twice bigger on the Hungarian side than on the Croatian one, and the difference in the size of settlements varies more in Hungary from very small villages to bigger towns. Depopulation as a consequence of emigration affects small villages more intensely than larger settlements (Opačić, V.T. *et al.* 2004). In Hungary, three towns on the border zone have more than 50,000 inhabitants (Pécs, Kaposvár and Zalaegerszeg) while in Croatia only one settlement, Osijek (*Figure 2*). In both countries the size of towns correlates with the distance from the border.

The negative population trends in comparison with the countries' statistics became even worse between 2001 and 2011. The aggregated population decrease between 1991 and 2011 officially amounts to 185,594, which means almost the combined total population of Osijek, Zalaegerszeg and Nagykanizsa was lost in the border area in the last two decades.

Gross domestic product figures are not very promising either. The GDP per capita value of the region is below the EU and national averages. Koprivničko-križevačka is the most developed among the investigated Croatian border counties[13] with 82.6 percent of the national average (but Međimurska with 81.9 percent and Osječko-baranjska with 80.1 percent are quite close to it). The least developed, and at the same time the most sparsely populated county in the whole Croatian-Hungarian border zone is Virovitičko-podravska with only 61.3 percent of the Croatian (10,325 EUR) national per capita GDP. On the Hungarian side, GDP per capita is the highest in Zala (79.8%) compared to the national average (9,925.8 EUR). It is the 7th most developed Hungarian country, while Baranya (64.0%) and Somogy (63.4%) are almost at the bottom (15th and 16th place) out of the 19 Hungarian counties[14]. Virovitičko-podravska and Somogy show equally low performance, like in demographic indicators, and the development of the transport network.

Transport in the Croatian-Hungarian border area

In the last 15 years Croatia and Hungary have developed their own motorway infrastructure, and both countries are good examples for excessive road developments[15] in

[10] Counties are smaller in Croatia. Croatia has 21 county including Zagreb, Hungary has 20 with Budapest.

[11] *Sources:* www.dzs.hr and www.ksh.hu (Censuses 2011 and 2001).

[12] In Croatia almost always is the case that more settlements form a local government (town/municipality), in Hungary it is more frequent to have the 1 settlement=1 local self-government principle.

[13] *Source:* First release, Number: 12.1.2. (14 February, 2014) – CROSTAT, www.dzs.hr Gross Domestic Product for Republic of Croatia, NUTS 2 Level and Counties, 2011.

[14] *Source*: Hungarian Central Statistical Office (data for year 2011) - http://www.ksh.hu/engstadat.

[15] Hungary reached the milestone (1,000 km) of constructed motorways in 2007, whilst Croatia already in 2005 (http://www.huka.hr/mreza-autocesta; http://www.motorway.hu/)

Fig. 2. Map of the border area with the settlements and border crossing points. *Source*: Own editing in co-operation with Gábor Kovács and János Csapó (University of Pécs).

East Central Europe. The investments were huge, and the maintenance of the network is centralised in both countries managed by large state corporations. The development of the motorway network contributed to the supreme role of the two capital cities linked by the new Zagreb–Budapest axis.

The concentrated traffic channelled to border crossing points resulted in excessive transport shadow areas on both sides of the border. Thus, the peripheral position, especially in the case of the middle section of the border area (Virovitica on the Croatian side and partly Kaposvár on the Hungarian side) has not improved, despite road investments. Proper West-East connections do not exist in Hungary. Only the far West (Čakovec/Nagykanizsa) and the far East (Osijek/Pécs) have really modern road connections (http://www.huka.hr/mreza-autocesta; http://www.motorway.hu/), but only with the capital cities.

Currently, there are only seven road border crossing points along the entire Croatian-Hungarian frontier. This is not enough for a good level of cross-border transport and accessibility. Three out of the seven border crossings are between Baranja/Baranya, within a very short distance and two of them even

do not have a river barrier (*Figure 2*). There are several strong cross-border, mainly cultural contacts and partnerships around Mura and Drava, but the lack of bridges and border-crossings prevents adequate communication (Čelan, T.J. 2011, 2013). The only major joint investment in the last decade was one bridge (with names – HR: *Most Mura*, HU: *Zrínyi híd*) on the Pan-European transport corridor[16] V/B, where the new border crossing Goričan – Letenye II is located. That bridge[17] connects Zagreb (Zagreb–Goričan motorway A4) and Budapest (Budapest–Letenye motorway M7) from October 2008.

The regulation of the Croatian Government on border crossings published in the Official Gazette No. 79/2013 defines[18] five more international road border crossings with Hungary (Kotoriba, Donja Dubrava, Legrad, Ferdinandovac, Sopje), but without any concrete plan for construction. Between 2012 and 2015 a project was implemented in Hungary with the task of defining possible new border crossings and the development of cross-border infrastructure with all neighbouring countries, including Croatia. On the Croatian border section 44 possible crossings and construction areas have been analysed. The results of the given project (KÖZOP-3.5.0-09-11-2012-0003) have just been published and the decision of the Hungarian government was taken in January 2016 on prioritising road and partly bridge construction at four border crossings with Croatia[19]. Future construction depends on the availability of funds and agreements with the Republic of Croatia.

Road traffic from Croatia to Hungary is very limited, comprising only 6.5 percent (in 2012) of the total number of passengers crossing all Croatian state borders. Goričan-Letenye is the busiest road border-crossing[20] along the Croatian-Hungarian section where 60.4 percent of all passengers (*Figure 3*) and 56.8 percent of all vehicles crossed the border in 2004. Figures were similar in 2008 (64%) and in every other observed year with approximately 60 percent share of passengers. It has to be noted that from 2008 the old and new border crossings of Goričan-Letenye I-II have been functioning as a joint unit (e.g. trucks can only use the old crossing) [21] and data used in this paper refer only to one unit. The peak in the number of passengers and vehicles was reached in 2008, while afterwards figures decreased every year until 2013 (*Figure 3*). As it is primarily a touristic summer border-crossing and used dominantly by cars, it can be easily concluded that the reason for the decline was the financial crisis and the consequent decline of the number of Hungarian tourists[22] travelling to Croatia (from 453,000 in 2005 to 308,000 in 2013). Since Goričan-Letenye I-II is mainly a summer touristic crossing point, for the analysis of cross-border activity it is important to examine other Croatian-Hungarian border-crossings.

All Croatian-Hungarian border crossings registered decreasing traffic until 2013, with the exception of Dubošević-Udvar, which has been continuously expanding since 2008 (*Figure 3*), due to the importance of the direction Osijek–Mohács/Pécs–Budapest (Pan-European corridor V/C). New motorway connections from Zagreb to Osijek (opened in

[16] The term Pan-European transport corridor is used, as more appropriate for the region, not EU-TEN T network. http://ec.europa.eu/transport/themes/infrastructure/doc/ten-t-country-fiches/ten-t-corridor-map-2013.pdf

[17] Uredba o objavi Ugovora između Vlade Republike Hrvatske i Vlade Republike Mađarske o uspostavi graničnog prijelaza Goričan–Letenye II (…): Official Gazette, Croatia (NN-MU 1 / 2006). http://narodne-novine.nn.hr/medunarodni/default.aspx

[18] Narodne novine- NN 79/ 2013: Uredba o graničnim prijelazima Republike Hrvatske.

[19] 1007/2016. (I. 18.) Korm. Határozat: A 2014–2020. évek közötti határ menti közúti infrastruktúra-fejlesztésekről. http://www.kozlonyok.hu/nkonline/MKPDF/hiteles/MK16007.pdf

[20] The data are observed for the 6 chosen years in the last 10 years, from 2004 to 2014. Year 2008 was important due to the opening of the new border crossing Goričan–Letenye, while last three years to indicate recent changes.

[21] The majority (more than 80%) of the traffic since 2008 has been channelled through Goričan–Letenye II (new).

[22] Statistical Yearbook of the Republic of Croatia, 2013. http://www.dzs.hr

spring 2009) and from Budapest to Mohács/Pécs (opened in spring 2010) significantly improved the conditions and shortened the time of travel; however, the connection between Osijek and Mohács is still missing. Based on traffic data (*Figure 3*) border-crossing points can be categorised in the following way:

– strategic importance: Goričan–Letenye I, II and Duboševica–Udvar,
– medium importance: Terezino Polje–Barcs, Donji Miholjac–Drávaszabolcs,
– minor (local) importance: Gola–Berzence and Baranjsko Petrovo Selo–Beremend.

The total number of passengers in the 2004–2013 decade was the highest (4,183,381) in 2004 with a stagnation; although relatively stable around 4 million, whilst in 2013 a slight increase compared to the previous year was registered for the first time. The latest available data for 2014 show significant increase on all road border-crossings (total number of passengers 4,469,764), as presented by *Figure 3*. The role of the accession of Croatia to the EU can be measured only in the next years whether the easier crossing of the border with faster police and no customs control, has increased the traffic between the two countries.

As a comparison, in the previous decade (1994–2003), the changes were much more turbulent. From the maximum level of 10.7 million passengers in 1996 to a slight stagnation until 2000, the volume dropped to only 5.1 million by 2003 (Opačić, V.T. *et al.* 2004). In 1980 the total number of passengers travelling between the SFRY and Hungary both by road and railway was 7.6 million (Pepeonik, Z. 1985). The big boom of the cross-border traffic started in the 1990s, after the fall of the „iron curtain" and had its peak in 1996, right after the end of war (1995) in Croatia. The first reason for the intensified cross-border traffic was a large number of refugees coming to Hungary, escaping from the war. In addition increasing shopping tourism from Croatia to Hungary could be identified driven by the availability of goods and cheaper prices,

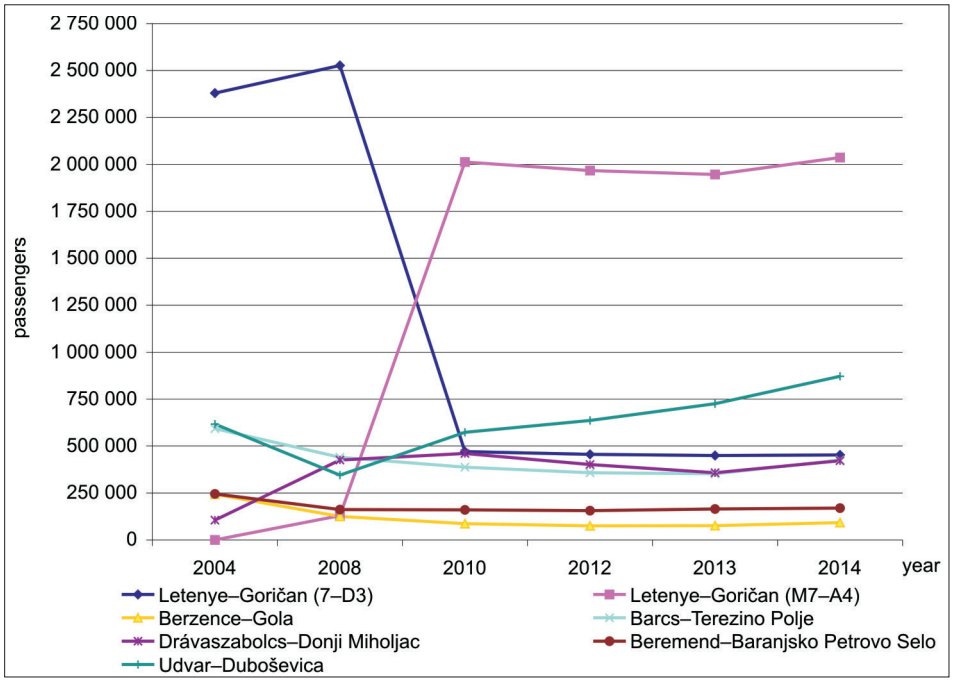

Fig. 3. Border road traffic data of the Croatian-Hungarian border section (2004–2014). *Source:* Data provided by the Police Headquarters of Baranya, Somogy and Zala counties. http://www.hu-hr-ipa.com

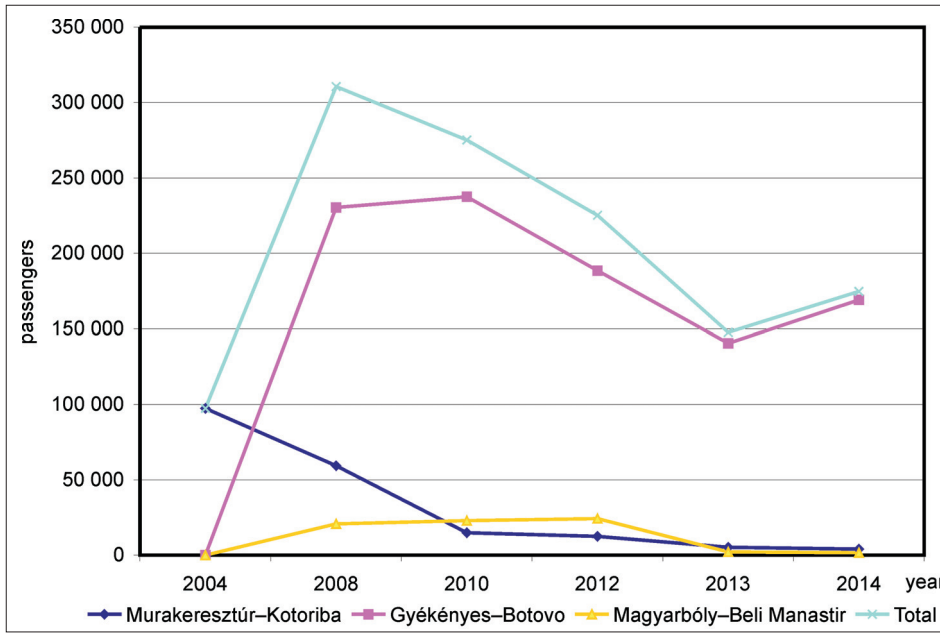

Fig. 4. Border railway traffic data of the Croatian-Hungarian border section (2004–2014). *Source*: Data provided by the Police Headquarters of Baranya, Somogy and Zala counties (Hungary), http://www.hu-hr-ipa.com

mainly food. Many small towns and settlements alongside the border (Barcs, Letenye, Berzence, Mohács) as well as bigger cities (Nagykanizsa, Pécs), were overwhelmed by Croatian shopping tourists in those years. Croatian language knowledge seemed to be a great labour market advantage and shopping tourism in the region highly relied on Croatian speaking shop assistants. After 2000 with the opening of the first big shopping malls in Croatia, the interest for shopping in Hungary decreased. In parallel, inflation and EU accession raised prices in Hungary so there seemed to be no reason any more for frequent travelling (Opačić, V.T. et al. 2004).

Water transport on Drava and Mura rivers exists only at a symbolic level[23]. As of its transit character (Pan-European transport corridor VII) the only cross-border river way used is the Danube (ports Mohács in Hungary and Vukovar in Croatia). Railway network is underdeveloped, especially in Croatia, with plans for reconstruction financed via EU Funds. There is only one important train station, in Koprivnica, in the whole border area with Hungary. A significant problem is that the rail network does not enable commuting to the main employment centres for most of the people due to long travel time and high costs (Tésits, R. *et al.* 2013). *Figure 4* presents border crossing data for three existing Croatian-Hungarian railway border crossing points in the period of 2004–2014, characterised with a considerable decrease in the number of passengers. The most remarkable is Murakeresztúr–Kotoriba (Western part of border zone) where the number of passengers was 97,299 in 2004, and this figure dropped to 3,978 by 2014. The last international train interconnecting Zagreb and Budapest via that border-crossing was terminated in December 2008, since then only local cross-border trains operate once a day.

[23] *Source*: Data provided by the Police Headquarters of Baranya, Somogy and Zala counties (Hungary). http://www.hu-hr-ipa.com/en/documents-draft-op

Out of three railway border crossings the most important is Gyékényes–Botovo (Koprivnica), but also with decreasing significance: 230,475 passengers (2004) dropped to 140,403 (2013) (*Figure 4)*. Suspending InterCity (IC) train Budapest–Venice at the end of 2011 and Budapest–Zagreb–Rijeka, furthermore Budapest–Pécs–Osijek–Sarajevo at the end of 2012 led to only one daily train line operating since the 10th of December 2012 between Hungary and Croatia. In December 2013 one IC train from Budapest to Zagreb was put back to operation (now via Kaposvár) improving the situation and resulting in a modest increase of passengers by 2014 at Gyékényes–Botovo. At Magyarbóly–Beli Manastir crossing, after abolishing the international train to Sarajevo, the number of passengers dropped from 24,240 (2012) to 1,663 (2014). It is quite clear that the elimination of the abovementioned train connections negatively influenced the overall cross-border traffic.

The refugee/migrant crisis occurring on the Croatian-Hungarian border section from the middle of September 2015 had further negative impacts. The suspension of the international railway transport, which is still lasting until further notice on the given section, left as the only possibility to travel with car or bus between two countries. Currently, it is still not possible to travel by train between Hungary and Croatia (http://www.mavcsoport.hu).

Regular public transport through the border area does not exist at all. Besides the mentioned limited and currently suspended train lines between Budapest and Zagreb, a bus line has been connecting the two capitals twice a week since July 2013, with an increasing frequency since then. A weekend bus line operates in the Pécs–Osijek–Pécs destination, but this limited possibility does not allow mobility for students or teachers between the two cities. Bus transport could serve more settlements than the train, but the long travel time (from Pécs to Osijek three hours) does not currently support its usage in the border area. Higher fuel prices in both countries have been hindering commuting by car for most of the inhabitants of the border zone.

Mobility in the Croatian-Hungarian border area

The border zone shows a typically low mobility character. The mobility of the labour force in the cross-border area is negatively influenced by the strong language barrier. Next to language and transport barriers further reasons for the low mobility can be specified: lack of information and transparency, level of wages, taxes and differences in the social security system, legal and administrative problems, lack of recognition of qualifications and cultural differences. Based on the analysis of the Mobile region project in 2011, there are several conclusions:

- Mobility between Hungary and Croatia is very low,
- The lack of mobility in Croatia is even considered as a threat,
- Hungary has the lowest percentage of citizens in the EU willing to move for a job change,
- Policies encouraging mobility and reducing its risks do not exist.

The accession of Croatia to the EU has not brought significant changes in labour mobility and there are only some sporadic examples. Accessibility of the closest border-crossing by road is poor which also negatively influences mobility in the Croatian-Hungarian border area. It is especially visible between crossing points Terezino Polje–Barcs and Donji Miholjac–Drávaszabolcs, where a border-crossing does not exist at the distance of 95 kilometres (see *Figure 2).*

Croatian-Hungarian cross-border co-operation

Compared to the Hungary-Croatia Pilot Small Projects Fund in 2002–2003, which was the beginning of cross-border co-operation, but with funding possibility only on the Hungarian side, furthermore to the Neighbourhood Programme Slovenia-Hungary-Croatia 2004–2006, the Hungary-Croatia (IPA) Cross-border Co-operation Programme

2007–2013 has been a huge step forward in joint co-operation. In the period 2007–2013, IPA brought significant changes, by introducing single set of rules and the Lead Beneficiary principle. Those modifications have also affected the Hungarian-Croatian cross-border co-operation by forming bilateral programme in 2007–2013 period, with 169 jointly implemented projects and small or medium-scale developments (Csapó, J. *et al.* 2015). The bilateral cross-border co-operation is continuing in the 2014–2020 EU Interreg V-A period as well.

In the period between 2007 and 2013 the prime focus of the HU-HR (IPA) CBC Programme was on environmental/nature protection and tourism development (Čelan, T.J. 2015). A Hungarian-Croatian Regional Tourism Product Plan (RTPP) was elaborated (Varjú, V. *et al.* 2013) as a joint tourism strategy and set the basis for all other tourism related projects[24]. Finally, 40 percent of the available funds (54.8 million EUR) for the Programme were allocated to tourism projects[25]. The amount proved to be higher than expected during the planning process, showing that tourism might be the strongest direction of development in the border area.

Cross-border co-operation and tourism development have always been on the agenda in Hungary especially in the bordering regions since the change of regime and especially after the EU accession (Aubert, A. *et al.* 2012; Csapó, J. 2014). However, a politically driven tourism development in a cross-border context can be problematic, especially regarding economic and social sustainability (Prokkola, E.K. 2008; Aubert, A. *et al.* 2008). It might be concluded that in the Croatian-Hungarian border zone without the EU funded Programme co-operation might not exist on a large scale, so the present development is artificial to a certain extent. The development in the border area is neither balanced *(Table 1),* nor naturally driven except for some small areas of traditional co-operations like on both sides of Baranya/Baranja and the Mura River (Csapó, J. *et al.* 2015). In both areas, Pannon EGTC and Mura Region EGTC[26] have been established as the first attempts of creating more functional cross-border region, but it has not reached the complex development level of the transborder region.

Table 1. HU-HR (IPA) CBC Programme 2007–2013 county absorption of available EU funds and values per inhabitant

NUTS III level/Counties	EU contribution in EUR	Population in 2011 census	EUR/person
Somogy megye	4,164,741	316,137	13
Zala megye	6,877,942	282,179	24
Koprivničko-križevačka županija	3,843,085	115,584	33
Virovitičko-podravska županija	3,165,675	84,836	37
Baranya megye	15,656,832	386,441	41
Osječko-baranjska županija	13,317,197	305,032	44
Međimurska županija	5,266,338	113,804	46

Source: http://www.hu-hr-ipa.com, http://www.ksh.hu, http://www.dzs.hr/default_e.htm. Csapó, J. *et al.* 2015, http://www.terinno.hu/szamok/teruletfejlesztes_es_innovacio_2015_2.pdf

Conclusions

The aim of this paper was to analyse the current socio-economic changes in the Croatian-Hungarian border zone, and to understand how these changes have affected the development of the region. It can be concluded that the development of the area is neither naturally driven, nor balanced. There are

[24] Including the su mmarised publicly available (2011) compendium called Handbook to Tourism Projects in the Hungary-Croatia IPA Cross-border Co-operation Programme.

[25] http://www.hu-hr-ipa.com/en/open-calls-for-proposals/third-call-for-proposals-november-2011/16

[26] http://www.huhr-cbc.com/en/official-documents; http://www.pannonegtc.eu/; http://muraregio.eu/en/

several obstacles that hinder proper cross-border relations:

a) The spatial structure shows imbalance, and demographic trends becoming more and more negative in the last intercensal periods further disable the possibility for co-operation in the area. Population decrease from 1991 and until the last census in 2011 officially amounts to 185,594 persons.

b) The Croatian-Hungarian language barrier is particularly strong and joint communication is almost impossible without English or German.

c) Road transport conditions have improved, with construction of new motorways, but until now it has not achieved any significant positive effect on the border area, which is still in a peripheral position. Although low and stagnating, road border crossings still showed relative stability in the last decade. The latest data received for 2014 showed sudden significant increase on all road border-crossings between Croatia and Hungary.

d) Cross-border rail traffic has almost disappeared. The refugee/migrant crisis occurring on the Croatian-Hungarian border section since the middle of September 2015 has had additional negative effect on the transport across the border area (e.g. suspension of the international train transport).

e) Mobility is especially low in the border area, and with minor exceptions, daily labour commuting does not exist.

According to our conclusions there are some positive changes to be noticed in the area. Regional planning has become more coordinated in the period 2007–2013, as the bilateral Hungary-Croatia (IPA) CBC Programme was for the first time programmed and implemented with joint participation of both countries. The planning of the new Interreg V-A Hungary-Croatia Co-operation Programme 2014–2020 is also elaborated jointly. The outputs and results of the present Programme, with significant increase of joint projects and small or medium developments around the Mura–Drava–Danube area, with the highest interest for joint tourism projects, is a large step forward for the border zone and the local communities. However, such partly politically driven tourism development in a cross-border context can be problematic, as it might lead to the conclusion that it is at a certain extent an artificial development. Otherwise, as outlined in this paper, without the EU funded cross-border co-operation programme strong interaction would not exist in the Croatian-Hungarian border area. Those tangible small positive changes are anyhow not sufficient enough to minimise the barriers and the strong periphery status of the border area, especially when compared to Zagreb and Budapest.

Due to development problems in the peripheral areas, *the transborder region has not been formed yet along the Croatian-Hungarian border* (Opačić, V.T. *et al.* 2004). That recapitulation was formulated 12 years ago and it is still valid, taking into account the current negative demographic trends, the language barrier, the peripheral location, the low mobility of people and limited cross-border traffic. As a final conclusion, it can be confirmed that the *transborder region has still not been formed alongside the Croatian-Hungarian border, but the cross-border activity is more significant than in the previous decade.* It brought stronger co-operation in the area and two European Groupings of Territorial Cooperation (EGTCs) have been recently formed as well.

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Measuring and modelling the spatial accessibility of public transport stops in GIS

Stanislav KRAFT[1]

Abstract

This article introduces two basic exact approaches for evaluation of spatial accessibility of public transport stops in the geographical information systems environment. The first is considered to be a simple approach contributing to the definition of buffers (wrap zones) around the stops. These are based on geometrical concept and use simple euclidean distance for specification of coverage of the individual city quarters. The present study works with the distance of 400 metres, which in the urban environment represents a comfortably accessible walking distance of 5 minutes. The other approach (the isoline method) is already considered to be more advanced, as it is based on the sophisticated tools of geographic information systems, which are able to interconnect the existing access paths and take the individual spatial barriers into consideration. This results in a realistic image of public transport stop accessibility already fully corresponding to the real situation. This tool may not only be used for current status analysis, but also for future status prediction. The example of establishment of new stops in the city of České Budějovice, therefore, uses this instrument for determining the impact of the new stop establishment in the city centre on the city coverage.

Keywords: public transport, accessibility, transport planning, GIS

Introduction

In the past two decades modern geo-information technologies have visibly invaded the field of transport. Their utilisation in transport processes is rather broad and complex. Good examples include, for instance, smart traffic systems, GPS navigation, automatic control of logistic centres, etc. The purpose of their use in transport is to make transport safer, more fluent and more effective. Although modern geo-information technologies are today a virtually indispensable component of transport management, they are still very sparingly used in transport planning (Mintsis, G. *et al.* 2004). This is specifically manifested in public transport planning where accurate geographical information is often missing. Public transport is therefore often planned without use of these modern geo-information technologies, which may negatively affect their competitive position on the transport market.

This article tries to point out the benefits of using geo-information technologies with the help of the example of measurement and modelling the accessibility of public transport stops in the geographical information systems (GIS) environment. Basic approaches to measurement and modelling the accessibility of public transport stops are introduced, and their often completely different results are declared. The approaches to measurement and modelling public transport stop accessibility are applied to the city of České Budějovice in the Czech Republic, in the form of a case study. Two different methods of stop accessibility measurement and modelling are used and their results are compared. The present article also shows the benefits of utilisation of geographically accurate information in this area.

Our motivation to study this issue springs from experience in public transport planning, especially in cities within the Czech

[1] Department of Geography, University of South Bohemia in České Budějovice. Jeronýmova 10, 371 15 České Budějovice, Czech Republic. E-mail: kraft@pf.jcu.cz

Republic. These modern research methods are in fact very rarely applied in practice. On the other hand, less sophisticated procedures (approximations), which are today hardly able to fully reflect the complex demands in transport, are relatively frequently used. The results of the present study are, therefore, not only highly relevant for transport research but also, and above all, for practice. The application scope of the methodological procedures described here is therefore primarily seen in the conceptual planning of city transport. Spatial accessibility of public transport stops is perceived as one of the key characteristics with direct impact on the quality and utilisation of public transport in cities (see Cervero, R. 2001; Beirão, G. and Cabral, J. 2007).

The structure of the article is as follows: after the introductory chapter there is a presentation of a theoretical framework of traffic stop accessibility, public transport and mobility in urban regions in general. Attention will be focused on current approaches to these issues and their reflections in professional literature. The following chapters will introduce two basic and most frequently used methods of modelling and measurement of public transport stop accessibility in urban environments. While one of them is a simple method using approximate input information, the other is an advanced and relatively highly accurate method based on analysis of precisely localised spatial information and sophisticated GIS based procedures. The analytical part of the study applies both approaches to the model territory of the city of České Budějovice on a very detailed level. The final part then synthesises the results into recommendations for transport planning and suggestions of further research themes.

Theoretical background

In recent years research focus has returned to public transport. In agreement with the findings of Mavoa, S. *et al.* (2012) we can see causes of this increased interest in several aspects. Firstly, public transport has entered a period of renaissance in many European countries for its lower environmental burden in comparison to automobile transport. Benefits of public in comparison to individual transport not only include the reduction of direct traffic burden represented by emissions, but also more effective energy consumption, reduced traffic accident rates, less traffic congestion and lower demands on physical activity. And last but not least, public transport positively contributes to social integration (Kenyon, S. *et al.* 2002). Another substantial factor causing the increased interest in public transport is the fact that public transport is often the only available transport mode for a large group of citizens, who for some reason cannot use passenger cars (see the discussion in Sheller, M. and Urry, J. 2006, or Cebollada, A. 2009). This group primarily includes the handicapped, children, seniors, etc. Due to the demographic aspect of an ageing population, especially in advanced countries, the percentage of this population group may be expected to increase (Káčerová, M. *et al.* 2014). Public transport is, therefore, one of the key factors affecting the sustainable development of mobility for this substantial part of the population. As it is also an important aspect of life quality, public transport deserves proper attention.

This is why public transport currently maintains a relatively stable position in competition with individual automobile transport after a considerable decrease of transport outputs in the 1980s and 1990s. In the Czech Republic, like in many other countries, the benefits of public transport are beginning to surface, especially in big cities and metropolitan areas. A continuous increase of city transport since the mid-1990s can be documented. Public transport in cities offers a number of advantages, which make it competitive in relation to individual automobile transport (frequent use of reserved traffic lanes, speed, absence of problems with parking etc.). If public transport is to successfully compete with passenger cars in cities, it clearly must offer adequate services and

complex and flexible reactions to traffic demand. Cities and metropolitan regions generate a high level of demand for transport. In addition, cities and urban systems are currently characterised by considerable changes in their spatial arrangements. This is related to the onset of the post-industrial patterns of city layouts with a typically complicated arrangement of land use in the city, development of residential and non-residential suburbs, outflow of population from city centres etc. (Burchell, R. *et al.* 1998; Džupinová, E. 2009; Temelová, J. *et al.* 2011). The formerly relatively simple concentric patterns of transport relations in cities are today replaced by more complex traffic structures. Population numbers in individual city quarters change dynamically together with the changing functions of the quarters, temporal and spatial mobility rhythms, etc. Current transport behaviour and trends in personal mobility are therefore quite demanding and highly individual (Popov, V. 2012). Public transport is only able to react to these changes to a limited extent, which is shown by a number of studies on current population mobility and transport behaviour (e.g. Kraft, S. 2014).

Accessibility of public transport has been one of the key attributes of its quality, which indirectly affects its competitiveness in relation to automobile transport. The advantages of automobile transport mainly lie in door-to-door transport (Ivan, I. 2010). On the general level accessibility may be characterised as the number of facilities (traffic terminals, stops etc.) available in a certain time or within a certain walking distance or for a certain charge. Pursuant to Michniak, D. (2010) accessibility comprises three relatively mutually independent elements – the subject of accessibility (a person, a group of persons, inhabitants of a certain region), the object of accessibility (a certain occasion, activity or service) and the transport element realising the connection between the subject and the object of accessibility helping to cover the distance between them. In this context one can speak about "dual" accessibility – accessibility of localities and accessibility for a certain person or group of persons.

What needs to be accessible on the level of cities and urban areas is the public transport stops expressed by walking distance from residential areas of the cities. Other forms of public transport stop accessibility (e.g. "Park and Ride") are mainly important in big cities. Residential quarters in this context represent the demand for transport services, while public transport stops and their locations represent the offer of transport services. For effective functioning of city transport it is necessary to find the best possible balance between this offer and demand. Accessibility of public transport stops may, therefore, primarily be monitored with consideration of their distribution and locations. The aim is maximum coverage of the urban space represented mainly by the permanent residents of the space. Growing relevance of public transport can also be documented by its impact in the surrounding environment. A number of studies point to a clearly direct relationship between the accessibility of public transport stops and the growing differentiation of land value. This is mainly visible in cities and in close proximity to main roads and railway lines (Cervero, R. and Duncan, M. 2002). Cervero and Kang, using Seoul as an example, show that measurable impact on land value may be seen in cases where a bus/tram stop is within 300 metres in the case of residential land use function, and without approximately 150 metres in the case of retail and other non-residential land use (Cervero, R. and Kang, C.D. 2011).

GIS represents one of the most frequently used instruments of analysis of the complex relationship of transport stop accessibility and city coverage with public transport. These systems, on the one hand, allow full use of very accurate geographical information, and on the other, creation of a sophisticated model of predictions of future status. The environment of geographical information systems provides a number of instruments for analysis of various levels of accessibility on all hierarchical levels. Their substantial relevance, however, consists not only in analysis of the existing reality, but

also in theoretical modelling and predictions of changes of accessibility under the influence of interventions with the current system of transport infrastructure in particular, or more generally organisation of traffic processes in the territory (Ahmed, N. and Miller, H.J. 2007). For this reason in western countries GIS currently represent a standard part of transport planning and traffic control.

Methodology

The methodology of measurement and modelling public transport stop accessibility consists of several sequential steps. The basic source data necessary for further analyses is represented by precisely localised information about locations of individual public transport stops, line routes, the number of inhabitants of individual houses, layout of local public and service roads, and pavements and other accesses for pedestrians, etc. Although certain data was obtained from public databases, most of it had to be accumulated by in-house survey. A mobile GPS device was used to measure the precise positions of public transport stops in the city of České Budějovice. The data was subsequently transferred to the S-JTSK coordinate system in GIS.

Data on the number of inhabitants of individual houses represents a valuable and very detailed source of field information necessary for the calculation of territorial coverage with public transport stops. Conversely, residents do not represent the only key attribute for the distribution of public transport stops. The resulting analyses, thus, do not include further important aspects of certain functions connected with daily intra-city mobility (schools, public institutions, healthcare facilities, shops, etc.). Despite that quantification of the results by means of the number of residents of individual houses represents a very substantial characteristic feature of city coverage with public transport stops, therefore, the obtained results can be considered relevant and conclusive. Data on the number of residents of individual houses was unfortunately only available for the inner city of České Budějovice (without the surrounding suburban villages). Therefore, analyses of spatial accessibility could only include data related to this city exclusive of all the municipalities served by Budějovice city transport. We also use estimates of potential users of public transport stops by quantifying the daily population (residential population plus working/studying population, tourists etc.) in specific cases. Although this approach is quite complicated, it clearly shows differences in use of specific public transport stops (especially near shopping centers far away from residential areas).

The evaluation methodology of spatial accessibility of public transport stops in the city of České Budějovice was developed with the help of extended Network Analyst and Spatial Analyst in ArcView 9.2 software. These instruments allow for the sophisticated expression of spatial accessibility of city transport stops by means of the buffer method (wrap zone method) and by means of specification of the isolines (method of connection of points in the same distance/travel time).

The research generally confirmed that threshold values for evaluation of public transport stop accessibility in urban regions generally range within 5 minutes walking distance, which represents a distance within 400 metres (e.g. Foda, M. and Osman, A. 2010; Adebola, O. and Enosko, O. 2012). The following analyses will, therefore, work with the comfortable variant of individual stop accessibility (within 5 min or 400 m walking distance). For the sake of simplicity all buildings outside this defined range of public transport stop accessibility were considered inaccessible. Individual results could be exactly quantified through the number of residents of the individual houses. The first testing method used was the simple buffer method (wrap zones). Buffers can be defined as concentric circles with the centres in the individual stop points defined by means of euclidean distance. Therefore, application of the buffer method produced circles around individual stops within the 400 m radius.

The major methodological limitation of the buffer specification is the fact that the zones do not respect any environmental barriers (such as water works, road crossings, buildings, etc.). The results within our micro-scale are, therefore, greatly generalised and poorly correspond to the reality.

For that reason we used the other method of isolines, which may be defined as lines connecting points within the same spatial or temporal distance from the starting point. Advantages of the isolines include respecting all spatial barriers to distance coverage. This procedure may be considered more accurate, but logically is much more difficult. The methodological procedure consists of the precise connection of a network of local and service roads, networks of pavements and other pedestrian paths with public transport stops and individual buildings in the city of České Budějovice. The data layers were subsequently merged in ArcView 10.2 and subjected to accessibility analysis with the help of the "Service Area" function in the extended Network Analyst. This created a variant of spatial accessibility of public transport stops better corresponding to the real situation.

Expression of the spatial accessibility quality of the stops was assessed by means of coverage of buildings used for permanent residence by the local population. This allowed for the expression of the qualitative aspect of coverage of the area of interest with public transport stops, unlike the traditionally used coverage approximation with the help of the population density of individual city quarters (e.g. Murray, A.T. 2003). The extended Spatial Analyst and the "Select by location" tool helped us to express the spatial accessibility of public transport stops in the comfortable (within 400 m) variant through the number of permanent residents. At the same time we defined localities in České Budějovice situated outside the comfortable variant of spatial accessibility of the stops. These problematic localities may become a stimulus for optimisation of this condition in the coming years. For better visualisation some of the problematic areas are shown in 3D maps.

Results

With a population of nearly 95,000 the city of České Budějovice is the biggest city in the South Bohemia region. The latest census revealed that more than 22,000 people additionally commute to the city every workday for work or school. Therefore, the real city population is nearly 120,000. Another substantial fact is that the city is relatively small in size. The cadastral area of the city is a mere 55 km^2. The mean population density is more than 1,700 per km^2. The highest population density is in the inner city and in the housing estates on the outskirts. Despite the compact housing, recent trends of commercial and residential suburbanisation manifest themselves here as well. All of the abovementioned specifics indicate a high demand placed on public transport.

The buffer method defined concentric circles in the territory of České Budějovice with their centres in all city transport system stops (*Figure 1*). At first sight the distribution of public transport stops across the city is relatively good. The stop distribution follows the locations with the highest concentrations of people, and therefore the highest demand for public transport. Due to this distribution the buffer method, thus, shows very favourable characteristics of individual building coverage with the system of stops. Stops within walking distance of up to 400 m are available to 56.9 percent of the residents within the territory. Buildings within the buffers are inhabited by 85,919 residents. These characteristics reveal very convenient coverage with public transport stops as 92.1 percent of the city population can enjoy comfortable public transport accessibility. The most favourable values are shown for the inner city, where the network of public transport lines and stops is the densest. In these localities the individual buffers often overlap. The coverage in the densely populated localities on the outskirts (housing estates), with high concentrations of people in small areas, is also favourable. The demand for public transport in these localities is very concentrated, which

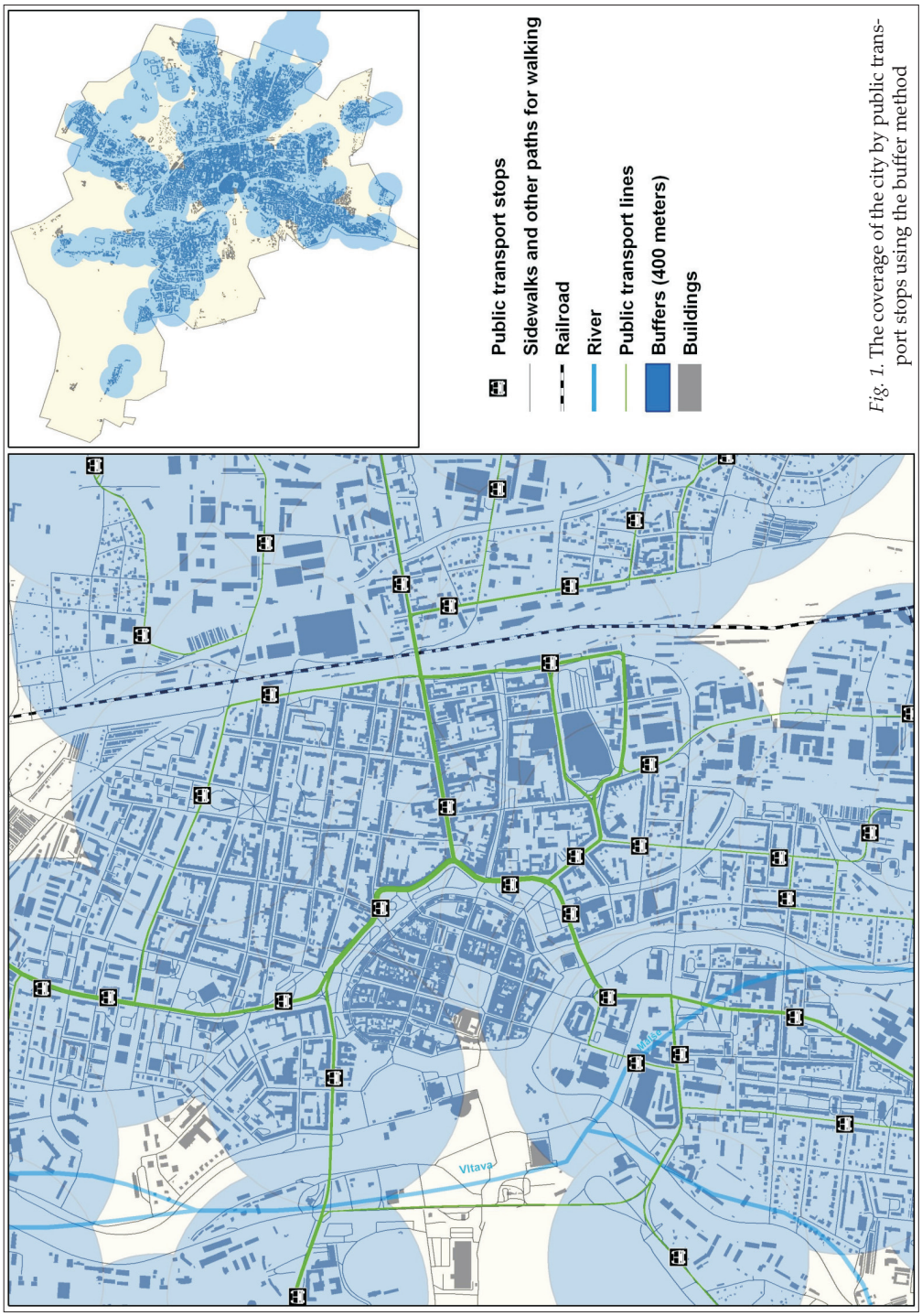

Fig. 1. The coverage of the city by public transport stops using the buffer method

is an important factor for the offer of public transport services. On the other side, rather unfavourable coverage conditions are found at the outskirts with a lower population density and in industrial zones.

A different view of the issue is shown in *Figure 2*, which demonstrates that when the buffer method is used most city residents can use a conveniently accessible public transport stop. The limit of 400 m is only exceeded in the more remote localities with lower population density. The modus of the whole set is represented by the zone of buildings 120–140 metres away from the nearest stop which, according to the buffer method, is populated by nearly 8,500 citizens. The cumulative curve shows a relatively quick increase of population in the lowest values – 50 percent of the city residents live within 180 metres from the nearest public transport stop.

Despite these favourable characteristics the buffer method clearly provides overly generalised results, not considering any existing spatial barriers to public transport stop accessibility. This is shown by the more sophisticated expression of spatial accessibility of public transport stops by means of the advanced isoline method. Following incorporation of all these barriers the resulting accessibility image fully corresponds to the reality. The individual accessibility zones are no longer regularly shaped, but they are plotted with regard to the real access options including all access types (pavements, paths, subways, street crossings etc.).

As shown by the drawn isolines 71,585 city residents (76.8%) live within 400 m from the nearest public transport stop with the total coverage representing 44 percent of the city area. The lower values are logically caused by the more accurate specification of the accessibility zones. These are shown in *Figure 3*. They respect all existing spatial barriers. This is specifically manifested in the surroundings of rivers or railways representing significant barriers structuring the city in the north-south direction. These strong barriers may only be overcome in a couple of defined places, and thus, strongly influence the value of pedestrian accessibility of public transport stops in their proximity. A specific situation can be seen near the historic city centre. Although this part of the city shows a lower population density, there are important institutions situated there, such as banks, offices and shops, connected with the daily mobility of many of the city residents. As the public transport system bypasses the main square, their accessibility is limited. In addition in České Budějovice it is still easy to park a car in the square. This is one of the examples of the missing concept of public transport serving the city centre.

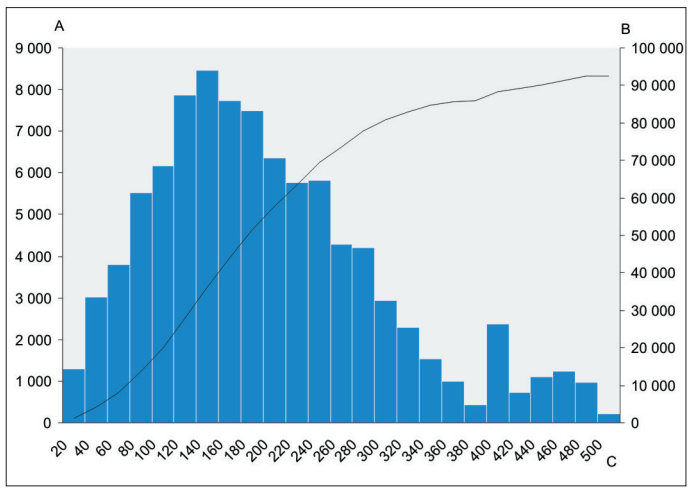

Fig. 2. Spatial distribution of residential population to the nearest public transport stop measured by the buffer method. – A = population in selected distance zones; B = cumulated population; C = distance to the nearest public transport stop (in meters)

Spatial distribution of residents with regard to their access to the nearest public transport stop is not as favourable as in the previous case (*Figure 4*). This is again given by the more accurate calculation methodology considering the real options of access to the stop.

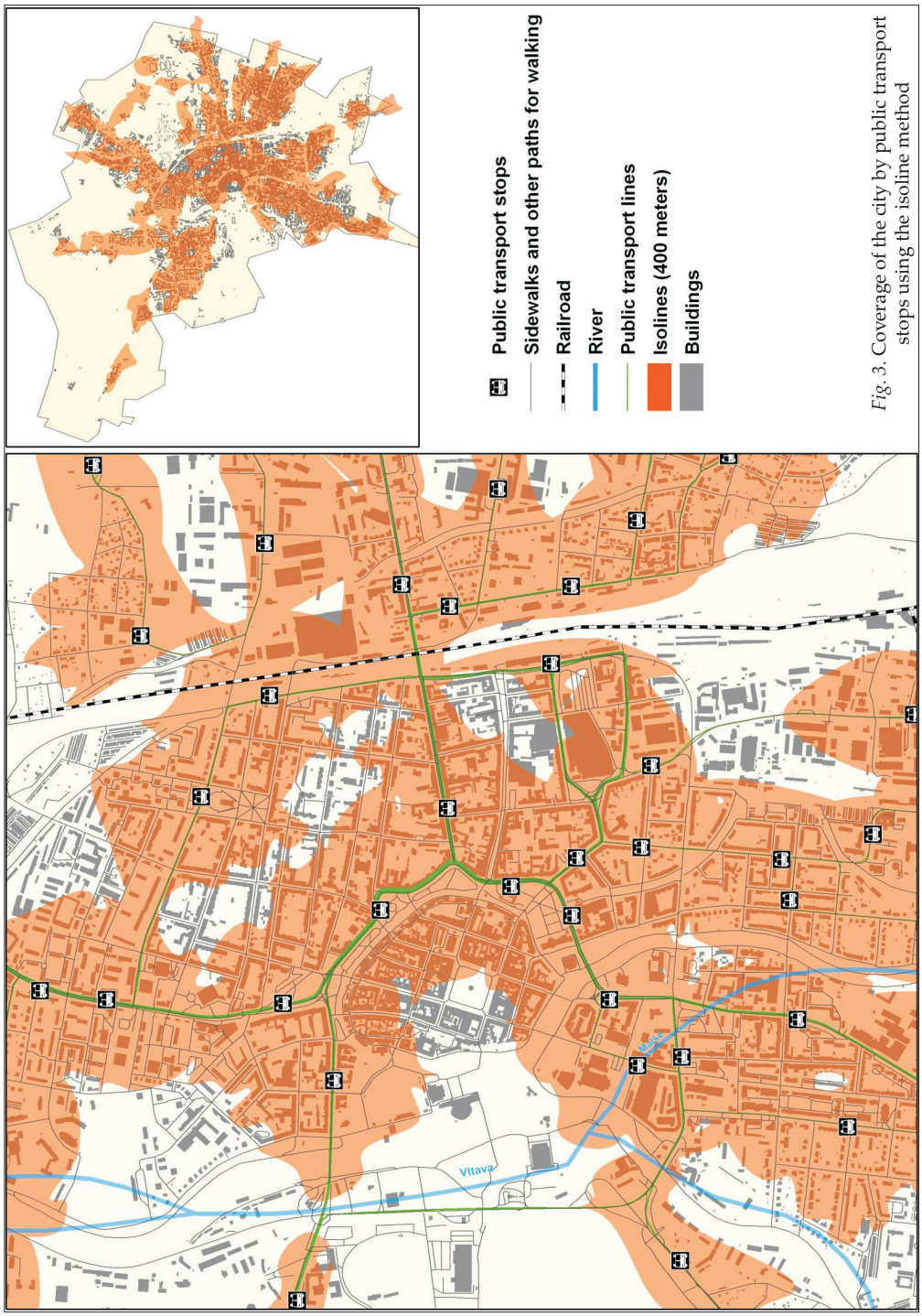

Fig. 3. Coverage of the city by public transport stops using the isoline method

The general conclusion of this evaluation is that the real distance of the nearest stops is longer by order of dozens or hundreds of metres than shown by the previous method. The modus of the set is represented by the zone within 300–320 metres from the nearest stop, where over 6,500 city residents live. On the other hnad, behind the monitored frontier of 400 metres there are more residents than in the case of the previous method. The shape of the cumulative curve is more convex, which shows that the increase of the population with increasing distance is not as steep as suggested by the previous evaluation with the buffer method. Half of the city population live within a distance of up to 280 metres from the nearest public transport stop. Quantitative comparison of the two methods of coverage calculation by means of the buffer and the isoline methods is shown in *Table 1*.

We tried to calculate the real daily population to quantify the usage of particular public transport stops. This approach is quite complicated and questionable. For this reason we chose specific types of stops, which we considered as specific in the transport system of the city. We tried to estimate the real number of people who can use the public transport stop (similarly Langford, M. and Higgs, G. 2006). The monitored stops were near the largest shopping centre (stop 'Globus'); near the university campus (stop 'Jihoceska univerzita') and near to the city hospital (stop 'U Nemocnice'). All stops are operated by the key trolleybus and bus lines. The goal of the research is to quantify the potential users of these stops. The results, thus, include the residential population, estimates of working/studying people and number of daily visitors. The data were collected from accessible statistics, special statistics and also by field survey realised by the author. Although these data are estimated, we consider them as realistic (*Table 2*).

Table 1. Coverage of the city using the basic structural features

Method	Area, km²	Buildings	Inhabitants
Buffer	31.29	20,489	85,919
Isoline	24.37	16,446	71,585

The results clearly show obvious differences among particular types of selected bus stops. The most important influencing factor is the functional structure of the affected area and geographical location. The greatest contrast is by the stop 'Globus', which is localised in the north-western part of the city, far away from most residential areas. Because of low residential population density there are only 47 residents in the accessible area. According to our calculations the number of potential daily users of the shopping center is over 14,000 people. This is the unique case. The other two stops are located in more densely populated areas nearer to the city centre. Their residential population is higher, but their working/studying population (university) or other daily population (hospital) is usually several times higher. We suppose that similar values are also typical for other types of stops (main rail and bus stations, city square, exhibition grounds or cemetery). On the other hand, we think that these types of stops in

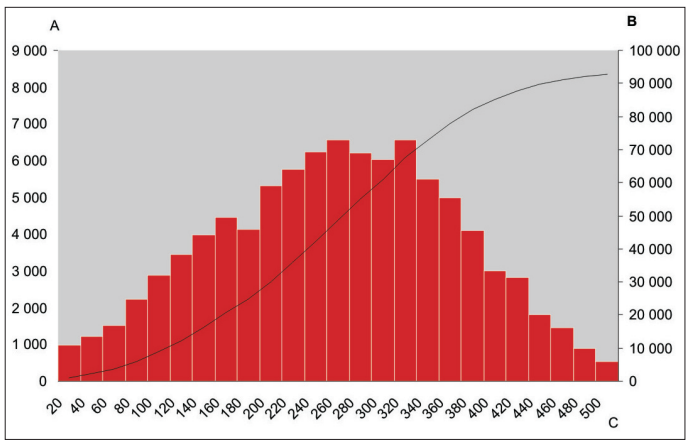

Fig. 4. Spatial distribution of residential population to the nearest public transport stop measured by the isoline method. – A, B, C = see *Fig. 2.*

Table 2. Potential users of selected public transport stops

Name of transport stop	Residential* population	Working/studying population**	Other daily visitors**	Together
Globus	47	627	13,700	14,374
Jihoceska univerzita	1,689	1,047/5,970	750***	9,456
U Nemocnice	1,373	2,530	2,800	6,703

*Official statistical data; **Annual Reports of appropriate institutions; ***Field survey conducted by the author.

the city are relatively small. The residential population is still in our opinion one of the most important features for analysing the spatial accessibility.

Current development strategy of public transport in České Budějovice counts with establishment of new public transport stops by 2020. These stops should improve the existing conditions and the spatial accessibility of certain localities. New stops are planned around the historic city centre, inter alia. The isoline method allows for modelling of this status and prediction of the expected changes. This, however, faces the fact that the historic city centre has a relatively low-density population. Thus, the results of the accessibility change modelling will manifest themselves less here in the quantitative expression, for only a small number of people will probably move to the comfortable accessibility zone. On the other hand, as mentioned above, the city centre shows a considerable concentration of institutions related to the everyday mobility and activities of the citizens. It is, therefore, clear that establishment of new public transport stops will bring about the expected effects. That is why *Figure 5* shows 3D visualisation of the current accessibility of the nearest public transport stops and model expression of the planned condition after establishment of new stops. The accessibility evaluation was again based on the isoline method reflecting the real accessibility by means of sophisticated use of the existing paths for pedestrian traffic.

Two new public transport stops in the historic city centre will add only 128 new free-standing buildings to the coverage with comfortable access, serving as a permanent residence to 142 persons (most of the newly added buildings are unoccupied). As already mentioned, this change will marginally change the number of people living in the zone of comfortable public transport accessibility. On the other hand, the new stops will cover part of the city with a significant concentration of important institutions (city magistrate, banks, city pool, restaurants etc.). Despite certain criticism the newly planned stops and public transport lines to the city centre may be said to be beneficial, making significant everyday life localities newly accessible to more persons having to rely on public transport.

Conclusions

The performed measurement and modelling of public transport stop accessibility analysis, taking the city of České Budějovice as an example, yielded certain results that might be generalised and used for further research. General findings include the fact that the monitored maximum distance from the nearest public transport stop correspond to 400 metres and 5-minute walking distance is the limit of acceptability, even for the studied city. The results of the intra-city space coverage survey were relatively good in both cases, with only localities with a very low population density situated behind the 400 m boundary. Hence the threshold of 400 m from the nearest stop may be declared sufficient.

The abovementioned accessibility evaluations can be summarised as follows. First, empirical assessment of spatial accessibility of public transport stops in the city of České Budějovice by means of both buffer and isoline methods showed that the stop

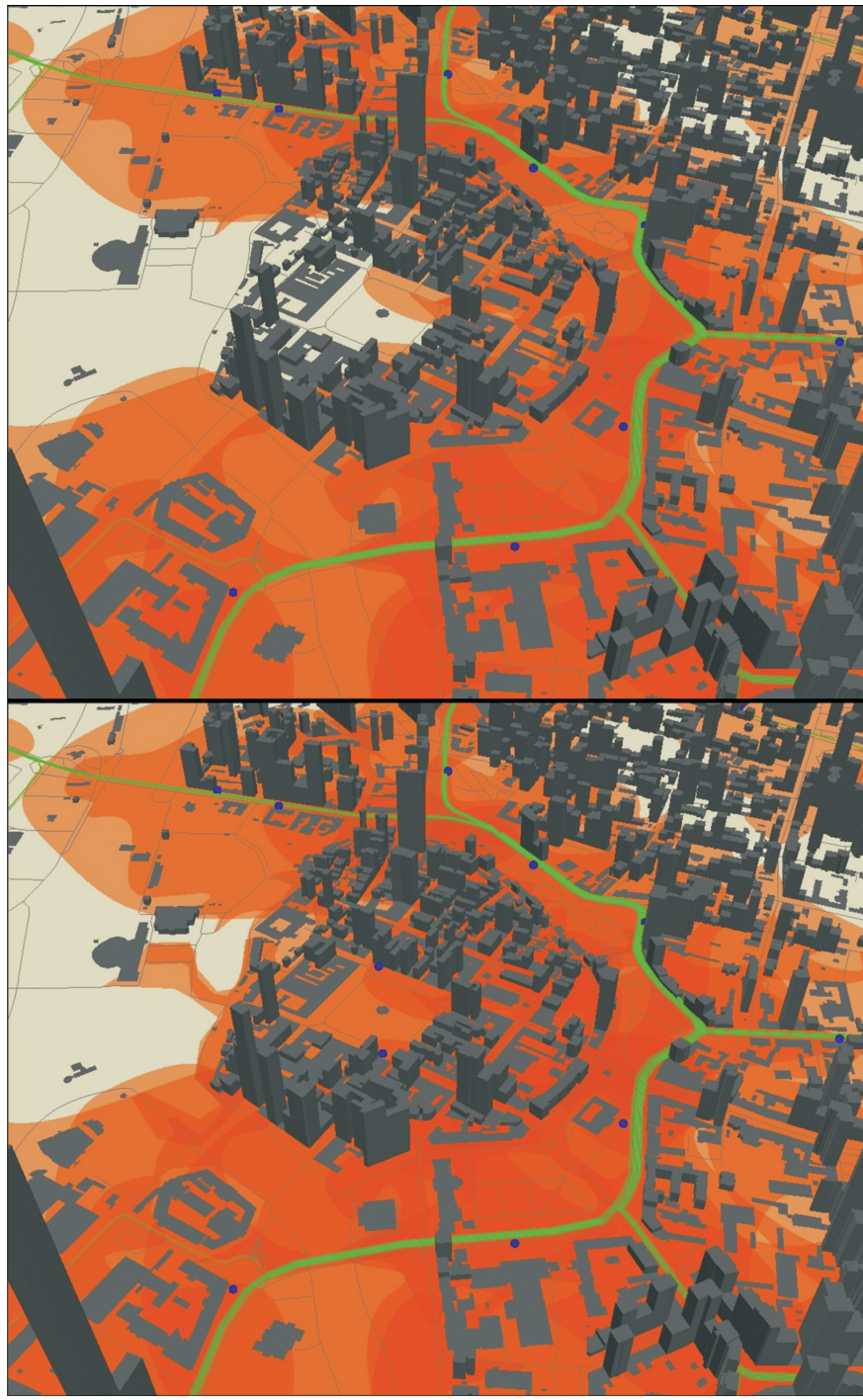

Fig. 5. Coverage of the city centre by public transport before (upper) and after (lower) the implementation of new public transport lines and stops

layout and coverage were both very good. The evaluations found that most of the city residents lived within a 400 m distance from the nearest public transport stop, thus, enjoying comfortable access to the public transport lines. Both methods pointed out that the best coverage and public transport accessibility were enjoyed by the inner city and the densely populated housing estates at the outskirts. On the other hand, relatively worse characteristics were shown by the scarcely populated localities, usually also at the outskirts. This specifically points out worse stop accessibility in localities with new housing developments, to which public transport only reacts with a delay (sometimes after the residents have already got used to everyday travel by car). Second, the comparison of the two applied methods clearly shows that the buffer method provides very optimistic values which are unrealistic in detailed expression. This is because the buffer method does not respect any spatial limitations (barriers), which often exist in space. Thus, the more realistic view of public transport stop accessibility is provided by the isoline method, which fully respects these barriers.

The main indicator of the city coverage with public transport stops, with regard to their accessibility used by this research, was the data on the number of people living in the individual houses. This is a key source of information conveniently usable for the purpose of this evaluation. The number of residents represents the main attribute for decision-making about locations of individual public transport stops within the municipal system. With the help of this indicator, which is exactly geographically localised, it is possible to effectively assess the level of the city coverage with public transport stops and their accessibility zones. As this accessibility is currently more or less saturated in the city, potential establishment of new stops will not considerably change this status. On the other hand, the article points out that when assessing city coverage with public transport stops it is necessary to consider the presence of other functions of the affected municipal localities – commercial, service, work etc. – which, however, are harder to quantify. The example of establishment of new public transport stops in the centre of the city of České Budějovice was used to show that while quantitative city coverage with the stops would only provide minimal change, accessibility of key institutions located in the historic city centre would improve significantly. For effective municipal public transport system accessibility of these localities in the city is as important as accessibility of the residential areas.

This approach represents a modern view of the issue of accessibility of public transport stops in cities. Its advantages include very accurate and effective measurements and modelling of stop accessibility, which should primarily be used in transport planning. Stop accessibility is one of the key aspects affecting the competitiveness of public transport in cities. The main methodological issue is accessibility of precisely located data sources. For realistic measurements and modelling of stop accessibility it is necessary to possess information (data layers) about the distribution of residential population, the network of public transport lines, stops, pavements and other communication means for pedestrians etc. Nevertheless, this information has recently become a common part of web map services and digitalised data sources of various administrative institutions (O'sullivan, D. *et al*. 2000). This is the main potential of the studied issue and the presented evaluation approaches.

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AQUINCUM
Ancient landscape – ancient town

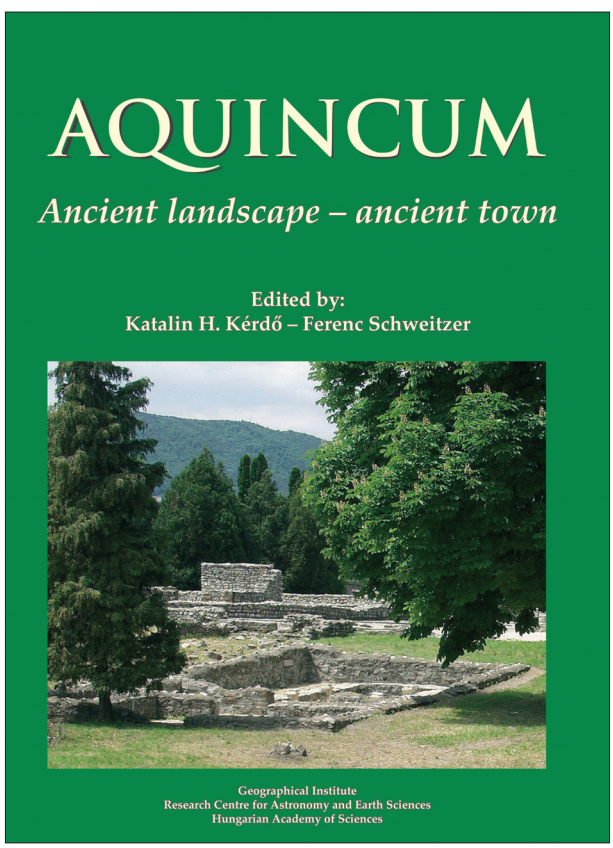
Edited by
Katalin H. Kérdő and Ferenc Schweitzer

Geographical Institute Research Centre for Astronomy and Earth Sciences HAS

Budapest, 2014. 188 p.

Geomorphological–paleoenvironmental studies supporting archeological excavations and investigations are to be considered a new trend within the broader sphere of studies on environment and geomorphology. By publishing the latest achievements of researches of this kind carried out on the territory of Aquincum and in its wider surroundings this book may equally reckon on the interest of professional circles and inquiring audience.

Therefore the publication of such a volume of somewhat unusual character is welcome. The project could be completed as a result of the close cooperation of two important branches of studies, notably geography and archeology. They both have long lasting traditions in our country and on this occasion were represented by two prominent institutions, the Geographical Institute of the Hungarian Academy of Sciences, and the Aquincum Museum of the Budapest History Museum. Their contribution has made possible the publication of this book.



The studies were aimed to clear up the role of those natural factors which exerted a profound influence on the development of the settlement structure during the Roman Period. Romans had a special ability to realize advantages provided by geomorphological characteristics and they had made a good use of natural waters, flood-plain surface features and parent rocks for their creativity.

The volume is also deemed as a pioneering work with regard to the richly illustrated presentation of geological, geographical and other natural features exposed in several places in the course of archeological excavations. A short summary shows the most important objects of the Roman Period related to natural endowments and traces of activities of the time leading to environmental transformation.

Based on geomorphological evidence a new answer is proposed to a previously raised problem whether the Hajógyári Island existed as an islet already in the time of the Romans. Another intriguing issue tackled is the purpose of the system of trenches found in several places along the Danube River.

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Spatial characteristics of access of third-country citizens to the Hungarian public health care system

Sándor ILLÉS[1] and Éva GELLÉR-LUKÁCS[2]

Abstract

The effect of international migration on public health care system is one of the emerging themes within health and mobility studies. Unfortunately, there is scarce information on health situation of international migrants in Central and Eastern Europe. This research paper tries to contribute filling in this gap with a case study related to Hungary and it deals with the access and participation of third-country nationals to the Hungarian public health care system as patients. The study integrates quantitative and qualitative methodologies coupled with a holistic approach. Macro data of the National Health Insurance Fund was analysed and field works in the National Ambulance Service and at the Semmelweis University (Budapest) were carried out. The volumes and rates of nationals of Ukraine, China, Vietnam, Serbia, former Yugoslavia, Russia and Mongolia are the dominant groups in the provision of acute care, in-patient care, out-patient care, dental care and cash benefits. Acute care is relatively the most populous and medical treatments in capital institutions as opposed to countryside ones. The main spatial factors affecting the provider and supplier side of public health care system in Hungary are identified while concluding that third-country migrants utilize selectively the institutions of the Hungarian public health care system. Conclusions subscribe to the need for future research in this theme in the light of most recent international mobility upheavals.

Keywords: international migration, public health care system, third-country citizen, mobility, spatial pattern, Hungary

Introduction

The national health care system is built up as an elaborated structure. The rules of access and of service provision are complex in Hungary. This inherently compound structure is further supplemented by distinct international rules to third-country nationals. Key stakeholders of the system are the health care providers themselves that are required to put the national, international and supranational legal rules into practise. They are required to solve the financial and administrative tasks and to sort out the concrete cases related to third-country nationals. They have direct contact with the patients, they communicate with the persons concerned and, most importantly, they provide for the appropriate medical care (Gellérné Lukács, É. 2012; Bell, D. *et al.* 2015).

The heterogeneity of third country patients, the frequency of demand of medical services, the type of the treatments within public health care are all fundamental research terrains to be investigated since health is one of the main elements of wellbeing and inequality, too (Thomas, F. and Gideon, J. 2013; Jakab, Zs. and Tsouros, A.D. 2014). The research aimed at examining the access and participation of third-country nationals in the Hungarian public health care system.

Within the framework of the research carried out between 2006–2010 the following specific questions arose: What is the citizen-

[1] Active Society Foundation, H-1094 Budapest, Liliom u. 8. E-mail: dr.illes.sandor@gmail.com
[2] Eötvös Loránd University, Faculty of Law, Postgraduate Institute. H-1051 Budapest, Egyetem tér 1–3. E-mail: drlukacseva@gmail.com

ship distribution of third-country nationals? What kind of services and medical treatments are frequently used by them? Are the demographic and medical characteristics of foreign patients (sex, age, consumption of medical treatment) similar to that of Hungarian patients? Are there special challenges towards foreign patients for service providers?

International migration context

In Hungary quantitative and qualitative changes began in 1988 after four decades of a controlled and restrictive migration regime. Due to the political transformation process in Central and Eastern Europe there was also a turn in the types of international migration flows. Hungary got integrated into the European and international migration systems again (Tóth, J. 2012). There was a significant growth of international migration of foreign citizen flows in Hungary which became a receiving and a transit country after a long period of being a sending area. As a result of the continuous inflows and moderate outflows the number of foreign citizens staying in Hungary rose steadily. At the end of 1999 more than 150,000 long-term immigrant were living in Hungary, so their share within the total population rose above 1.5 percent. It is worth mentioning that it was a low proportion in European context (Kincses, Á. 2015).

An increase of international immigration flow could be measured in the years following Hungary's EU accession (1st of May, 2004). The number of immigrants exceeded 25, 000 per year. The surplus came from other countries of the European Union. However, neighbouring countries played a rather small role in the quantity of immigration (Gellérné Lukács, É. 2011). The attraction of Hungary has been gradually decreased in parallel with Hungary falling into economic crises from the end of 2008. The number of foreign citizens living in Hungary in 2009 was 184,358 persons, so their share within the total population increased above 1.8 percent. 36 percent moved from Romania, at about 10 percent from Ukraine and Serbia. Only 3 percent came from the neighbouring Slovakia. Germans had 9 percent plus other non-German Europeans owned 17 percent. Chinese possessed 6 percent plus other non-Chinese Asians had 7 percent . Citizens of American countries had 2 percent while Africans had 1 percent (Gödri, I. *et al.* 2014).

The issues of asylum seekers and refugees are treated differently from the regular international migration. The Office of Immigration and Nationality (OIN) collects and publishes data about them. The legal regulations established three different categories: refugee (*menekült* in Hungarian) according to Geneva Convention temporary protected asylum seekers (*menedékes*) and persons granted subsidiary protection (*oltalmazott-befogadott*). In the middle of the 1990's, with the escalation of the Yugoslav war, ethnic Bosnians, Serbs and Albanians arrived in Hungary and applied for temporary shelter and they obtained asylum-seeker status.

Before the accession of Hungary to the EU the average number of asylum applications was high (5,000 per year). Soon after the accession it diminished to an annual average of 2,000. All in all asylum applicants were 41,000 between 2001 and 2012. More than 75 percent arrived illegally with the help of human traffickers. Many applicants moved forward to the West from the refugee camps even before the Hungarian official decision was passed, because they initially wanted to reach Western Europe. Only a few applicants were granted refugee status (less than 10%). For instance, between 2001 and 2012 only 1,616 persons received conventional refugee status in Hungary. Asylum applicants were Afghan, Iraqi and Bangladeshi. Considerable quantitative change has been started from 2013 due to the liberalisation of Hungarian legal rules. It means that asylum applicants who arrive illegally are not arrested during the examination of their application.

During the first half of 2013 11,741 asylum applicants arrived in Hungary mainly from Kosovo, Pakistan and Afghanistan. The stock

of recognised applicants was as follows in January 2013 in Hungary: 1,513 persons as refugees, 1,121 temporary protected asylum seekers and persons granted subsidiary protection. New sort of international movement of people of third nationals has been emerging since 2013. The number of quasi-transit tourists-migrants-asylum seekers reached the tens of thousands of people in 2013 (18,000) and 2014 (47,000). This value increased to 177,000 people till 15 September 2015 only that year.

Hungary – as member of the European Union and part of the Schengen area – is committed to fulfil all requirements concerning controlling and protecting the external borders of the EU. Hungary is situated on the illegal migration route from the Balkans to Western Europe. As a transit country emphasis needs to be placed on handling the „transit traffic", intensifying border control and maintaining internal security. Hungary's accession to the Schengen area in December 2007 has not affected the illegal migration routes in short-term, it has not changed in any significant way. Main source and transit areas of the continuously increasing illegal migration flows are the Middle East, Asia Minor, Northern Africa and the Balkans.

Legal context

Hungarian public health care system is horizontally accessible for economically active third-country nationals. Persons in paid employment or self-employed persons who are paying social insurance contributions are entitled to access the public health care system. Two sorts of health related benefits exist in Hungary for third country nationals: health care (in kind) benefits and sickness (cash) benefits (EMN-Hungary 2013).

Additionally, access to health care for those third-country nationals who are not pursuing economic activity is, as a main rule, subject to the registration of habitual residence and possession of the permanent residence permit. Persons who are insured or qualify as insured have access to medical treatment and justify their entitlement with the possession of TAJ (Social Insurance Identification Number). The public health care provider controls the eligibility of the patient via the on-line database, on the basis of the TAJ number.

For refugees and asylum seekers Hungary operates the same system of health care as for nationals (including double or multiple citizens), with no additional requirements and no forms of care excluded. Refugees and asylum seekers do not have to pay premium costs. It is financed from state budget. Higher costs could be in those cases where refugees or asylum seekers turn to private institutions. On the question of the extent of coverage for asylum seekers we stress that they are on equal footing with nationals.

As a main rule, Hungarian health care is free of charge for eligible persons, no extra charges shall be paid by the beneficiary. However, a remarkable exception is dental care, which is mostly a privately run business. It is only free of charge for the age group 0–6 and over 65. If the third-country national has no entitlement (e.g. the migrant has not lived in Hungary for at least one year or he/she is undocumented), he/she is required to provide for his/her medical coverage on private basis. Emergency health care, however, is provided by the Hungarian public system without previously controlling the entitlement, and if there is no entitlement, the costs must be reimbursed a posteriori by the international migrant. The same applies to Hungarian nationals in lack of entitlement.

The Hungarian health insurance is based on individual legal relationships. Every insured or entitled person acquires rights on its own. Following from this, health insurance provisions do not acknowledge the secondary rights of family members for accessing healthcare. The legal situation and rights of children and other relatives of the insured person shall be decided individually. The public healthcare system is operated by the National Health Insurance Fund (NHIF), via its central service and with the involvement

of its regional organs. Regionally the operation is based on the health insurance fund directorates of the capital and county government offices (Gellérné Lukács, É. 2012).

Beyond national and EU law, Hungary has a limited number of bilateral agreements which also give basis for entitlements of third-country nationals. Among the social security agreements these are the agreements with Montenegro and Bosnia-Herzegovina that give entitlement to Hungarian health care benefits. Additionally, foreign citizens coming from the below-enumerated countries are entitled to have access to the undoubtedly necessary in-kind benefits of the Hungarian health care system if their state of health urgently requires: Jordan, Angola, Iraq, Mongolia and Cuba.[2] For example in the field of healthcare, in the year of 2012 the Hungarian competent institution, NHIF, issued CG 111 forms (for Montenegro) amounting to 954, in relation to Croatia HR111 amounting to 29, HR112 amounting to 14. No forms were issued in relation to Bosnia-Herzegovina. On the receiving side, in 2012 insured persons of Montenegro applied for 117 medical treatments in Hungary while insured persons of Croatia for 661 cases. From 1 July 2013 Croatia became Member State of the EU; consequently, Regulation (EU) No 883/2004 supersedes the bilateral agreement in this field.

In sum, as a main rule, entitlement is granted on an individual basis for third country nationals, based on national law, EU law and bilateral agreements. Those holding long-term residence permits (both in terms of Directive 2003/109/EC[3] and as defined by national legislation) and third-country nationals (holding either long-term residence permits or time-bound residence permits) if they are economically active workers or self-employed possess entitlement. If the third-country national has no entitlement (e.g. the migrant has not lived in Hungary for at least one year or s/he is undocumented), s/he is required to provide for his/her medical coverage on private basis. Emergency health care, however, is provided by the Hungarian public system without previously controlling the entitlement, and if there is no entitlement, the costs must be reimbursed by the international migrant.

Methods

Various data types were collected and combined methodology (Zurc, J. 2013; Morgan, D.L. 2014) were utilised during the research due to the complex interrelationship between international migration and health (Gatrell, A.C. 2011). For the sake of comparability quantitative data from administrative sources were also collected. Additionally, field works were carried out according to the requirements of the holistic approach.

The basic macro data of the project came from the NHIF. The time interval of the data ranged from 2006 to 2010 and related only to the third country nationals who obtained public health care in Hungary. The private health care providers were out of the scope of the NHIF data base. The general characteristics of the data were as follows: full scope and register-based. Firstly, it meant that the inevitable distortions of representatives did not burden the validity of information. Secondly, we wished to create time series in order to discover short, medium and long term trends related to demographic, labour market and legal status. However, relevant economic, social and health features of third country nationals (gender, age, family status, educational attainment) have not been gathered by NHIF, unfortunately. Dual citizens access to health care benefits on the basis of their Hungarian nationality (cp. Serbia, Croatia, Ukraine, USA). Thus, data on third-country health care

[2] Jordan (incorporated by 15/1981. MT regulation), Kuwait (incorporated by 33/1979. MT regulation), People's Republic of Angola (incorporated by 17/1984. MT regulation), Iraq (incorporated by 47/1978. MT regulation), Mongolia (incorporated by 29/1974. MT. regulation), People's Democratic Republic of Korea (incorporated by 14/1975. MT regulation), Cuba incorporated by Law-Decree No 16 of 1969).

[3] Council Directive 2003/109/EC of 25 November 2003 concerning the status of third-country nationals who are long-term residents.

consumers relate to those who do not possess Hungarian nationality (Töttős, Á. 2013).

Two primary institutions formed the basis of the qualitative data collection. These are the Semmelweis University (Budapest) and the National Ambulance Service. Within the framework of the project 51 in-depth, semi-structured interviews with health care providers (doctors, nurses, administrative officers, managers) were carried out, in order to reveal the opinion of the stakeholders of these two institutions (Gyeney, L. and Kovács, G. 2012; Kereszty, É. 2012).

Research results

The unique database provided by the NHIF contains information related to third-country nationals possessing TAJ between the years 2006 and 2010. The database consisted of the public health care consumption of third-country nationals staying legally in Hungary. As methodological notes it is put forward that the private health care consumption of third-country nationals was out of the scope of this paper. The analysis was based on data of administrative nature deriving from full-scale register that already had archive data files as well. We distinguished the types of care: emergency health care (acute care), out-patient care, in-patient care, dental care and cash benefits. According to the advantages of the administrative data available the focus will be on citizenship matters in the following sections.

Utilisation of acute care services

The absolute number of third country nationals who received acute care in Hungary was 11,776 between 2006 and 2010. The distribution of acute care treatment by citizenship mirrored strong concentration by citizenship. 82 percent of the care recipients came from seven countries, namely, Ukraine, China, Vietnam, Serbia, former Yugoslavia, Russia and Mongolia. It is to be traced that the structure of third-country nationals echoes the block of former socialist countries of the past century. It is suggested that, albeit the research aims at describing current trends, it severely faces the heritage of the past, almost 50 years long history.

The nationals of Ukraine had the highest number (4,810 persons) within the mass of third-country foreign citizens. Chinese people were situated in the second place with a severely less absolute number (2,430 persons). Vietnamese citizens held the third place (1,204 persons). These third-country nationals were followed by the citizens of neighbouring countries like Serbia and former Yugoslavia (370 plus 881 nationals). The third country nationals from Russia had limited absolute number (770 persons). Finally, citizens of Mongolia could be seen with 376 persons.

The full scope register based statistics contain data on the costs of acute care. So it is possible to compute a financial indicator, too. The average price was 34,400 HUF (ca. 110 EUR) per acute care recipient per year (*Table 1*).

Table 1. Aggregate data on third-country national's medical care recipients in Hungary between 2006 and 2010

Type of treatment	Number of care recipients	Average cost per person, 1,000 HUF per year	Rate of the 7 most considerable nationalities within third-country care recipients, %	Rate of the third-country care recipients treated in the 7 most considerable receiving counties, %	Share of Budapest, %
Acute care	11,776	34.4	82	94	61
In-patient care	9,414	34.4	94	95	63
Out-patient care	72,306	3.0	79	85	57
Dental care	18,123	1.1	86	86	55
Cash benefit	3,961	81.6	93	94	66

Source: NHIF data and the authors' own calculations.

Utilisation of in-patient care services

Altogether 9,414 third country nationals received in-patient cares. The distribution of in-patient care treatment by citizenship mirrored stronger concentration compared to acute cares. 94 percent of the in-patient care recipients came from the same 7 countries, namely, Ukraine, China, Vietnam, former Yugoslavia, Serbia, Russia and Mongolia.

We received data about sex only in case of in-patient care. It is to be mentioned that Chinese and Vietnamese male had medical problems requiring in-patient care only to a very limited extent. Even urological incidents were negligible.

In case of female, gynaecological medical interventions, prenatal and newborn care were outstandingly dominant. The over representation of these two nations were the highest in the context of immigrant share by citizenship.

The statistics of NHIF contain data on the costs of acute care. The average price was 34,400 HUF per acute care recipient per year (see *Table 1*).

Utilisation of out-patient care services

Altogether 72,306 third country nationals got out-patient cares. This was the most numerous group among the types of treatment analysed. But the distribution of out-patient care treatment by citizenship was least concentrated. 79 percent of the out-patient care recipients came from the seven countries under investigation.

The full scope register based statistics contain data on the costs of each type of treatment. The average price of out-patient care was 3,000 HUF (ca. 10 EUR) per out-patient care recipient per year. This was one of the smallest average costs if we compare it with the average acute care and average in-patient care costs (both 34,400 HUF) (see *Table 1*). We did not discover peculiar cases from a citizenship point of view in the Hungarian counties.

Utilisation of dental care services

Altogether 18,123 third country nationals experienced dental cares in Hungary between 2006 and 2010. The distribution of dental care treatment by citizenship mirrored medium level concentration. It was an intermediary position between in-patient care (94%) and acute care (82%). 86 percent of the dental care recipients came from seven countries. The nationals of Ukraine had the highest number (6,617 persons) within the mass of foreign citizens. Chinese people were in the second place with much less absolute numbers (3,038 persons). Vietnamese citizens held the third place (1,718 persons). These nationals were followed by the citizens of former Yugoslavia (1,636 people).

The full scope register based statistics contain data on the costs of dental care. The average price was 1,100 HUF (ca. 3.5 EUR) per dental care recipient per year. This was the smallest average cost (see *Table 1*). The average value of the indicator seems too small at first sight according to the everyday experiences in Hungary but we did not explore peculiar aggregate dental cases from citizenship point of view through the lens of receiving counties.

Access to cash benefit

Altogether 3,961 third country nationals got cash benefit in Hungary between 2006 and 2010. This was the least numerous mass among the types of treatment analysed. The distribution of cash benefit gainers by citizenship echoed one of the strongest concentrations. 93 percent of the care recipients came from seven analysed countries, namely, Ukraine (1,317 persons), China (992 persons), Vietnam, (758 persons), former Yugoslavia, Russia, Serbia and Mongolia.

The average amount was 81,600 HUF per cash benefit recipient per year. This was the highest average cost among the types under investigation. We did not explore peculiar cases from citizenship angle in destination counties.

Discussion

The potential explanatory factors of the structure of citizenship are according to *Figure 1.* and relevant literature as follows. The significant weight of Ukrainians among the immigrants in Hungary is a satisfactory statistical determinant about the dominance of Ukrainian citizens in all sorts of cares. However, the deep causes are embedded in ethnic Hungarians living near the Hungarian-Ukrainian border and the discrepancies between the development stage of Ukraine and Hungary including public health care systems (Karácsonyi, D. and Kincses, Á. 2011). Ukrainian sort of explanatory factors do not work among the citizens of China and Vietnam. Their share is higher among all cases than their corresponding values as foreign citizens in Hungary. Their overrepresentation mainly correlates to their economic status. They work as self-employed persons. As an additional determinant we may add to the diaspora lifestyle formulating. It must be mentioned that the overwhelming majority of services for Chinese and Vietnamese was provided in the capital city of Budapest (Egedy, T. and Kovács, Z. 2010).

The share of citizens of former Yugoslavia and one of the successor states of Serbia was low comparing to their weight among third-country foreigners in Hungary. The role of ethnic Hungarian communities and their wealthy economic positions is enormous (Kincses, Á. and Takács, Z. 2010).

Contrary to the nationals discussed above Russian and Mongolian people are over represented among all types of care compared to their share among immigrants in Hungary. In the Russian case the value would be closely related to the former medical tourist activity, mainly the cases of acute care. The Mongolian case is completely different from the Russian.

The explanation is hidden in the phenomenon of work driven migration of Mongols. But it is not similar to the Chinese or Vietnamese cases because Mongolians are guest-workers that is not self-employed status (*Figure 1*).

On the basis of the analysis of in-depth interviews at National Ambulance Service and Semmelweis University Budapest (Gyeney, L. and Kovács, G. 2012; Kereszty, É. 2012), the following main observations can be discovered from the angle of time-space forces. Three main difficulties can be identified: problems of language, communication and culture; absence of medical history; questions of aftercare.

Language, communication and cultural factors

Except for ethnic Hungarian immigrants difficulties are discovered in different language knowledge between suppliers and providers of health care (Feith, J.H. *et al.* 2010; Eke, E. *et al.* 2011). The health workers are usually not been helped by an interpreter and/or cultural mediators in public institutions. We must distinguish for example the Semmelweis University's institutions from regional or local health care centres. Physicians working in clinics spent several years in foreign institutes so they have no communication problems in English and/or German. Although physicians speak quiet good foreign language(s) only few nurses and other healthcare employees have appropriate language skills. Interviewees agreed that it is important to speak at least one foreign language on basic level for health workers in an institution which has a lot of foreign patients everywhere in the country.

Religion is the main factor in the field of cultural differences among third-country nationals. Beyond the religious rules covering clothing, patients cannot pursue their everyday life (habit, rituals). For instance, amongst in-care patients, problems arise concerning one of the basic human needs, the meal.

The question of cultural differences puzzled our interviewees. According to the opinion of fthe irst group the medical staff handle this question with much more professional ethics of practice (according to the international requirements emerging on the culturally competent and diversity sensitive services) than a few decades ago. The second

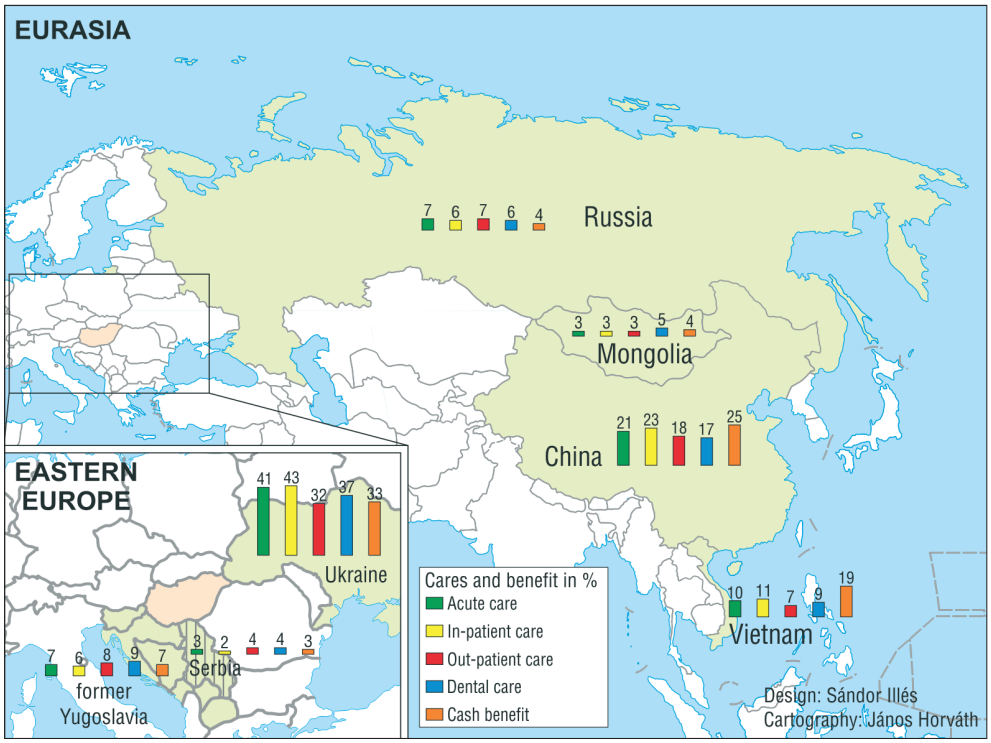

Fig. 1. Regional distribution of types of treatment in Hungary by seven most considerable sending countries, 2006–2010 in percent

group of interviewees found that the problems come from cultural differences which would not be eliminated or solved completely in the healthcare institutions (Crush, J. and Tawodzera, G. 2014). Majority of the interviewees agreed that there should be employees knowing or practicing particular cultures in such institutions because a lot of patients having cultural differences.

Role of medical history

The starting point of each physician-patient relation would be the initiation of the anamnesis (Rezonja, R. *et al.* 2010) except for the life-threatening situations in acute care. Misunderstanding and lack of medical records are the source of serious problems if foreign patients cannot understand the physician's questions and/or at first stage cannot provide any document on the previous troves (medical findings, records) belong to their own medical history. Moreover, medication of foreign patients should be problematic because drugs used by the patient at home or his/her previous destination are often unknown and/or unavailable in Hungary.

Aftercare

The patient's aftercare could be problematic in case of emigration, if she/he interrupts the connection with the previous health workers. This problem arises not only in relation to foreigners but also to nationals.
But the rapid development of information, transportation technology and telecommunication, the distinctive function of emigration

has been eroding. Circulation as the system of multiple and recurring international migration form emerging in the epoch of globalisation (Illés, S. and Kincses, Á. 2012; Matiscsák, A. 2013) may diminish the weight of this problem.

Conclusions

There is a strong interrelationship among three elements: eligibility to public health care, economic activity and lawful residence in Hungary.

The third-country migrants appear more frequently in the field of emergency care. Ukrainian, Serbian and ex-Yugoslavian nationals appear in relatively huge numbers in Ambulance Services, however, contrary to the previous expectations not in the border counties but rather in the capital city, Budapest. In the case of Chinese nationals obstetrical interventions are dominant. Probably, due to cultural differences the role of traditional Western medicine is less significant within the Chinese community.

A remarkable alternative can be the private (presumably Chinese) health institutions. The relatively big Vietnamese population appears solidly in the out-patient and in-patient care and they hardly use the National Ambulance Service. Russian and Mongolian citizens are over represented among all types of care compared to their weights within third-country nationals in Hungary. In the relatively high Russian values medical tourist activity plays a role.

The explanation of Mongolian values hidden in the phenomenon of work driven migration because of Mongols who are mainly guest-workers in Hungary.

When language, communication and cultural barriers do exist, patients tend not to reach primary health care or preventive medical treatments but immediately the special care. The high territorial concentration of treatments narrow down the effective function of public health care system for third-country nationals.

In the near future we would like to embed our research results in a broader scientific context, but we have found few opportunities to perform international comparisons. The investigation of public and private health care systems utilised by international migrants on macro scale is fundamental worldwide. The emerging databases across countries may be important resources for international comparisons and may allow us to test the robustness of the findings of this Hungarian case study.

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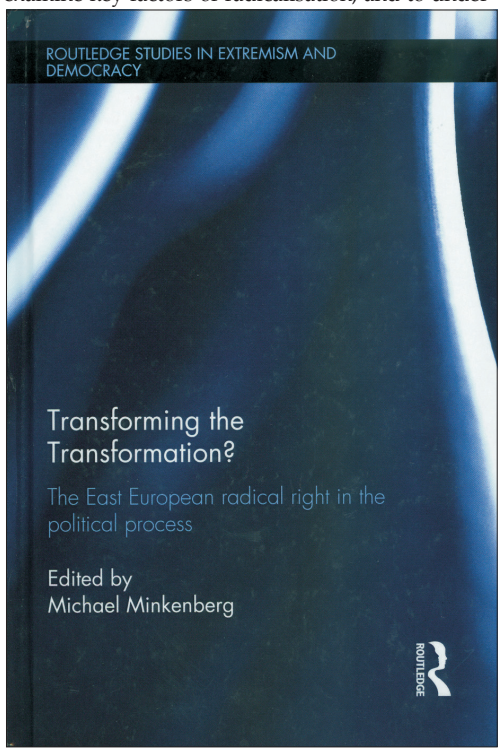
BOOK REVIEW

Minkenberg, M. (ed.): Transforming the Transformation? The East European radical right in the political process. London–New York, Routledge, 2015. 376 p.

The transformation of the post-socialist region is a dynamically growing segment of political geography literature. Furthermore radicalism, more specifically the recent strengthening of the radical right has been becoming a hot issue. This book gives a closer insight to the role of radical right parties in the region, regarding their involvement in the political processes of the new democracies. Authors of the volume analyse the interaction of the radical right with other political actors (parties, governments, interest groups, syndicates) and the effects of such interaction on agenda-setting and policies in sensitive policy fields like minorities, immigration, law and order, religion, territorial issues, democratisation, privatisation.

After the fall of communism many grievance came to the surface and many economic problems appeared which provided a fertile breeding ground for populist radical right parties. The main aim of the book is to examine key factors of radicalisation, and to understand radical right political mobilisation in general and its impact in Central and Eastern Europe with a measurable outcomes (policies, election results, regime changes etc.).



The book consists of four major parts and contains altogether fifteen chapters. The first part of the book sets the conceptual framework and introduces a broad discussion about the location of the radical right in the political spectrum. Klaus von Beyme addresses the theoretical as well as macro-political and social contexts of the phenomenon from a pan-European perspective. Then Michael Minkenberg focuses more on the East European radical right movements by specifying their distinct ideologies (compared to West Europe) as well as the patterns of success and failure in elections and the role of non-party formations, movements of the radical right. The East European radical right is contextualised historically and structurally. The author highlights the volatility of the party systems, the legacies of the non-democratic past and the particular ethnic and cultural make-up of the countries.

In the second part of the book Lenka Bustikova deals with the transformation of minority issues in the region, starting with the observation that the repressive regimes in Eastern Europe before 1989 hindered the democratic aspirations of many, at the same time curbed expression of group animosity, thus preventing outright attacks on minorities. After 1989 this delicate balance was disrupted as new democracies transformed their economic and political systems, thereby allowing a third transformation. She claims that in states with resolved ethnic boundaries, the expansion of minority rights generated violent responses.

Andrea Pirro in the fourth chapter looks more closely at the impact of radical right parties in Bulgaria, Hungary, and the Slovak Republic and their contribution to shifts in the party system as far as minority issues are concerned. In these countries the mainstream competitors' response to the radical right is gradual and mostly passive and there are not cordon sanitaire between the radical right and mainstream parties.

Bartek Pytlas and Oliver Kossack in the fifth chapter prove that the active political participation of radical right parties in the sphere of issue competition causes spatial as well as narrative shifts to the right

among their mainstream competitors and in the East Central European party system in general. Moreover, the radical right parties influence the salience of conflicts along the socio-cultural axis.

The last comparative contribution of the second part of the book focuses on the Baltic republics. According to Daunis Auers and Andres Kasekamp the three Baltic States share very similar historical trajectories such as the experience of the Russian Empire, and after a brief independence, incorporation into the Soviet Union before regaining independence in 1991. The Estonian and Latvian party systems and elections can be characterised by deeper ethnic cleavages which heavily influences the political discourse. The Estonian party system is more consolidated and less volatile than the Latvian one, and it provides less opportunity for radical right parties to succeed. In contrast, the main reason for the weakness of the radical right in Lithuania is the absence of a large and influential minority (the ratio of Poles is only 6.6%). On the other hand, the mobilisation of radical right is strongest in Latvia, where radical nationalists try to marginalise Russians and other Russian-speaking in-migrants from the Soviet era.

The third part of the book is the largest with four case studies on East Central Europe. In the seventh chapter, Dominika Kasparowicz tackles the Polish case. This chapter distinguishes two types of relations between radical right actors (internal and external) which inform their impact on their political environment. Although the book was written by sociologists and political scientists there are also many geographical factors e.g. in Poland the radical right LPR (League of Polish Families) performed best in the traditionally most religious parts of the southeast.

The eighth chapter is the most relevant for Hungary. The evolution of contemporary Hungarian radical right is interpreted by Péter Krekó and Gregor Mayer. They discuss the interaction between the mainstream conservative ruling party FIDESZ and the far-right party Jobbik, along with its non-party formations such as the Hungarian Guard. They claim that FIDESZ has been 'transforming the transformation' and implementing some of the policy solutions taken from the manifesto of Jobbik. The specific character of the Hungarian case is that the ruling party has a constant fight against the international political establishment and against the 'colonisation' of Hungary. So the mainstream conservative party FIDESZ tries to withhold and compete with the radical right and use Jobbik as an instrument to reach its political goals and Jobbik served FIDESZ as a 'pioneer' to mark out new pathways in the ideological and political sense, that prime minister Viktor Orbán could then follow afterwards (for example in the case of Hungarian Dual Citizenship Law, the 'Eastern Opening' and so on).

In the ninth chapter Miroslav Mares analyses the direct and indirect impact of the radical right on the transformation and (de)consolidation of democracy in the Czech Republic. Klaus von Beyme identifies three core fields of democratic consolidation: (1) the institutional conditions of consolidation (national borders, choice of governmental system, option for electoral system), (2) the consolidation of democracy (which means free and active civil society, autonomous political society, rule of law, democratic loyal bureaucracy, market economy), (3) the consolidation of the party system (a minimum of extremism, clear cleavage structure, division of territorial and functional representation, decline of factionalism and voter's volatility, coalition building). Extremism is conceptualised as a negative consequence of these processes. In the Czech case it has only limited importance because no radical right party participated in a coalition government in the post-1989 era. In comparison with Hungary, Poland, Romania and Slovakia a large part of the extreme right is not religiously profiled.

The historical legacy of the 'fight against pan-Germanism' was and continues to be promoted by a section of the extreme right as well as by the 'patriotic left', which is interconnected with the extreme left/communist spectrum. Pan-Slavic groupings are affiliated with the extreme left as well as with the extreme right. Radical right has been divided into several ideological streams, predominately (1) Czech nationalism with an anti-German orientation which has its roots in the Hussite movement of the 15th century and (2) neo-Nazism with a pan-Aryan and German friendly orientation. They were opponents of the dissolution of former Czechoslovakia and they had irredentist demands on Carpathian Ukraine.

In neighbouring Slovakia the radical right label 'Czechoslovakism' a political concept invented to allow the Czech to dominate the Slovaks. But the biggest threatening enemy is Hungary. Typically the northwest region of Slovakia is the most anti-Hungarian, which phenomenon has been labelled the 'bubble effect' and provides empirical evidence that anti-Hungarian feelings do not stem from everyday contacts, but rather from resentments which is politically highly instrumentalised. Olga Gyárfásová and Grigorij Meseznikov focus on the social context of radicalism, its agenda setting, and trends in popular support, thereby distinguishing societal impact from political and policy impact of the radical right. In such situations, nationalism serves as a classic 'conveniently available' mobilisation tool. Radical right is mobilising collective identities and motivating and encouraging people to distinguish themselves from others.

The SNS (Slovak National Party) was the only relevant political party in Slovakia which rejected Slovakia's membership in the NATO, using anti-globalist and anti-Hungarian rhetoric as the principle tool of voter mobilisation. In Slovakia, similar to Hungary and Poland, the government party does not

use cordon sanitaire and adopted some of the standards set by SNS. The SNS is the only party in Slovakia that has succeeded in returning to Parliament after a previous electoral failure and it was member of coalition governments on three occasions between 1990 and 2012. Slovakia sets a good example of an illustrative country case. The structural opportunities for an emerging radical right are also affected by its ethnic heterogeneity, combination of cultural, and socio-economic appeals, as well as the nature of conflict in the early time of transition. Moreover, Slovakia was facing a three-fold transition (political, economic and nation-state building which was also highly relevant, more so than in the Czech Republic after the split of Czechoslovakia in 1993).

The fourth part of the book focuses on the south eastern countries of post-communist East Central Europe. Gabriel Andreescu identifies the Romanian Orthodox Church as a new player on the far right by introducing the concept of active and passive resources of radical right politics. The specific kind of nationalist-communist power was the basis for the Party for Greater Romania (PRM). While the PRM gradually declined after 2000, the radical right ideology did not vanish but found other way to the society paved by the Romanian Orthodox Church. The Church has got dominant position in religious education and fuelled by the anonymity and range of the internet, as evidenced by the new relationship between the Church and the state in the 2000s. Religious education actively contributes to receptivity of young people towards radical ideas. As a result 26 percent of the students considered democracy as an inappropriate political system for Romania in 2001. In the early 2000s on the eve of EU accession the main political forces followed containment policy towards the radical right which caused the marginalisation and then elimination of extremist parties from mainstream politics.

Bulgaria became EU member state in 2007 together with Romania. But it has got a more peripheral position and a closer connection to the Near East. Kiril Avramov in the thirteenth chapter studies the emergence and development of the Bulgarian radical right after the break-up of the bi-polar party competition in 2001. The public apathy, a desire for retribution, deeply embedded institutional mistrust; the general feeling of pessimism coupled with fear of the rise of radical Islam provided opportunity for marginal populist radical right parties and movements. The chapter argues that the mainstreaming of the radical right Ataka (Attack) opened the way for speedy growth of a number of other radical right formations on party and sub-party levels.

Alina Polyakova in the next chapter deals with the issue how Freedom and various Ukrainian nationalist groups negotiated their interaction in two western regions, Galicia and Volyn. The cooperation which came to existence in Galicia but not in Volyn, depended on the size and strength of subcultural networks, the strength of social networks between the party and subcultures, and the appeal of historical legacies of radical nationalism. Between 2007 and 2012 Freedom saw a rise in support across many Ukrainian districts; mainly in the central Ukrainian regions but even in the farthest east regions (Luhansk, Kharkiv), where it has no historical or cultural foundations. Historically, Galicia has been the heartland of Ukrainian nationalism. As EU enlargement has progressed further to the East, Ukraine became the setting for geo-political struggles between EU and Russia, but Freedom, with its populist anti-establishment discourse will likely gain support, and the future of Ukraine's democratic transformation remains uncertain.

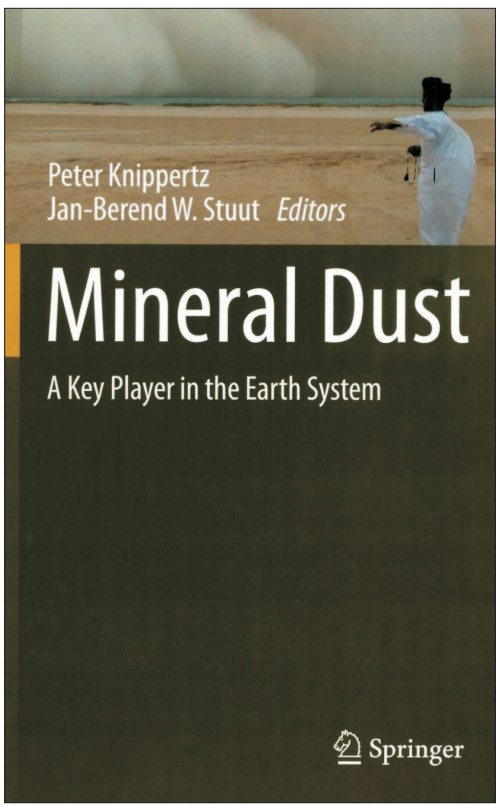
To sum up, the case studies of the volume revealed the negative externalities associated with the democratic transition in Central and Eastern Europe. However, it is not an easy task to define ideologically the radical right parties in the investigated countries. The Czech Republic shows a particularly interesting picture, because the right-wing radical parties perform poorly in the parliamentary elections and they have never played a role in any coalition government. This means that the Czech Republic is the most successful in democratic transition and consolidation. However, this is not completely true as the book also mentions that nationalism and islamophobia are still present at the presidential level. Also, it is a difficult question if we can clearly identify Jobbik as a radical right party, and if Jobbik in Hungary changes its present profile by moving towards the centrum *('néppártosodás')*, than it might bring other far-right parties appearing.

Zoltán Bertus

Knippertz, P. and Stuut, J.-B.W. (eds.): Mineral Dust – A Key Player in the Earth System. Springer, Dordrecht–Heidelberg–New York–London, 2014. 509 p.

Windblown dust deflated from arid-semiarid areas and aeolian dust deposits are standing in the focal point of environmental scientific studies. Huge amount – billions of tons – of mineral dust is emitted annually from the major source areas. Rapidly growing body of scientific publications recognized and confirmed that mineral dust has considerable impacts on numerous atmospheric, climatic and biogeochemical processes, and it plays an important role in the modification of global energy and carbon budgets. Atmospheric dust has also an effect on human health, agriculture, traffic and industrial production. Mineral dust related investigations are regarded as truly interdisciplinary studies. The editors, Peter Knippertz and Jan-Berend W. Stuut, well-known experts from various perspectives of dust storms and mineral dust and the 60 contributing authors give a comprehensive overview of the full range of mineral dust research.

The 509 (+25) page book is organized into four main thematic sections: characteristics of mineral dust particles; global dust cycle; impacts of dust on the Earth system; and aeolian dust deposits as climate archives. Chapter 1 ('Introduction') is an overview by the two authors on the importance, history and recent developments of dust research, so it gives a short introduction into the topic.



In Chapter 2 Dirk Scheuvens and Konrad Kandler provide a detailed discussion of chemical composition, shape and morphology of particles and the grain size distribution of mineral dust with a special attention to individual particle analysis. Climatic (e.g. radiative forcing effects), other environmental (e.g. nutrient supply) and human health effects of particles with different physicochemical properties are also discussed in this part. Thereby, this section provides a foundation for subsequent chapters. Chapter 3 by Daniel R. Muhs *et al.* discusses the geographical distribution of recent and past global dust source areas. The most widely used methods (field studies, geomorphological perspectives, satellite observations, back-trajectory analyses, geochemical and isotopic methods) to identify dust source areas are properly summarized in this part. Chapter 4 by Alex R. Baker *et al.* is dealing with the so-called atmospheric ageing of freshly emitted particles. After the emission from the source area, mineral dust is exposed to a number of processes that alters its properties. These physical and chemical processes have an effect on dust reactivity, hygroscopicity and atmospheric composition, which in turn affects the direct and indirect climatic impacts of ageing-modified atmospheric mineral particles.

Chapters of Part II describe global dust budget via discussion of emission, transport and deposition mechanisms. In Chapter 5 Béatrice Marticorena introduces our knowledge of dust production processes and wind-surface interactions leading to dust emission episodes. Physics of main stages of dust emission (erosion threshold, saltation flux and dust production by sandblasting) is overviewed properly in this section. Peter Knippertz discusses the main meteorological aspects of dust storms in Chapter 6. Meteorological situations leading to stronger near-surface winds which exceed the local emission threshold are identified and classified in this part of the book. According to the findings, key meteorological drivers of intense emissions are connected to large-scale monsoon-type flows, mobile synoptic-scale systems, gust fronts of convective storms and intense dry convections of daytime planetary boundary layer. Once dust is entrained into the atmosphere spatiotemporal distribution of dust-loaded air-masses should be known as accurate as possible. Isabelle Chiapello in 'Dust

Observations and Climatology' section (Chapter 7) examines the different methods of observations from ground-based networks to remote sensing of satellites. Inter-annual variability and trend analyses of dust observation time-series allow us to gain insight into the climatological aspects of dust cycles also from a local, regional and global viewpoint. In Chapter 8 Gilles Bergametti and Gilles Forêt discuss the dry and wet dust depositional mechanisms. These processes determine the atmospheric lifetime of particles and the dust accumulation budget of depositional areas. The authors describe the physics of strongly size dependent removal processes, the measured data of field campaigns and also the uncertainties of simulated dust mass budget. Ina Tegen and Michael Schultz summarize in Chapter 9 the possibilities of application of numerical models in dust research. Computer models are ideal tools to investigate these previously mentioned detailed processes; however, there are also some shortcomings of the simulations (e.g. numerical models are often unable to reproduce the small-scale wind events). Angela Benedetti and her 23 co-authors provide in the Chapter 10 an overview on the operational dust predictions which became prominent in the recent years. Dust models applied in operational forecast systems produce daily predictions of dust fields.

The third part of the book is dealing with the impacts of mineral dust. In Chapter 11 Ellie Highwood and Claire Ryder discuss the radiative effects of atmospheric dust. This direct impacts (reflection, absorption, scattering) are dependent on the optical properties and so are sensitive to size and composition of dust particles. Dust optical thickness, single-scattering albedo, real and imaginary refractive index determination and measurement methods and applications are also discussed in detail in this section. Athanasios Nenes *et al.* explain the indirect impacts of atmospheric particles via microphysical interactions with clouds (Chapter 12). Mineral dust acting as cloud condensation nuclei and ice nuclei has an important effect on cloud formation, optical properties of cloud and also on precipitation. General microphysics, the role of ageing and climatic effects are discussed in this chapter, while a more comprehensive overview of dust radiative forcing upon climate is given by Ron L. Miller *et al.* in Chapter 13. Biogeochemical impacts of dust on another key climatic component on the global carbon cycle is explained in Chapter 14 by Tim Jickells *et al.* Deposited dust material provides a nutrient supply to terrestrial and marine ecosystems and enhances the primary production. Relationships between atmospheric mineral dust and human health are discussed by Suzette A. Morman and Geoffrey S. Plumlee in Chapter 15. These effects are ranging from respiratory diseases (asthma, nonindustrial silicosis) caused by the smallest size fractions of atmospheric particulate matter to bacterial meningitis outbreaks in the 'meningitis belt' of sub-Saharan Africa.

Last part of the book is concerned with aeolian dust deposits as climate archives. The most important terrestrial dust archives are the 'loess records', which are explained in detail by D.R. Muhs *et al.* in Chapter 16. All of the most important loess regions are introduced in this section after a short description of general characteristics of loess and loess stratigraphy. Subaquatic dust deposits are discussed by J.-B.W. Stuut in the Chapter 17, while dust material found in ice core archives is explained in the last section (Chapter 18) by Paul Vallelonga and Anders Svensson.

The overall impression of this well-produced, high-quality work is absolutely positive. This book will undoubtedly find wide relevance and it is an essential handbook for scholars with an interest in Earth Sciences including geology, geography, chemistry, meteorology and climatology.

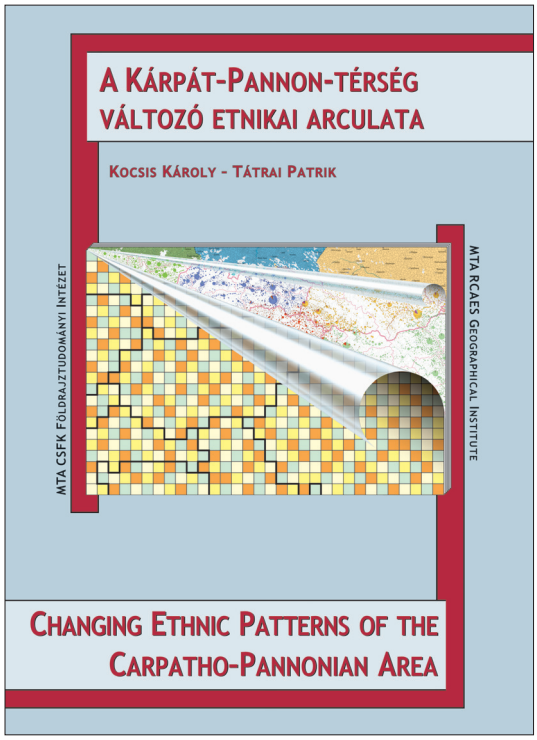
György Varga

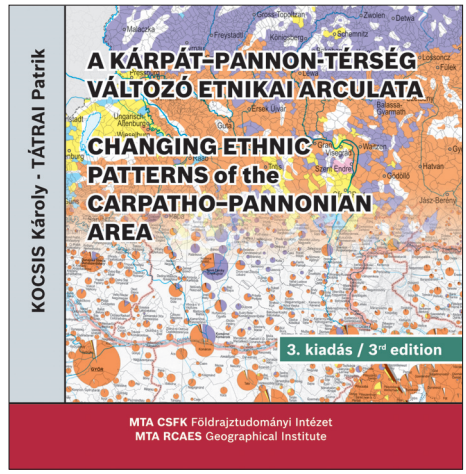
Changing Ethnic Patterns of the Carpatho–Pannonian Area from the Late 15th until the Early 21st Century

Edited by: Károly KOCSIS and Patrik TÁTRAI

Hungarian Academy of Sciences, Research Centre for Astronomy and Earth Sciences
Budapest, 2015

This is the third, revised and enlarged edition of the Changing Ethnic Patterns of the Carpatho–Pannonian Area. The work is georeferenced and comes with a CD-appendix. The collection of maps visually presents the ethnic structure of the ethnically, religiously and culturally unique and diverse Carpathian Basin and its neighbourhood, the Carpatho–Pannonian area. The volume – in Hungarian and English – consists of three structural parts. On the main map, pie charts depict the ethnic structure of the settlements in proportion to the population based on the latest census data. In the supplementary maps, changes in the ethnic structure can be seen at ten points in time (in 1495, 1784, 1880, 1910, 1930, 1941, 1960, 1990, 2001 and 2011). The third part of the work is the accompanying text, which outlines ethnic trends in the past five hundred years in the studied area. This volume presents the Carpatho–Pannonian area as a whole. Thus, the reader can browse the ethnic data of some thirty thousand settlements in various maps.





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CHRONICLE

In memoriam Saša Kicošev (1960–2015)

The Hungarian community of geography was depressed by the news that Saša Kicošev, full professor of the University of Novi Sad, passed away on 29 May 2015. Born in Novi Sad on 18th of November 1960, he graduated from the Faculty of Natural Sciences, Geography Major in 1983 in Novi Sad. After that he obtained his Master's degree in 1987 at the Faculty of Natural Sciences in Belgrade. His Master thesis was titled *Socio-demographic and geographical characteristics of ethnic Slovaks in the SAP Vojvodina*, which already indicated his future research interest. After receiving his master degree, he started to teach in primary schools in the vicinity of his home town and later in Novi Sad. In 1989 he received his PhD at the Faculty of Natural Sciences, University of Novi Sad, after defending his doctoral thesis with the title *Geographic and demographic characteristics of ethnic Romanians in SAP Vojvodina*. He started his academic career in 1989 as an assistant lecturer and later he was promoted as an assistant professor in 1991 and as a full professor in 2001 at the Department of Geography, Tourism and Hotel Management, Faculty of Natural Sciences, University of Novi Sad. He was also for a time-being lecturer at the University of Skopje and at the University of Niš.

After its foundation in 1997, he became the Head of GIS Centre at the Institute of Geography in Novi Sad. Between 2002 and 2012, he was the Head of the Department of Hotel Management, and since 2012 the Head of Human Geography Chair as part of the Department of Geography, Tourism and Hotel Management. He mentored 118 diploma papers, 5 master theses, 6 specialist papers, 7 magister theses and 15 doctoral dissertations. He also participated in many extra-curricular activities with the students of the department and he was the organizer of several fieldtrips and practical trainings abroad.

Saša Kicošev's research interest covered many fields of human geography including spatial planning, demography, geography of population, geography of tourism, ethnic geography, political geography, regional geography, environment studies and GIS. In these fields he (co-)authored 12 books (mostly textbooks), 234 scientific papers and several other publications like ethnic maps and regional atlases. He also held more than hundred scientific presentations. In his works he focused mainly on his home region, Vojvodina; analysed its demographic, ethnic, social and economic processes; investigated its special multiethnic characteristics. He was also interested in the geopolitical issues of the Balkans and its demographic consequences.

He was actively involved in international co-operations mainly with colleagues from the neighbouring countries. Beyond teaching in some of these countries, he had close links to universities and academic institutions in Greece, Romania (Cluj-Napoca and Timişoara), Bulgaria (Sofia), Macedonia (Skopje), Hungary (Budapest) and Switzerland (Bern). His intense cooperation with colleagues from the Geographical Institute of the Hungarian Academy of Science and the Eötvös Loránd University in Budapest resulted in joint scientific projects (TRANSMIG: Integrating (trans)national migrants in transition states, 2009–2012) and several joint papers. He became member of the editorial board of Hungarian Geographical Bulletin in 2009 and supported the cooperation and joint publication activities between Serbian and Hungarian geographers also in this capacity. In addition, he was member of the editorial board of Institute of Geography – Collection of Papers and the editorial board of Human Geographies Journal in 2013. He was also member of the Committee for Social Sciences of Matica Srpska, the executive board of Serbian Geographical Society, the European Association for Demographic Research and the Association of Balkan Statisticians.

We Hungarian geographers will always keep a good memory of Saša Kicošev, as a distinguished scholar and close friend of Hungarian colleagues.

Patrik Tátrai

GUIDELINES FOR AUTHORS

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