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Institute of regional geography in Leipzig

Antonín VAISHAR

INSTITUTE OF REGIONAL GEOGRAPHY¹ from Leipzig, Germany became another important foreign partner to the Brno Branch of the Institute of Geonics, Czech Academy of Sciences. The INSTITUTE was founded 1 January 1992 within transformation of the former GDR Academy of Sciences and today it is funded half by German federal government and half by the Saxon Ministry for Science. Founding director was Prof. Hanns J. BUCHHOLZ from Hannover, who was replaced with Prof. Alois MAYR from Münster in the end of 1994.

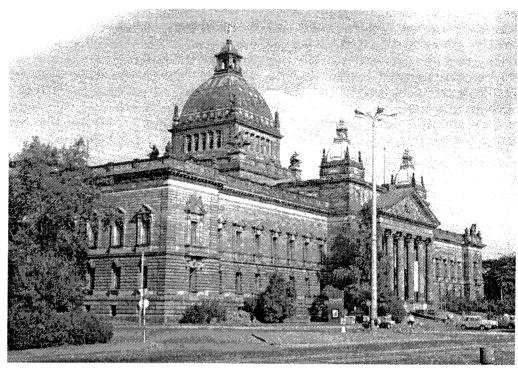
Research studies made in the INSTITUTE are regularly concentrated on Germany and Europe, namely on the macro-region of central and eastern Europe, which is under the process of transformation. This issue is one of points of mutual concern to both partners. As to specialization, the INSTITUTE employs mainly human geographers and its research activities are focused on the following problems:

- analysis of spatial structures, spatial potentials and development processes in their regional differentiation,
- analysis of spatial and structural interactions between social, economic and political systems in spatial consequences of European integration,
- theory of regionalization,
- regio-geographical inventory.

The INSTITUTE links up both with traditions of the German geographical institute and its predecessors (1896-1968) and with regio-geographical works of the Institute for Geography and Geoecology (1969-1991). All these institutions resided in Leipzig, too.

Scientific part of the INSTITUTE divides into two scientific divisions: German national history and geography (Head-L. SCHARMANN), and Regional geography of Europe (Head-F. GRIMM). Other workplaces of the INSTITUTE are as follows: department of cartography (K. GROSSER) whose major task consists in working out graphical parts of publications issued, geoinformatics (O. MARKGRAF) which works with ARC/INFO system, and one of the most popular geographical libraries in Germany (I. HOENSCH) with 177 thousand bibliographical units and 800 exchange partners. There are altogether some 35 workers working in the INSTITUTE, of whom 15 are scientists.

Within not even two years of its existence the INSTITUTE can boast with considerable amount of work done. This can be documented by publications issued: it is a quarterly journal EUROPA REGIONAL in German with English, French, Spanish and Russian summaries. There have been four issues up to now, devoted to various regions in Germany, eastern and western Europe. Very impressive in terms of graphics is a small geography of Germany "Das vereinte Deutschland" of 88 pages which is to be shortly followed by a monograph "Deutschland in Europa". Another publication series is "Daten - Fakten - Literatur zur Geographie Europas" whose first issue "Natur, Wirtschaft und Oekologie der Stadt Kaliningrad" was devoted to the less known Baltic region of Russia. The INSTITUTE has taken over the series of the former Institute for Geography and Geoecology "BEITRAEGE ZUR REGIONALEN GEOGRAPHIE" having equipped it with new A4-size graphics. Up to date the series includes two monographs: "Landwirtschaft in Deutschland" and "Zentrensysteme als Traeger der Raumentwicklung in Mittel- und Osteuropa". The second publication deserves more attention since it includes the territory of our country.



Leipzig. Historical building of the Imperial Court (well-known from the Dimitrov-action), where the Institute of Regional Geography is settled till this time. It is to be removed to a new modern building in the suburb Paunsdorf.

Cooperation between the Brno Branch, Institute of Geonics, Czech Academy of Sciences and the INSTITUTE for Regional Geography, Leipzig is expected to bring a contribution to exchange of scientific information, support of contacts in partner countries, possibly also joint research of border land regions. Personal contacts between specialists of the both institutions are a matter of course. Apart from common regional interest in central and eastern Europe, junction points seem to be also some material problems related to transformation of the society.

Systems of settlement centres as bearers of spatial development in eastern and central Europe

The publication was made in close collaboration of more than fifty geographers from 14 countries of the region under study. The analysis includes former socialist countries of central and eastern Europe the area being demarcated by right-bank Ukraine, Baltic countries and Pskov and Leningrad districts of Russia including St. Peterburg in the East, Slovenia, Hungary and Romania in the South. The monograph consists of two parts of which the first brings evaluation of international structures and trends, the second one tackles systems of centres in individual countries and regions. Objective of the study was to provide a certain analysis to the expected development in transforming countries of eastern Europe, and to evaluate opportunities and risks of this development from the viewpoint of European Union and Germany. Taking into account the fact that ten of the thirteen countries under study came into existence only after 1990, the situation was brand new. Authors followed out of a justified presumption that prospects of centres are decisive for future development in regions. The analysis was made of political and administration functions, other important functions in management, science and education, culture, communications and leisure activities, transport functions and potential of the population.

One of results of this work was division of the centres into five categories. Category A includes 1-million capitals such as Prague or St. Petersburg. Category B includes Baltic capitals and centres of Slovenia, Slovakia and Moldavia along with several other centres

incl. Brno whose relatively high classification is given namely by specific functions (trade fairs, six universities, seat of some government bodies), to lesser extent then by transport function. On the other hand, Brno belongs to the smallest centres of its category in terms of population numbers and would not bear comparison with capitals such as Odessa, Riga or Lódż. According to German classification system, its level would be rather that of Bremen or Nürnberg: however, these German towns exhibit fully developed functions while the towns of eastern Europe only combine actual status with their potential. Deeper and more complex research of centres significant from German point of view has been suggested that should concern capitals, Baltic harbour towns, Poznań, Brno and Lvov.

The second largest Moravian town of Ostrava has been included into category D together with Pilsen, Olomouc and Zlín then in category E. Limiting factors in the case of Ostrava were those of environmental character. Disputable can be considered allocation of Olomouc to the same category as Zlín with its extreme traffic situation and one-side development. Moravian centres of the 3rd order include Jihlava, Znojmo, Opava and Šumperk.

Territorial historical structure of the Czech Republic seems to be rather a difficult problem for the authors, which is quite understandable. Yet, the sentence "Lands of the Czech Crown contain -in addition to Bohemia in narrower sense (Prague) also the lands of Moravia (Brno) and Silesia (remains from the 18th century with the capital of Olomouc)" is incorrect². This minor rebuke should not degrade significance of the work. It is rather meant for us to pay more attention to our own terminology if we do not wish somebody else from abroad to do it with having no detail knowledge of our historical development³.

The work brings attention to the fact that traffic system in the Czech Republic has to be reorganized in connection with the split of Czechoslovakia and Soviet Union and with getting closer to western economic systems. It also comments upon the necessity of finding a solution to serious environmental problems of entire northern half of the territory. It is apparent that these aspects and their long-term affects will show later at forming the network of residential centres. A relatively high standard is appreciated at area and urban planning experience exhibited by Czech institutions: here the publication mentions Research Institute of Building and Architecture, TERPLAN, Geographical Institute of Czech Academy of Sciences, and the centre for Theory of Architecture and Development of Residential Centres at the Institute for History of Arts, Czech Academy of Sciences. Unfortunately, some of these organizations do not exist any longer.

A territory of special interest for our German partner seems logically to be the Bohemian-Bavarian and Bohemian-Saxon border lands.

Leipzig - Americanization of the City?

It is quite understandable that Leipzig stands in the centre of attention for experts from the Institute of Regional Geography. The town of Leipzig - one of the most important and

- Czech Republic is historically divided into Bohemia, Moravia and the part of Silesia. Capital of Bohemia has always been Prague whilst two Moravian towns of Brno and Olomouc used to compete for capital function in Moravia. The Czech part of Silesia which is not continuous territorially, has never acted as a separate land. The system of lands does not exist at present, and therefore, it is not possible to speak of capitals. Significance of the individual lands is seen in cultural and ethnic values.
- The terminology seems to be clear in German and Roman languages. In English language the Czech Republic or Czechia consists of two parts: Bohemia and Moravia. Analogically, Tschechische Republik in German language (sometimes Tschechien or Tschechei) consists of Böhmen and Mähren, in French the Republique Tchéque (Tchéquie) of Bohéme and Morave. The basic problem seems to remain in the Czech language which does distinguish Bohemia and Moravia, not having a special name for the entire state formation. The names of Czech Republic or Czechland do not satisfy the need since the solution is not properly legible to foreign countries and the problems seems to be contained in the adjective.

largest cities in the pre-war Germany, financial and business centre, residence of imperial court, centre of polygraphy and culture - used to be the second largest town of the former GDR until unification of Germany. However, its financial and commercial role has long ago been overtaken by towns in western parts of the country such as Frankfurt. Leipzig has become a centre of heavy industry and connects to open-cast mining of brown coal and chemical industries, which have gradually led to devastation of natural environment. The town has retained its tradition of trade fairs: nevertheless, its importance has been restricted - similarly as in the case of Brno - by liquidation of market mechanisms.

The unification of Germany came at the time when Leipzig was considered to be one of the largest industrial centres. Its urbanized core was too small as a result of underestimation of the necessity of developing services in conditions of centrally planned economy. The town core was surrounded with a band of blocks of flats from Gruender epoch, which combined with industrial plants at some places. In some peripheral central zones the housing facilities were falling into disrepair. In contrast, panel neighbourhoods were erected for tens of thousand people in outskirts of the town with all possible disadvantages known in this type of housing. Transport was ensured mainly by the dense and large-capacity tram network with additional bus lines and the town elevated railroad line. Internal town roads were not modernized since their condition seemed to be sufficient for the then traffic systems.

The unification of Germany has brought to Leipzig the transition from one type of socio-economic system to another in practically an overnight time. Nearly all mines (with only one single exception) were closed, the brown coal based chemical industry extincted. On one hand, this fact showed to have positive consequences from environmental point of view, and the danger of mining expanding to the very city limits was suddenly averted. However, consequences in terms of employment rate were not so favourable. The majority of other manufacturing companies (perhaps with the exception of building industry) could not stand competition of West German firms and employment rate in the industry marked a rapid fall. Number of inhabitants, which had been decreasing for some time, crossed the half million limit in downwards direction in 1992. Some experts expect further considerable reductions in population due to the lower employment rate in industry as town-forming function.

The town traffic system failed. People living in the eastern parts of Germany where they used to wait for cars many years started frantical purchasing of second hand western cars which immediately overloaded narrow streets of the inner city. Trams made in Czechoslovakia can make their way through step-by-step moving motorcades only with difficulties. Atmosphere in the town, improved due to restrictions and prepared ban in using brown coal, was again impacted by smog generated by irregular movement of automobiles. Although the bicycle becomes a means of traffic which seems to be better than the car from the viewpoint of operation and parking in the inner city, Leipzig inhabitants feel that the operation of their new passenger cars has become a part of their new identity.

Extensive building can be seen in some urban parts close to the centre. Old blocks of flats are being taken down and new administration buildings rapidly grow in their places. Developers believe that they will all be used for banking houses, offices and other institutions. Leipzig suddenly recalls its pre-war function as that of a banking centre in Germany. Prices of real estates rapidly increase. The centre "North" is being finalized, the centre "East" is under construction, the centre "South" is being planned. (Valuable urban park on the confluence of Elster and Pleisse rivers is situated westwards of the centre.) However, other neighbourhoods with old blocks of flats at less attractive places namely eastwards of the centre hopelessly fall into ruins.

Most surprising is hasty development of suburbanization that has appeared almost from one year to another. The principle qualitative change was stimulated by construction of large manufacturing and wholesale facilities (Gewerbepark) and huge shopping centres outside the town on lands adjacent to the motorway. Schkeuditzer Kreuz has become a natural crystallization core: it is a highway crossing Berlin - Munich and Halle - Dresden (which should be extended at both sides). It is located between Leipzig and

Halle, near the international airport of Schkeuditz. From the national German point of view the area is unusually attractive with central position as related to the old-new federal land. Other areas such as Sachsenpark and Saalepark northwards and westwards of Leipzig, respectively, have been made use of for similar purposes. The latest facility of this kind is being built at Paunsdorf suburb which should also become a new seat of the Institute für Länderkunde next year. The Leipzig Exhibition Centre is being moved closer to the motorway including the infrastructure, too, with costs for this displacement reaching some 1.3 billion DM. After Fürth the second central of mail-order warehouse QUELLE is being built at 1 billion DM costs. Four giant shopping stores with furniture have been erected within a distance of 20 km.

All these functions call for necessary infrastructure. Parking places for thousands of cars were at the first place. It is dangerous to leave the car without memorizing well the row number as finding the parked automobile can be difficult among so many other cars. A new airport is under construction at Schkeuditz, which should take over a certain portion of mail service functions performed by the Frankfurt Airport for the East at present. The tens of thousand shopping people have to be fed, entertained, their children have to be looked after. The Saalepark shopping centre has fifty shops of store character, but it is already equipped with a central street with rest zones, a cinema and other activities. Thus, a new town has been erected on the green meadow with thousands of new jobs but with no dwelling function so far. Dwelling houses creep to the vicinity of the centre rather in bewilderment only recently.

The above method of creating working and servicing concentrations inevitably relates to ownership and use of the passenger car. Although the parks are within the reach of bus lines, some 90% of visitors arrive by cars. Boom of the parks was contributed to also by the hunger of inhabitants in Leipzig to own their own cars. However, the automobile way of living does not crave for enclosed spaces of the inner town and prefers fast motion along the multilane highways. Nevertheless, it is worth adding here that the highways around Leipzig, which usually miss the out-side lane, are extremely overloaded and traffic is often not continual at all.

In the case of Leipzig, we can see a sharp conflict of competition between the town core and suburban zones. Seen from the strictly functional point of view, there is a question what really is a central place in terms of services and working functions - whether it is the town of Leipzig or Schkeuditzer Kreuz. In addition to these considerations, housing facilities seem to be looking for areas other than the city itself. Migration balance of Leipzig with many villages in its surroundings has become passive lately. Even though the absolute volumes seem to be rather small up to now, the qualitative change has already shown with the pre-war blocks of flats and panel neighbourhoods which fall into desrepair having lost their attractiveness long ago.

Another problem consists in a seeming disproportion between the expected drop of demographical potential due to falling industrial production and rapid development of terciary and quarternary spheres. At observing registration signs of cars parking around shopping centres, we shall find out that function of the cars is spatially limited by a circle of several tens of kilometers. Another question is the fact that should the inhabitants of Leipzig. Halle and surroundings make their shopping in these shopping centres, they are also supposed to draw in financial funds from somewhere outside. It seems that restoration of the industry (naturally with different branch and size structure of companies, with less employees and with different technologies) is practically the only possibility of how to permanently get some supplies of finance into the region from outside. Condition is not seen in an necessity of all industrial plants being localized directly in Leipzig, but it is now for certain that without the industry the project would not be realistic. Objectives speak of 250 000 new jobs in 2005-2010, of which 55-60% are supposed to be the office jobs. As to industry, certain hopes are being connected with the project of a technological and innovation centre that is supposed to become an impuls for growth of new competitive companies by means of connecting the scientific and technical potential of Leipzig with enterprising activities. Of traditional industries, polygraphy and telecommunications seem

to be having the brightest prospects. The most advanced telecommunication centre in Germany is being built exactly here in Leipzig.

Life of the town of Leipzig as well as that of its inhabitants has been changed more than a bit within the last five years. To certain extent we can speak about the danger of americanization of the city life, displacement of attractive places and facilities toward highways and into open areas, and partial disintegration of the inner city. Experts from the Institute fuer Länderkunde, Martin Luther University, Halle as well as those from area planning institutions in Leipzig itself believe that it will not happen. Tools are seen in area planning projects, similarly as in old federal lands, particularly in Northern Rhein-Westfalen. Very important should be considered reconstruction of parts in Leipzig, which are close to the town centre. Nevertheless, area planning in conditions of market economy can only generate a certain area offer or to put brakes on undesirable activities. Actual development of these functions means to find strong developers with sufficient finance, who would be prepared to invest their money into town reconstruction and revitalization of its old central and centre-adjacent structures.

It does not seem that Brno could be put to jeopardy like this. Leipzig is an exception even in German conditions. Towns of West Germany already experienced the above development and gradually have been made to build up protection mechanisms. Implementation of needs claimed by inhabitants of East Berlin have been naturally taken over by capacities existing in West Berlin. Other towns in East Germany including the Saxon metropolis of Dresden are smaller than the agglomeration of Leipzig and Halle, their localization being less favourable. However, some manifestation of the above trends can be predicted even in our country, and the example of Leipzig shows that the process can be very rapid.

Interesting for us should be a theoretical problem of what in fact is to be considered residential centres with the above described development - whether the towns or the highway crossings. Consequently, we can ask what function will be left to the classical towns after the considerable portion of working and service activities and later also dwelling facilities have been displaced to open areas and to the vicinity of highways. Up to now, it seems that the towns and their centres will be left mainly the "genius loci" of town cores, ie. cultural and historical potential which is capable of generating intellectual values.

Four years after

This was the name of a workshop held in the district town of Sonneberg (Thuringia) in October 1994, which was prepared by the Institute fuer Länderkunde jointly with some other institutions. Scope of the repeated seminar (the first one was held at the same place in 1990) was to monitor residential and geographical situation in the former borderland between GDR and GFR, ie. at places where natural development of settlements and centres used to be disrupted by the inpermeable state border in the recent past time.

Sonnenberg was known by its extreme position: on three sides it was cut off from the other world by state border between the German Democratic Republic and West Germany as well as from the rest of Thuringia and ridges of the Thuringian Forest. The town was in close touch with Coburg district that fell to Bavaria. With Neustadt bei Coburg (ca. 11 thousand inhabitants) Sonneberg (25 thousand inhabitants) practically made a twin town. Sonneberg was an important producer of toys (including the PICO company well known in our lands) as well as a centre of ceramic manufacture for electrotechnical industry. Suitable natural conditions of the town surroundings of the Thuringian Forest supported recreational function of the region. Industry in Neustadt has always been associated primarily with SIEMENS company.

In the period of GDR, the toy-making industry (formerly spread into numerous family businesses and working on the basis of home manufacture) was concentrated into a sole combine and specialized to supply COMECON countries similarly as the ceramic production. Utilization of the area for recreational purposes was made imposssible in the

60s after regime on the state border had been sharpened and a part of the region became an enclosed zone. The natural relationships and division of functions with the towns of Neustadt, Coburg, Kronach and other centres in Upper Frankonia were interrupted. In terms of traffic, Sonneberg was nearly cut off from the other world and lived on practically only industrial production.

Changes that arrived at the turn between the 80s and 90s have brought disintegration of COMECON as well as reduced purchasing power of former partners. Internal market was sufficiently supplied with products from the western part of Germany and from abroad. This naturally led to actual disintegration of original industrial combines. Immediately after Germany was unified again, people logically started hectic shopping and travelling. It did not take too long, though, and the lower purchasing capacity of Sonnebera inhabitants came to surface. Efforts of Thuringian authorities to stimulate prosperity from the central Thuringian area of Eisenach - Gotha - Erfurt - Weimar - Jena - Gera remain on the paper since there are no funds to make them true. Unemployment rate is closely below the 10% limit with experts speaking of a serious situation that would mean approximately a double. The town population is generally expecting some assistance from Bavaria, but the area of Coburg was considered peripherial also by West Germany and the unemployment rate here amounts to similar level as on the Thuringian side of the former border line. Yet, opening of the border reflected positively in improved offer of jobs as well as in services. The region of Coburg has accepted some ten thousand workers from the Thuringian side, of whom 7.5 thousands were from Sonneberg itself. Some villages around Sonneberg attempt at returning to recreational functions.

The seminar was devoted to changes in the structure of centres in the region. It was stated that restoration of the normal status is not simple as the two parts of the region were developing under entirely different socio-economic conditions for 40 years. During this period, Sonneberg lost its former equal position with Coburg. Certain barriers are still seen even in efforts at collaboration with Neustadt since the formerly less important Neustadt has become a much stronger partner financially. For Sonneberg it is psychologically very difficult to come to terms with the fact that the traditionally smaller and less important partner occupies an equal if not even more significant position at present.



Leipzig. The city core. It is demarcated by a grand street in the form of a ring. The University building in the middle is the dominant of the core. To the right, there are cultural attractions of the town: Philharmony (in front) and Opera (at the back). Rear border of the core is formed by the typical railway station surrounded with industrial plants. At the right side of the view, rebuilding of subcentral part can be seen.

Condition of dwelling houses on both sides of the former border indicates better and more advanced standard in Bavaria and higher degree of preserving traditional values of building style in Thuringia. Sonneberg, too, belongs to towns afflicted by hasty building of a shopping centre on a green meadow at the times of shopping fever: the centre represents a severe competitor to the town core at present. Some industrial facilities fall into ruins, some have been taken down. However, there some new smaller industrial plants with advanced technologies rising up as affiliations and daughter companies of western firms. Completion of traffic infrastructure is being planned.

Sonneberg will certainly remain a model example to study development of the residential system on the former border between the both German states. The situation in the region seems to resemble that of the Bohemian-Bavarian border. The border between Bohemia and Saxony seems to be of a different character; here, the German partner's position is strongly peripheral, support and assistance being expected from West Germany rather than from cooperation with towns in North Bohemia. This applies particularly to the Euroregion of the Neisse and possible forms of collaboration in this area. Considerably different is the situation of the Moravian border land where there are verv strongly peripheral regions of Weinviertel and Waldviertel on the Austrian side of the border, the Polish border is characterized by lively trade rather than by collaboration of the residential systems, and the Slovak border presents brand new problems at all. In spite of the different character of problems, however, the seminar in Sonneberg pointed out importance of border-land geography even for us. The effect of state border, its opening on the one hand and closing as a barrier on the other hand, is a unique topic for geography examples for further studying being presented by issues of border effects on the formation of residential systems, travelling, solution of environmental problems, trade, traffic system, labour force market and perception of the border itself.

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The above suggested problems indicate that possibilities of the Brno Branch Office of the Institute of Geonics, Czech Academy of Sciences for collaboration with the Institute of Regional Geography in Leipzig are relatively wide and promising. However, their utilization will depend on financial funding available for individual projects.

References

BREUSTE, J.: Ökologische Aspekte der Stadtentwicklung Leipzigs. Geographische Rundschau 46, 1994, 9, p. 508-514.

JÜRGENS, U.: Saalepark und Sachsenpark. Geographische Rundschau 46, 1994, 9, p. 516-523.

SCHMIDT, T.H.: Leipzig zwischen Tradition und Neuorientierung. Geographische Rundschau 46, 1994, 9, p. 500-507.

Zentrensysteme als Träger der Raumentwicklung in Mittel- und Osteuropa. Institut für Länderkunde, Leipzig 1994, 156 pp.