Land development and management in post-socialist countries

Územní Plánování vs. *Generalbebauungsplanung*: A Comparison of Planning Concepts and Practices between the former Czechoslovakia and the German Democratic Republic

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Abstract: While there is no denying that the Soviet Union had great influence over the patterns of urban growth and development of land in Central and East European countries in the 20th century, yet a qualitative comparison of how each country defined urban planning and spatial planning during their state socialist regime have not been examined in depth. The nuances in meanings would reveal local perspectives on how the planning process operated in each respective country, thus unfolding the unique trajectory path of each city based on its location and importance within the country even after the transition to post-socialism. The aim of this paper is to expose the particularities of planning practices in Czechoslovakia compared to the German Democratic Republic (GDR) and to explain the differences in urban development in strategically located cities of East Berlin and Bratislava. The first part of this paper introduces the definitions and concepts of urban planning in the Czech, Slovak and German context and how they evolve throughout the four decades of various planning and building stages during state socialism. Then it discusses the concept of spatial planning and the instruments used respectively in each country. The third part will then demonstrate how these concepts and instruments were applied in an important aspect of planning infrastructure, the nation-wide transportation network, and its influence on growth in East Berlin and Bratislava.

Keywords: comparative planning history, state socialism, infrastructure, centralised economies;

Introduction

Much of the discussions in the current discourse on post-socialist cities acknowledge the need for critical analysis of their respective history rather than orienting the research as an East and West divide (Tuvikene, Hirt, Ferenčuhová, 2017; Ferenčuhová, 2016). This is due to the fact that the cities of Central and East Europe as well as the former Soviet Union experienced diverse development pathways after the fall of socialist regimes. An overview of the presentations during the recent *Three Decades of Post-Socialist Transition* Conference in Darmstadt, May 2019, which brought academics and experts from cities all around Europe and the former Soviet Union, revealed the individual responses and measures in urban development during the transition to global capitalism that varied from each other. Indeed, authors who have studied these developments have categorized them into sub-regions, e.g. Baltic, Balkans, Central Europe, Russia and the former Soviet Union cities as distinguishable from one another (Tosics, 2005; Bohle, Greskovits, 2012). While it may be helpful to categorise these developments, researchers advocating comparative urbanism have highlighted the need to analyse cities as products of their own history rather than just results of empirical studies (Roy, 2016; Ferenčuhová, 2017). This paper aims to contribute to the discourse by analysing the

contextual meanings of urban planning in the German Democratic Republic (GDR) and Czechoslovakia, and by juxtaposing them, exposing the differences in their approaches to further understand the imprint on today's urban development. This paper is based on a discourse analysis through texts derived from architectural journals, textbooks, maps and documents from the former educational institutions and the ministries of the GDR and Czechoslovakia as well as local contemporary secondary literature. While it addresses that each region has national histories of urban planning dating back hundreds of years, the paper will focus only on the socialist regime period. The first part introduces the local definitions and concepts of urban planning, the second section touches upon the concept of spatial planning and the instruments used respectively in each country, while the final section demonstrates how these concepts and instruments were applied in an important aspect of urban planning, the transportation network, with examples in East Berlin and Bratislava.

Urbanismus* and *Städtebau

It is insufficient to explain the planning history of the former socialist countries without considering how planning was understood from their own perspectives. The understanding of the current usage of *Urbanismus* in Czech (or *Urbanizmus* in Slovak) can be referred to *Slovník Soudobého Urbanismu* (A Contemporary Dictionary of Urbanism) written by Jiří Hrůza (1977), a prominent Czech urban planner from Prague. He describes *Urbanismus* as "the most general expression for a set of working methods and procedures for the purposeful formation of human settlements and especially of cities." The term *Urbanismus*, borrowed from Latin, began to be used at the end of the 19th century and at the turn of the 20th century when Prague experienced an expansion of new districts such as Vinohrady and Žižkov. Hrůza admitted that *Urbanismus* is a rather nebulous term, and was used in Czechoslovakia in its most general sense (p.266). At the time of writing, he pointed out that *Urbanismus* has more emphasis on the notion of the cultural and artistic aspects of urban planning, and not associated with the technical and economic aspects of the creation of settlements as defined by the Czech term for spatial planning, *Územní plánování* which will be discussed in the next section. Karel Maier, a Czech planning expert from the Czech Technical University, described *Urbanismus* broadly as a discipline to create and develop settlements as functional and balanced entities (Maier, 2000). What is clear between the definitions from these experts is that *Urbanismus* is about the development of an *osídlení*, a populated area or settlement, be it town, village or city. With regards to the etymology of the word *urbanismus* in the Czech or Slovak language, Hrůza mentioned that it evoked concepts of developing urban estates, or the solution of general municipalities, parks, lanscapes and the whole wider territorial unity (Hrůza, 1977, p.266). In practice, the technocratic terms of *městské inženýrství* (city engineering) and *městské stavitelství* (city building) was more widely used.

In the German language, the word *Städtebau* is frequently used and loaded with complex meaning. In their book '*Urbanism and Dictatorship*', Max Welch Guerra, Harald Bodenschatz and Pierro Sassi (2015) refers to *Städtebau* as the "planned, drawn and built structural form of the city" and that it is also the "processes, and production conditions that lead to the creation of an urban structure." *Städtebau* refers to the profession as well as the science behind the aforementioned aspects (Guerra, et al., 2015). Dieter Frick, a professor of *Städtebau und Siedlungswesen* at the Technical University in Berlin provides a more precise definition, that by perceiving the city as an object, *Städtebau* is the '*Bauen von Stadt*,' or building activity upon that city, such as the production, regeneration, removal of buildings, technical installations and landscaping. Apart from this aspect, *Städtebau* is also about the arrangement of buildings and their relationship and connection to each other and about the coordination and control of the building activity in that area. Moreover, Frick considered *Städtebau* as

the structural-spatial organisation of the city (Frick, 2008, p.15-20). As industrial and urban development emerged hand in hand in German-speaking countries in late 19th century onwards, the term *Städtebau* became an interdisciplinary term that was widely discussed. Renowned engineer Reinhard Baumeister (1876) and architect Josef Stübben (1890) emphasise the technical, structural and organisational aspects of the city while art historian Camillo Sitte (1889) considered the city as an object, a work of art drawn from historical patterns (Kress; Ed. Hein, 2017, p.178). As Germany underwent the *Neues Bauen* movement of housing development, the term *Siedlung* for housing estates and its relations with surrounding regions became synonymous with *Städtebau* (Frick, 2008, p.20).

A degree of uncertainty of what specifically constitutes the word *Urbanismus* enabled several adaptations throughout the existence of the Czechoslovakian state especially during the state socialist regime, depending on the socio-political and economic situations of its time. Architects who practised during the era, Emanuel Hruška and Jan Krásný wrote extensively with regards to this issue in the Architektura ČSR journal entitled *Třicet let urbanismu v ČSSR, Jeho teoretický vyvoj i prakticke realizace* (Thirty years of *Urbanismus* in the Czechoslovak Socialist Republic, its theoretical development and practical realisation) in 1975. From 1948 to 1952, the socialist realism period, which was also referred to as the 'formalistic' era, *Urbanismus* was defined as urban development which followed the national economic plans and with formalistic tendencies. Examples are Ostrava-Poruba, "Prednádraži" in Banská Bystrica and Nova Dubnice in Slovakia. Before the overcoming of formalism, there was the period of the controlled formalistic approach in 1952-1956. At this stage, *Urbanismus* was reduced to the construction of superblocks in new housing complexes, or '*nova sidliste*' on the peripheries of existing cities. These include Invalidovna in Prague, Ružinov in Kladno and Terasa in Košice. The years 1957 to 1961 was when *Urbanismus* took on a more technical term, rejecting previous flamboyant concepts of formalism as the industrialised construction industry fluorished. Urban design, which was based on crane tracks and superstructure of the construction site, was embedded in *Urbanismus* at this stage. In the experimental period 1962-1966, Czechoslovak urban planners realised that *Urbanismus* could not just be confined to the idea of housing production, hence they attempted to include civic amenities in the pursuit of 'complexity' in the search of an ideal housing complex. Proposals for the largest housing estates in Prague and Bratislava, Jižní Město and Petržalka respectively, were conceived at this stage. In the late 1960s to early 1970s, as sociological issues in housing development came to the fore, *Urbanismus* expanded its definition to include a more quantitative approach with prognoses into the long-term social and economic development of cities and their increasing agglomeration. These concepts develop rapidly during the normalisation period after 1968. The socialist idea of *Urbanismus* eventually expanded as concerns about the regeneration of the inner cities appeared from mid-1970s. At this stage, *Urbanismus* became linked to a more creative and artistic aspect, while the term to characterise organizational solutions of land-use was attributed to *územní plánování* (Hruška; Krásný, 1975, pp. 152-164).

In the GDR, the focus was more on how they could use *Städtebau* to forward their agenda to provide better living conditions in comparison with West Germany. The objectives of *Städtebau* was, among others, to increase efficiency of socialist production, the territorial development should provide good working environment for labourers, improve housing conditions and to reduce the differences between the different living standards of residential areas (Lammert, 1979, pp. 20-21). From 1949 to mid-1950s the architectural form was oriented towards classicism in connection to the national construction tradition. Following the GDR architects' trip to Moscow, the 16 Principles of *Städtebau* was established in 1950, and as the GDR architect Bruno Flierl elaborated, that while it was inspired in part by the Athens Charter, it was an alternative model that was social. While the Athens Charter assumed functional differentiation as a solution to the overcrowded older cities, the 16 Principles

considered the city as a unifying entity in which the functions exist and where they should be arranged (v. Beyme, 1987). In this period, *Städtebau* was expressed in the new city centres, central plazas and great monumental thoroughfares such as the Altmarkt in Dresden and the Stalinallee in Berlin. During de-Stalinisation in the mid-1950s onwards, *Städtebau* became industrialised and rationalised with the dominance of industrial building construction. In this period, the references were made to the earlier Neues Bauen in the 1920s and the search towards a concept of a social-oriented *Städtebau* (Grönwald; Ed. Bernhardt et. al, 2012, pp. 188-189). Large housing estates began to emerge, such as Halle Neustadt and Hoyerswerda in this period, as *Städtebau* became rationalised to produce superblocks of panel buildings, generated in large spaces. Finally, during the last stage of the GDR, from mid-1970s onwards, there was much awareness on qualitative renewal of the old city centres at the same time as large *Siedlungs* of housing estates were reproduced in the outskirts of the cities such as Berlin-Marzahn and Leipzig-Grünau as part of the infamous Housing Building Program. In this period, *Städtebau* was about the transformation of old city areas into pedestrian zones and concentration of individual civic buildings while contending with the ongoing large-scale housing development (v. Beyme, 1987).

What is noticeable about *Urbanismus* in its application during the state socialist regime was the heuristic tendency in its quest for meaning. In contrast, while the idea and concept of *Städtebau* remained constant, its approach changed as urban planners in the GDR had to adopt rationalised methods from the 1950s onwards (Pretzsch, 1979, p.570). Nevertheless, for both countries, *Urbanismus* and *Städtebau* must consider and operate on the investments and regulations provided by the national economic policies, which changed every five years. To understand how cities develop in the socialist period, even though each had a distinct and individual trajectory, they generally operate as a 'synchronized instrument' based on the master plan of 'economic production and social transformation in physical space', according to Kimberly E. Zarecor in her paper '*What was So Socialist about the Socialist City?*' (2017).

Based on figures from the Warsaw International Statistics Yearbook in 1965, (Goldzamt, 1975, p.18), Czechoslovakia had a larger area to contend with (127,900 km² to GDR's 108,300 km²), as the Slovak lands were not industrialised or urbanised as Czech lands after the Second World War, hence there was more intensity in urban development and building new cities, while GDR built fewer new cities and focused more on rebuilding and restructuring their own existing cities. As we compare the 1965 population density per area between the two countries, Czechoslovakia had a higher percentage of people in the rural area (39%) and more land than the GDR (26.9%) while the GDR had a higher population density (157 people per km² compared to Czechoslovakia's 111 people per km²). Furthermore, there was an almost 10% increase in rural-urban migration in Czechoslovakia from 1950 to 1965 compared to 2% increase in the GDR during a similar period.

Taking into account Zarecor's frameworks for analysing socialist cities, she introduced the concepts of infrastructural thinking and the socialist scaffold. To put it in simple terms, the former are the decisions made based on the scale of urban infrastructure and the latter refers to the 'basic infrastructure for future growth' where the economic, social, political and environmental systems could attach and become activated (Zarecor, 2017, p.7). Thus, the cities expand but it was in a controlled and rationalised way dictated by a master plan of several levels. If these cities operate on a state master plan of the whole country or regions that determine the socialist scaffold of managing growth of labour, capital and infrastructure over time, then the concept of spatial planning is a dominant feature in former state socialist countries than urban planning alone. To comprehend how the urban actors make decisions in the development of the city is to grasp the concept of this master plan as an important intermediary sanctioned by the state and left to the actors to translate these goals in physical space.

Územní plánování and *Generalbebauungsplanung*

Spatial planning is rarely used in the English-speaking countries compared to the terms urban planning or city planning. This concept is mostly used in the European context. To elaborate, the definition of spatial planning, according the European Commission (1997), are methods utilised by the public sector to influence the distribution of activities in space with the aim of creating a more rational territorial organisation of land uses. The goal of spatial planning is to ensure a balance between demands for development and need to protect the environment to achieve social and economic development objectives (p.24).

There were many stages of spatial planning processes with regards to these two socialist countries. In the 1980s, Czechoslovak spatial planning journals have frequently looked to their German neighbour to evaluate the effectiveness of their own systems (Kuthan, 1984). The *Územní plán* and *Generalbebauungsplan* were important instruments for which any development decisions on cities and agglomerations take place. They were both developed in coordination with the national economic plans. Both were adaptable with accordance to changes in the five-year plans and used for short or long-term development. The plans were developed and approved by the top central organs in accordance with the general traffic planning and other sectoral planning. By the mid-1970s after three decades of centralised economic planning experience, both countries have refined their methods for effective spatial planning. From these the local councils, municipalities and architects had to develop plans for the cities, land use, urban design, concepts for the regions with allocated investments from the state planning commissions (Hrůza, 1977; Lammert, 1979; Gál & Furdik, 1984; Kadatz, 1997).

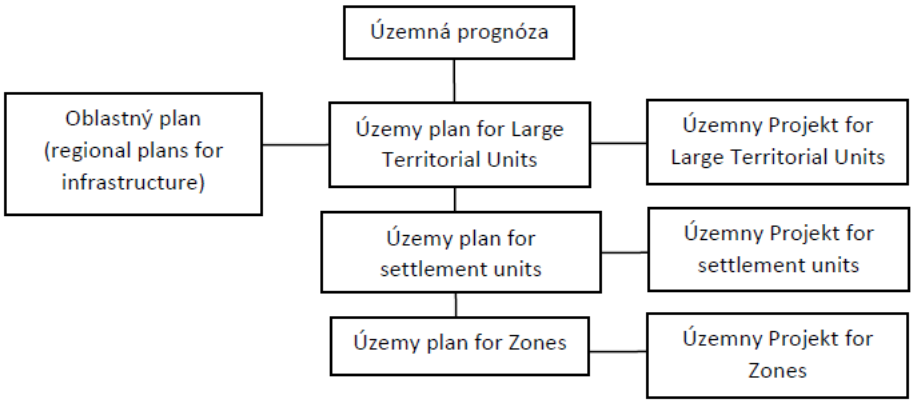

Chart 1: Simplified diagram of the hierarchy of the *Územy plan* documentation in Czechoslovakia after 1976

According to the slovik.seznam.cz official Czech-English translation, the word *území* refers to territory. Hrůza (1977) defines *území* as a territory with natural resources which creates possibilities for exploitation and rational utilization. He went on further to say that *území* does not only include areas with high population densities and controlled urbanization, but also in a relatively large rural area undergoing urbanization (p.269). Hence, *Územní plánování* means the planning of the *území*. Under the context of the Czechoslovak centralized economy, according to the textbooks from the Faculty of Architecture at the Slovak Technical University in Bratislava (1984), *územní plánování* is the development of the environment in a large territory into a uniform settlement system (Gál, Furdik, 1984, p.6). The *územní plánování* has three different stages; large territorial units, zones and

settlement units. The cities of Prague and Bratislava are each separate territories with their own agglomerations and have their own territorial development plans, the *Územy plán*. There are separate regional plans for infrastructure which must be coordinated with the *územy plan*. These documentations form the basic framework of the long-term development of the territory, including land use, social transformation, economic production, traffic planning and environmental protection. Based on the Building Act No. 50/1976, in which building regulations must be strictly bound to *územní plánování*, each *územy plán* must be accompanied by the *územná prognóza*, an economic, social and demographic forecast of the territory and the *územny projekt*, a time-based development plan for the territory (Ibid, p.26).

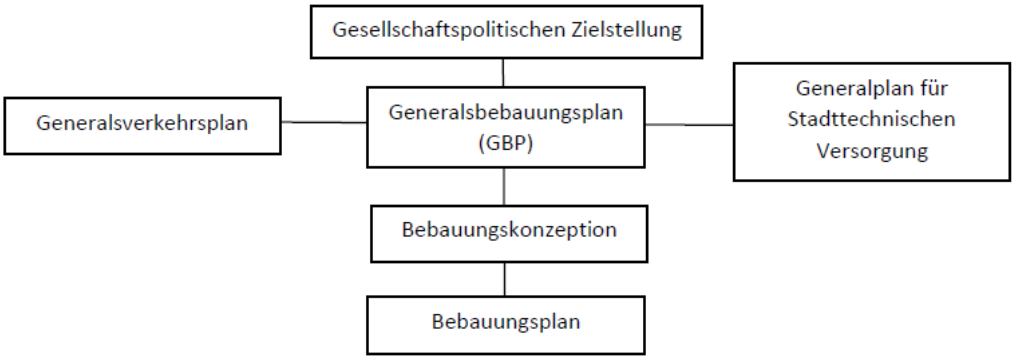

Chart 2: Simplified diagram of the hierarchy of the *Generalbebauungsplanung* documentation in the GDR in 1972

In the German context, the *Generalbebauungsplanung*, according to the Langenscheidt Routledge German-English Architecture and Construction Dictionary, means master plan whereas the *Bebauungsplan* is defined as development plan. The root word *Bebauung* means development, house-building or built-up area (Gelbrich, 2007). More specifically, for Frick the *Bebauungsplanung* should not be limited to construction of buildings according to the Building Code, but rather all the objects and corresponding procedures that are connected with the qualitative control of the building activity in the area such as land division, public spaces or green spaces. *Bebauungsplan* intended for an entire city or agglomeration is referred to as the *Generalbebauungsplan* (pp.167-168). The *Generalbebauungsplan* in the context of the GDR was introduced in 1965 and used more as an instrument for the long-term management, planning and coordination of urban development from effective traffic planning, identifying suitable residential locations and nature reserves (Kadatz, 1997; Rietdorf & Werner, 1972; Lindemann, Eds. Bodenschatz, Brake, 2017; Sommer & Weise, 1971). The *Generalbebauungsplan* had to be coordinated with the *Generalverkehrsplan*, the General Traffic Plan and *Generalplan für Stadttechnischen Versorgung*, the General Plan for Urban Technical Supplies. Each municipality or district had its own *Generalbebauungsplan* approved by the top organs and was responsible for drawing up its own *Planwerk Generalbebauungsplan*, a plan of work for development projects, under which there were *Bebauungskonzeption* and *Bebauungsplanung* (Lammert, 1979, p.232), dealing with the development and urban design of each subareas of the district, e.g. the Marzahn *Bebauungskonzeption*. For important projects such as East Berlin, the state and district planning commissions, as leading economic organs were directly involved with the development of the *Generalbebauungsplan* (Lindemann, 2017). The *Gesellschaftspolitischen Zielstellung* was a prerequisite for each *Generalbebauungsplanung* in each council of the district. This provides the comprehensive view on population growth, labour force and workplace developments, funds and

planned stages of development, planned infrastructure, recreation and environmental protection (Kadatz, 1997).

Comparing these two terminologies used in the local context, *územní plánování* has more to do with the exploitation of the territories, their rational utilisation in the distribution of settlements, infrastructure and economic production. On the other hand, *Generalbebauungsplanung* concerns itself with development and the structural spatial organisation of either rural or urban areas, akin to the *Städtebau* concept. This is not to say that territorial planning in the GDR did not exist, but the responsibility to develop the city or urban areas was not strictly bound to territorial plans as they were with the *Generalbebauungsplan*, based on sources in the 1970s (Junker, 1976) and could range up to 1:25 000 in scale (Maaß, 2006, pp.88-89). In fact, territorial planning in the GDR was directly under the State Planning Commission and had more in common with West Germany, as the system was already established before the divide (Fege & Menge, 1992).

As for the *územy plan*, the plans of the large territorial units were the most crucial derivation of the national economic plans, and they could range from smaller scales of 1:2500 depending on important projects in which the centralised regime wish to focus in detail, to large 1:200 000 of a specific territory (Gál & Furdik, 1984, p.27). The laws that bound planning activity and urban development in any village, town or city to the *územní plánování* dates back to 1949 and up to 1976 (Maier; Šlemr, 2016, pp. 164-179). The plans for settlement units could be 1:25 000 in scale while their zones up to 1:10 000. Considering these are large scales to work with and several layers of bureaucracy that projects have to go through, as they must conform to the non-negotiable plans for the wider territory, there was more room for ambiguity as they become translated and processed into *zastavovaci* (building) plans from the federal ministry to the local state organs.

As we go over the problems of these methodologies discussed by practising architects and urban planners in the official professional journals during the 1970s and 1980s, the specificities of the issues that they raised in the GDR differ from that in Czechoslovakia. In the late 1970s, the GDR architects discuss the lack of clarity in the *Generalbebauungsplan*, which led to confusion when they tried to develop the *Bebauungskonzeption*. For instance, where to locate the social and retail centres and tram stops at a reasonable distance from the dwellings, green corridors, the practicality of technical installation in the area to the arrangement of spaces to reduce noise pollution (Schattel, 1977; Pretzsch, 1979). In Czechoslovakia, the problem with the *územní plánování* process that the planners and architects frequently complain about was the incoherency between the layers of *územy plán* and the national economic planning. They admitted that the long-term goals and concepts eventually got lost along the stages of the process when it came to land management and construction (Hrůza, 1977, p.272). Representatives of the local municipalities claim that there was a lack of guidance in implementing the plans into design and construction of the area, in addition to the lack of coordination between the *oblastný* and the *územy* plans (Matoušková, 1985; Zibrinová, 1988, p.23). Maier and Šlemr (2016) stated that the *územní plánování* method had more consequences in the urban development of Slovakia more than the Czech Lands. From a German perspective, Hans-Joachim Kadatz from Berlin, an expert on urban development in central and east Europe noted that there were no clear distinctions between urban and regional planning in the case of Czechoslovakia.

The reason for the bigger issues in Czechoslovakia was the rapid growth the country was facing as the state governments had to ensure that the largely agrarian Slovak lands must develop to be on par with

their Czech counterpart. This was also associated with the idea of the Slovak Affair, by increasing higher standards of living by providing jobs, housing and infrastructure in Slovakia to legitimise the existence of the regime. They saw their own *územní plánování* as an efficient way to control the development of the villages, small towns, cities in the regions. Of course, there had to be a degree of flexibility and devolution of authority to the local councils, enterprises for urban development, as long as it fulfilled the needs of the *územy* plans of the larger territorial units. The regime also allowed more private housing ownership compared to the GDR, and people were allowed to build their own family houses in the countryside especially during the normalisation period (Šlemr & Maier, 2016 p.173). For instance, The proportion of private apartments in Czechoslovakia was 35.5% while in the GDR it was only 9.8% (Landmann, 2017). Moreover, when Czechoslovakia was federalised in late 1969, the Slovak Socialist Republic had its own Slovak National Council and its own ministries to develop the Slovak *územy* plans with approval from the Czechoslovak central government based in Prague. Despite federalisation, laws for urban development and infrastructure were still centralised.

Transportation Networks and Subsequent Urban Development

Referring back to the concept of socialist scaffold (Zarecor, 2017), the cities that developed in the GDR and Czechoslovakia had roles to play as nodes in an integrated system. Each city or town was a component of economic production that contributed to the socialist scaffold, and the transportation networks connected these nodes, increasing the efficiency of the centralised economy. This section will discuss how the respective centralised spatial planning processes of Czechoslovakia and the GDR were instrumentalised in the construction of infrastructural networks.

Between 1950 and 1970 alone, no less than 16 new industries were established throughout Slovakia by the central government, including the chemical and engineering industries in Bratislava, Trenčín and Košice (Czech National Museum, 2018). In order to increase the efficiency and the productivity of these nodes, the connectors in the socialist scaffold had to be strengthened. Even though the Czechoslovakian state was federalised after 1969, the central government needed to reinforce control especially during normalisation as the modernisation and construction on the Prague-Brno-Bratislava highway began in the late 1960s, allowing better connections between the Czech cities and the developing cities in Slovakia (Šteis, Hulej, 1989). The highways served the booming automobile industry and increased the capacity of recreation activities as city residents have better access to the Tatra mountains and forest parks throughout Czechoslovakia, during the era of social-pacification. They also served an ideological purpose as the central regime needed to strengthen the idea of Czechoslovakia as a state within its national boundaries, to orientate itself away from the previous Austro-Hungarian Empire. Modernisation and construction of highways throughout the whole country from late 1960s until 1990 influenced the *územní plánování* of the cities, eventually establishing new housing estates along its path. The largest housing estates ever built in Czechoslovakia were fed off this highway; these are Jižní Město in Prague and Petržalka in Bratislava. The modernisation of Bratislava cannot be attributed to the socialist regime alone, as regulatory plans under the Hungarian authorities in early 1900s showed the influences of scientific and technical urban planning from German experts Baumeister, Stübbern with the artistic approach of Sitte (Moravčíková, Lovra, Pastoreková, 2017). The final version of the regulatory plan submitted by Budapest architect Antal Palóczi in 1917 before the end of the empire already showed the proposal of three bridges across the Danube, proposing an outer ring for cars bypassing traffic in the city centre (Ibid) which was also an effective strategy adopted by the socialist regime later on.

Figure 1: Sketch of the road networks from Prague and Brno to the cities in Slovakia implemented in 1970s.

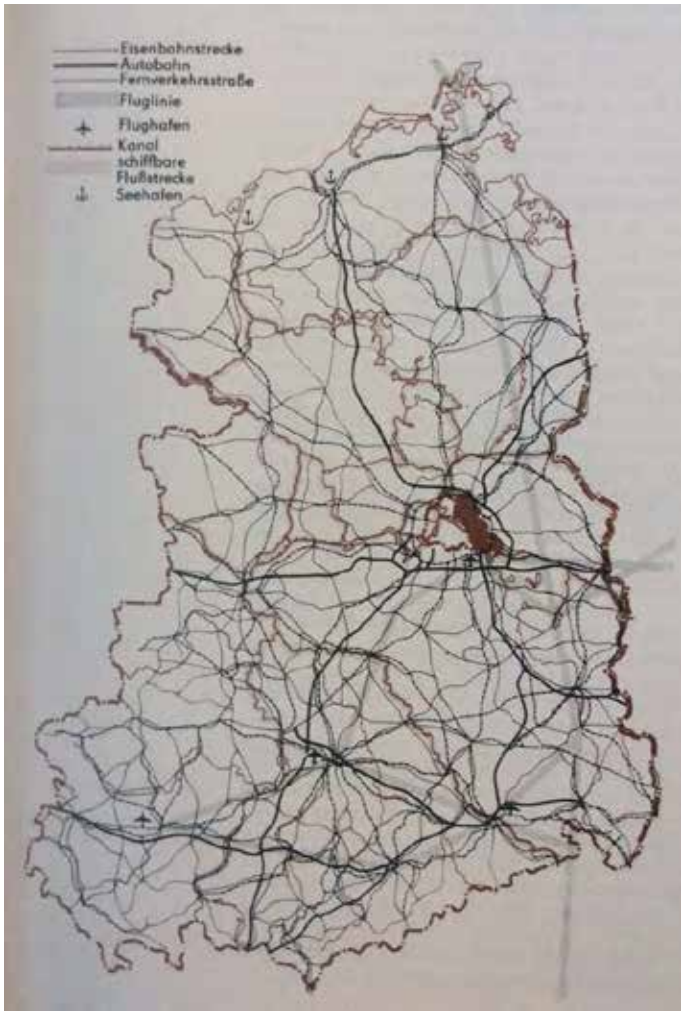

Figure 2: Transportation networks throughout the GDR. Source: Lammert, Bauakademie der DDR, 1979, p.61

In comparison to Germany, an integration of comprehensive and efficient public transport system in Berlin along with the Autobahn network was already obvious in 1926-1929 during the Weimar Republic (Bodenschatz, 2018). Hence, when the GDR was founded after the Second World War, they only had to inherit the Autobahns left by the Third Reich, which were already efficient connectors to the nodes needed to establish an effective socialist scaffold; hence, only minor adjustments were needed. The Autobahns were extended to new GDR cities such as Eisenhüttenstadt, Hoyerswerda and Halle-Neustadt and directly to Warsaw through Łódź in Poland. They also successfully extended the railway networks, in 1960s and 1970s (Lammert, 1979, p.60-61).

As we take a closer look at the development of Bratislava, the highways, roads and bridges that were constructed around the city drastically changed its urban structure. The old Jewish quarter in the old city was demolished to accommodate the road that led onto the SNP Bridge connecting the main city to Petržalka. To divert traffic from the old city quarters, the D1 highway was built, with the Lafranconi Bridge taking it through Petržalka and thus creating faster connections. The D1 was part of the Prague-Brno-Bratislava highway, and the urban planning of Bratislava focused on deconcentrating the functions of the city, also due partly to its geographical limitations. Several housing estates were developed because of the planned highways. Indeed, this resulted from the infrastructural thinking of the regime. According to the proposal for the 1984 Directional Plan of the Bratislava *územy plán*, the housing estates of Dlhé diely, Lamac, Líščie údolie as part of the housing building programme in the 8th Five-Year Plan had

to be located along the highway, supposedly because excluding these sites would 'reduce the efficiency of transport and engineering investments' (Hauskrecht, 1983, p.4). The intensification of traffic planning and concentrating growth along the highways was apparent in the 1963 Bratislava *územy plán* and was more prominent in the 1976 Bratislava *územy plan* (Hladký, 1978; Hollarek, 1983; Hauskrecht, 1983; Žalman, 2016). While works on the highway construction through Bratislava was given priority, public transportation such as railways and trams were placed on the backburner (Nigrin, 2018, p.61-76). Although there were plans to include trams and metro in Petržalka, the new residents who moved in the 1980s had to rely on buses instead.

Figure 3 General proposal for traffic solutions by the Bratislava Public Transport authority in 1970s. Source: Hladký, Architektura ČSR 1/1978, p.11

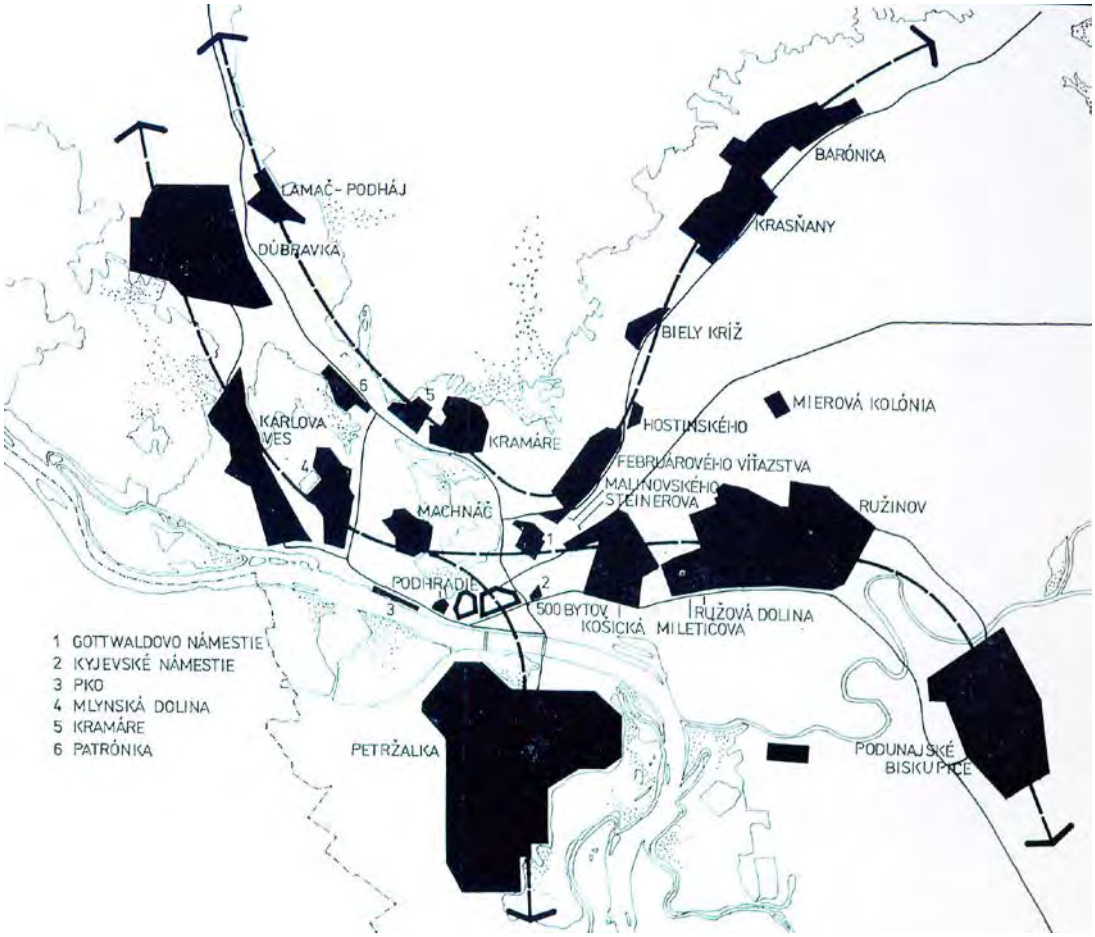

Figure 4 Location of new residential developments following the expansion of the road networks. Source: Zalčik, Architektura CSR 1/1978, p.5

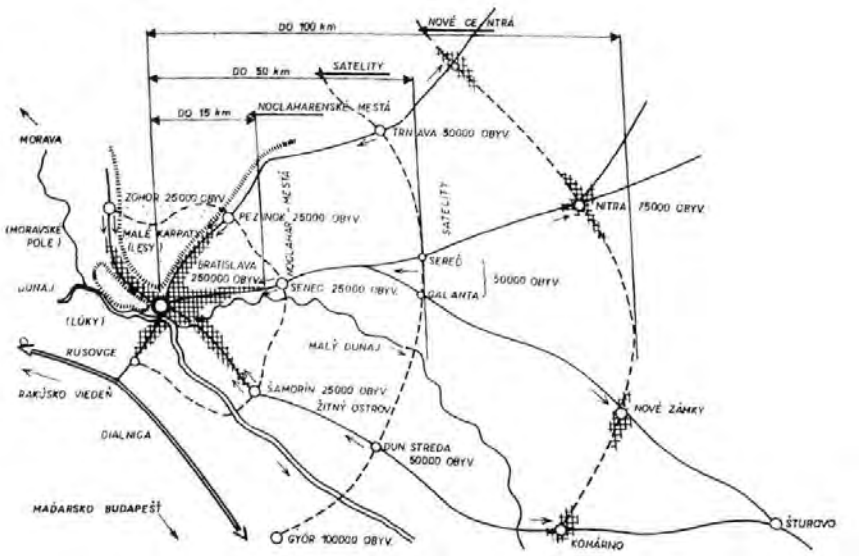

Figure 5 Emanuel Hruška's concept of the expanding satellite settlements in Bratislava. Source: Goldzamt, 1975, p.84

Figure 6: Tangentialverbindung concept. Source: Krenz, Weidner, & Stiebitz, 1969, p.39

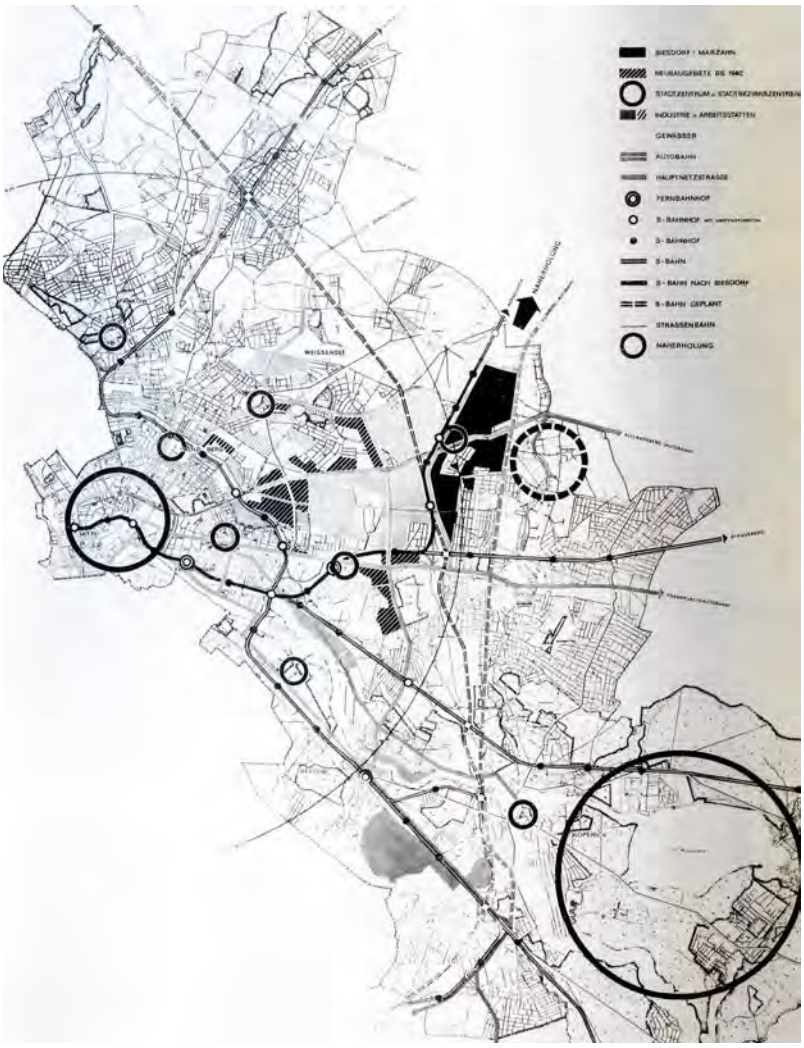

Figure 7: 1968 Generalbebauungsplan showing the integration of public transportation networks with the development of new housing settlements. Source: Korn, Schweizer, Walter (1976): 9. Stadtbezirk in Berlin. In Architektur der DDR (9), p. 549

The case was different in East Berlin. The 1968 *Generalbebauungsplan* included more planned public transportation networks, detailing where the S-Bahn stations would be, incorporating them with the existing and planned Autobahn and road networks. In conjunction with the 1973 Housing Building Programme to build more flats in the city, areas were already allocated at the outskirts for Marzahn-Hellersdorf in 1969, served by several S-Bahn stops along the edge of these *Siedlungen*. With the expansion of the S-Bahn and the U-Bahn networks, setting up tramlines and trolleybuses, the regime paid attention to the provision of public transport infrastructure in their vision to develop East Berlin. The map showing the network of S-Bahns refer to the radius of new and existing S-Bahn stops as *Einzugsbereiche*, or 'catchment areas' and this idea of 'catchment areas' allowed suitable connecting paths to be made to areas of interest such as new housing estates, cultural institutions and schools when planning infrastructure. Even when developing the road networks in East Berlin, the GDR traffic engineers were more pragmatic in their approach with its planned *Tangentialverbindung*. East Berlin city centre was to be a compact urban area with direct road connections to the large housing estates, industrial areas and recreation areas. The *Tangentialverbindung* is the main road network consisting of a system of radial roads with tangential connections, creating a grid system effectively distributing traffic to connect individual city areas (Krenz, et al., 1969, p.38). The main transport for the residents

of the new housing estates in the 1970s were the S-Bahn connections and the *Generalverkehrsplan* was in alignment with the *Generalbebauungsplan*, in the sense that the planned new residential areas in principle should not be interrupted by main roads to eliminate disruptive crossings (Schattel, 1977, p.390).

Figure 8 Map of the S-Bahn network and its Einzugsbereiche *(Catchment Areas). Source: Bundesarchiv, DC 20-BILD/148, Ministerrat der DDR, Generalverkehrsplan der Hauptstadt der DDR Berlin, circa 1970s (not dated)*

Comparing these socialist scaffolds built between the two cities in the 1970s, the planning model for Bratislava was a more automobile-oriented city, while East Berlin was more transit-oriented. Paradoxically, despite the so-called federalisation of Czechoslovakia, the centralised system of the *územní plánování* method on a larger scale allowed major interventions on the land-use of the territories within and around the cities and their agglomerations, affecting greatly the urban developments at smaller scales. They imposed highways, bridges and main roads that circulate around the city to ensure efficiency and faster connections for the vehicles transporting and delivering goods between Prague, Brno and the rest of Slovakia. In East Berlin, the emphasis was more about the rational use of public transportation, effective traffic network around the compact city concept. Housing developments built during the normalisation periods of Czechoslovakia in 1970s-80s seem to be an afterthought of the highway and road infrastructure while in the GDR there was more

consideration of integrating the housing estates into new and existing public transit networks. An explanation for this contrast is that East and West Germany experienced a more advanced modern car-planning movement in comparison with the other Central and East European countries. After the war, both East and West Germany had already altered their urban landscapes with large motorways running through their cities in Berlin, Dresden and Halle. The turning point for the GDR was in the 1970s, when they were influenced by the intellectual discourse critical of the automobile-friendly city and its effects on the urban environment in West Germany since the 1960s (Aßman: Bernhardt, Butter, de Rudder, 2016). Central and East Europe saw the start of the great car-friendly urbanisation in the 1960s, as was evident in the *územy* plans of Prague and Bratislava compared to East Berlin in the same period. As a symbol of Western modernity, the car was largely denied until it became accepted in the 1960s and are still influential in the present day, as design stages for urban development still show signs of being automobile-oriented (Aßman: Brzosteks, 2016). Mobility was linked to modernity and it was crucial to provide the necessary infrastructures despite the restrictions and hurdles to individual car ownership (Beyer, 2011; Tuvikene, 2018).

The four decades of policies that characterised land-use planning under the state socialist central-planned economies are some of the factors which contribute to the divergence in the urban development patterns between Berlin and Bratislava today. For instance, the current planning system in Slovakia is still based on the 1976 laws, which were refined in the 1992 constitution before its independence in 1993 (Finka, 1997). The particularities of how urban planning in one country developed can only unfold in comparison with the other, and this is reflected in how they gave meaning to the concepts of urban and spatial planning.

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